



Bulletin

INTERNATIONAL ASSOCIATION OF EMERGENCY MANAGERS

INSIDE

Global Newsboard:
 Quality Is a Sure Bet 2
 EM Resources 19
 EM News 20
 Member News 21
 Bulletin Online 22
 EM Calendar 23
 IAEM Staff 23

Special Focus Issue:
**“The Stakes Are High for
 Emergency Managers”**

Know When to Hold ‘EM. 4
 AT Reuse and Its Role in
 Recovery 5
 Cards on the Table 6
 The Challenge Is High ... 7
 A Royal Flush 8
 Planning for Protests 9
 Avoid Strategic Surprise 10
 Emergency Manager as
 Community Warrior ... 11
 EM Decision-Making
 Under Pressure 12
 Nationwide SAR
 Initiative 14
 U.S. Army Garrisons
 and Emergency
 Management 15
 Assistive Technology
 and Emergency
 Management 18
 Managing Expectations 19

IAEM: Working for You

■ **Register Today for the IAEM-USA 59th Annual Conference & EMEX 2011.** Visit www.iaem.com/Conference to register online for the IAEM-USA Annual Conference, Nov. 11-17, 2011, Las Vegas, Nevada.

■ **USA CEM® Commission Holds Credentials Review.** USA CEM® Commissioners met Aug. 22-24 in Falls Church, Va., for a three-day CEM® credentials review, during which 59 candidates were approved to receive the Certified Emergency Manager (CEM®)/ Associate Emergency Manager (AEMSM) credential. A total of 12 candidates recertified, and two candidates upgraded from an AEMSM to a CEM®. This new class of CEM®s and AEMSMs brings the total number of emergency managers who have been recognized for certification by IAEM since January 1993 to 1,723.



Victor Bai, CEM

■ **Victor Bai Takes Office as New IAEM-Asia President.** Victor Bai, CEM, became President of the IAEM-Asia

Council on Sept. 1, 2011, and will serve a two-year term as leader of the council. He is Director and Vice President of BCEM Consulting Inc., Shanghai, China.

■ **IAEM-Spain Recognized by the Spanish Government.** The IAEM-Spain Chapter of the IAEM-Europa Council has been recognized by the government of Spain as a



Last Year a Blizzard, This Year an Earthquake. *The IAEM-USA CEM® Commissioners were in the midst of a CEM® credential review at IAEM Headquarters at the time of the Aug. 23 earthquake. Pictured are (alphabetically): Brian Bovyn, Jim Cook, Guy Corriveau, Rick Cox, Gerry Husband, Sharon Kelly, Christian Lanphere, Dean Larson, Pam L’Heureux, Lanita Lloyd, Tom Greenlee, Scot Phelps, Jennifer Smysnuik, Daryl Spiewak, Kate Walker, and Billy Zwerschke. Also present were Gideon For-Mukwai, Mark Gentilman, Jeff Jelleys, Dan Martin, Deirdre McLachlan, Jim Paturas, Dan Reilly, Ed Smith, and observing as IAEM-USA Second Vice President, Jeff Walker.*

non-profit professional association and is now included in the National Registry of Associations in Spain. “This is another major milestone reached in the development of IAEM-Spain and IAEM-Europa,” stated Arthur Rabjohn, CEM, IAEM-Europa President.

■ **IAEM-USA Announces Results of 9/11 Opinion Survey.** In conjunction with the 10-year anniversary of 9/11, IAEM-USA recently announced publication of the 9/11 Opinion Survey Report, available at www.iaem.com/publications/news/documents/911OpinionSurveyReport9-9-11.pdf. IAEM-USA joined with other EM and public health

(continued on page 3)

Global Newsboard

Quality Is a Sure Bet!

By Kristin Hoskin, CEM, IAEM-Oceania President, and
Director, Kestrel Group, Christchurch, New Zealand

An IAEM member once said to me that nothing much changes in emergency management. In some respects I agree, since the principles we aspire to are fairly constant. However, the techniques and tools available to us are constantly expanding and changing, helping us to improve our odds. Given that the theme of this month's *Bulletin* is "The Stakes Are High," I thought this would be a good opportunity to focus on what Oceania members have been doing to improve their "odds."

Each year, members who know of projects they believe set an example for us all put them forward for recognition in the annual IAEM-Global Awards Competition. The awards serve two purposes: providing positive recognition for those who worked on the project, and giving everyone else in IAEM a chance to learn what is working really well in the practice of emergency manage-

ment right now. This year's IAEM-Oceania Council award winners were:

■ IAEM-Oceania Public Awareness Award, Division 2, First Place: **Australian Red Cross** for its "Communicating in Recovery" guide. This entry went on to win First Place in its category and division at the IAEM-Global level.

■ IAEM-Oceania Public Awareness Award Division 2, Second Place: **Australian Red Cross** for its publication "Helping children and young people cope with a crisis – information for parents and caregivers."

■ IAEM-Oceania Business & Industry Preparedness Award: **University of Canterbury**, Christchurch, New Zealand, for its campus emergency management program.

Australian Red Cross

Over the last few years, the Australian Red Cross has had a very strong focus on enabling communities in the recovery phase following an emergency. The experiences of Australians, particularly Victorians, after Black Saturday in 2009, showed that there was room for improving the resources used by organisations to manage public information. Red Cross took on the role of developing an off-the-shelf tool to meet that need. The

publication that has come out of Red Cross's work isn't geography or hazard specific and is suitable for all emergency managers to access and draw upon. It can be downloaded from www.bendigobank.com.au/public/pdf/communicating-in-recovery-red-cross_0211.pdf.

Red Cross also has been working with meeting the needs of specific demographics. Immediately following the 2009 Black Saturday Bushfires, they worked on resources to better enable young adults. This year they have addressed the needs of parents and caregivers. As with the above work, they have produced a publication that is freely available to all at www.redcross.org.au/files/Parenting_Resource.pdf and is suitable for all hazards and geographies.

University of Canterbury

While Australia has been coping with recovery from fires and floods, New Zealand's attention has been caught by earthquakes. The Business and Industry Preparedness Award was presented to the University of Canterbury recently. The university was nominated because of the way its campus emergency management programme performed through numerous aftershocks this last year. The energy that has been required to build the university's capacity for response and planning for a major disruption has been enormous. Efforts began several years ago, but it was only in 2010 that a dedicated university EOC was established. It has been in operation almost continually since then, assessing and reassessing the safety of buildings, keeping staff

(continued on page 3)



Pro-Vice Chancellor Sue McKnight (left) and University Registrar Jeff Field (right) receive the IAEM-Oceania Business & Industry Preparedness Award on behalf of the University of Canterbury. The award was presented by IAEM-Oceania President Kristin Hoskin, CEM, at the University of Canterbury EOC in the presence of the university's emergency management staff and responders. photo by Duncan Shaw-Brown

IAEM: Working for You

(continued from page 1)

organizations to sponsor this report, exploring attitudes about terrorism and natural disasters a decade after 9/11.

■ **IAEM Student Council Seeks Award Nominations.** The IAEM Student Council Awards Committee seeks nominations for its annual awards. The following categories are currently open:

- ◆ Student of the Year
- ◆ Student Chapter of the Year
- ◆ Chapter Advisor of the Year
- ◆ Student Ally Award (supporter of EM students)

Information and the nomination form can be downloaded at www.iaem.com/Students as a PDF or Word document. Nominations can be self-submitted or submitted by a separate party. Submit nominations forms to Brian Silva at brian.silva@the360c.com by **Oct. 14, 2011.**

■ **Bob Ditch Represents IAEM-USA at Civil Air Patrol National Conference.** Robert L. Ditch, Colonel, USAF (Ret.), EdD, CEM, CEM® Commissioner, made two presentations on the CEM® Program at the recent Civil Air Patrol National Conference. In addition, every conference attendee received IAEM-USA membership, certification and annual conference handouts in their registration bags. He conducted one-on-one interviews with individuals interesting in pursuing their CEM® and noted growing interest in IAEM and the CEM® among conference participants.

■ **IAEM Signature Block Now Available for 2011-2012 Membership Year.** Current members are encouraged to show their affiliation with IAEM in their

Global Newsboard

(continued from page 2)

and students informed and dealing with the endless support issues that need to be addressed in order to keep the university functional and ready for the next large shake. However, it isn't just the university faculty and staff who have been active. The university's UC Earthquake Recovery Facebook page at www.facebook.com/UCQuakeRecovery has links to all manner of initiatives that the university's people have been involved in to aid the recovery of the campus and the wider community.

Hopefully, you'll take the time to have a look at the resources these award winners and the contributors to this special focus issue have shared, and hopefully you can use them to improve your own odds, because we all know that in emergency management – the stakes are high!



IAEM CEO Beth Armstrong met Sept 23 at IAEM Headquarters with officials from the Shanghai Urban Construction Group. *Visitors included: President Zhang Yan; Senior Economist Feng Kai Ph.D.; Shanghai NO.2 Municipal Engineering Co. General Manager Ge Yi Heng; Shanghai Tunnel Engineering Co. Vice General Manager Shen Pei Liang; and Shanghai Underground Space Architectural Design & Research Institute President Liang Yingyuan. The group expressed specific interest in infrastructure protection and disaster mitigation measures.*

e-mail communications via use of the IAEM membership signature block image. The IAEM e-mail signature block for the new membership year (Oct. 1, 2011-Sept. 30, 2012) is now available in the members only area of the IAEM website at www.iaem.com/membersonly/IAEMemmailtag/index.htm. Right-click and select "save as" to save the image to your computer. After you have inserted the image into your signature block, please include a line of text that says: "For more information, visit www.iaem.com."

