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IAEM Bulletin

INTERNATIONAL ASSOCIATION OF EMERGENCY MANAGERS

INSIDE

NCCP 2009
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Call for Articles
Special Focus Issue:
"Research to Practice"
Deadline: April 10, 2009
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IAEM: Working for You

■ **Auckland University of Technology (New Zealand) Supports IAEM Project to Seek Recognition of the Principles of Emergency Management**. Auckland University of Technology has become the latest organization to recognize the *Principles of Emergency Management* in a project launched by the IAEM-Global Board and its Marketing & Membership Work Group. IAEM is reaching out globally to leading centers of learning, government agencies and organizations in the EM field to seek recognition of the principles as a baseline for the profession and its activities. Learn more at www.iaem.com/publications/Reports.htm.

■ **IAEM-USA Supported Nomination of Janet Napolitano, the New Homeland Security Secretary**. IAEM-USA President Russell Decker, CEM, sent a letter expressing support for the nomination of Arizona Gov. Janet Napolitano as DHS Secretary. The Jan. 13 letter went to Sen. Joe Lieberman, Chairman, and Sen. Susan Collins, Ranking Member, U.S. Senate Committee on Homeland Security and Government Affairs. Napolitano was installed as the third U.S. Homeland Security Secretary on Jan. 21, 2009.

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Congratulations to 2008 IAEM Award Winner's Successful Contribution to Response Efforts Following Airliner's Emergency Landing

New Jersey's EMS-USCG Sector NY activated its Port Security EMS Response Plan for the first time following the Jan. 15 US Airways emergency landing in the Hudson River. The plan previously had been recognized by an IAEM 2008 Certificate of Merit in the Interagency Disaster Preparedness Award category. Henry Cortacans reports that the response plan was a huge success. Learn more on Page 21.

IAEM-USA Leaders Met With Key FEMA Officials. *On Jan. 8, IAEM-USA leaders met with key Federal Emergency Management Agency officials at FEMA Headquarters. (L-R) Eddie Hicks, IAEM-USA Second Vice President; Russ Decker, CEM, IAEM-USA President; David Paulison, outgoing FEMA Administrator; Robie Robinson, CEM, IAEM-USA Region 6 President; and Nancy Ward, FEMA Region IX Regional Director, who was named as Acting FEMA Administrator until the confirmation of a new FEMA Adminstrator.*

IAEM Members Spoke at EMI Course for HBCU Senior Leaders. *(L-R) IAEM-USA Region 3 President Kathleen Henning, CEM, Ellis M. Stanley, Sr., CEM, IAEM-USA Training & Education Committee Chair Kay Goss, CEM, and Wayne Blanchard, Ph.D., CEM, EMI Higher Education Project, are pictured at the Jan. 14-16 FEMA EMI course for senior leadership of Historically Black Colleges and Universities. More photos can be seen on Page 4.*

201 Park Washington Court, Falls Church, VA 22046-4527
Phone: 703-538-1795 • Fax: 703-241-5603 • E-Mail: info@iaem.com • Web Site: www.iaem.com

Global Newsboard

Risk Management for One

By Pamela L'Heureux, IAEM-Global Communications Director, IAEM-USA First Vice President

Due to the many available modes of transportation, getting to any location in the world seems easier. So easy, in fact, that your wife, mother, sister or daughter can travel alone to almost any place at any time for business or pleasure. International cooperation and collaboration are an integral part of our daily lives, and we travel at a moment's notice, especially during times of emergencies.

As an emergency manager who has traveled all over the world, I'd like to share a few preparedness and safety rules I follow, no matter where I am. Emergency managers share their plans – so here is the "Risk Management for One" plan that I follow when I am on the road.

■ **Get help when needed**. In the United States, program ICE (in case of emergency) into your cell phone; this is normally your home telephone. Calling #77 or *77 will get you to the highway patrol in most states – and of course, 911 also works from cell phones. The Poison Control Help Hotline at 1-800-222-1222 is the same throughout the country; once dialed, you automatically get the closest center.

■ **Trust your instincts**. If something doesn't feel right, it's probably not. Leave the area. Always err on the side of caution.

■ **Take emergency supplies**. When you pack, remember your flashlight and extra batteries. It doesn't have to be a big flashlight; it just needs to work when the power goes out. You can make a first aid kit from a pencil case or zip lock baggy. Include Neosporin, band-aids and tweezers (which can be used as a screwdriver for glasses or splinter puller). A 99-cent rain cape from WalMart is easy to store and can save your clothes from getting drenched and ruined.

■ **Use basic items for more than one task**. Remember that a scarf can be used as a head covering, neck warmer, shoulder covering or make-do carry bag – in addition to being a fashion statement. A pair of socks can be used as gloves in a pinch, and a credit card can be used as an ice scraper – I know this from experience.

■ **Make sure you know where you're going**. Carry index cards, and write down the hotel address or meeting address, so you can show them when asking for directions. It's safer than showing your entire itinerary. Even when I have a GPS with me, I carry a map.

■ **Check for emergency exits**. Once you have arrived at your hotel and checked in, when you get to your room door, count the numbers of steps to the exit – then open the exit door. (Once I discovered that the nearest exit door in my hotel was locked.).

■ **Know where to get weather alerts**. Inquire at your hotel's front desk as to what county, parish, province or district you are located in, in case of weather alerts. A banner across the bottom of the TV screen alerting to a tornado warning for York County does you no good if you do not know you are in York County.

■ **Do an inspection of your rental car every morning**. Make sure the tires look okay. Look inside and outside of the car before you get in. Always carry your keys with the silver portion sticking out. Keep your tank at least half-full at all times. Never leave valuables in the car.

■ **Be sensible about where you go**. Whether you are traveling for business or pleasure, ask the front desk whether there are places locally where you should not venture. As a point of interest, the location where I am right now has four times the national rape average. Therefore, I use caution and am aware of my surroundings as I walk to and from my vehicle. I avoid dark locations and go out with a group at night.

This article is not meant to frighten you, but simply to encourage you to use your EM skills to put together your own "Risk Management for One" plan – especially when you need to take care of *you* in the field.

Contact Your IAEM Staff

Chief Executive Officer
Elizabeth B. Armstrong, MAM, CAE
Phone: 703-538-1795, ext. 7
E-Mail: armstrong@iaem.com

Deputy Executive Director
EMEX Exhibit Manager
Clay D. Tyeryar, MAM, CAE
Phone: 703-538-1795, ext. 6
E-Mail: ctyeryar@iaem.com

Membership Director/Registrar
Sharon Kelly
Phone: 703-538-1795, ext. 2
E-Mail: info@iaem.com

Communications Manager
Scholarship Program Director
Dawn Shiley-Danzeisen
Phone: 703-538-1795, ext. 3
E-Mail: shiley@iaem.com

Program Manager
Mary Ackleson
Phone: 703-538-1795, ext. 1789
E-Mail: ackleson@iaem.com

IAEM Bulletin Editor
Web Site Content Manager
Karen Thompson
Phone: 828-693-5045
E-Mail: thompson@iaem.com

IAEM U.S. Policy Advisor
Martha Braddock
Phone: 703-644-8557
E-Mail: braddock@iaem.com

IAEM Headquarters
Phone: 703-538-1795
Fax: 703-241-5603
info@iaem.com - www.iaem.com

Education and Leadership Support the Effort to Have Emergency Management Seen as a Profession

By Tony Pearce, IAEM Global Professional Services Director, President of IAEM-Oceania

Firstly, I would like to wish all IAEM members a happy, safe and prosperous New Year. It gives me great pleasure as both the IAEM-Global Professional Services Director and President of the IAEM-Oceania Council to be given the opportunity to share my views on the need for us to continue the fight to have emergency management seen as a profession and to discuss the role that I see education and leadership having in that process.

Lack of Recognition as a Profession

My first issue concerns the lack of recognition by many in and outside of government that emergency management is in fact a profession and should be viewed as such. There is no doubt in my mind that one of the ways in which we will build public confidence in the ability of governments and those others charged with providing prevention, response and recovery services, before, during and after emergencies, is for the business of emergency management to be seen as a profession.

Professionalism needs to be seen both in the context of the provision of education and the attaining of qualifications by individuals, as well as in the way that organisations view practitioners and resource them to be able to carry out their roles. Failing to educate and resource those expected to carry out formal emergency management roles is akin to choosing not to have insurance. It is only when disaster strikes that you realise the implications of such decisions.

Recent overseas examples of response to large scale emergencies has clearly shown that trained emergency responders, well equipped and resourced, are of little value if those who are expected to coordinate their utilisation in times of major emergency have little experience and limited education.

Knowledge of Community Plus Training/Education Are Needed

Today's emergency manager needs to have a broad understanding of community need and an ability to anticipate the likely results of their decision making on communities. In order to be confident and competent in practice, emergency managers require training and education that encompasses the concepts of response management, recovery management, the sociological and psychological aspects of emergencies, the legal implications of decision making during emergencies, and the political dimension to managing emergencies both in the short and longer term.

How often have we heard of situations where a person charged with facilitating the EM functions of their organisation, both in government and the private sector, has said that they wish they could get the training that they need to confidently carry out that function? Such comments are not isolated, and this is both disappointing and an indicator to me that we are not recognising the significance and importance of the role that emergency managers play.

An associated and almost as frequent occurrence is that where emergency managers with significant responsibilities in their organisations explain to me that the emergency management role is a "tack on" to other responsibilities that invariably take priority. Unfortunately, there are few among us who have the luxury of saying that emergency management is our core business, and that we are trained and resourced to carry out that function. This is a situation that has to change. You wouldn't go to a doctor who practiced medicine part time as a secondary function to being a mechanic, so why should we accept that those upon whom we might depend upon for our very survival in times of emergency are placed in such a situation.

The Role of IAEM

Clearly, the role that the IAEM Certified Emergency Manager® Program plays in addressing some of my comments above is pivotal, as is the opportunity for the development of our members that the IAEM scholarships provide. I would like to thank our CEM® and Scholarship Commissioners for the great work that they do and would encourage all members to support that work by considering submission of your CEM® packet or by contributing to the work of the Scholarship Commission throughout the year as opportunities arise.

Contributions to Good EM Leadership

Leadership in emergency management is the second issue for the future that I want to discuss. Whilst I am no leadership guru nor am I an academic in the area of leadership, I believe that a number of things contribute to good emergency management leadership including the previously mentioned education and experience. Other significant elements include an ability to appreciate one's environment, good interpersonal skills, and an ability to communicate a vision in such a way that others can both appreciate the rationale behind it and feel confident in their own ability to achieve that vision.

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EM Profession

(continued from page 3)

My first assertion is that good leaders are made, not born. What I mean by this is that whilst personal traits, natural behaviour and general demeanour are a significant part of the full picture in a good leader, life experiences and exposure to an array of situations is necessary to ensure that an individual actually has a base upon which to apply their personal attributes.

Leadership Development

Likewise, I am not sure that leadership is something that can be taught, but it can be learnt. We can teach people to be good managers, as this in many ways is a mechanistic process for which there are countless models, texts and theories. However, the development of leadership, in the context of which I have already alluded, requires time, exposure to experiences, and the recognition and development of an individual's inherent personal attributes. Developing leadership is about knowledge of others' situations and capacities, it's about having the skill to communicate and engage, and it's about a desire for self-development and an awareness and understanding of situational context.

Leadership in emergency management is not about position or status. We are all familiar with poor leaders who have occupied formal powerful positions in organisations, and in the obverse, of those who do not actually have designated formal power or status but emerge over a period of time as the informal leaders in organisations. A good leader will engage both individuals and the team by creating an environment of understanding and direction while building or enhancing solid two-way communication lines.

Leadership in emergency management involves behavioural flexibility and steadfast determination, being able to keep your cool amidst chaos whilst heightening activity, and increasing focus as appropriate to situational need.

Conclusion

What's important in relation to the world of emergency management – regardless of the cause of the crisis, whether it's a natural disaster or man-made – is that a great many people will look to us for leadership. They will look to us to take charge and to direct outcomes, not activities. The emergency manager's role in any crisis will be to maintain calm and guide others so that they sense that someone is in control. The ability to make quick decisions will be required – and that will take a degree of courage on occasions. We must believe in ourselves, believe in our training, believe in our colleagues, and back ourselves to make the hard call.

IAEM Participation at First EMI Historically Black Colleges & Universities Emergency Planning Course

IAEM members were among the speakers at a course on "EM Planning, Preparedness, Training and Eudcation for Colleges and Universities," held Jan. 14-16, 2009, at the Emergency Management Institute (EMI) for senior leadership (presidents, chancellors, provosts and vice presidents) of Historically Black Colleges and Universities (HBCU).

(L-R) Brendan McCluskey, First Vice Chair, IAEM-USA Universities & Colleges Committee; IAEM-USA Region 3 President Kathleen Henning, CEM; and Past IAEM President (1985-86) Ellis M. Stanley, Sr., CEM.

Ellis M. Stanley, Sr., CEM (left), at FEMA Adminstrator David Paulison's last official talk at the Federal Emergency Management Agency's Emergency Management Institute course held Jan. 14-16, 2009 for senior HBCU leaders.

2009 IAEM Scholarship Application Available

IAEM's Scholarship Commission is pleased to announce that it is now accepting applications for scholarships for the 2009-2010 school year. Eligible individuals will be full-time students working toward a degree in emergency management, disaster management or a related field.

Please help us spread the word about the scholarships. The application deadline is **May 15, 2009**. The application with complete instructions is posted at:

www.iaem.com/resources/scholarships/application.htm

IAEM Scholarship PROGRAM

CEM® CORNER

The Comprehensive Essay

By Brian V. Bovyn, CEM, Emergency Services Supervisor, Manchester, New Hampshire Police Department

In the quest for the CEM®, a key, yet often underrated, component is the comprehensive essay. The essay is a key component in the Certified Emergency Manager® application, since it helps to validate the candidate's overall knowledge of the tenets of emergency management and how they apply in a real-world application. In fact, the essay is designed to take the place of an interview.

Each candidate is given a general scenario, within which the candidate must discuss how he/she would apply the specific KSAs (knowledge, skills and abilities) in each of the phases of emergency management. It is very important to address each of the components (the KSAs listed and the four phases of emergency management). What the commissioners are looking for is an expectation of how the candidate would effectively problem solve, not how the candidate solved a previous problem.

An Effective Essay

An effective essay begins with a powerful thesis statement. The thesis statement drives the essay and sets up the topic sentences that will support the narrative. As the candidate moves through the essay from topic to topic, the essay should transition smoothly, with a high degree of depth and accuracy. The strong thesis statement is another way of saying the problem statement. The terms may be used interchangeably.

The essay should be comprehensive enough to thoroughly explain processes, expected problems and potential solutions to those problems. For example, if the writer were discussing the inclusion of a Community Emergency Response Team (CERT) in his/her program, he/she would discuss the benefits of a CERT team and the problems or issues likely to be encountered: funding, liability, labor issues with paid emergency management staff, concerns by chief elected officials and other similar issues.

The essay should discuss key emergency management laws or regulations that support the subject matter, as well as anticipated problems and possible solutions to the problems identified.

Spelling, grammar and syntax in the essay are also considered by the CEM® Commission. When the essay is nearing the end, the candidate should write a solid conclusion that ties the essay back to the thesis statement at the beginning of the essay.

Keys to Remember About the Essay

- Read the instructions carefully, and answer all portions of the scenario in sufficient detail to demonstrate comprehensive knowledge of each of the phases of emergency management.
- A successful essay is typically about 1,000 words or five pages in length. The essay can be longer or shorter; however, it must discuss all four phases of emergency management, applicable KSAs, laws and regulations, and anticipated problems and possible solutions. A three-page essay likely does not accomplish the goal of covering all subject matter in enough detail.
- Write a powerful thesis statement (problem statement) to set the tone and direction of the essay.
- Write a conclusion that ties the essay back to the thesis statement.
- Proofread the essay for spelling, grammar and syntax.
- Make sure to write a statement of authentication,and sign and date it, at the end of the essay.
- Make sure to put the essay into a properly tabbed and labeled three-ring binder.

Review of the Essay

The essay is reviewed and rated by the CEM® Commission for individual components or attributes of the essay. Each component has the following point values:

- A point range of 0-3 points is given for each of the 12 KSAs.
- A point range of 0-1 points is given for each of the six sections of the essay.
- A passing score for the essay is 24 out of 42 possible points.

Conclusion

The CEM® comprehensive essay is a blank canvas for the writer, providing the candidate with an opportunity to showcase his/her knowledge of comprehensive emergency management and to validate that knowledge for his/her peer emergency management professionals.

Author's Note: Thank you to Daryl Spiewak, CEM, TEM, TCFM, for contributing to this article.

The Certified Emergency Manager® Program is an internationally recognized program, created and administered by IAEM, that certifies achievements within the emergency management profession.

Learn how you can become a CEM® applicant at: www.iaem.com/CEM.

Children's Needs: A Forgotten Element in Disaster Planning

By FEMA Adminstrator David Paulison and
Mark Shriver, Vice President and Managing Director of Save the Children

When Hurricane Katrina hit the Gulf Coast in September 2006, it not only swept away millions of dollars in personal property, it swept away the collective childhood of more than 164,000 children living in the area. While America has made important strides on disaster response since then, tragically, children and their needs remain an almost forgotten element in disaster planning.

- A 2006 General Accountability Office report on state child welfare agencies found that only 20 states had in place written disaster plans.
- A University of Arkansas study found that, of 1,318 emergency medical services surveyed nationwide, only 248 had specific disaster plans for meeting the needs of children.
- The Arkansas study also found that only a quarter of these services are prepared to reunite children with parents and guardians in the aftermath of events like Katrina.
- According to a recent report by Save the Children, only four states – Nevada, Utah, Virginia and Washington – have mandated basic emergency preparedness requirements for schools and child-care facilities.

Important Strides Made

Quickly reversing this situation must be a top priority for every entity responsible for children during disasters. We're already making important strides.

One of the things the federal government learned from Katrina was the importance of pre-planning and pre-positioning prior to when a disaster hits. That means building relationships with state, local, public and private entities to tap into pre-existing community networks that can be used to react to and recover from disasters. That same philosophy is being used to provide for the needs of children.

In 2006, the National Emergency Family Registry and Locator System and the National Emergency Child Locator Center were established. These are Web-based systems designed to assist in the reunification of families separated during disasters. During disasters, the National Emergency Child Locater Center will operate a telephone bank and manage missing children calls in partnership with the National Center for Missing and Exploited Children. The center will deploy staff to shelters, coordinate reunification efforts with law enforcement and human service agencies, and help shelters ensure the safety of dislocated children.

It's already working. The last missing child was reunited with his family about a month after Hurricane Ike. Compare that with the situation after Hurricane Katrina, when it took more than six months to reunite the last missing child with her mother and siblings.

Training Course Developed by FEMA, Save the Children, American Red Cross and IAEM

Training first responder and other emergency staff is also key. FEMA's Emergency Management Agency, in conjunction with Save the Children, the American Red Cross and the International Association of Emergency Managers, has developed a training course for state and local emergency managers to help ensure that children's safety and well-being are included in all phases of disaster planning, response and recovery. Additionally, five sessions will be added to the Social Dimensions of Disaster higher education course. This course is used by countless professors and universities across the country to teach current and future emergency managers. Taken together, these efforts will ensure that emergency managers across the country understand and can respond to children's needs.

Advocating for Children

Additionally, steps have been taken to ensure that children have a seat at the emergency management table. Save the Children serves as a member of FEMA's National Advisory Council and is helping develop policies that benefit children and individuals with special needs before, during and after a disaster. Berl Jones will serve as FEMA's first children's advocate. Berl has the authority to implement new programs and make immediate decisions to provide services for children in need after a disaster hits.

Community Action

Just as important as action in Washington is action in the states and local communities. For example, six New England states are working with FEMA to educate children about disaster relief in schools, and plans are in place to reach all schools in the region. In 2007, Save the Children contracted with Tulsa Partners Inc., an Oklahoma non-profit organization, to develop a pilot program for best practices to protect children in disasters. This included a review of the community's response capability to safeguard children and coordination of childcare center emergency plans with the city's emergency operations plan. Based on the success of that pilot program, Save the Children developed a partnership with New York City's Office of Emergency Management to include children's issues in their

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A Tale of Two Crisis Communication Approaches

By Ali Asgary, Ph.D., IAEM-Canada President,
Associate Professor, Emergency Management, York University, Toronto, Ontario, Canada

Two major events that occurred in Toronto in August 2008 highlighted the importance of crisis communications. The first event was the so-called Sunrise Propane explosion in the north central section of the City of Toronto in the early Sunday morning of Aug. 10, resulting in the activation of the Toronto Emergency Operations Centre, two deaths, evacuation of 12,000 people, and considerable private property damage and business disruptions around the facility. Truck-to-truck transfer, which is prohibited by safety regulations, was mentioned as the main cause of the explosion.

The second crisis involved the Maple Leaf Foods Inc. plant in Toronto, in which there was an outbreak of listeriosis, a food-borne bacterial illness, that killed 16 people across Canada who had eaten the tainted meat. Maple Leaf Foods was required to recall its related products nationwide. The outbreak had been caused by improper cleaning of the equipments, according to investigators.

Raising Serious Questions

These events raised serious questions about health and safety procedures, and called for immediate changes in some of the existing regulations, including local land uses. Both companies – and in the case of Sunrise Propane, the local and provincial governments as well – were faced with class action lawsuits by the impacted families and community members. Because these events happened in the same month, one could easily notice and compare the significance and the impacts of the different crisis communication approaches used by these companies. The aim of this short article is to underline some of the key differences and lessons that can be learned.

Sunrise Propane Inc. remained silent and did not communicate anything to the public, clients or employees throughout the crisis and was not actively involved in the emergency response activities. The company simply issued a brief statement saying that Sunrise Propane would not have anything to say until investigations were complete. The Sunrise Propane crisis communications approach is on the current list of crisis communication strategies that are not recommended (denial, scapegoating, excuses, justification, bolstering and ingratiation). It was the lack of a crisis communications plan that led Sunrise Propane to decide not to communicate, which is considered to be the *worst* approach a business or an organization can choose in crisis situations.

Unlike Sunrise Propane, Maple Leaf Foods Inc. chose a proactive crisis communication approach, particularly through media relations and interorganizational networking. Maple Leaf used the dominant paradigm in crisis communication that academics refer to as "image restoration." The company's chief managers appeared very regularly in the national media and directly communicated with the people about causes, actions taken and future plans. For example, in one of his nationally televised news conferences, Maple Leaf's CEO stated that the cost of the meat recall, which his company had implemented in light of the listeriosis outbreak, was not a huge concern. He said the company's focus was on doing the right thing and making sure that no one else was affected by the food poisoning crisis that forced the recall of more than 200 products. The image restoration approach used by Maple Leaf focused primarily on the immediate aftermath of the event through the lens of various strategic messages, including corrective actions and minimization, among others.

Lessons Learned

Several lessons could be learned from these two crisis communication approaches.

- A crisis becomes more catastrophic when organizations fail to properly communicate with the public to instill trust and confidence during the crisis period.
- Crisis communication works. People tend to be more confident in consuming Maple Leaf products than those who live near the Sunrise Propane facilities.
- People are much more forgiving of a company that communicates with them openly, even when it is not the comfortable thing to do. As a result, Maple Leaf was able to settle the class action lawsuits in a short period of time.
- Crisis communication is a good protection. Saying nothing in order to have an easier time in the court is not going to protect an organization in today's world of crisis management. Lack of crisis communication might lead to a collapse of the whole business due to lost reputation and trust.
- Companies should go beyond image restoration for effective long-term success in their crisis communication. They should adopt an approach that is more provisional than strategic and capitalize on the opportunities embedded within the crisis.
- Excellent crisis communication requires a supportive organizational communication culture or philosophy.
- Some form of informal crisis communication – composed of rumor, inaccurate information and guesses – usually occurs in the absence of a formal crisis communications plan.

Contributions of Amateur Radio Communications to EM

By Daniel Hahn, MA, CEM, Santa Rosa County Florida,
Division of Emergency Management, Plans Chief, Citizen Corps Coordinator

Amateur radio is the answer to many of the communications issues facing emergency managers after a large-scale disaster when there is no form of communications infrastructure remaining operational. Are HAM radio operators a panacea? No, but they sure are a remedy for the headache the EM director was starting to develop.

EM-Supported Auxiliary Communications Service

In Santa Rosa County, we have an emergency management supported Auxiliary Communications Service (ACS) that incorporates members from a variety of amateur radio networks, including ARES, RACES, Coast Guard Auxiliary, and non-affiliated licensed HAM radio operators. The ACS has members who work in the American Red Cross (ARC) shelters and comply with ARC background investigations, work in local hospitals and comply with FERPA and other healthcare regulations, and work in the EOC as part of ESF 2. The ACS also has established ties with non-affiliated HAM radio operators who are not ACS members and who work in the municipalities and for CERT teams.

Navarre CERT Involves HAM Radio Qualified Personnel

Navarre CERT has 19 HAM radio qualified personnel and its own tower located at a local fire station. They practice their communications at every event they participate in, and as a unit that has logged more than 9,000 volunteer hours this year, they are very active. The point is that if a jurisdiction can find a few motivated personnel to operate radio equipment out of the EOC and recruit others from around the county, then a communications network can be established that can be of use as a primary or secondary source of communications.