■ **Mark Your Calendars for the IAEM-USA Region 4 Conference.** IAEM-USA Region 4 has scheduled its 2012 Regional Conference for **Apr. 15-20, 2012, in Myrtle Beach, S.C.** A government rate of \$89 at a beachfront resort will be available to attendees. Expect exciting speakers and relevant training. Offerings will include the CEM® Prep Course & Exam and the EMI G-Courses. Plan now to attend.

EM FORUM.ORG
Sharing Information – Promoting Dialogue

Over a decade of service providing professional development opportunities to the emergency management community. Free, interactive Webinars on a wide variety of timely topics featuring distinguished guest speakers. Visit www.emforum.org for upcoming program information, access on-demand recordings and our complete library of transcripts. **Audio now available from the iTunes® Store!**

Know When to Hold 'EM (Emergency Management)

By David W. Holm, MPA, JD, CO-CEM, CEM, Senior Division Advisor,
Colorado Department of Local Affairs, Division of Emergency Management

Emergency management is often a gamble. No matter how good your “hand,” circumstances and luck *can* make it a loser. In the Old West, legendary gamblers would minimize uncertainty, turn bad cards into winners, and keep stakes to play another day. We can learn from those legends (and from Kenny Rogers’ *The Gambler*) by listening to their advice instead of just staring out the window at the darkness.

■ Learn To Play It Right.

Gamblers who survived, learned every day, in every way. They watched other players, listened to advice, and learned which aces to keep. They watched rules change and found new games. Like them, we must learn by listening to experienced managers, paying attention to rules changes and new “games,” updating our education, reading articles, and attending conferences. We learn, so we have more aces to play.

■ Know When To Hold EM.

The wise gamblers kept cards they knew could win or support a successful bluff. To make decisions on the spur of the moment, they knew the importance of each card and the part it played in a hand. They drew on a lifetime’s experience of what to hold and when. Likewise, emergency managers need to hold “cards” of preparedness, response, recovery and mitigation, and use their training, exercising and disaster experience to play those “cards” when time and circumstances require.

■ Know When To Fold EM.

Gamblers could afford to fold and wait for a new game. Emergency managers can’t. We play for our public. Quitting costs lives and property, not just the “pot” – high stakes indeed! Win, lose or draw, we have to play, but...

■ Know When To Walk

Away. Whether before your city council or facing oncoming flood waters, there is a time to stand pat and a time to leave the table. Learn those times. No matter how much financing your program needs, when the community is in dire fiscal straits, you may need to choose your battles and continue the “game” later. Likewise, when water is heading downstream, even for enthusiastic sandbaggers there comes a time to surrender gracefully, fall back, and start another “hand.”

■ Know When To Run.

No matter how well-mannered the game, sometimes circumstances dictated it is time to run. In a profession named “emergency,” we sometimes need to drop our “hand,” push back the chair and - run. When we do, we live to “play” another day. Sometimes emergency services heroes must lose their lives saving others, but heroes who survive, live to save again.

■ Know What To Throw

Away, Know What to Keep. We have little choice in the “cards” dealt, but knowing what to throw away and what to keep is just as important in emergency management as in gambling. Plans become stale. Just because a plan has been on the shelves for years is no reason to keep it in your “hand.” “Cards” that looked good when drawn, may not remain as useful as the “hand” progresses. We must discard to draw, so don’t be afraid of a new plan that better meets what’s now on the table. Know what to get rid of, what to keep, and when it’s time to “raise” by getting new support.

■ Every Hand’s A Loser And Every Hand’s A Winner. A good gambler knows that even the worst hand can prevail if they convince the other players it is a winner, and even the best hand won’t win if they fold. When the public sees

resignation and dejection in their leaders, they may simply assume a losing “hand.”

Show confidence even when the cards aren’t the best. Smart emergency managers, like gamblers, know positive results can come from even the worst situations, if they apply knowledge and experience and never give up. The public will welcome and support emergency services, if they see staff who believe in what they are doing. Almost any adverse circumstance can be overcome.

Aces You Can Keep

■ Keep education and experience fresh, and listen to advice.

■ Know your “cards” well – the tools of emergency management.

■ Know what to accept, what to challenge, and when.

■ Never give up on the “game,” even if you lose a hand or two.

■ The public who “staked” you needs you to win for them.

■ Be ready to bend when needed.

■ Keep your “cards” fresh, and the “pot” met – revisit planning.

■ Turn losing “hands” into winners with positive attitude.

Remember, you are not playing for chips, but for people’s lives!



Learn how you can
become a CEM® or AEM
candidate at
www.iaem.com/CEM

Assistive Technology Reuse and Its Role in Recovery: Additional Community-Based Assets for Emergency Managers

By Elizabeth A. Davis, JD, EdM, Executive Director, EAD & Associates, LLC,
Founding Board Member, EPI Global, and Chair, IAEM-USA Special Needs Caucus

In our ongoing effort to identify, understand and best utilize needed assets in our communities for those impacted by disaster, there exists a national network to be tapped into and brought to the table formally by all emergency managers.

Under the Assistive Technology Act, the Rehabilitation Services Administration – a component of the U.S. Department of Education’s Office of Special Education and Rehabilitative Services (OSERS) – funds a statewide AT program in each of the 50 states and six territories, and the majority of these programs support AT device reuse activities.

For many people with disabilities, assistive technology (AT) is an essential support to daily living. A person may depend on a wheelchair, walker, special computer keyboard, speech generating device or other AT device at home, school or work. AT is a broad descriptor for anything from low tech (such as a transfer board on which a person can slide from a wheelchair into the backseat of a car) to high tech equipment (such as speech reader software) and everything in between.

Reuse Increases Availability

Reuse of AT is emerging as one of the ways to make AT more available. To the extent that AT reuse is practiced today, it’s generally done through device exchange programs, device recycling programs or device refurbishment programs. Hundreds of organizations around the country, large and small, are involved in AT reuse. From state agencies to nonprofits, hospitals and churches, there are AT reuse programs in all parts of the country meeting all kinds of needs.

Until recently there was weak coordination of and among these programs to ensure an efficient and effective system for getting used AT into the hands of those who need it. However, with the realization in the past few years of the hugely important role AT can play, especially during the recovery phase in disaster, this is changing.

The reality is that with proper identification of immediate need for access to AT post disaster and a proper match to available AT, those impacted by disaster can more quickly regain independence. Providing AT for someone in the immediate aftermath of a disaster serves as a “quick fix” until proper evaluation, fitting and customization for a permanent solution can take place.

Three Levels to View AT in the Emergency Life Cycle

■ **Individual Level.** If people who use AT on a regular basis actually incorporate their AT into their pre-disaster *planning*, the recovery process is greatly improved. This can be as simple as keeping a record of equipment make, model, funding program, and other important documents in the event that their AT is damaged, destroyed or lost during a disaster.

■ **Provider/Nexus of Care Level.** Any practitioners, caregivers and case managers in contact with people using AT can advise on the importance of taking necessary preparedness steps. Also, professionals can learn how to identify ways to utilize AT in unconventional ways during disaster *response* until appropriate solutions can be put back in place. This might mean learning how to switch a power chair into manual use mode or realizing that, with Velcro attached to utensils, persons

can independently feed themselves in a shelter. A picture communication board or chart using pictorals can assist in communication until power sourced technology is restored. Any care professional can become involved at this level. In fact, many of these professionals actually have added disaster preparedness to their code of ethics and/or description of professional responsibilities.

■ **Systems/Network Level.** Emergency managers should reach out to the local AT network to find matches of AT in the existing reuse programs that can be redirected for needed matches during the first phases of *recovery* post-disaster. It is the AT network that is best suited not only to help with those matches but also to logistically coordinate the quality review before materials are brought in to be sure it will not cause further harm and is appropriate for immediate reuse.

Conclusion

Because AT reuse is already a supported mission of the AT system, it is a perfect example of bringing assets to the recovery table that may not have been thought of as disaster-specific under usual circumstances. Once aware of AT, emergency managers realize we are already engaged across these lines of care providers and are in a unique position to tie all the skills and needs together to benefit a disaster survivor.

Learn More

For further consideration, an AT/EM blog, and to find the center in your area, visit the Pass It On Center website at www.passitoncenter.org.

Cards on the Table: Queensland Floods Commission of Inquiry Interim Report

By Darryl J. Dixon, IAEM International Council Member, New South Wales, Australia

The devastating and fatal floods of Queensland, Australia in December 2010 and January 2011 were a tragic and humbling reminder of the impact of a natural disaster. It is not surprising that questions are being asked about how such a disaster could occur and what actions can be taken to prevent a flood that saw parts of the Brisbane CBD and surrounding suburbs inundated in water and flash flooding in Toowoomba and the Lockyer Valley after a torrential 160 millimetres (6.3 inches) fell over a 24-hour period.