The ACS meets monthly in the EOC with about 10 regular members, and the Navarre CERT team holds free HAM radio training for the community so as to build up numbers of qualified personnel who may be available during a crisis.

There is also a local American Radio Relay League (ARRL) associated club that some ACS members come out of. According to the *Public Service Communications Manual*, Section 1: "The Amateur Radio Emergency Service (ARES)," Chapter 1, "ARES consists of licensed amateurs who have voluntarily registered their qualifications and equipment for communications duty for the public service when disaster strikes."[1] (ARRL, n.d.). Presumably this means that by joining ARES they are deliberately making themselves available as communicators during a disaster.

Furthering Communication Needs With New Sources

The State of Florida uses a HAM radio operator as their ECO for ESF 2. He in turn utilizes the formal ARES radio clubs as his source of operators in case there is a local jurisdiction in need of more communications support. This is another means of getting communicators into your local jurisdiction if you do not have adequate numbers of trained personnel available locally.

The ACS in Santa Rosa has gone a step further in their outreach. They actively recruit *any* person interested in furthering the communication needs of Santa Rosa County during a disaster, and this includes CB operators. Being a rural county, we have vast spreads of wooded and farmed land where there is little infrastructure, so having every known form of communication at your disposal is nice, plus it is easier and cheaper to be a CB operator.

Becoming a HAM Radio Operator Easier Than in the Past

With the removal of the Morse code requirement, becoming a HAM radio operator is much easier than it was in the past. About eight hours worth of classes and an inexpensive exam and you are well on your way. Radios come in several versions and some of the handheld types can be obtained for as little as $100. Isn't a little time and money worth the effort to obtain some peace of mind?

Conclusion

Communications are critical to the successful implementation of any operation, and amateur radio gives the latitude to help accomplish an operation's goals. Although amateur communications is not a panacea for a jurisdiction's communications woes, it certainly can help take away some of the fear of the unknown and the pain of ignorance with the click of a microphone. All you have to do as an emergency manager is embrace the culture of volunteers and invite them to participate. You might be surprised by the results and the turnout.

[1] ARRL (n.d.) *Public Service Communications Manual Section 1: The Amateur Radio Emergency Service (ARES*). Retrieved online Dec. 24, 2008, www.arrl.org/FandES/field/pscm/sec1-ch1.html.

Communicating With Victims at the Scene of a Disaster

By Kay Goss, CEM, Senior Principal, SRA International, Inc., and Chair of the IAEM-USA Training & Education Committee

After Sept. 11, 2001, and Aug. 29, 2005, our nation and our profession became even more keenly aware of the prominence and life-saving nature of communicating effectively with affected people with one voice during a disaster, in directing their safe passage out of the danger zone.

Search for Safer Technologies

Since those dramatic experiences and hard lessons learned, emergency management and responder personnel have been searching for technologies to create safer buildings, pathways and corridors, as well as more responsive on-scene technologies to enhance emergency evacuation communications.

Former U.S. Secretary of State Harold Brown has been experimenting with evacuation modeling, with a dirty bomb scenario.

Former Ambassador to Denmark and former U.S. Representative for New Hampshire Richard Swett, an architect by trade and a national leader in that profession, has been interested in finding best-of-breed technologies to meet the challenge of successful building evacuations.

FEMA's U.S. Fire Administration, in partnership with the International Association of Firefighters (IAFF) and SAFECOM, in December published a *Voice Radio Communications Guide for the Fire Service*, which is a huge step forward toward enhancing both citizen and emergency services personnel safety. This timely guide provides updated information on communications technology, including hardware, policy and procedures, as well as human interface, and discusses critical emergency issues and concepts. As IAFF General President Harold Schaitburger said, "The safety of both firefighters and citizens depends on reliable, functional communication tools that work in the harshest and most hostile of environments."

International hotels are increasingly considering emergency communications in their construction and planning, realizing that they might become a target, as they draw business leaders from around the world, droves of tourists, and local movers and shakers, including society weddings, birthday celebrations of the well-to-do, and public issues fundraisers and functions.

After hotel attacks in Pakistan, Jordan, Afghanistan and Mumbai, India, the search for communications technology has reached a new level among those owning and managing those facilities. Threats to diplomatic targets persist, many of which have been hardened, and has morphed over to international hotels.

New Building Safety Codes

The global vision of future buildings – especially tall structures – includes their being increasingly resistant to fire, more easily evacuated in emergencies, and safer overall. New, comprehensive building and fire code changes were approved recently by the International Code Council (ICC) and recommended by the U.S. Department of Commerce's National Institute of Standards and Technology.

Changes were based on studies done about the challenge of the 9/11 World Trade Center evacuation – as well as on similar findings, through the years, of evaluations of evacuations during tall building disasters and transportation accidents. One of the requirements is to make exit path markings more prevalent and more visible, along with ensuring effective coverage throughout a building for emergency responder radio communications.

Meanwhile, the inventors and technologists at Lightstep Limited of Belfast, Northern Ireland, have been working on a system for communicating with building, bus and train occupants to ease their safe and secure exit and evacuation from such incidents, rooted in any and all hazards. Their work was presented at the recent Florida Institute of Technology's Global Center for Preparedness 2nd Annual Conference on National Preparedness, December, 2008, in Melbourne, Florida.

In its simplest, straightforward approach, it is a Highly Intelligent Evacuation System that uses LED lighting in its design to ease evacuation, including a PathFinder, a guidance system developed for installation in floors and stairways. Also, they have designed an ExitFinder, which projects emergency messaging based on a lighting system that is not dependent on the electrical system of a building or vehicle. There is also a DoorFinder and a HallFinder (CorridorFinder), all for use in blackout situations.

All of these technologies are integrated with intelligent automatic activation. With each and every sensor unit continually in communication, if one aspect fails, the remaining sensors take over so that visibility is never compromised, even in heavy smoke.

Conclusion

With all of these leading agencies, organizations and companies doing their part to improve communications during emergencies for responders and all affected people, a safer and more secure environment is guaranteed. Going forward with more robust communications systems and taking these efforts to the next level is a challenge widely and gladly accepted by emergency managers.

The Will to Communicate

By Rich Matason, Executive Director, Westmoreland County (PA) Dept. of Public Safety

November 25, 2008, 0933 hours, Municipality of Murrysville Business District, Westmoreland County, Pennsylvania – A high pressure transmission line carrying gasoline ruptured, creating a gasoline "geyser" that sprayed an estimated 10,000-12,000 gallons of gasoline 75 to 100 feet into the air and environment before the rupture was stopped, almost an hour after the incident began.

At 0939 hours, Murrysville Fire established an on-scene Incident Command Post and quickly transitioned to Unified Command (UC). The UC maintained constant communication with the County Department of Public Safety's (DPS) 9-1-1 Center. Several miles away, at 0945 hours, the Municipality of Murrysville opened its Emergency Operations Center (EOC) and fully staffed it by 1041 hours. The DPS Incident Response Team (IRT) and its Mobile Command and Communications Center (MCCC) arrived on scene at 1049 hours and immediately went operational, providing logistics and public information support to the UC. The county also staffed the county EOC with a watch team.

Three Basic Principles for Effective EM Communications

These five entities – UC, Murrysville EOC, DPS MCCC, DPS 9-1-1 Center and DPS EOC – employed three basic principles throughout the 12-hour event to establish, operate and maintain effective emergency management communications:

- Maximize the use of all available means of communications;
- Establish and maintain a "common operating picture"; and
- Practice "the will to communicate."

UC/EOC personnel must be aware of and employ all means of communications available at the incident scene. Radio is one means. Other available means include landline, cellular, VOIP and satellite telephones; wireless computer connectivity; vehicular and foot messenger; or any combination of these.

During the Murrysville event, county fire departments, police departments, emergency medical service agencies, and the county hazardous materials response team relied heavily on radio communications over Westmoreland County's four-year-old, highly reliable, county-wide 800 MHz digital trunked radio system. Concurrently, UC and EOC personnel monitoring operational radio transmissions from their locations received continuous real-time information on actions being taken and when.

The County IRT employed the MCCC's wireless telephone and Internet-connected computers and field 9-1-1 telecommunications capabilities throughout the event. County IRT personnel repeatedly used wireless telephone to coordinate with the many media representatives at the scene. They also employed Nextel "direct-connect" to coordinate foam acquisition from Arnold Palmer Regional Airport and to coordinate with the media. Some actions required face-to-face communication. For example, Murrysville Police needed to drive to the local school district complex in the affected area to order an evacuation of their buildings to a safer location.

Need for a Common Operating Picture by All Entities Involved

A "common operating picture" means that all incident and emergency management entities can see and assess the same incident information in real-time. Emergency managers at the Murrysville incident gained a good sense of occurring events by monitoring the radio. Radio transmissions, however, detailed just part of the picture. Westmoreland County and its local jurisdictions also use an Internet-based incident management program called Knowledge Center, developed by SSI, Inc. Knowledge Center allows emergency personnel to manage the various aspects of an event and to log and document, in real-time, all of the major actions taken by emergency managers and responders participating in the event.

9-1-1 Center telecommunicators and supervisors, county EOC watch team personnel, the MCCC IRT, the Murrysville EOC staff, the UC, and emergency personnel from surrounding counties posted 190 separate Knowledge Center log entries during the event, all of them in real time. Emergency management personnel who were logged on to the Knowledge Center knew exactly what was happening, regardless of their physical location. For example, emergency managers in the Region 13 Task Force area, which includes 13 counties in southwestern Pennsylvania and the City of Pittsburgh, were able to monitor the events from their home counties as they developed, and were able to communicate with personnel working the incident in Murrysville, by reading and posting entries into the Knowledge Center. This capability afforded everyone working the incident, and those observing the incident from afar, a true common operating picture in real time.

Conclusion

"The will to communicate" is the mind-set that incident command/emergency management personnel must practice in order to get critical

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Collaboration Is Key to Resolving Communications Issues

By Avagene Moore, CEM, President, Emergency Information Infrastructure Partnership, and Diane Samuels, Stakeholder Relations, FEMA Disaster Management Team

Communication, coordination and collaboration are critical to effective emergency management. All levels of government and the private sector continue to look for ways to improve the "Three Cs" as the nation struggles to meet preparedness goals.

Under the management of the Federal Emergency Management Agency (FEMA), the Disaster Management (DM) E-Gov initiative strives to meet the U.S. need for better communications by stressing information sharing and enhanced services for citizens and the emergency management community, including first responders at the local, tribal, state and federal levels. One of its prime goals this past year has been the enhancement of disaster management effectiveness through various interactive discussion forums, e-mail lists, and Disaster Help.gov and Disaster Management Web sites as the program advances the following DM initiatives:

- Disaster Management Interoperability Services (DMIS) Desktop Tools.
- DM Open Platform for Emergency Networks (OPEN).
- Practitioner-driven Emergency Messaging Standards Initiative.
- DisasterHelp.gov Web site (public side).

The Disaster Management Program was built upon input and requirements provided by emergency management stakeholders, and the program continues to rely heavily on communication and exchange with the emergency management community. Regular interaction with practitioners from all levels of the program – state, local and tribal – is most evident in the DMIS and DM OPEN components of the DM Program.

As advances in technology increase our dependence on voice, data, image, and video sharing, interoperability – the ability for two or more organizations to communicate and share information – continues to be a key issue for our nation's emergency response organizations. A comprehensive system satisfying the procedural, human factors and organizational considerations of all organizations is presently nonexistent.

Open Source Software and Standards Development

A sensible strategy would utilize open source software, open standards development, and a framework to overcome communication and interoperability barriers. Such a strategy would leverage technological improvements for overall impact, making it cost-effective too.

FEMA's Disaster Management team recently proposed this type of strategy in a Joint DMIS and OPEN Special Interest Groups (SIG) session. The Disaster Management framework as envisioned provides a platform to leverage existing solutions with new components for enterprise-wide and national data interoperability. It addresses design issues that often undermine the functionality of many systems already in use, limiting organizational communications.

The Disaster Management Team is working closely with emergency management organizations, other government agencies and vendors to gather feedback on the proposed solution. The presentation explains the types of problems the framework addresses. There are diagrams showing how the proposed solution communicates from end-user to the back-end services using a variety of applications, interfaces and services. A recording of the presentation and slides are available on the FEMA Disaster Management Web site at www.disasterhelp.gov/disastermanagement. Comments, suggestions and questions are welcome.