The resulting decimation included more than 70% of the state being declared a disaster zone (a size equivalent to the State of Texas), with 2.5 million people affected, 35 persons dying, and another three still listed as missing. An estimated 29,000 homes and businesses have been reported as suffering from flood damage, with the 9,170 km of Queensland's state road network affected and a reconstruction cost estimated to be \$5.8 billion (\$AUD)¹.

Purpose of Queensland Flood Commission of Inquiry

As a result, Premier Anna Bligh established the Queensland Flood Commission of Inquiry² appointing as Commissioner the Honourable Justice Catherine Holmes, along with Deputy Commissioners Jim O'Sullivan and Phillip Cummins to report in an open and independent manner on a range of issues including:

- The preparation and planning by federal, state and local governments, emergency services, and the community for the 2010-2011 floods in Queensland.

- All aspects of the response to the 2010-2011 flood events, particularly measures taken to inform the community and measures to protect life and private and public property, including immediate management, response and recovery, resourcing, overall coordination and deployment of personnel and equipment, adequacy of equipment and communications systems, and the adequacy of the community's response.

To ensure that the public, professional associations, private corporations and government agencies were adequately heard and represented, the Commission received a total of 706 submissions, held 12 days of community hearings in flood-affected areas, and held 18 days of formal hearings in Brisbane. In what is an Australian first for a Commission of this nature, many of the hearing days were "live streamed" via the Commission website.³

Recommendations in Commission's Interim Report

On Aug. 1, 2011, the Commission released its "Interim Report,"⁴ listing 104 recommendations, 67 of those in the area of emergency response. Many of these are a timely reminder to all emergency managers to ensure that their playing cards are in order and that they have the best hand available.

Some of the recommendations include:

- Adopt uniform disaster management software (Recommendation 5.2).
- Increase the number of swift water technicians (5.11).
- Ensure adequate communications systems (5.20, 5.21).
- Have adequate knowledge of additional equipment and how to obtain it (5.27).
- Identify deficiencies of the State Emergency Service to respond effectively to floods (5.32).
- Create a single point of tasking for all emergency helicopters (5.36).
- Identify residents who require assistance to evacuate (5.62 – 5.68).
- Ensure emergency information is available in different languages and in AUSLAN⁵ (5.69).
- Develop plans for evacuating, transporting and sheltering pets (5.71, 5.72).
- Create evacuation sub-plans (5.39-5.42).
- Coordinate with interstate counterparts (5.79).

The above recommendations are considerably less time-consuming and costly, so could be implemented before the next flood season. Others mentioned in the interim report may take several years before they are operational and effectively able to prevent or respond to another flood crisis.

Conclusion

Many of the recommendations made by the Flood Commission can be utilised outside of flood planning and integrated for any emergency – including establishing a standard communications, command and coordination system and ensuring that residents who

(continued on page 7)

¹ Queensland Reconstruction Authority, Monthly Report, March 2011. <http://www.qldreconstruction.org.au/ulib/Scale-Of-Impact-QRA-CEO-Mar-2011.pdf>

² Pursuant to the Commissions of Inquiry Act 1950.

³ <http://www.floodcommission.qld.gov.au/hearings>.

⁴ <http://www.floodcommission.qld.gov.au/publications/interim-report>.

⁵ AUSLAN is the Australian Sign Language: www.auslan.org.au.

The Challenge Is High

By Valerie Lucus-McEwen, CEM, CBCP, Instructor, California State University, Long Beach¹

“The challenge is high. The stakes are important. I think it’s manageable.” – William Hedgcock Webster (2002), former head of the FBI and the CIA and current chair of the White House Homeland Security Advisory Council

The 10th anniversary of 9/11 is a time to reflect on many things. There have certainly been profound changes in our beliefs, our behavior, and how we understand the world around us.

Historically, military disasters in the United States have forced change in our culture. Pearl Harbor broke the complacency of the American military in 1941. The Cold War enhanced our drive toward science and technology (remember Sputnik?), while Vietnam brought impressive medical advances in trauma care.

The horrific events on 9/11 also changed our culture, especially in the field of disaster management. It reinforced the need for a unified response and an organized and integrated profession to predict and prepare for disasters.

Unsurprisingly, the initial reactions to 9/11 were those that emphasized military solutions. The Department of Homeland Security was created to break down

information-gathering silos, and when it swallowed up FEMA, it pushed the concept of all-hazard disaster management to the back burner.

Meanwhile, emergency management – having developed higher education degrees, certifications, standards and associations that championed collaboration among different disciplines – struggled to keep an identity.

Until Katrina. When the enormity of that disaster became apparent, the balance began to shift. Katrina was followed by (among others) the Gulf Oil Spill, the Spring 2011 Tornadoes, wildfires, blizzards, and even more hurricanes. Disasters are happening with increasing frequency – manmade and natural – and they require a team approach to manage them.

Today, emergency management is stronger than it has ever been. It is a profession that is increasingly recognized by the public as the bridge between response and recovery. It is, indeed, the consequence management side of disasters.

The Challenge for Emergency Managers Post-9/11

The challenge for emergency managers is that 9/11 generated a

culture-changing response to planning for all kinds of disasters. The ensuing fallout elevated the status of the emergency management profession and the public perception of what it can do

To meet those perceptions, emergency managers will have to rise to an even more professional level, broaden their horizons, and get more education and training in areas they might not have considered before. We have a new field of disaster study; homeland security has elements of emergency management, but also the more traditional intelligence-oriented areas of information gathering, technology and analysis.

Conclusion

If we can’t meet public perceptions, what is at stake is community resilience. We want to inspire a society in which people are mindful of the world around them, and resistant to the damage and chaos that a disaster creates.

Can we do that? I’m an optimist. I think it’s manageable.

Queensland Floods

(continued from page 6)

need assistance and animals are considered – will result in potentially less confusion, casualties and cost.

The Queensland Floods Commission of Inquiry was due to commence the second round of its hearings on Sept. 19, with the handing down of the final report scheduled for Feb. 24, 2012.

Whilst not all disasters and emergencies are afforded a “Commission of Inquiry,” the only way to objectively learn lessons and be better prepared is to have all the cards on the table.

¹ Valerie Lucus-McEwen, CEM, CBCP, recently retired as the Emergency/Continuity Manager at UC Davis. She writes a blog – “Disaster Academia” – for *Emergency Management Magazine* at www.emergencymgmt.com/emergency-blogs/campus.



JOIN IAEM
Learn about the
benefits of IAEM
membership and join
online at ww.iaem.com

A Royal Flush: Stacking the Deck for Success in EM

By Carol L. Cwiak, J.D., Ph.D., North Dakota State University, Fargo, North Dakota

The stakes have always been high in emergency management. As a field whose focus is on reducing vulnerability and fostering resilience in communities with the intent of keeping people and property safe, emergency management has consistently been of critical importance. Unfortunately, as apprised as those in the field are of the criticality of their work, the level of understanding of what emergency management is, why it matters and the role it plays in overall societal function has often been lacking in both the general population and the legislative community. This lack of understanding has set emergency management efforts back and has increased awareness amongst the emergency management community that some of the most important work to be done moving forward is in fortifying the field, moving forward with professionalization efforts, and building a discipline.

Fortifying Emergency Management

There have been many powerful efforts in recent years from professional organizations, the higher education community and key stakeholder groups that have helped to clarify and solidify the identity of emergency management. These efforts have increasingly been coupled with educational campaigns and dialogues with partners, legislators and the public to better elucidate emergency management's identity, key directives, and where it fits in the day-to-day operations of government, business, critical infrastructure facilities, schools and households. Examples of such efforts are: widespread adoption of the *Principles of Emergency Management* across jurisdictions, sectors, and countries;

acknowledgement of the value of higher education degrees in professional certification criteria; and the use of benchmarks created and endorsed by the emergency management community to better advance emergency management agendas (*A Principled Approach to Return on Investment* and *Curriculum Outcomes*).

Professionalization Efforts

The process involved in becoming a profession is one fraught with introspection and debate. It requires levels of consensus and collaboration that often transcend organizational structures, jurisdictional frameworks, varying job descriptions, and the laws of countries. It is a long and laborious process that is rarely advanced without some notable setbacks. Emergency management has been moving forward toward the goal of becoming a profession over the past decade or so with varying success.

A true profession has the ability to clearly identify and control its sphere of expertise and knowledge, control entry into the profession and self-govern. While emergency management has made a number of beginning efforts to move toward some of these notable benchmarks, focus has been lost when leaders in the field have had to divert their energy toward addressing poorly informed policy or knee-jerk legislative responses. It is crucial that forward movement in these areas continue unabated as it is only with said forward movement that emergency management can acquire and maintain the requisite power necessary to adequately inform policy and practice, and to stop ill-informed legislative agendas that disrupt or derail effective practice.

Emergency management has been fortunate in that its initial roots that took hold in social

science research have been fruitful in helping it create a broad academic identity that has fostered growth in higher education. Yet as emergency management has deepened its roots in higher education and recognized the role of academic degrees in the professionalization process, the need for a discipline that utilizes specific paradigms to understand and investigate the issues that face the field has become glaringly apparent. A discipline allows for both an ongoing examination of an academic field's body of knowledge and a framework by which additional contributions can be made.

Fostering a Discipline

To foster a discipline, the development of emergency management scholars is essential. These scholars must be well-versed in the existing literature, aware of the current issues that face emergency management, possess sound research skills, and have a clear appreciation of the importance of their role in helping define, support and clarify the policy and practice of emergency management.