Of special interest to emergency managers is the current FEMA and National Weather Service (NWS) coordination to improve communication and warning services for emergency managers and their jurisdictions. In April 2009, NWS will launch the All-Hazards Emergency Message Collection System (HazCollect) to collect and efficiently distribute non-weather emergency messages (NWEMs) through the NWS dissemination infrastructure, NOAA Weather Radio All Hazards, other national systems, and the Emergency Alert System (EAS). See www.weather.gov/os/hazcollect/. Part of the coordination between the FEMA DM Program and the NWS HazCollect Program is the development of a Web-based NWEMS training program designed for emergency managers and other warning authorities.

To originate NWEMs, emergency managers will use the desktop client of FEMA's Disaster Management Interoperability Services (DMIS) or other commercial or government (COTS/GOTS/MOTS)[1] incident management software applications to write and send text messages. Once HazCollect is operational, any local emergency manager or warning authority wanting to use the HazCollect system will go through a double registration and vetting process.

To establish a DMIS Collaborative Operations Group (COG) or an OPEN Interface, register with

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[1] A COTS (commercial off-the-shelf) product is one that is used as-is. A MOTS (either modified or modifiable off-the-shelf, or military off-the-shelf, depending on the context) product is typically a COTS product whose source code can be modified. A GOTS (government off-the-shelf) product is typically developed by the technical staff of the government agency for which it is created.

Common Alert Protocol Offers Unique EM Opportunities

By Ward Noland, BSEM, State/Local Warning Specialist, EMAC Coordinator, Idaho Bureau of Homeland Security

Impending changes to the U.S. Emergency Alert System (EAS) present a unique, yet challenging opportunity for emergency managers to improve public notification in times of emergency. Much attention has been paid to acceptance by the Federal Communications Commission (FCC) of the Common Alert Protocol (CAP), included in Part II of Title 47 of the U.S. Code of Federal Regulations. Yet other aspects of the coming EAS upgrade allow us opportunities to enhance our overall warning systems.

Subpart D, Section 11.55 of Title 47 states that messages issued at the state level must be treated in the same fashion as a presidential alert message. This gives the governor of a given state (or his authorized representative) the capability of issuing an alert to the people of his or her state without asking for the voluntary compliance of the broadcasters in the state. In the past, participation in the EAS system was voluntary at any level with the exception of a presidentially-issued alert, which has never taken place during an actual emergency since the inception of the system. Title 47 changes that policy.

Time to Take a Closer Look

By requiring that we be able to receive a CAP-formatted message, the FCC forces us to take a closer look at our existing systems. Many EAS systems have received little to no attention, other than required maintenance, for many years. This is largely due to the "if it ain't broke, don't fix it" mentality that many of us as emergency managers are forced to adopt, due to lack of resources, lack of time, lack of understanding, or a combination of all of the above.

Perhaps the most significant opportunity that presents itself through the coming new requirements is the chance to take a closer look at our ability to notify the special needs population of our jurisdiction. The EAS system upgrade gives the manager the occasion to study how to best notify the blind or visually impaired, deaf or hard of hearing, wheelchair and/or bedbound patient, and the non-English speaking population of our communities.

Devices exist that turn on flashing lights, vibrate pillows, call home or cell phones, translate English text into other languages – the list of available features seems to be almost endless. If a person chooses, he/she soon will be able to receive an emergency notification on his/her PDA, pager, laptop, television, radio, satellite radio and desktop computer simultaneously. The options available to the emergency manager are numerous, with your budget being the primary factor in just what capabilities that you choose to use.

EMPG Funds Can Be Utilized for Update of EAS

Alas, the green monster raises its ugly head at just the time that many of us were contemplating our new, state-of-the-art alert systems and realizing that yes, with a new and improved EAS system, we could do a better job of notifying the public of impending or current emergencies. But don't despair quite yet; there is hope out there. Emergency Management Performance Grants (EMPGs), issued by the Federal Emergency Management Agency (FEMA), can be used to upgrade your EAS system. Rather than attempting to overhaul your existing system all at once, perhaps a basic system can be purchased during a given budget year, with the intention of adding features in the future as funds become available. We don't have to reinvent the wheel; we simply may have to add some new and improved capabilities to what already exists.

Conclusion

FEMA is expected to formally adopt CAP in Spring 2009. Then, under Title 47, a 180-day compliance clock begins to tick. Take the coming changes to the EAS system not as another unfunded mandate, but as an opportunity to better serve the citizens who look to us for guidance and help before, during and after a disaster.

Children's Needs

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emergency operations plan. Save the Children is developing similar partnerships across the country.

These are all strong first steps, but disasters won't wait for us to get our act together. That's why the work ahead of us remains as urgent as ever, for our children and for all of us.

Will to Communicate

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information to those who need it by whatever communications means are available – radio, telephone, Internet or messenger. Incident command/emergency management personnel who have "the will to communicate" will always find a way to get the message through.

Maximizing the use of all available communications to create a common operating picture so that emergency management and response personnel can see and react to the response actions taken to mitigate the incident, exemplifies the will to communicate. This is the essence of emergency management communications.

The Potential for Social Networks in Emergency Management

By Connie White, Assistant Professor, Department of Emergency Administration & Management, Arkansas Tech University, and Murray Turoff, Professor, New Jersey Institute of Technology

Online social networks such as Facebook and MySpace are potentially more than just a meeting ground for individuals to interact and network. Online social networks (OSN) are being explored for their potential to support the emergency domain in all aspects of emergency management: mitigation, preparation, response and recovery. This would be a one-stop shop where all emergency-affiliated entities come together as a network of networks specifically to support the needs of emergency professionals.

Uses of Existing Systems

Some emergency groups are already taking advantage of existing systems, although they are, for the most part, disconnected from one another even within the same organization. IAEM has numerous groups on Facebook, including student chapters and groups from Colorado and the John Jay College of Criminal Justice. A number of emergency groups recently have been established on LinkedIn to facilitate the exchange of planning and exercise techniques and information. Members who have not done so should explore some of the existing systems. This paradigm holds the potential to support more important situations due to its inherent capabilities.

As Hurricane Gustav approached the Louisiana border, DHS officials reached out to MySpace and requested a fast-track disaster notification system. MySpace stepped up to the plate and provided functions that included finding dislocated victims and providing an online tracking system for users. This helped people keep track of their displaced relatives and loved ones.

A study was conducted by those in the field concerning using an OSN as a tool for emergency management. Students, 80% of whom were already practitioners, were asked to identify which functionalities would be useful in an OSN for emergency management. Their top five choices were:

- Sharing information.
- Communicating with others.
- Networking.
- Sharing documents, files and other digital resources for all.
- Uploading videos and locating experts (tie).

Benefits of OSN to EM

Users can share, distribute and contribute to information. Lessons learned and best practices could be located in one place, with search ability, open for all to learn from and critique. A digital resource repository could be built providing members with easily accessible information.

The present uses of communications in OSN are advantageous and provide solutions for numerous problems that can arise during the immediate aftermath of an extreme event. OSNs provide quick and inexpensive mass communication ability to large distributed groups.

There are numerous ways to communicate, given a mass or select list mailing, notifications, posts to Walls and status messages. OSNs are easy to use and don't have any problems with portability; anyone anywhere gets the same features.

Peer-to-Peer Feedback

One major contribution is that an OSN provides peer-to-peer feedback. Emergency managers feel isolated during disastrous events. Other seasoned and experienced practitioners could be there to contribute their expertise and provide support. Members can build and maintain or strengthen existing relationships. This provides more opportunities than the traditional rolodex of business cards.

A committee of practitioners should investigate the development of functions that could be useful to the emergency community. Chat features with experts could prove beneficial. Educational needs could be further met by providing tutorials, offering classes and extending research opportunities. Other technologies could be triggered, providing an alternative means of distributing information and managing a situation using automation. OSNs can call/text your cell phone in the event of an emergency. Many universities are looking to OSNs, using them as emergency notification systems.

Pictures and videos can be uploaded, helping efforts with better assessments. A vast amount of information could be provided by the public, given their ability to be allowed to upload video, enter text, or voice audio reports. This sort of mass local grassroots effort could greatly reduce response times by providing more specific information more quickly and directly to those who need it most.

Concerns To Consider

There are obvious concerns. Information could be falsified. However, research shows that with mass collaboration, there is a self-correcting behavior to contradict bad information. Another area of concern is in the credibility or authenticity of a user on the system. Are they who they say they are? Should they be there? Privacy of the members of the network could be compromised. A big area of concern is in the reliability of the technology and the security of the information exchanged.

A delay in the acceptance of this technology may be allayed by the emergence of younger people into

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Communications: It's Not Just Voice

By Amy Sebring, Technical Projects Coordinator, Emergency Information Infrastructure Partnership

The famous (or infamous) SAFECOM Interoperability Continuum has been updated this year to include *data* interoperability, splitting the technology track between voice (radio) and data elements. With respect to the data elements, the Continuum ranges from file swapping at the lower end, to two-way standards-based sharing at the higher end.

The FY 2009 FEMA Interoperable Communications Grant Program relies on the FY 2009 *SAFECOM Recommended Grant Guidance for Federal Programs* for data interoperability standards, now including the following guidance:

"Grant funded systems, developmental activities, or services related to emergency response information sharing should comply with the OASIS EDXL data messaging standards. Compliance should include the OASIS EDXL Common Alerting Protocol (CAP), version 1.1 or latest version, and the OASIS EDXL Distribution Element (DE), version 1.0 or latest version. Systems should also comply with the Hospital AVailability Exchange [EDXL-HAVE] and Resource Messaging [EDXL-RM] standards, which are expected to be finalized in late 2008."

A not-for-profit consortium, the Organization for the Advancement of Structured Information Standards (OASIS) "advances standards for SOA *[Service-oriented Architecture]*, security, Web services, documents, e-commerce, government and law, localization, supply chains, XML processing, and other areas of need identified by its members." The Emergency Data Exchange Language (EDXL) standards are within the purview of the Emergency Management Technical Committee (EM TC).

XML refers to Extensible Markup Language. The EDXL standards establish a set of commonly agreed upon tags for delimiting data elements in a manner similar to HTML tags. Otherwise, proprietary software applications that comply with the standards can send and receive emergency/disaster-related messages to and from each other.

The alerting protocol, CAP, has been adopted internationally and is relatively mature. The OASIS EMTC is currently developing a standard application of CAP for the Emergency Alert System, referred to as the CAP EAS Profile. FEMA is expected to formally adopt CAP in the near future in support of the Integrated Public Alert and Warning System (IPAWS) and the Federal Communication Commission's Second Report and Order on the Emergency Alert System. Another standard application of CAP will also be used for the cell phone-based Commercial Mobile Alert System (CMAS) in the future.

The EDXL-DE standard provides what can be thought of as an envelope for routing other content. The latter standards, EDXL-HAVE and EDXL-RM, are designed to be payload for EDXL-DE. Both have been formally adopted by OASIS recently, and are therefore relatively new.

U.S. Standards Development Supported by FEMA Funding

The U.S. Dept. of Homeland Security's Science and Technology Directorate, Office of Interoperable Communications (OIC) supports the standards development process with funding provided by the FEMA Disaster Management Program. Emergency management stakeholders provide input into the process through a Practitioner Steering Group. For the past year, this group has been working on a new messaging standard related to Situation Reporting (SitRep), expected to be submitted to OASIS during the first quarter of 2009. Subsequently, an OASIS 60-day review and comment period will be announced that will be open to anyone.

To determine whether a software application complies with the OASIS standards and NIMS principles, the NIMS Supporting Technology Evaluation Program (NIMS STEP) performs testing to validate conformance, and publishes the results on the Responder Knowledge Base. CAP and EDXL-DE are part of the evaluation protocol currently, with EDXL-HAVE and EDXL-RM expected to be added in the coming year. (See www.nimsstep.org for further information.)

Significance for EM

What is the significance of these activities for emergency managers?

- Now may be the time to review Statewide Communications Interoperability Plans to determine whether they need to be updated to include data interoperability. Grant-funded local/regional projects must be consistent with statewide plans.
- With respect to EDXL-RM, the resource messaging standard, the emergency management community can urge that this standard be incorporated into further development of the NIMS Incident Resource Inventory System (IRIS), and future, standards-compliant applications used by members of the Emergency Management Assistance Compact (EMAC) to support inter-state resource deployment.
- Further developments in the use of CAP for public warning should be closely monitored by the emergency management community, especially the implementation of the CMAS system, which plans to severely limit the number of characters available for warning messages.

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Communications Cost Money and Lives

By Cathy Carter Dempsey, FEMA Disaster Generalist, Huntsville, Alabama

Interoperable radio communication during emergencies is essential to save lives and protect property or natural resources. Seconds count when people are depending on us, as emergency managers, to do whatever will produce the most beneficial outcome. Lives are precious. Most of us think we cannot put a price on human life, yet when communities make radio communication choices based solely on costs, then indeed a price tag has been placed on someone's life.

Sept. 11's sad legacy included the communication gaps that cost lives on that fatefully tragic day. New York City police officers received word the second tower of the World Trade Center was soon to collapse while firefighters never got that lifesaving message because they were using different radio equipment. Lack of radio interoperability cost lives that day because New York did not spend money on necessary modern radio equipment, systems and training. Ask yourselves this: Are you depending on stand-alone radio communication equipment incompatible with nearby communities or incompatible with radio equipment within your own jurisdiction? If the answer is yes, then the best interests of public welfare are not being adequately addressed in your community.

Need To Share Data Securely

Emergency managers must be able to securely share data among as many people as necessary, especially voice messages, in real-time as needed due to the nature of critical mission information. Ground line phones may be out of service, and/or cell phones and personal digital assistants may be unavailable, non-secure or overloaded by panicked public use. Either way no one has time to dial, text or wait for connections, busy signals, or lengthy message tapes. Internet access may be non-secure, down or overwhelmed due to the severity of the disaster. Time is lost when messages must be conveyed by couriers. Investing in modern radio equipment that is interoperable should be a top priority for all emergency managers.

Using different radio frequencies makes it impossible for responders to communicate with each other while using older radio equipment. There are newer radio products, called gateway interconnect devices, that are used to help facilitate limited radio interoper-ability by receiving a radio transmission on one particular frequency and then automatically retransmitting the same message on another frequency so communicators can understand one another. Dispatchers sometimes act as the "middlemen" for communicators who are using older radios by relaying critical emergency information between various radio operators of differing systems, varieties of manufacturer's radios, or frequencies. The time lost in these relay delays has cost lives and property.

In my paid and volunteer emergency management work, I noted how few times emergency personnel are encouraged to use radios on a daily basis to communicate. Different manufactured radios have better or worse capabilities, depending on factors such as whether or not they are being used in buildings, or in urban versus rural settings. Radio preparedness should include regular hands-on familiarity by daily or at least frequent use of interoperable radios to determine which radio is best for each location.

Taking the Initiative

Emergency managers need to take the initiative to make sure their local, state and federal politicians increase funding for interoperable radio communications as soon as possible. Make modern radio communications a priority and encourage uniform standards for the use of new radio technology and equipment. Petty jealousy over who has the best ideas or control has to fade away so emergency personnel may share in the control of community-based communication systems. It is difficult for the public to support funding if emergency managers do not make citizens aware of the growing need to upgrade antiquated radio equipment and outdated training.

Tips for Emergency Managers

Here are 10 tips for emergency managers at all levels to use in order to enjoin their stakeholders to improve radio interoperability in their communities:

- Define your radio strengths and weaknesses.
- Discover what your first responders need.
- Determine potential financial resources.
- Define short-term goals and strategies to improve radio interoperability.
- Define long-term goals and strategies to improve radio interoperability.
- Discover how your jurisdiction will better coordinate with nearby jurisdictions.
- Develop partnerships.
- Desire realistic expectations.
- Delineate the roles appointed and elected officials may play in the planning for radio interoperability in your community.
- Demand immediate attention in your community to the lifesaving importance of radio interoperability.

Conclusion

Costs should not be the determining factor in interoperable radio communications selections of equipment. With dedication and determination, emergency managers can find a way to get what their communities need.

Invitation to Work With the IAEM-USA Standards & Practices Committee

By Avagene Moore, CEM, Co-Chair, IAEM-USA Standards & Practices Committee

As a result of a perceived need by Mike Selves, CEM, IAEM Past President, a committee was formed to assist IAEM-USA with responding to the many requests the organization receives for participation in various standards and practices efforts across the United States. As envisioned, the committee will hopefully serve the organization in two broad ways:

- Through awareness of the many efforts that exist or are underway, wisely help in the prioritization of IAEM's involvement.
- Keep the IAEM membership informed of the progress and value of endeavors beneficial to the profession.

The IAEM-USA Standards & Practices (S&P) Committee met during the IAEM 2008 Annual Conference in Kansas City. The group agreed that the best way to move forward is to get a handle on who in IAEM is currently serving on a committee or work group that is developing or dealing with standards of any kind. The point also was made that IAEM membership should be made aware of the various standards that impact them. The IAEM Web site, the *IAEM Bulletin* and the annual conference program could serve as mechanisms to educate and engage the IAEM membership in standards work and the importance of the outcomes. IAEM membership can benefit from regular reports from IAEM members who are serving in various capacities with organizations that are developing standards.

The S&P Committee officially recommended the following to the IAEM President and Board of Directors:

- **Directory of Standards**. This listing would include all types of standards, with links and other information, that are kept up-to-date and that reside on the IAEM Web site or other easily accessible site.
- **Articles in the IAEM Bulletin**. The number of efforts underway suggests that there is enough work being done that we could use the newsletter to regularly feature an article on standards.
- **Composition/Membership of the Standards & Practices Committee**. IAEM-USA members currently serving on various standards-related committees and groups will be asked to serve on the IAEM-USA S&P Committee and assist in accomplishing the goals of the committee.

Committee Leadership

Russ Decker, CEM, IAEM-USA President, asked Dean Larson, Ph.D., CEM, and Avagene Moore, CEM, to co-chair the S&P Committee for the coming year. Billy Zwerschke, CEM, will serve as S&P Vice Chair.

Invitation to Serve

IAEM-USA members involved with various standards programs are asked to step forward, but anyone wishing to work with this committee is welcome to join. Please contact Dean Larson (drlarson@jorsm.com), Avagene Moore (amoore@emforum.org) or Billy Zwersche (billyz@bz-tx.com) to express your interest and willingness to serve.

Collaboration

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FEMA via the Disaster Management Web site and receive a DM COG/DMIS Tools account. Download and install the DMIS desktop client. Register via the NOAA HazCollect Web site to receive authorization to author NWEMs. Once approved, the NWEM authoring tool is exposed as a sub-tool to the general DMIS Alert Authoring Tool in that NOAA-authorized COG only; NOAA completes the process with a Web tool and controls this through their HazCollect Server.

NOTE: Any COTS/GOTS/MOTS incident management applications wishing to offer a HazCollect NWEM alert authoring tool must be CAP-enabled and interfaced with DM OPEN. The authoring tool is *not* proprietary to DMIS.

Visit www.disasterhelp.gov/disastermanagement for further information about the FEMA Disaster Management Program.

The February 2009 Online Bulletin

The extended online edition of the February 2009 *IAEM Bulletin* includes additional material beginning on Page 25. Download your copy in Members Only at www.iaem.com.

■ IAEM New Member Listing, Dec. 16, 2008-Jan. 15, 2009.

■ "Sycuan Tribal EM Communications," by Robert S. Nelson, CEM, EFO, CFO, MPA, Battalion Chief/Tribal EM Coordinator, Sycuan Band of the Kumeyaay Nation (Calif.) Fire Dept.

■ "Volunteer Emergency Communications," by Herbert Cole, CERT Instructor and Incident Commander, San Ramon Valley Fire Protection District, and Emergency Coordinator for Training, Contra Costa County Sheriff's Department ARES/RACES Emergency Communications Group.

■ "Communications in a Disconnected Environment," by Scott P. Lewis, CEM, FPEM, Task Force Leader, Pathfinders Incident Management Team.

■ "Communications in EM: Still a Long Way to Go," by Edward Minyard, CCM, Partner, Accenture Technology Consulting.

■ "Communications and Response to One of the Deadliest Crashes in Florida," by Marian E. Mosser, Ph.D., Professor, Capella University, Minneapolis, Minn.

■ "EM Data Interoperability Framework," by Lee Tincher, Consultant, Disaster Management e-Gov Initiative, Department of Homeland Security.

■ *Special PDF Supplement*: "Achieving Interoperability in Public Safety and Emergency Response IT/Communications Systems," by Robert I. Desourdis, Jr., SAIC. (See abstract below.)

ABSTRACT...

Achieving Interoperability in Public Safety and Emergency Response IT/Communications Systems

By Robert I. Desourdis, Jr.,
Science Applications International Corporation

Editor's Note: The author recently presented a paper on "Achieving Interoperability in Public Safety and Emergency Response IT/Communications Systems" at the 2009 Pacific Telecommunications Conference: Collaborating for Change: Strategies, Opportunities and Partnerships, held in Honolulu, Hawaii. The IAEM Editorial Committee thanks the author for granting permission for us to publish his paper as an online supplement to this issue of the *IAEM Bulletin*. The paper was derived from *Achieving Interoperability in Public Safety and Response IT/Communications Systems*, forthcoming from Artech House, Boston-London.

Abstract

Interoperability is a measure of shared, trusted understanding that drives predictable collaborative action to achieve a common goal. Failed technological interoperability (e.g., radio interoperability) is not the root cause for failed interoperability as a whole – it is a symptom of the disease and not the disease itself. The nature of deficiencies in public safety and emergency response IT/communication systems today are identical to those documented in the congressional report investigating the successful Japanese surprise attack on the U.S. Pacific Fleet at Pearl Harbor in December 1941. This paper identifies the fundamental information-sharing deficiencies resulting in failed interoperability. It then presents a dual top-down/bottom-up approach for mitigating and eliminating these deficiencies, creating – for the first time – a documented best practices, information-sharing architecture across all public safety and emergency response organizations.

EM Practitioner Articles Added to IAEM Online Collection

The following new articles have been added to the searchable online collection of EM Practitioner Articles in members only at www.iaem.com. The EM Practitioner Articles collection was created by the IAEM Editorial Work Group to collect and preserve information of value to IAEM members.

■ "Improving the Current DHS Capabilities Framework," by Dan W. McGowan. This master's thesis, written for the Naval Postgraduate School, discusses the results of a national survey completed by many IAEM-USA members.

■ "Managing the Crisis Through the Eyes of the Media: Avoiding the Second Tragedy – This One a Public Relations Fiasco, by David E. Leiva, City of Kenner, Louisiana Office of Public Information and Emergency Preparedness.

Complete details on article submissions and guidelines can be found on the *IAEM Bulletin* Web page at www.iaem.com/Bulletin. Please read the guidelines before submitting your article to Dean Larson, Ph.D., CEM, Editorial Work Group Vice Chair, drlarson@jorsm.com.

Social Networks

(continued from page 14)

the workforce. This is a system more likely to be used by the younger generation, who grew up with Nintendo and the Internet, and who more readily embrace new technology.

Wikimapia is already being used by some local EM professionals to allow others in local government – and citizens – to contribute to and maintain a local GIS-type database of potential hazard sites and resource sites for various types of disasters. What we see is the phenomena that people will adapt software to applications it was never designed for if the application is valuable to the users.

The lesson to be learned is that current OSN software is missing tools and functionality that would make the adaptation a lot easier and more effective. One such area is the incorporation of group voting to discover disagreements for discussion and resolution, and the ability to evaluate new documents for their relevance to practitioners in terms of setting user-controlled recommender capabilities. All these are obvious extensions for social network software to be able to serve communities of practices such as those represented by IAEM. Our community needs to make known to the suppliers what their needs are as they evolve over time, and some sort of member's online committee should be established to do so.

Not Just Voice

(continued from page 15)

- The emergency management community should participate in the OASIS SitRep review process, when announced, to ensure the new standard meets its needs.
- Finally, if the emergency management community wishes to make progress toward achieving the upper end of the Continuum, to more fully support coordination and collaboration, the importance of data interoperability should be communicated to application providers.

How to Nominate a New IAEM Award Category

Each year IAEM recognizes excellence in the emergency management field through the IAEM Awards Competition. The program and judging process are overseen by the IAEM Awards & Recognition Work Group. A Call for Entries for the IAEM Awards Competition will be announced in late Spring 2009.

Do you think that a new award category should be added to those that were offered last year? If so, now is the time to make your opinion known. The IAEM-Global Board recently approved a formal nominating procedure for new award categories.

Complete details and an official new award category nomination form have been posted on the IAEM Web site. Nominations must be received by **Mar. 1, 2009**, to be considered for the 2009 Awards. Visit the IAEM Web site at www.iaem.com/Awards to learn more and to download a nomination form.

EM News

■ **European Civil Protection to Hold Feb. 5 Information Day on How to Prepare Proposals Under the Civil Protection Financial Instrument**. The Directorate-General for Environment of the European Commission (Civil Protection Unit) will hold an Information Day Feb. 5 in Brussels on "How to Prepare Proposals Under the Civil Protection Financial Instrument." The aim of the Information Day is to provide potential applicants with useful information on how to prepare proposals to be submitted under the next calls for proposals and calls for tender in 2009 under the Civil Protection Financial Instrument. Learn more at http://ec.europa.eu/environment/civil/infoday_2009.htm.