The usage of research paradigms specific to emergency management and ongoing contributions to the body of knowledge by scholars has become increasingly important to emergency management's ability to legitimately speak to the why and how of specific activities that are deemed critical to effective emergency management. A dedicated effort must be made to support and elevate scholarly thought and contributions in emergency management via the support of rigorous graduate level education and high level research standards. Without such an effort, professionalization efforts will stall

(continued on page 16)

Planning for Protests: Lessons Learned from the 2010 G20 Summit

By Suzanne Bernier, CEM, CBCP, Manager, Emergency Management, Toronto Hydro-Electric System Ltd.

The most recent protest activities in London have highlighted once again the need for communities and organizations to plan in advance for large-scale protests. As we've seen in recent months, violent protests have been escalating across the globe, whether they're politically-motivated or otherwise, affecting the safety and security of not only peaceful protesters in attendance, but also the general public.

Partnerships Contributed to Planning and Preparedness

While it may be impossible to forecast or prevent such protests from occurring in your community, it's still possible to plan for and mitigate against potential protests and associated disruptions. When the City of Toronto first found out it would be hosting the 2010 G20 Global Summit in its downtown core, both the city and key critical infrastructure entities started planning well in advance of the largest security event ever to be held in Canada.

As the sole power distribution company providing power to the entire City of Toronto, Toronto Hydro-Electric System Limited ("Toronto Hydro") developed a detailed mitigation and response plan in advance of the G20, to help ensure uninterrupted power distribution to the city's downtown core (where the dignitaries were staying and where the summit was being held) throughout the entire summit period.

Unlike other recent protests we've seen erupt and escalate without notice, we were fortunate to have approximately four months' lead time to plan in advance. While we didn't know whether or not disruptive and potentially violent protests would actually occur, we knew it was something we had to consider and plan for.

As a result, the Emergency Management Unit was tasked with leading and coordinating all of Toronto Hydro's G20 planning activities.

Planning Before the Event

The first thing we did was create a G20 Planning Team, composed of members representing key areas from across the organization and chaired by the Manager of Emergency Management. The team met bi-weekly for three months, then weekly during the month leading up to the G20 Summit.

Some of our key considerations when developing mitigation plans included: possible vandalism to our critical sites; increased congestion in and around the G20 secure perimeters; and possible violent protest activity impacting our critical infrastructure and employees. Some of our mitigation activities included: performing a detailed risk assessment, identifying our critical infrastructure, performing preventative maintenance and inspection activities, and testing back-up capabilities.

Throughout the planning period, we met regularly with key external partners, including the City of Toronto's Office of Emergency Management, Toronto Police Services, the G20 Integrated Security Unit, as well as the provincial and federal governments. In addition, we participated in a joint G20 Exercise/Workshop to familiarize all players with each other and with the various communications protocols and processes involved.

On the afternoon of the first day of the G20 Summit (Saturday, June 27, 2010), organized protests went from peaceful to violent in a matter of minutes. In the end, more than 1,000 people were arrested during the G20 weekend.

Key Recommendations

Based on our G20 experience, here are some key recommendations when planning for potential protests:

- Plan for the worst, and scale back if needed.

- Ensure evacuation plans and procedures are thoroughly reviewed and communicated to staff in advance of similar events.

- Plan for issues/incidents that may occur well outside of identified "security zones."

- Hold detailed training sessions for all staff involved, explaining roles and responsibilities, reporting structures, the communications process and overall expectations.

- Hold internal exercises and workshops in advance.

- Participate in joint exercises/workshops with external partners.

- Research and talk to similar entities who've experienced large-scale protests and who are willing to share their experiences, plans and lessons learned.

- Cease all disaster recovery tests and exercises as well as any major IT work at least two weeks prior to the event.

- Hold a post-event debrief with all key players as soon as possible.

- As part of the recovery process, don't forget to thank all staff involved!

Conclusion

Overall, Toronto Hydro's G20 planning and response efforts were a success, despite the many unexpected challenges faced throughout the Summit weekend. It was also a great way for us to test, validate and enhance our current emergency plans and procedures so that we can better respond to similar events in the future.

Avoiding Strategic Surprise: Understanding Future EM Needs

By David J. Kaufman, Director, Office of Policy and Program Analysis,
Federal Emergency Management Agency, U.S. Department of Homeland Security

The world is changing in profound ways. These changes will significantly alter how emergency managers do their jobs in the future and will require the emergency management community to think and act more creatively and collaboratively. For example, shifting U.S. demographics and the rate of technological innovation will challenge the way emergency managers plan and communicate with the public.

Constraints on spending at all levels – federal, state, local, tribal and territorial – is forcing and will continue to force managers to rethink what activities they can afford to do, and how to better leverage traditional and new partners and approaches to accomplish these activities. At the same time, more frequent and more intense storms will present operational challenges and complexities. Any of these issues alone would challenge some emergency management policies and procedures. In combination, these and other disruptive forces of change will dramatically test the future readiness of the emergency management system as it exists today.

The Strategic Foresight Initiative (SFI), launched in 2009 by FEMA's Office of Policy and Program Analysis (OPPA), is a transformative effort to understand the factors driving change in our world and how they could impact the emergency management field over a 10-20-30 year horizon. Thinking more broadly, rigorously and over a longer time frame will help emergency managers:

- Avoid strategic surprises.
- Promote information sharing across disciplines and organizations.
- Understand what changes could affect emergency management.

- Plan more effectively for the future emergency management environment.

At the IAEM-USA Annual Conference, FEMA will lead a session detailing the SFI's findings to date. Join us as we reflect on insights, implications, possible courses of action, future research, and how emergency managers at all levels can play a central role in establishing a culture of futures thinking.

The Work of the Strategic Foresight Initiative

FEMA began the SFI by conducting research on possible shifts in the emergency management environment, leading to a focus on identifying the driving forces behind these changing conditions. In April 2010, FEMA held a "scoping workshop" with emergency managers, select subject matter experts, federal agency officials and members of the non-profit and private sectors, during which participants began identifying the drivers of change that could have the greatest future impact on emergency management. The drivers identified were:

- The changing role of the individual.
- Climate change.
- Critical infrastructure.
- Evolving terrorist threats.
- Global interdependencies and globalization.
- Government budgets.
- Technology innovation and dependency.
- Universal access to and use of information.
- U.S. demographic shifts.

Research briefs, focus group discussions, conference calls, online forums and workshops reached more than 500 stakeholders who further explored these drivers and their potential emergency management implications.

SFI explored the possible implications of the interactions of these drivers using a range of plausible future operating conditions, to examine their consequences for emergency management, and to help guide policy and actions. In a July 2011 workshop, a diverse group of SFI stakeholders immersed themselves in "scenario worlds" to discover what opportunities and challenges those worlds presented the emergency management community. The workshop produced a list of robust strategic needs participants believed should actively inform today's emergency management agenda.

FEMA is sharing this list of strategic needs in an SFI annual report to be completed by the end of 2011 and through a series of presentations in national and international settings this fall – including this IAEM conference – to stimulate further discussion and promote the consideration of these needs in strategic planning across the community.

SFI will continue to engage the broader emergency management community online and in person, conduct research, explore policy and planning options, and build mechanisms for measuring the SFI's success. Emergency managers at all levels can play a central role in the SFI by sharing knowledge about future changes and risks, identifying strategic needs, and incorporating the SFI's insights into our partners' agendas.

Learn More

FEMA's Office of Policy and Program Analysis is coordinating the SFI. To learn more about SFI, please visit: https://www.fema.gov/about/programs/oppa/strategic_foresight_initiative.shtm. E-mail questions or comments to FEMA-OPPA-SFI@fema.gov.

The Local Emergency Manager: Community Warrior

By James Acosta, Emergency Services Coordinator,
California Emergency Management Agency, Orange County, California

1 530 Hours, Sept. 8, 2011: The lights go out countywide. You know it's true because your computer screen just went blank – and the clock starts ticking. As the emergency manager for a city, county, special district, hospital, major corporation or military base, you know that the phone will soon ring – and you'd better be prepared.

And you will be...because you are a warrior – not in the sense of a Marine storming ashore at Iwo Jima, but in the common definition of a warrior as one who is engaged aggressively or energetically in an activity, cause or conflict. We are surrounded in our lives every day by warriors:

- The public safety dispatcher who talks a teenager through how to perform CPR on her stricken grandpa;
- The chaplain who helps a new sheriff's deputy deliver a death notification at 3:00 a.m.; and
- The Red Cross volunteer who comforts a family that has lost everything in a fire.

Determination, purpose, resolve, commitment and faith can drive ordinary people to do extraordinary things.

The Unique Position of Emergency Managers

Emergency managers hold unique positions within their organizations. Usually they are just another staff person in normal circumstances, but they are never far away from the phone booth where they turn from mild-mannered to super-powered. Their knowledge, their connections forged through endless planning meetings, and their skills in accomplishing tasks are just what is needed when the lights go out – or when the earth trembles – or when the skies erupt. As Steve Martin famously joked, "All heads

turned..." And they're looking at you.

The U.S. Army teaches soldiers the Warrior Ethos:

- I will always place the mission first.
- I will never accept defeat.
- I will never quit.
- I will never leave a fallen comrade.

How is that different than your personal commitment to your job as an emergency manager?