■ **FEMA Releases National Disaster Housing Strategy**. The Federal Emergency Management Agency has released the National Disaster Housing Strategy to provide federal partners and state and local governments with a foundational toolbox that would summarize, for the first time in a single document, the many sheltering and housing capabilities, principles and policies that guide and inform the disaster housing program. Learn more at www.iaem.com/publications/news/EMNews.htm#FEMA19Jan2009.

■ **National Hazards Center Announces Call for Applications for Mary Fran Myers Scholarship**. The Mary Fran Myers Scholarship Committee is now accepting applications for 2009 scholarship awards. Scholarship recipients will receive financial support allowing them to attend the 2009 Natural Hazards Research and Applications Workshop in Broomfield, Colorado, July 15-18, 2009. Scholarships can cover part or all of transportation, meals and workshop registration costs.

Details are posted at www.colorado.edu/hazards/awards/myers-scholarship.html.

EM Resources

■ **FEMA Launches New Web Site for Disaster Victims**. The U.S. Federal Emergency Mangement Agency has introduced a new user-friendly Web site, DisasterAssistance.gov, developed to ease the frustration felt by disaster victims obligated to search through multiple federal programs to find aid. The site will centralize the application process for federal disaster assistance.

IAEM Member Featured in Arkansas Hospitals Magazine

The Winter 2009 issue of the *Arkansas Hospitals* magazine features an article by Nancy Robertson Cook, "Hospital Emergency Preparedness Managers Focus on Collaboration and Communication." This article discusses the three Arkansas hospitals that provide a full-time emergency preparedness manager, including IAEM-USA Region 6 Vice President Doug Brown, EM Coordinator, Arkansas Children's Hospital, Little Rock, Arkansas. Read the article at www.arkhospitals.org/arkhospmagpdf/AHAWinter09.pdf.

■ **Ready Campaign Launches Social Media Initiative**. The U.S. Dept. of Homeland Security *Ready Campaign*, in partnership with The Advertising Council, has introduced a series of new social media tools to further engage Americans in taking steps to prepare for emergencies. Learn about the new interactive tools at http://ready.adcouncil.org/beprepared/.

■ **Recent FEMA Reports Available**. These reports have been posted at www.iaem.com/committees/governmentaffairs:

♦ The *FEMA 2009 Presidential Transition Binder* is a 238-page report prepared by FEMA during 2008 to present to the new Administration.

♦ FEMA's *Federal Preparedness Report*, a 130-page report submitted to Congress on Jan. 26, is the first comprehensive review of the combined efforts of federal, state, local, tribal and territorial homeland security partners over the past five years.

■ **FEMA Annual Accomplishments Fact Sheet Available**. The annual FEMA fact sheet on the agency's major activities and accomplishments is posted at www.dhs.gov/xnews/releases/pr_1229609413187.shtm.

■ **NEMA Publishes 35th Anniversary Web Page**. The National Emergency Management Association has published its 35th Anniversary Web Page to acknowledge those who have contributed to NEMA and provided leadership along the way, and to chronicle the defining moments in NEMA's history. See www.nemaweb.org/?2972.

■ **Web Version of CDC's Public Health Emergency Response Guide for State, Local and Tribal Public Health Officials Released**. Contextware, Inc., recently announced the release of an all-Web version of the Center for Disease Control's (CDC) *Emergency Response Guide*. Originally released by CDC in hard copy and PDF, Contextware converted the 65-page guide into a step-by-step, easy-to-navigate Web version available free to registered users, with an enhanced version with additional resources available for subscription. Learn more at www.contextware.com/solution/emergency_response.html.

Member News

E-mail news items to IAEM Bulletin Editor Karen Thompson, thompson@iaem.com.

■ **Rosanna Briggs and Arthur Rabjohn Named as Fellows in UK's Emergency Planning Society**. Congratulations to IAEM members Rosanna Briggs and Arthur Rabjohn, CEM, who have achieved Fellow status in the UK's Emergency Planning Society. The status of Fellow is achieved by peer assessment of a Continued Professional Development package to the Board of the EPS. Contributions to the EPS, profession and local activities are all evaluated, along with experience, membership, training and contributions to publications.

Briggs is the Deputy County Emergency Planning Officer with Essex County Council, a UK county with a population of more than 1.6 million people. Rabjohn is IAEM-Global Board Chairman and R3 Manager (Europe and Africa), WorleyParsons.

■ **Rick Cox Named as Chief of Hawesville Volunteer Fire Department**. IAEM-Global Business Director and IAEM-USA Treasurer Rick Cox, CEM, has been named to the position of Chief of the Hawesville Volunteer Fire Department, a small municipal department in Hancock County, Kentucky. Additionally, Cox serves as President of the Green River Firefighters Association, an eight-county association that supports the 68 Green River fire departments in northwest Kentucky.

2008 IAEM Award Winner Contributes to Successful Response Efforts Following Jan. 15 Airline Crash in Hudson River

New Jersey's EMS-USCG Sector NY activated its Port Security EMS Response Plan for the first time following the Jan. 15 US Airways emergency landing in the Hudson River. The response plan previously had been recognized by an IAEM 2008 Certificate of Merit in the Interagency Disaster Preparedness Award category. IAEM member Henry Cortacans, CEM, State Planner, Urban Areas Securities Initiative, EMS Task Force, reports that the plan was a huge success.

"Local, county and state officials here in New Jersey are very excited it existed and worked very well," said Cortacans. "The local EMS responders followed the plan (which already identified areas of operation, staging, casualty collection points). County and state officials mobilized 10 ambulance strike teams and numerous medevac aircraft, which were organized and deployed in an expeditious manner. EMS resources were forward deployed for various areas of operation – I can go on and on. It worked very well. We ended up with 58 patients from the aircraft on the New Jersey side."

IAEM-USA Executive Director Beth Armstrong conveyed IAEM's congratulations, stating, "We are so proud of your efforts. The nation and the world applaud your successful work to protect lives from disaster."

Working for You

(continued from page 1)

■ **IAEM-USA Members Commented on the NIMS Voluntary Standards for the Credentialing of Personnel**. The Federal Emergency Management Agency issued a notice in the Federal Register, asking for comments on the Voluntary Private Sector Accreditation and Certification Preparedness Program. The Federal Register notice described elements of the program, the consultation that has taken place and will take place with the private sector, and sought additional recommendations in a number of areas, including preparedness standards that the DHS should adopt, both initially and in the future. IAEM-USA member comments were collated by Shane Stovall, CEM, Co-Chair, IAEM-USA Public-Private Partnership Committee.

■ **IAEM Offers Assistance to New State Association**. IAEM-USA Region 1 President Bruce Lockwood, CEM, attended the January meeting of the newly formed Rhode Island Association of Emergency Managers in Pawtucket, R.I. Bruce offered the assistance of IAEM as the association moves forward, in addition to presenting the benefits of IAEM membership. Charles Miller, EM Director for Glocester, R.I., won a one-year membership to IAEM.

IAEM-USA Region 1 President Bruce Lockwood, CEM (left), with Rhode Island Association of Emergency Managers President Bob Howe, at the January meeting of the new state association, held in Pawtucket, Rhode Island.

Print Your IAEM Membership Certificate

All current IAEM members can now print their official IAEM membership certificates directly from the IAEM Web site at www.iaem.com.

■ From the left-side navigation, run your cursor over *Members Only*, and select *Members Menu*.

■ From the *Members Menu*, click on the fifth item in the right-hand column called *Membership Certificate*.

■ Or you can go straight to the *Membership Certificate* page at https://members.iaem.com/members_online/members/certificate.asp.

■ Enter your name in the field provided, and click on the button called *Search for Certificate*.

■ You will see a list of choices for the current IAEM membership year (2008-2009), as well as the two previous membership years if you were also a member during those years.

■ Select a membership year, and then follow the printing instructions at the top of the page.

■ Only membership certificates from 2006 and after are available for printing online.

SHOW YOUR PRIDE IN IAEM...

IAEM Program Manager Mary Ackleson models the IAEM women's polartek vest.

The IAEM Store features online sales of IAEM logo merchandise, including men's and women's Port Authority® fleece vests in a wide range of sizes and colors. Embroidered with the IAEM logo and the words "International Association of Emergency Managers," these washable R-Tek™ fleece vests offer lightweight warmth that is soft, comfortable and stylish. Women's Polartek Vest: $35, including shipping.

Stay warm this winter and support IAEM. Shop the IAEM Store online at www.iaem.com/store.

CEM® Prep Course & Exam Offerings

The following CEM® Prep Course and CEM® Exam offerings are scheduled for March 2009. Complete details and registration can be found at www.iaem.com/certification/CEMPrepCourse.htm.

■ **Mar. 7, 2009**: CEM® Prep Course and CEM® Exam, held during the 3rd National Emergency Management Summit, Renaissance Washington DC Hotel, 999 Ninth St. NW, Washington, DC, 8:00 a.m.-3:00 p.m. *Instructor*: Russ Decker, CEM, IAEM-USA President, and Director, Office of Homeland Security and Emergency Management, Allen County (OH).

■ **Mar. 17, 2009 and Mar. 18, 2009**: CEM® Exam, held during the National Joint Emergency Preparedness Liaison Officer (EPLO) Workshop, Mar. 15-17, 2009, at Loews Lake Las Vegas Resort, Henderson, Nevada. The exam will be offered twice, at 6:30-8:30 p.m. on both Mar. 17 and Mar. 18, 2009.

EM Calendar

Visit www.iaem.com/calendar for details on these and other EM events of interest.

Feb. 12-13	Disaster Control for Business Continuity, Johannesburg, South Africa, **supported by IAEM-International**.
Feb. 23	Mass Casualty Preparedness & Response Forum, "Mission Integration and Megacommunity Approaches in an All-Hazards Environment," Washington, DC, **supported by IAEM-USA, 20% discount for IAEM members**.
Feb. 23-24	8th Annual EM Conference, Wellington, New Zealand, **supported by IAEM-Oceania**.
Mar. 4-6	3rd National EM Summit, Washington, DC, **supported by IAEM-USA**. **IAEM CEM Prep Course/Exam scheduled for Mar. 7, 2008**.
Mar. 17 & 18	**Two CEM® Exam Offerings** are scheduled during the National Joint Emergency Preparedness Liaison Officer Workshop, Mar. 15-17, 2009, Henderson, NV.
Mar. 23-24	7th Annual National Security Australia, Sydney, Australia, **supported by IAEM-Oceania**.
May 10-13	ISCRAM 6th International Conference on Information Systems for Crisis Response & Management, Göteborg, Sweden, supported by IAEM-Europa.
May 11-13	ERES 2009 7th International Conference on Earthquake Resistant Engineering Structures, Cyprus, **supported by IAEM-Europa**.
May 18-19	17th Annual Conference of NVOAD (National Voluntary Organizations Active in Disaster), Salt Lake City, UT.
May 18-21	National Hydrologic Warning Countil 8th Conference & Exposition, Vail Colorado.
May 28	National Association for Search & Rescue: 2009 National Search & Rescue Conference, Little, AR.
June 4-6	**IAEM-USA 2008 Mid-Year Meeting**, Emergency Management Institute, Emmitsburg, MD.
June 7-12	Association of State Floodplain Managers Annual Cconference, Orlando, FL.
June 8-11	NFPA 2009 Conference & Expo, Chicago, IL.
June 21-24	19th World Conference on Disaster Management, Toronto, ON, Canada, **IAEM member registration fee discount, supported by IAEM**.
June 22-24	Hands-on Network 2009 National Conference on Volunteering & Service, San Francisco, CA.
July 1-3	Conference on Safety & Security Engineering, Rome Italy, supported by IAEM-Europa.
Aug. 9-12	**National Conference on Community Preparedness**, hosted by FEMA's Community Preparedness Division & IAEM-USA, Arlington, VA. (See Page 24 for details.)
Sept. 23-25	1st International Conference on Disaster Management & Human Health, New Forest, UK, supported by IAEM-Europa.
Oct. 23	National Safety Council: 2009 Congress/Expo, Orlando, FL
Oct. 31-Nov. 5	**IAEM-USA 57th Annual Conference & EMEX 2009**: "Emergency Management USA: United We Stand," Orlando, FL, www.iaem.com/Conference.
Nov. 24-25	Emergency Services Show 2009: Improving Emergency Response, Stoneleigh Park, Coventry, England, supported by IAEM-Europa.

IAEM Bulletin Call for Articles:

Research to Practice

The IAEM Editorial Work Group is looking for articles for the next special focus issue of the *IAEM Bulletin* on **Research to Practice**. This issue will focus on innovation and new ideas that are put into practice. We especially want to hear from practitioners who have put research into practice, not just researchers who have great ideas. Also, how have you taken a lesson learned from some event and applied it to a different situation, circumstance, event or organization?