California Prepares

In California, we live with the constant threat of a sudden, devastating enemy: earthquakes. In fact, according to the U.S. Geological Survey (USGS), the state stands a fair chance of experiencing a catastrophic earthquake before I retire. In 2008, the Pasadena-based Multi-Hazard Demonstration Project of the USGS issued what came to be known as the "ShakeOut" earthquake scenario, a magnitude 7.8 quake on the southern portion of the San Andreas Fault. Stretching from the Salton Sea in Imperial County, up through the Inland Empire counties of Riverside and San Bernardino, the fault continues through Los Angeles

County up the coast past San Francisco to Northern California.

The ShakeOut scenario was deeply researched by subject matter experts ranging from geologists to sociologists, fire chiefs to captains of industry, economists and professional engineers – and hundreds of emergency management practitioners. Their conclusions were truly scary:

- Approximately 2,000 deaths;
- More than 50,000 injuries;
- 1,600 structure fires, of which 1,200 are beyond the capabilities of the first-responding fire engine; and
- \$200 billion in damage.

For many of us who exercised this scenario in California's Golden Guardian Exercise in November,

(continued on page 16)



Emergency Communications & Operations Center
Hernando County, Florida

National Experts in Planning, Funding, and Designing Emergency Operations Centers

- Funding Strategies
- Grant Writing
- Spatial Needs Analysis
- Site Planning
- Master Planning
- Facility Hardening
- Architectural Design
- Construction Administration

Visit us at the 2011 IAEM Conference in
Las Vegas, Booth #543

Architects Design Group

www.adgusa.org • 407.647.1706

AAC001197

Emergency Management Decision-Making Under Pressure

By Meredith Beers, MPH, Ph.D. Student, Tulane University School of Public Health and Tropical Medicine, Department of Global Environmental Health Sciences

In an emergency situation, the emergency manager is the person everyone turns to for guidance, so the pressure is on the emergency manager to make the best decision, sometimes with a limited amount of information. In today's world of news media, social media and smart phones, every move is seen and tweeted and captured on camera and sent out for the world to watch and judge. This adds to the pressure that emergency managers face during emergencies.

Emergency managers now have to work in what feels like a goldfish bowl, knowing that every decision is subject to real-time criticism from persons not involved in the situation. How can emergency managers learn how to make the best decisions in the high-pressure, critical moments?

Lessons Learned from an Internship Project

While interning this summer at the Smithsonian Institution National Zoological Park, my internship project was to update the National Zoo's Emergency Response Guide (ERG). As I worked on the ERG, I kept thinking about how planning is essential to a smooth response.

At the end of my internship, we ran a Major Accident Response Exercise (MARE) to test the ERG and see if people knew their roles

and responsibilities. The MARE did its job: it highlighted the strengths and exposed the weaknesses of the ERG.

This exercise showed zoo leadership the areas that needed improvement, so that in the event of an actual emergency, the decision-making process and response would be muscle memory instead of a first run. The MARE also taught me that while planning is essential, exercises are critical.

In any emergency, whether you are in charge of a zoo, an airport, a school or a city, the pressure is on to make sure that in the critical moments you and your staff know what to do and how to do it. What I learned is that exercises are critical because they are the best way to practice roles and responsibilities as well as decision-making.

A few weeks after I returned home to New Orleans, my boss at the National Zoo e-mailed me to tell me about the emergency situation they had just been in: the Aug. 23 5.8-magnitude earthquake. Everything went well, and everyone was fine. However, as they were still debriefing from the earthquake, they were starting to ready the zoo for Hurricane Irene.

While I lamented not being there to help ready the zoo for the approaching storm, I knew that the lessons observed during the MARE and then later in the response to the earthquake were

now lessons learned. My boss told me about the changes they were implementing based on the MARE as well as on the earthquake. This made me think about the difference between lessons learned and lessons observed.

Lessons Observed Aren't Always Lessons Learned

In the aftermath of disasters, as hot washes and debriefings are being conducted, lessons learned are being recorded. However, how frequently are these lessons being applied? How often are plans changed and exercises run to practice the new method?

More often than not, I think that we observe lessons but we do not learn them, as frequently the same mistakes are made over and over. A lesson cannot be called "learned" until we change our practices. The best ways to ensure that a change has been made and the lessons are really learned is to:

- Update your plan.
- Teach your plan.
- Practice your plan.

Conclusion

We are all at risk of being in an emergency situation. In these situations, the pressure is high and smart decisions need to be made. With practice through exercises, emergency managers will learn how to quickly make the best decisions in high-pressure situations. With practice, lessons observed can also be turned into lessons learned.

When a real emergency situation is upon you, if you and your team have done exercises and practiced your emergency plan, everyone will know their roles and responsibilities – and decision-making in the high-pressure situation will be second nature.

Reports of Interest

The U.S. Government Accountability Office (GAO) on Sept. 7, 2011, released the following reports:

■ "Department of Homeland Security: Progress Made and Work Remaining in Implementing Homeland Security Missions 10 Years after 9/11," GAO-11-881. The full report can be downloaded at www.gao.gov/products/GAO-11-881, with highlights available at www.gao.gov/highlights/d11881high.pdf. See the related podcast at www.gao.gov/podcast/watchdog_episode_71.html.

■ "Hurricanes Katrina and Rita: Temporary Emergency Impact Aid Provided Education Support for Displaced Students," GAO-11-839. Download the report at www.gao.gov/products/GAO-11-839.



IMPROVING EMERGENCY MANAGEMENT AND STRENGTHENING HOMELAND SECURITY



IBM and the IBM logo are registered trademarks of International Business Machines Corporation in the United States and/or other countries. Other company products and service names may be trademarks or service marks of others. ©2011 IBM Corporation. All rights reserved.

IBM helps the governments solve their toughest challenges through innovative insights, deep client knowledge, and proven solutions to make organizations more responsive and flexible. IBM Global Business Services (GBS) drives value for clients through analytics and optimization, critical IT support, geospatial integration, business transformation, logistics expertise, human capital management, and Agile system development.

For more information, visit ibm.com/federal

The Nationwide SAR Initiative: Stopping Terrorism While Protecting Civil Liberties

By Stephen G. King, Division Director at the U.S. Department of Homeland Security, currently on special assignment to the U.S. Department of Justice for the multi-agency Nationwide SAR Initiative

The hundreds of terrorist incidents that have occurred in the United States remind us that threats from violent extremists can lead to deadly consequences that strike our communities and our families. The U.S. Department of Justice is no stranger to the dangers violent extremists pose to our American way of life. This department has been working for decades to bring to justice violent extremists like Oklahoma City bomber Timothy McVeigh, Unabomber Ted Kaczynski, and leaders of the Al Qaeda terrorist network who have crossed the line to espouse their radical views.

Behavior Is Important, Not Appearances

It is against this backdrop that history also reminds us that government agencies across the country must guard themselves against the mistake of painting all those who appear similar to any one of these radicals with the same broad brush. Whether it is Japanese internment camps at the beginning of World War II or a backlash against Muslims following Al Qaeda's attacks on Sept. 11, 2001, our nation's history has too often recorded retaliatory profiling

of entire groups of people. Worst of all, these unjust approaches simply do not work. We must focus on behaviors, not people's appearances.

One of the leading programs for preventing terrorism – the Nationwide Suspicious Activity Reporting (SAR) Initiative – helps public safety officials, including law enforcement, fire/rescue, EMS, and emergency managers, identify those behaviors that are potentially indicative of terrorist activity. This training helps public safety officials to more effectively identify terrorist activity by focusing on 16 behaviors that may have a potential nexus to terrorism. What is determined to be suspicious is based on behaviors that have actually been used by extremists to prepare for past terrorist attacks.

This initiative is behavior-based and does not focus on race, ethnicity, religion, or any of the other unhelpful identifiers that have caused mistrust between communities and their government officials in the past. A recent academic report examined 25 recent disrupted terrorist plots and determined that “80% of the initial clues in these cases came from properly observing, reporting, and acting on unusual behaviors.” The report continues to say that “These clues then triggered investigations that led to the unraveling of the various plots.”¹

Collaboration Among Partners Is Critical

Seventy-two federally recognized state and local fusion centers serve as focal points within the state and local environment for the receipt, analysis, gathering and sharing of threat-related information between the federal government and state, local, tribal, territorial and private sector

partners. The Departments of Justice and Homeland Security have worked hard to ensure that all 72 fusion centers have robust privacy protection policies in place and are gathering tips, leads and SARs from local agencies and the public in a manner consistent with the balanced approach.

With all of the innovative prevention and protection efforts occurring at these fusion centers, emergency managers have an opportunity to collaborate with and leverage fusion centers' efforts, especially during the preparedness phase of emergency management. If you are not able to attend the Nationwide SAR Initiative presentation at this year's IAEM-USA Annual Conference, you can learn more about the Nationwide SAR Initiative at <http://nsi.ncirc.gov>. Please consider how you can collaborate with your nearest fusion center to address your community's most important preparedness challenges.

Conclusion

The Nationwide SAR Initiative is proof that we can aggressively protect communities from terrorist acts while protecting individual privacy, civil rights and civil liberties. This national partnership effort works by connecting local law enforcement agencies with the communities they are sworn to protect, while following nationwide guidance designed to protect individual liberties. We can, and must, balance anti-terrorism efforts with equally strong privacy, civil rights and civil liberty protection at all levels of government.

Advertise in the IAEM Bulletin

Reach IAEM members with your company's services and products in a cost-effective way with *IAEM Bulletin* advertising. The *IAEM Bulletin* is distributed monthly to 5,000+ IAEM members worldwide. Download the *IAEM Bulletin* Advertising Guidelines at www.iaem.com/Bulletin.

¹ Institute for Homeland Security Solutions, Building on Clues: Methods to Help State and Local Law Enforcement Detect and Characterize Terrorist Activity, May 2009.

U.S. Army Garrisons and Emergency Management

By Tom Williams, Deputy Team Leader, Team A, Installation Force Protection Exercises (IFPEX)

For the past five years, a force protection exercise team, consisting of two dozen highly skilled professionals, introduced U.S. Army garrisons to the world of NIMS, ICS, NRF, HSEEP and the host of other acronyms utilized in the world of emergency management. The program, however, was much more than a study in terminology. It provided Army installations and the civilians who run them with a solid foundation upon which to prevent, protect, respond, recover and mitigate the effects of natural and man-made disasters.

Who Manages and Runs Army Posts? You Might Be Surprised

The general consensus is that Army posts are operated by soldiers – that belief is no longer true. Today, most Army garrisons are commanded by an Army officer, but are managed and operated by a civilian work force. In fact, many duties of on-post personnel parallel those of towns and cities. The garrison commander has responsibilities similar to those of a city mayor or city manager.

The plans, analysis and integration office could be the city planning commission. A director of public works maintains the buildings, roads and utilities of the installation. There is a human resource and civilian personnel office. A network enterprise command person is the information technology expert. The garrison's public affairs office accomplishes the same activities as a public information office in civilian communities. Military police have been augmented with Army civilian law enforcement officers. Children attend on-post schools often operated by the local civilian community's school district. Plus, the Army has hired emergency managers for its garrisons.

Transformations from military-operated to civilian-run installations led to the logical next step: introduce Army garrisons to the world of emergency management. After all, disasters do not stop at fence lines or jurisdictional boundaries. And, as the Fort Hood, Texas, shooting and the tornado at Fort Leonard Wood, Missouri, showed, crises on military installations significantly impact local civilian communities as well.

In recent years, both the Department of Defense (DoD) and the Department of the Army (DA) distributed messages regarding the use of NIMS/ICS. DoD issued a directive called the *Installation Emergency Management Program*; DA followed suit with publication of Regulation 525-27, *Army Emergency Management Program*. Responding to DoD instructions, Installation Management Command (IMCOM), one organization responsible for Army garrisons, directed the adoption of the Homeland Security Exercise and Evaluation Program (HSEEP) as the training and exercise methodology for use by its garrisons.

Implementation of Emergency Management Guidance

The force protection exercise group assisted IMCOM installations with that transformation and implementation of DoD and DA emergency management guidance. It provided training at nearly 90 Army garrisons in the United States, Europe and Asia, learning through the process that: (a) on-post fire departments, in general, are fully engaged with the use of ICS/NIMS in concert with off-installation fire departments; (b) select countries in Europe and Asia have incorporated NIMS/ICS principles, or versions of them, consistent with their nation's laws; and (c) many Army garrisons

overseas and here at home are totally reliant on the local civilian community's police, fire and hospital services. The most common challenge encountered, due to these and other factors, involved internal garrison communications and those with the local community. The top of the list included Incident Command Post (ICP) to Emergency Operations Center (EOC) information exchange, coordination with off-post EOCs, and maintaining situational awareness.

During those five years, the team trained more than 10,000 garrison leaders managers, supervisors and employees responsible for more than 740,000 soldiers, family members and civilian workers. Seminars and exercises focused on EOC planning, procedures, staffing, organization, configuration, coordination, communications and equipment. The goals of the training included building a common operational picture, warning and notifying stakeholders, informing the public at large, and ensuring sound decision-making by leaders.

As a direct result of this force protection exercise program, EOCs were established on installations where previously there had been none. One post built a 911 Call Center and is the alternate communications center for its neighboring city, while a handful of installations purchased the necessary technologies to network to city, county and state emergency management offices. One garrison worked toward a mutual aid agreement with the local town so each EOC would serve as the other's backup should one be destroyed or rendered inoperable as a result of a disaster. These and countless other examples highlight the positive impact of the team members' efforts over the years.

(continued on page 16)

Stacking the Deck for Success in EM

(continued from page 8)

and emergency management's identity will be weakened.

Summary

Yes, the stakes are high for emergency management, both because of where we have been and because of where we know we must go. We must continue to push forward efforts that advance emergency management toward a recognized profession whose policy and practice is informed by a discipline that is nurtured and expanded by a robust research community.

Every member of the emergency management community has a role in this forward movement – be it by active contribution, advocacy or support of others' efforts. Without this movement, the emergency management community will never be fully empowered to fulfill its primary mission of reducing vulnerability and fostering resilience in communities with the intent of keeping people and property safe. We know what it takes to win this game, and we know how to stack the deck. We need to stay focused on our end goal so that we can be in better control of the outcome.

Emergency Manager: Community Warrior

(continued from page 11)

2008, it was a serious wake-up call; predictions of hundreds of square miles of devastated neighborhoods recalled experiences from the Hurricane Katrina response. It's a hell of a burden to foresee – and yet, the majority of my Southern California emergency management colleagues digested the worst that the ShakeOut could offer and said, "Bring it on!"

Example in Joplin

May 22 started out as just another day in Joplin, Missouri. And yet the day would be anything but another day for Keith Stammer, Jasper County Director of Emergency Management.

The morning after Joplin was devastated by a monster tornado, ABC News didn't interview the mayor; they didn't interview the

police or fire chief; they interviewed the county's emergency manager. And he did a great job explaining what had happened, as well as what Joplin needed and didn't need.

He spoke calmly and steadily, and gave the impression that the locals were down, but not out. Keith is a warrior; could you have served your community with an interview like this?

Conclusion

A professional is obligated to periodically assess their ability to successfully perform their job, and to make adjustments wherever needed. As emergency management warriors, we are obligated to be there for our co-workers, our community and our families; we must stay healthy in mind, body and spirit. We must not be a burden on others, but a resource; we must overcome the inevitable obstacles that disaster brings. We are the light that others will follow. We are warriors.

U.S. Army Garrisons and EM

(continued from page 15)

City, county and state emergency managers, first responders, health care professionals and hospital administrators, school principals and district superintendents may want to contact the

Army garrison in their city, county or state, ask for the emergency manager and learn what the Army garrison is accomplishing in the world of emergency management.



I WANT TO BECOME A MEMBER OF IAEM.

Individual Members: \$170 IAEM-USA, \$100 IAEM-Canada, \$83 IAEM-Oceania, \$80 IAEM-Europa, \$80 IAEM-Asia, \$50 other non-U.S. **Student Members:** \$30 **Affiliate Members:** \$795 **Join online today at www.iaem.com**
Or...mail this completed form with with your check to: IAEM, 201 Park Washington Court, Falls Church, VA 22046

Name _____ Title _____
 Organization _____ Recruited by _____
 Mailing Address _____
 City/state/zip _____
 Phone/fax _____ E-mail (if available) _____

I can't join now, but I would like to receive more information on the benefits of IAEM membership.

find the source identify the threat

NEW RadSeeker™
handheld radioisotope identifier

RadSeeker quickly and accurately detects, identifies and locates radioactive material including radioisotopes associated with a dirty bomb. RadSeeker gives responders the highest level of confidence by providing best-in-class results when assessing vehicles, people, or unidentified packages for gamma and neutron radioactivity.

RadSeeker features:

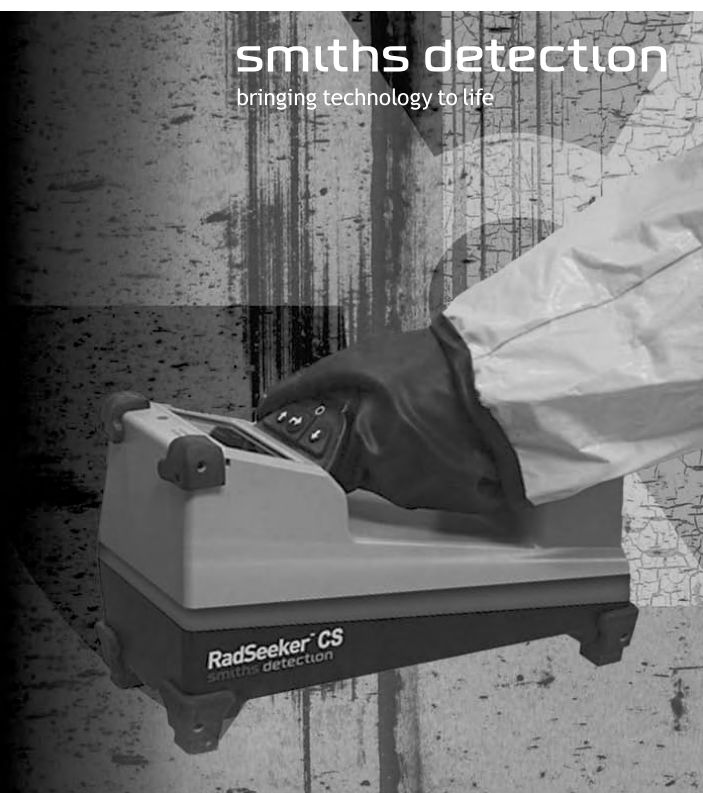
- Advanced algorithms for superior identification performance
- Automatic stabilization, no field calibration required
- Ruggedized ability to survive 3ft drop to concrete
- Provides a threat assessment for each isotope identified
- Detect mode assists with locating radioisotope placement

For more information:
call toll-free **1 888 473 6747**
or **1 203 207 9700**
email USA.info@smithsdetection.com

www.smithsdetection.com

RadSeeker is a trademark of Smiths Detection Group Ltd.

smiths detection
bringing technology to life



answers in 60 seconds

NEW HazMatID™ 360
Proven ruggedized FT-IR solid and liquid identifier with optimized data-handling gives you a 360 degree view of potential threats and faster decision-making capabilities.