Please keep your articles under 750 words, and e-mail articles to *Bulletin* Editor Karen Thompson at thompson@iaem.com no later than **April 10, 2009**. Please read the author's guidelines on our Web site before submitting your article. Remember, the *IAEM Bulletin* is published monthly, and we always welcome articles of general interest to our readers.

IAEM 2008 Annual Conference Photos

Photos taken by Flashes Photography at the IAEM 2008 Annual Conference in Kansas City will remain online until **Feb. 20, 2009**.

- Go to this URL: **http://flashesphotography.morephotos.com/mp_client/pictures.asp**
- Scroll down the page to the five folders marked "IAEM 1" through "IAEM 5."
- Click on one of the folders.
- Enter the password: **hero**
- Then click on the link that says "View all photos." You will see thumbnails of all photos in that folder.
- Click on a photo to see a larger image and price options for the photos you wish to purchase.
- Return to the link above to look at the photos in the other IAEM folders.

2009 National Conference on Community Preparedness

"The Power of Citizen Corps" | www.iaem.com/NCCP2009.htm

Aug. 9-12, 2009 ~ Hyatt Regency Crystal City Hotel, Arlington, Virginia

The 2009 National Conference on Community Preparedness is being hosted jointly by FEMA's Community Preparedness Division and **IAEM** on Aug. 9-12, 2009, at the Hyatt Regency Crystal City Hotel in Arlington, Virginia. The conference is open to all who are interested in making their communities safer, stronger and better prepared for all types of hazards.

NCCP 2009 will bring together approximately 600 state and local elected officials, emergency management, fire and police services, public health and emergency medical services, non-governmental organizations, private business and industry, advocacy groups, and members of the public. Attendees at the 2009 National Conference on Community Preparedness will:

- Share best practices on collaborative emergency planning.
- Discuss preparedness outreach and education for targeted populations.
- Learn innovative approaches to funding.
- Hear updates on Federal Emergency Management Agency initiatives.
- Get updates on findings from citizen preparedness research.
- Hear about successful training and exercises.
- Share volunteer management practices.
- Network with other Citizen Corps participants.

■ **Call for Presenters**. The conference planning team is currently soliciting proposals for presenters, and encourages submissions from Citizen Corps members, partners and others who are interested in sharing their experiences with increasing community preparedness. **Call for Presenters submissions are due by Mar. 2, 2009**.

Download the submission form: www.iaem.com/NCCP2009.htm

■ **Hotel Reservations**. To book rooms at the Hyatt Regency Crystal City Hotel, call 703-418-1234 or 800-0233-1234 and reference **"NCCP"** to secure the $165 single/ $190 double rate (or prevailing federal per diem rate). These rates will be honored until **July 19, 2009**, or until the NCCP block is sold out, whichever occurs first.

■ **Exhibitor and sponsorship opportunities are available**. For information, contact Clay Tyeryar, IAEM Deputy Executive Director, at ctyeryar@iaem.com.

Sycuan Tribal EM Communications Progress

By Robert S. Nelson, CEM, EFO, CFO, MPA, MCJ, Battalion Chief/ Tribal Emergency Management Coordinator, Sycuan Band of the Kumeyaay Nation (California) – Fire Department

The Kumeyaay people have lived in the southern California area for more than 10,000 years. Sycuan has had a fire department for nearly 35 years, a police department for more than 20 years, and a disaster preparedness program for about eight years. During the last 40 years, our Tribe has faced fires, floods, winds and earthquakes. The two worst events to strike Sycuan were the 175,000-acre Laguna Fire of 1970, and the 300,000-acre Cedar Fire of 2003. Tribes with casinos are unique in that they have all the services of a major city, but have a smaller resident population with a large number of visiting customers, all of whom must be protected 24 hours a day.

During disasters or other major events, everyone needs to have the ability to communicate, be they working in administration, police, fire, public works, medical, CERT groups, the EOC, and even day care centers. The events of 9/11 showed this nation that interoperability and poor communications can cost lives. Post-event critiques always list communications problems in their reviews, yet we continue to have this recurring problem. Why ?

Following the disastrous 2003 Cedar Fire, Sycuan's Tribal chairman pushed to establish the Tribal CERT program, which now has 11 team's; upgrade our Emergency Operations Plan; and develop a primary Emergency Operations Center (EOC) with two alternate EOC facilities. The one key element that came out of these changes was to improve communications.

The first step was to purchase more than 25 satellite phones. Next, with the assistance of our security communications coordinator, a 16-channel radio system was developed that enables all services to communicate with each other, operations and command through mountain-top repeaters, tactical channels for all CERT groups, and the ability for those in the EOC to reach everyone. Finally, our dispatch center has the ability to patch different channels together, so that everyone can talk as if they were on the same frequency.

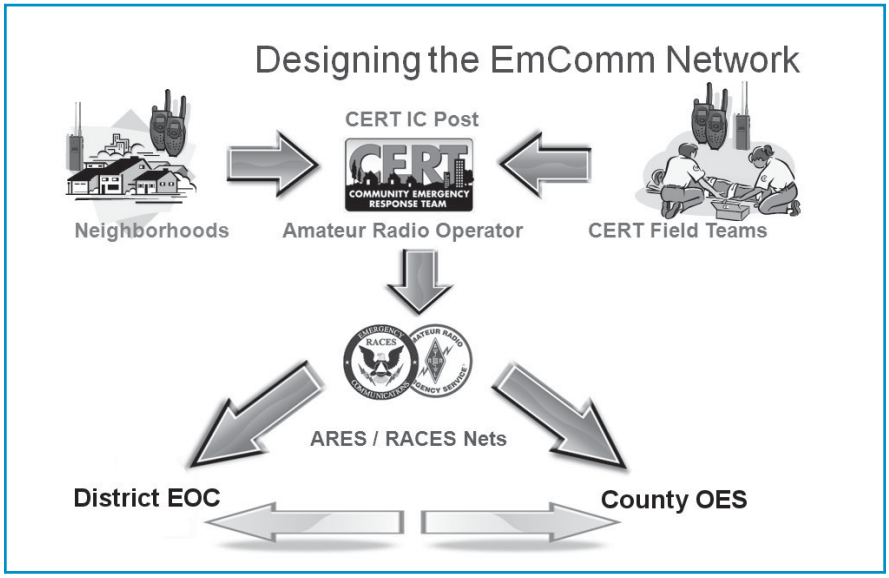
Volunteer Emergency Communications

By Herbert Cole, CERT Instructor and Incident Commander, San Ramon Valley Fire Protection District, and Emergency Coordinator for Training, Contra Costa County Sheriff's Department ARES/RACES Emergency Communications Group

Emergency Communications (EmComm) is the lifeblood of any professional incident response. But what happens when Emergency Communications infrastructure is destroyed or severely damaged, leaving professional responders with limited or no communications ability? When all else fails, consider volunteer emergency communications.

Background

The San Ramon Valley Fire Protection district is located some 30 miles east of San Francisco, California and encompasses over 155 suburban square miles of rolling hills, oak and pine forest, and interior valley grasslands. The district is responsible for a population in excess of 160,000 and is the primary disaster response entity within southern Contra Costa County. At any given time, there are approximately 60 professional first responders on duty (both fire and law enforcement). This works out to 2,667 persons for every professional first responder. To address the obvious need for trained human resources in a large-scale emergency event, the fire district has trained more than 500 volunteer Community Emergency Response Team (CERT) members. The majority of these CERT volunteers are sworn California State Disaster Service Workers, and they provide a ready pool of trained personnel to supplement the physical response needs of the district. Divided geographically into local teams, each CERT team is overseen by an assigned CERT incident commander who reports to the fire district CERT coordinator. The CERT coordinator is a sworn fire officer who works in the fire district Emergency Operations Center (EOC). In the event of a large earthquake (the primary mission of district CERT teams), each CERT incident commander establishes and activates their respective incident command post, and establishes communications with the district CERT coordinator. In the event of a broad communications outage, or the implementation of GETS or WPS by local authorities, the CERT teams are left without any viable means of communicating with the EOC. This is where volunteer emergency communications using trained amateur radio operators and trained neighborhood FRS/GMRS communications networks can be beneficial in support of not only volunteer CERT operations, but also professional response operations. As you will see, this grassroots approach to EmComm not only helps to get important tactical message traffic through, but also acts as a "force multiplier," enhancing professional response operations.



An All Volunteer Emergency Communications Force

The year 1952 saw the creation of the Radio Amateur Civil Emergency Service (RACES) by the Federal Communications Commission. The primary purpose of RACES was to provide radio communications using amateur radio operators and frequencies in support of the U.S. government in the aftermath of a Soviet nuclear attack. While the Soviet threat has long since passed, RACES continues to provide vital emergency communications for local, state and federal agencies. Administered by FEMA through local and regional authorities as an official government emergency communications resource, RACES shares the limelight with the privately sanctioned ARES, one of the oldest emergency communications resources in the world. The Amateur Radio Emergency Service (ARES) is administered through the Amateur Radio Relay League, a private organization that represents the interests of licensed amateur radio operators throughout the United States. Under a Statement of Affiliation (SoA) with the Federal Emergency Management Agency (FEMA), ARES is a Citizen Corps affiliate program and pro-

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Communications in a Disconnected Environment

By Scott P. Lewis, CEM, FPEM, Task Force Leader, Pathfinders Incident Management Team

How can emergency managers use affordable, rugged, flip cell phones for rapidly collecting windshield damage assessment and human need assessments when all cell service is destroyed in a manmade or natural disaster? Our Task Force found just such a solution, and now has 100 cell phones that took less than 30 minutes to train with and cost our unit peanuts to operate. When cell towers are up, the system works like a regular phone with a robust tracking system with all sorts of data collection monitors.

Hurricane Ike saw the use of some of the latest technology available, and one mobile communications' solution our team used is called Pathfinders, named after a Task Force dating back to 1999 Hurricane Floyd. With no power, no cell towers, no Internet and no fancy, expensive satellite solutions, Pathfinders Task Force (PTF) Ike was able to use its team's flip cell phones to gather vital information and relay it to the local Emergency Operations Center for quick evaluation in one of Texas hardest hit areas. With 19 feet of storm surge, the challenges were many, but the phones performed their tasks seamlessly and the results were remarkable.

Follow-up to Katrina Lessons Learned

The mobile software technology was developed for our Pathfinders' Incident Management Team (IMT) in a follow-up to the Lessons Learned from Katrina where 126,000 homebound survivors in just 14 days were visited by crews using Garmin GPS units, with no real documentation or communications capability. Since then and during the development phase, a simple, flip phone was selected for the team because the phones were both rugged and very affordable compared to expensive and fragile PDA's, which also had a much more complicated learning curve for trainees. Ike was our first test of the system in a real disaster.

Rapid Training, Fast Results

In Ike, we were able to rapidly train volunteers who never had seen the software solution in less than 30 minutes. In Ike's totally disconnected environment and on the first day of operations, we had six crews with three people each geocoded and time/date stamped 4,400 rapid damage assessments using cell phones. The maps and data collected by the cell phones were vividly displayed in the local EOC. For the next six days, hundreds of volunteers went door-to-door with the 100 cell phones, collecting human needs assessment information for thousands of Ike survivors at their doorways – with the cell towers still down. The communication system was designed to let the team's cell phones download by blue tooth to the Pathfinder base's servers. However, our Information Technology Section was able to have all 100 phones communicating with normal laptops by Day Three of our Ike response and with no connectivity at all.

Information Collected and Analyzed

We designed the software to prompt the user through a series of checklists on the phones when he/she visits a home to determine the welfare of the survivors and what relief they need. The volunteer enters information on the phone using drop-down boxes on 20+ questions that target household and special needs. The information is geocoded and time-stamped using the GPS data, so a follow-up crew can be sent immediately if needed. In addition to automated checklists, information can be entered in comment spaces via a text message. For instance, when a volunteer arrives at a house and a survivor is safe and well, there is a box with this option for them to check. When checked, the volunteer enters the name, address and phone number of the survivor. Once the volunteer has entered the appropriate information for a household, he simply presses a "submit and save" box on the phone before moving on to the next site. Pie chart snapshots then summarize thousands of data fields in easily reviewable form.

The new technology also adds features which allow for enhanced Excel spreadsheet documentation, much of which will serve in mitigating future disasters, as a host of agencies are able to analyze and manipulate the data collected from impact zones. During training sessions and in Ike response, we easily customized questionnaires on the phones to collect community-specific data that can be used for mitigation, as well as for analysis, not to mention FEMA's requests for documentation.

To Learn More

Visit our not for profit's Web site, www.theeagleswingsfoundation.org, to see how our task force has taken advantage of this cutting edge technology to support our operations.