New Features Include:

- Secure Bluetooth wireless communications
- Optimized mixture algorithms
- Larger standard libraries, up to 32,000+ spectra
- Chemical hazard classification tools
- Integrated PEAC® decision support software

For more information or to maximize the utility of your current HazMatID with a 360 upgrade:

For more information:
call toll-free **1 888 473 6747**
or **1 203 207 9700**
email USA.info@smithsdetection.com

www.smithsdetection.com

HazMatID is a trademark of Smiths Detection Group Ltd.

smiths detection
bringing technology to life



Visit us at
EMEX, Booth 320
Nov. 11-17, Las Vegas, NV

Assistive Technologies and Emergency Management

By Michael Tembrina, Lead Associate and Anne Rader, Associate, Booz Allen Hamilton

The 5.8 magnitude earthquake on Aug. 23, 2011, surprised people in the mid-Atlantic region of the United States. They immediately wondered whether they had actually experienced an earthquake and then considered their next steps:

- Should I stay in place or leave?
- Will I be able to get my car out of the underground garage?
- Is public transit safe to use?

Security managers prepare for just such events; some activated PA systems and provided instructions for employees, while others sent information via email or text messages. But did these communications take into account building occupants who are blind, deaf or hard of hearing? The U.S. labor force has 5.9 million people with a disability¹, and many have an impairment that limits their capacity to receive emergency communications. Assistive technologies are available to fill this gap.

Desktop Solutions

■ **E-mail.** Providing sufficient detail about an incident in an e-mail to ensure that recipients know what actions to take is often an operational challenge. Consider this message: “Protest in front of building, avoid area. Security on-scene.” Compare it to this more informative version: “Protest at the main entrance of our building. For your safety, use the North and East exits through the end of the day. If the situations changes, we will update you.” Regardless of the quality, e-mail alone will not reach sight-impaired staff unless it has an audio message attached, and these typically require an additional step for audible attachments to play,² which delays the notification process.

■ **Desktop notifiers.** Desktop-notifier applications run on workstations and display an intrusive pop-up message when an emergency occurs. They may have additional options that range from displaying a visible message with an audible tone, to forcing the user to acknowledge receipt before continuing work. Some even block access to the workstation until the emergency is over. Common to all are embedded multimedia messages. These enable sending an audible notification to sight-impaired staff via their workstation speakers or headphones, and recent improvements in intelligibility make this a viable option.

■ **Desktop telephones.** Voice mail systems can deliver messages to thousands of telephone mailboxes, but having to dial in for time-sensitive notifications is not practical. Advanced systems include an area paging option, whereby desktop telephones act as public address (PA) devices – a viable solution for emergency use.

■ **Text-to-speech synthesis.** The quality of text-to-speech synthesis has greatly improved. Emergency managers can now issue alerts in easy-to-understand formats. Two text-to-speech applications (VoiceForge®, Natural Voices®) process text into audio files. Text-to-speech also reaches those who are unable to interrupt what they are doing to read a notification.

Premises-Based Solutions

■ **Fire alarms and visible signage.** Fire alarms can visually signal via strobes and audibly signal via tones. Alarm systems can also include PA systems, which can be used to inform occupants of fire or other emergencies within a facility, provide

details about an event, or tell occupants to shelter-in-place when an external threat exists. These are not adequate for hearing-impaired occupants and should be complemented, for example, by visual messages displayed in public areas. Office buildings are often equipped with visual displays in lobbies that function as general message boards. Integrating these panels into the building’s mass notification system accommodates those with hearing impairments.

Mobile Solutions

■ **Text messaging.** Text messaging, or short message service (SMS) via phones, is a widely used, fast and reliable mode of emergency communication. Employers can add to distribution lists the e-mail address connected to a mobile telephone.

Further, manufacturers now embed accessibility functions in their mobile devices’ operating systems. BlackBerry™ settings allow users to modify their home screen, change page color and contrast, enlarge character size, or enable sounds for the sight impaired. The VoiceOver™ feature on Apple’s iOS devices (iPhone, iPad) allows users to control the device orally and provides audible information on what is displayed.

Other products (Oratio, Mobile Speak) cater specifically to blind people and fill in gaps exposed by the un-integrated mobile applications.

Conclusion

To respond to practical, ethical and legal obligations, employers must be attuned to the emergency communications needs of all their employees. The new assistive technologies provide innovative and cost-effective ways of meeting those needs. With many solutions leveraging open standards and protocols, integration across communications platforms is now efficient, easy and affordable.

¹ Source: U.S. Department of Labor

² It may seem counterintuitive to expect a sight-impaired employee to click on an attachment to listen to an audiofile. However, screen reader programs assist people with sight impairments to read e-mail and multimedia attachments.

Managing Expectations

By Arnel Capili, CEM, IAEM-Asia Secretary, and Corporate Emergency Plans Specialist, Dubai Municipality, Dubai, United Arab Emirates

As an emergency manager who was personally involved in countless emergencies and disasters in the Philippines, one of the few countries who share the dubious distinction of being among the most disaster prone countries in the world, I have come to the realization that we, as emergency managers, must be able to know how to manage both internal and external expectations.

External Expectations

It has been said that those who lost much expect more. This is a fact. However, one has to draw the line at some point.

During a disaster situation, it is important that one is aware of what can and cannot be delivered. How many times have we been summoned by our crisis management committee to be asked what can be done?

I have regularly and routinely faced this difficult question work-

ing as an emergency manager for an international financial development institution. It was definitely a glaring question two years ago when the international organization's staff were affected by unprecedented flooding in Metro Manila, the capital and seat of power of the Philippines.

Colleagues were trapped on rooftops. Senior management wanted to know how the organization could assist them because it was evident that both local and national government resources were overwhelmed.

Several things crossed my mind. I can admit the painful fact that nothing can be done because the organization does not have the capacity or I can develop an elaborate emergency response plan. I chose the latter. In hindsight, while it is very difficult to admit one's own weaknesses, I should have leveled with management. I should not have raised their expectations, because unrealistic expectations can become bigger

and bigger until they become a disaster in themselves.

The lesson to take away from this experience is to always level with management or the responsible authorities on what can and cannot be done. Raising the expectations of people you work for and those you are supposed to assist can take its toll on any emergency manager. There are times, however, when it is necessary to strike a balance between the "voice of the bosses" and what is actually feasible.

Internal Expectations

Emergency managers are not super-humans. There are limits to what they can *effectively* do. It is important to remember that emergency managers can only do so much. There is no doubt that the objectives of emergency management are deeply ingrained within all of us. We will go to great lengths to be able to save more lives. That said, we should realize that while we want to do more as emergency managers, we must accept the fact that sometimes we cannot help everyone.

Conclusion

I have come out of emergency operations always thinking that I could have done more or I could have done things differently. While the lessons to be learned from every experience prepare me for the next battle, I have come to terms with myself – with the discernment that I would not be able to help everyone or solve all problems arising from a disaster. I just take comfort from the fact that although I may not be able to take care of everyone, at the very least, I was able to make a big difference to some at the time when they most needed it.

> EM RESOURCES <

■ **ANSI Releases Final Report for 2011 ANSI-HSSP Workshop.** The American National Standards Institute has released its final report for the 2011 ANSI-HSSP Workshop on Achieving Preparedness through Standards Implementation: Challenges and Opportunities for Small Businesses. The goal of the workshop was to identify actions needed to better reflect small business considerations with regard to preparedness standards and conformity assessment activities. Workshop-related presentations, collateral documents posted by participants and contributors, and the final report are available online at www.ansi.org/meetings_events/events/2011/hssp_workshop0511.aspx?menuid=3.

■ **NACCHO Releases 2010 National Profile of Local Health Departments Report.** Did you know most local health departments are county-based? Sixty-eight percent of local health departments serve county or combined city-county jurisdictions. Thirty-six percent of local health departments received 25% or more of their total revenue from county sources. The National Association of City and County Health Officials has published its 2010 National Profile of Local Health Departments report. To view the report or order a printed copy, visit www.naccho.org/2010profile. NACCHO will make the 2010 profile data set available to researchers interested in conducting additional analyses.

EM News

■ **U.S. Technologies Will Improve Romanian Emergency Response Systems.** The U.S. Trade and Development Agency recently awarded a grant to Romania's General Inspectorate for Emergency Situations (GIES) for a study to evaluate technologies deployed during field emergency response operations. The objective of the study is to demonstrate the feasibility of the following three core technologies through portable deployment: critical information management systems, geographical information systems, and interoperable communications. The study will coordinate the selection and deployment of these technologies, support a field exercise, and then evaluate the results of that exercise to recommend future implementation strategies. Learn more at www.usda.gov/news/pressreleases/2011/MENAEurope/Romania/RomaniaEmergencySystems_092311.asp.