Communications and Response to One of the Deadliest Crashes in Florida

By Marian E. Mosser, PhD, rofessor Capella University, Minneapolis, Minnesota, and Former Division of Emergency Management Region 4 Coordinator for the State of Florida

Scenario/Event

This response to a "real world" catastrophic event included several accident sites, multiple injuries and vehicular fires. Interstate 4, Polk County, Florida, near Orlando, was completely blocked, a main east-west thoroughfare. Twenty-eight agencies responded from state, county and municipalities, approximately 300 first responders, to a fire/rescue mission that transitioned to a crash investigation. The purpose of this article is to examine the event response and identify communications strengths and concerns as a means of sharing post-event lessons learned.

Communications interoperability is key to public safety agencies (police, fire, EMS) and service agencies (public works, transportation, hospitals) to save lives and property, whether talking within or to other agencies/jurisdictions via radio and associated communications systems, exchanging voice, data and/or video with one another on demand, or in real time.

Major Communication Strengths

The major communication strengths during the response were:

- The Polk County EOC was operating and communicating within 30 minutes of first notification to provide support and coordination.
- The deployment of two state regional coordinators allowed for a continuous flow of critical information among multi-jurisdictional emergency responders, agencies and government officials during the response operation in compliance with National Incident Management System (NIMS).
- Timely communication from Polk County EOC allowed for the establishment of two separate staging areas, which facilitated deployment of resources to the accident scene.
- As the weather cleared, the Polk County Sheriff's helicopter was able to gather information from personal observation and from the media aircraft and pass this to the commanders on the ground.
- The recently upgrade of Polk, Lake, Orange and Osceola counties to all operate on one radio net 800 mhz radio system allowed interoperability of communications.
- Communications was enhanced by the use of Thermal Imaging Cameras (TIC) to identify vehicles and individuals that could not be seen with the naked eye. Firefighters were able to use the TIC to see through the dense fog locating survivors.
- Communications consisted of guiding responder vehicles along the shoulder of the road just to find the accident scene.

Areas of Concern

The major communication areas of concern, with recommendations during the response, included:

- The creation of two command posts initially did not allow communication systems from one area to operate on one radio channel. The second site operated on another channel, leading to confusing reports from first responders. It was recommended that communication protocols be established for multi-site responses and that standardized channels be established for MCI events, so that any responder will know to turn to a specific channel to communicate.
- There were many instances where the NEXTEL system overloaded and shut down. It was recommended that communications priorities for first responders be examined and that responders should receive training on radio discipline and keeping communications short and to the point.
- In the early hours of this response, two incident commands created duplicate communication requests for resources. It was recommended that one unified command be established as soon as possible to eliminate redundancy.
- Regional coordinators' Blackberry cell phones did not work due to overload of cell towers. It was recommended that state responders receive priority communication status.
- The initial notification page and/or e-mail sent to many local responders was not received. It was recommended that a plan be developed to ensure responder receipt of an alert message.
- Some regional rosters were not current, and some agencies did not receive direct notification. It was recommended that emergency response rosters be updated during a monthly communications test.
- SOP/SOG establishes requirements relating for a JIC or fusion information center at the command post.

Conclusion

The multi-jurisdictional response was a fully integrated response of multiple agencies conducted in absolutely horrific conditions, where it was impossible for responders to see beyond the hoods of their response vehicles. Fire, law enforcement and emergency medical services personnel communicated and coordinated to reach a crash site, where many times they walked within feet of damaged vehicles or injured motorists and only knew that because of sound.

(continued on page 30)

Communications in Emergency Management: Still a Long Way to Go

By Edward Minyard, CCM, Partner, Accenture Technology Consulting

In recent months, the world has seen the havoc wreaked by natural disasters such as Hurricanes Gustav and Ike, Midwestern fFloods and, around the world, earthquakes and civil unrest. We've seen how communications infrastructure can be destroyed or become inoperable, severely limiting the ability to share information and coordinate response and recovery. These occurrences have made us all realize how important it is to have emergency preparedness and response plans in place, and how important communications are in those processes.

Ineffective Communications Impact Response and Recovery

Increased dependencies on electronic communications have raised the ante for how state and local governments prepare for events that compromise these communications. For example, when communications infrastructure is destroyed or inoperable, it impacts the entire response and recovery effort and renders even the most simple steps, like dispatching and tracking emergency personnel, ineffective. Furthermore, the mission of public safety has increased emphasis on joint operations and joint task forces, thus increasing the need for interoperability.

These Issues Still Exist

In a Sept. 19, 2005 *Washington Post* editorial, Senators John McCain and Joseph Lieberman, asked, "With all the technology innovations of recent years, how is it that first responders, those we depend on when disaster strikes, are still unable to adequately communicate with each other during an emergency, while we are able to watch the crisis unfold on our television sets?" These issues still exist: State and local government cannot effectively respond to a disaster scenario when the disaster compromises standard communications equipment. When "outside agencies" (EMAC / IMT) show up, integrating their communications remains a challenge.

Technologies and Their Pitfalls: A Brief Discussion

Interoperability is the world's longest four-letter word. Never was the problem of interoperability more defined than after the attacks on 9/11. While there are an ever-increasing number of "solutions" to the problem, there is no widely-adopted, overarching standard in place. And very few well-written protocols *exist* for deployment of these solutions. There is so much to be written about this, we'll save it for another article.

Since Hurricane Katrina, there has been a significant increase in the acquisition and deployment of satellite-based communications systems across the United States. While that's a good thing, there are still numerous fundamental issues to be considered. These systems are only as good as the carrier that supports them and the technical architecture behind them. Truth be told, large groups of these systems, when deployed, are contending for the same satellite bandwidth. We've witnessed severe degradation in functionality as a result of this issue.

Some Suggestions

- Ask your service provider whether you have dedicated or shared bandwidth. If shared, with whom? You don't want to lose your bandwidth in an emergency because a media company has preemptive rights to your transponder.
- Ask about the level of technical support you can expect, 7/24/365. Experience has shown us that some carriers have less-then-stellar tech support on off-peak shifts. Disasters don't have a clock.
- Test, test, test! Test at all hours of the day and on holidays and weekends. Run your systems, and test your applications over them.

Lessons Learned From Experience

- **Develop a comprehensive set of protocols**. The greatest challenge in the use of emergency communications technology, regardless of its type, is not the technology itself but a lack of protocols for its use.
- **Think out of the box**. Assume that the infrastructure you're counting on won't be there, and make plans for having a substitute infrastructure
- **Take your locality into account**. Different geographies will pose different challenges.
- **Don't forget the big picture**. Every major city should have an "instant infrastructure" capability – comprising technology, people and processes.

Secure communications are critical to consistent and accurate information flow from the personnel running an emergency response operation. A compromised communications infrastructure could lead to misinformation that makes the recovery efforts more complicated or, in the worst case, more dangerous. In our experience, most state and local entities have a ways to go in developing a comprehensive strategy in this regard.

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Emergency Management Data Interoperability Framework

By Lee Tincher, Consultant, Disaster Management e-Gov Initiative, Department of Homeland Security

The holiday season was very enjoyable for me. All of my adult kids made it home from their burgeoning careers and scholastic ventures. As I sat around and held those meaningful conversations one has at this stage of parenting, I noticed that the disinterest associated with the "teen years" was rapidly disappearing – at least somewhat. I was receiving full eye contact and even conversational interaction. All of this was occurring with my daughter, now 21, while she had her SmartPhone in her right hand and was "texting" without even looking at the screen. Well, at least it was an improvement.

Instead of being upset, I started to get interested about the functions such a device provides. My daughter and son were more than happy to show me all of the cool social networking tools they had on their SmartPhones. These devices contain automatic FaceBook updates that read GPS coordinates and provide that information to your friends, conversation tools such as texting, and much more.

I immediately thought of our first responders and the functions these devices could bring to the field. I am certain that much of this is done within specific pockets of response teams, such as a local rescue squad, but what about the broader implications of interactions outside of their known social network? How could something like this be used for onsite events, incidents and disasters? These important factors could be shared immediately:

- Who is on site?
- Who is in charge?
- What resources are needed, or have been requested?

Most of this information is obtained at the incident location via word of mouth or radio, with radio chatter distracting from what may be important situational information.

We have all been told about the magic of technology coming our way to handle every conceivable communications need. Much of this is offered on a "pay for service" model and doesn't meet the needs if all of our neighbors are not using the same service. In addition, the needs of the normal rescue squad response in Enterprise, Alabama, differ completely from those of New York City. So is there no one-stop solution?

On Jan. 7, 2009, I attended a Joint Disaster Management Interoperability Service (DMIS)/ Open Platform for Emergency Networks (OPEN) briefing. These programs are not new, and they have been moved around the federal government several times, most recently back to FEMA. I must admit that I did not expect to receive much from this briefing, given the struggles associated with these programs over their history. I was pleasantly surprised, and even a little excited, by the information presented.

FEMA is proposing a framework for computer applications and device tools. The idea is to provide services that anyone can use to share these various types of information exchanges. This can be in the form of vendor-supplied applications, free software developed for this purpose, or even in-house developed tools. These applications can take advantage of common tools that will allow them to communicate with each other.

Is this a distant future vision? No. Some of these functions already exist in the OPEN platform, although it heavily focuses on alerting. FEMA has chosen to rapidly roll out these capabilities by "phasing" releases. The first Initial Operating Capability (IOC) for the framework is targeted for Sept. 30, 2009. The IOC promises the basic structures and essential core functionality.

DMIS and OPEN have always been early and strong adapters of data standards, specifically the Emergency Data Exchange Language (EDXL) – for specifics see www.oasis-open.org – but this is a true implementation of exchange beyond the conceptual interoperability standards.

There is much more detailed information and a copy of the briefing I mentioned at the DMIS and OPEN Special Interest Group Web site at www.disasterhelp.gov/disastermanagement. You may even wish to join these groups in order to keep up with the "now moving train." Enrollment is free.

So now I look down at the brand new BlackBerry Bold I got for Christmas (the iPhone was too digitally challenging for me – in other words, my digits are too large to operate it). Instead of wondering what I can do with a device that once was only a phone and e-mail client to me, I dream of the upcoming applications that could be utilized on this device before it reaches its need for upgrade in a year or two.

For questions or comments, please e-mail Lee Tincher at ltincher@evotecinc.com.

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Volunteer

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vides emergency communications in support of Citizen Corps programs such as CERT.

An Integrated EmComm Model

As noted earlier, volunteer emergency communication resources can be extremely beneficial to the volunteer groups they serve as well as professional responders. An integrated volunteer EmComm model that uses volunteer communications resources provides not only the obvious communications element to a response, but effectively increases damage assessment capability over a wide area, while at the same time reducing the time necessary to gather damage assessments for the given area in contrast to a professional only response.

The key to the Integrated Volunteer EmComm model is bottom-up information flow. Beginning with neighborhood FRS/GMRS radio operators trained in visible damage assessment and feeding this information into the CERT Incident Command Posts, the incident commanders can develop a picture of the damage in their immediate area of responsibility and make decisions as to how best to deploy their local CERT resources. This information is then passed up to the CERT Coordinator at the EOC via ARES or RACES EmComm volunteers. The information passed from the field is then used by the CERT Coordinator to initiate the deployment of professional resources to those areas beyond the capability of the CERT response, and to redeploy CERT resources as needed. In addition to CERT to EOC communications, ARES/RACES operators working in the EOC can pass information to the county Office of Emergency Services (OES) should traditional means of communications be overloaded or destroyed, and from the county OES to the regional or state OES as necessary.

Conclusion

EmComm is vital to the response phase of any large-scale emergency. Limited professional resources, along with marginalized, congested or destroyed agency communications systems, can leave jurisdictions scrambling for a desperately needed emergency communications solution. As the ARES motto states," When all else fails," consider volunteers for your emergency communications needs.

Deadly Florida Crash

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With an event of this magnitude, it is impossible to replicate communications and response in a training environment. However, it is strongly recommended that anyone who may read this article consider what the requirements would be to shut down a major interstate and who has the authority/responsibility in such an event. Consider emergency responder communications and how equipment will function among agencies. What would be the effect of thousands of vehicles passing through the small towns? Communication is key during a crisis and should be a top priority for public safety agencies.

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- http://snap.tbo.com/photos/index.php?id=1822941

A Long Way to Go

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Conclusion

Clearly, the need for survivable, rapidly-deployable communications systems is recognized and understood by emergency managers. But caution is advised when acquiring and implementing those solutions. Like any technology deployment, don't buy "tech for tech's sake." Analyze your needs, understand the technology, and pilot the technology with your applications. Then, if it all seems to fit, develop solid protocols for the use of that technology (and *train everyone* on those protocols). There are enough surprises in this industry – no need to create our own.

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