■ **FEMA Publishes Final National Recovery Framework.** The final National Disaster Recovery Framework has been published at www.fema.gov/recoveryframework. This is the culmination of a two-year process that brought together departments and agencies from across the federal government, as well as recovery partners and stakeholders from state and local governments, non-profits, and the private sector to help shape and develop this important disaster recovery landmark. The document provides a focus for how the United States will approach recovery planning, coordination and leadership in the future.

■ **FEMA and FCC Unveil New Tip Sheet for Consumers on How to Communicate During Disasters.** As part of National Preparedness Month, the Federal Emergency Management Agency (FEMA) and the Federal Communications Commission (FCC) on Sept. 21 released new tips for consumers aimed at preparing them for major disasters when communications networks are more likely to be compromised or damaged. This tip sheet aims to help Americans prepare for communicating with each other and loved ones in the event of a disaster. Download the tip sheet at www.iaem.com/publications/news/documents/TipsforCommunicating_Disaster_September2011.pdf.

■ **FEMA Launches "Ready Indian Country" as Part of National Preparedness Month.** FEMA has launched the Ready Indian Country campaign, which will provide disaster preparedness information resources for the 565 federally-recognized tribal nations and communities across the country. Ready Indian Country is designed to promote preparedness within tribal communities through education and outreach. U.S. tribal nations and organizations are key members of the U.S. emergency management team, and this campaign was planned to help build on the already strong partnerships that have been developed between these and other stakeholders. Find Ready Indian Country resources at www.ready.gov/america/getakit/indiancountry.html.



EMSWORLD
The **No.1** online **EMS Community**
Delivering EMS news, education and training 24/7

Visit **EMSWorld.com** to access:

- Daily & Breaking EMS News
- Job Board & Career Resources
- Grant-writing Assistance
- Podcasts and Webcasts
- Buyer's Guide
- EMS Events Calendar
- EMS United Social Network
- Magazine Archives from 2004 to Present Day

Member News

Send IAEM member news items to thompson@iaem.com.

■ **Ellis Stanley Named as Chair of Disasters Roundtable, National Academy of Sciences.** Ellis M. Stanley Sr., CEM, Vice President and Director of Western Emergency Management Services, Dewberry, Los Angeles, has been named Chair of the Disasters Roundtable of the National Academy of Sciences. The roundtable facilitates the exchange of ideas among scientists, practitioners and policymakers to identify important issues related to the understanding and mitigation of natural, public health, technological, and other disasters. It is a unit of the Division of Earth and Life Studies in the National Academy's National Research Council.

"The Disasters Roundtable is positioned to address the challenges leaders face when working through a crisis and help move beyond the 'silo mentality' to build connectivity across organizations and sectors," said Stanley. "As the country focuses on building a resilient nation, we understand that we must begin at the most fundamental level and that is the local level. Resiliency must be about growing through challenges and not simply about bouncing back."

Stanley was also recently named Chair of the Earthquake Country Alliance Executive Steering

Committee. His role on the board of the Earthquake Country Alliance in California has included helping to launch and expand the state's widely successful annual earthquake drill, "The Great California ShakeOut."

■ **Daniel Hahn Attends Gulf Coast Sustainable Economies Roundtable.** Daniel Hahn, CEM, IAEM-Global Communications Work Group Chair, and Plans Chief, Santa Rosa County Division of Emergency Management, Milton, Fla., was named by the U.S. Dept. of Commerce as one of 18 national "Champions of Change" in regard to oil recovery on the Gulf Coast and invited to attend the July 19 Gulf Coast Sustainable Economies Roundtable at the White House. In addition to the White House roundtable, the department hosted several meetings to connect small businesses and local leaders with the resources they need to strengthen their economies and create more jobs.

■ **IAEM Members Named as New Faculty at Capella University.** IAEM members Dean R. Larson, Ph.D., CEM, and Daniel W. Martin, CEM, were recently named as new faculty members at the Capella University School of Public Service Leadership's emergency management program.

STRATEGY & ORGANIZATION | TECHNOLOGY | ENGINEERING & OPERATIONS | ANALYTICS

- **All-hazards incidents.**
- **Rapid response in a dynamic environment.**
- **Deployable, integrated, scalable solutions.**

— **Ready for what's next.** To save lives and protect property, organizations must work collaboratively before, during, and after an incident to integrate their missions, harness resources, and meet critical needs. The strategy and technology consultants at Booz Allen Hamilton work side-by-side with clients to provide hands-on, in-depth experience across the emergency management lifecycle. We deliver solutions in key areas such as integrated planning, whole community, disaster operations, logistics, cyber security, communications, preparedness, and training and exercises. Whether you're managing today's issues, or looking beyond the horizon, count on us to help you be ready for what's next.

— **Ready for what's next.** www.boozallen.com/rfwn

Booz | Allen | Hamilton
delivering results that endure

IAEM Bulletin Online Edition

The online edition of this issue includes additional material, available for members at www.iaem.com.

■ “Preparing for an EMAC A-Team,” by Kerry L. Kimble, CEM, Plans Officer, Colorado Division of Emergency Management.

■ “It Will Happen Again: What We Can Learn from the October 2010 Hungarian Red Sludge Disaster,” by Ali Asgary, Ph.D., Emergency Management, School of Administrative Studies, York University, Toronto, Canada, and Nassim Tajadod, BA Kinesiology and BES Environmental Studies, York University.

■ “The Stakes Are High in Private Response Support: How Private Contractors Can Help Lower the Stakes by Augmenting Planning for, Response to and Recovery from Disasters,” by Carlos J. Castillo, Frank Genco, and Natalie West, Pricewaterhouse Coopers LLP.

■ “The Stakes Are High for Australian Emergency Managers,” by Dr. Michael Eburn, Senior Fellow, ANU College of Law and Fenner School of Environment and Society, and Professor Stephen Dovers, Senior Fellow and Bushfire CRC Researcher, the Fenner School of Environment and Society and the ANU College of Law, Australian National University.

■ “Recalling Why the Stakes Are High,” Rodney E. Enevoldsen, AEM, Chief of Police, Bristol Bay Borough Police Department, King Salmon, Alaska.

■ “Evacuation and Transportation of Animals: Best Practices and Lessons Learned,” by Dick Green and Renee Poirrier, International Fund for Animal Welfare, Yarmouth Port, Mass.

■ “High Stakes – High Enquiries,” by Senior Sergeant First Class Brian E. Mattner, CEM, Emergency Management Coordi-

nator, Manager, PSSB Security Control Centre, South Australia Police, Adelaide, SA, Australia.

■ “Legislating Stupidity,” by Steven Craig, CEM, MEP, MS.

■ “Denial Doesn’t Cost Anything: The Conundrum of Funding Emergency Management Activities,” by Meghan McPherson, MPP, AEM, Program Coordinator and Instructor in Emergency Management, Center for Health Innovation, Adelphi University.

■ “Hatzalah: ‘Extreme’ Faith-Based Emergency Responders,” by Alfred E. Piombino.

■ “Increased Focus on Post-Disaster Construction Required by Today’s Emergency Manager,” by Bob Prieto and Al Whitaker, Fluor. Part 2 of a three-part series.

■ “9/12/11 Reflection & Strategy: The Second Decade,” by Michael E. Sutherland, AAE, EOC and Public Works Director, Terrorism Liaison Officer, and IMT Member, Town of Parker, CO.

Sand Brick *The Better Sand Bag*



Wedge shaped, interlocking ends for strong walls.

Wide mouth for easy filling.

Textured surface for gripping between bags.

Solid film plastic for less contamination.

Alternating front and back colors make them easy to use.

Less sand per bag. 25 lbs vs. 40 lbs in conventional bags.

Few bags needed for the same height and strength wall.

All this means easier, lower cost cleanup.



Sand Brick Technologies, LLC

(916) 858-0184

www.sandbricktech.com

EM Calendar

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

- Oct. 11-13 **EMEC-Europa, IAEM-Global 2011 Annual Conference**, “Civil Protection is Emergency Management – a new profession,” Munich Trade Fair Centre, Germany, www.emec-europa.com.
- Oct. 31- Nov. 2 IRDR Conference 2011: “Disaster Risk: Integrating Science & Practice, Beijing, China.
- Nov. 11-17 **IAEM-USA 59th Annual Conference & EMEX 2011**, “The Stakes Are High for Emergency Managers,” Las Vegas, NV, www.iaem.com/Conference. Early bird registration fee discount in effect until Sept. 1, 2011.
- Apr. 10-11 2012 Partners in Emergency Preparedness Conference, Tacoma Washington, www.piepc.org. Proposals are due: Sept. 15, 2011.
- Apr. 15-20 **IAEM-USA Region 4 Conference**, Myrtle Beach, SC, www.iaem.com/Regions/4.
- Oct. 26- Nov. 1 **IAEM-USA 60th Annual Conference & EMEX 2012**, Rosen Centre Hotel & Orange County Convention Center, Orlando, FL, www.iaem.com/Conference.



IAEM Staff

Chief Executive Officer

Elizabeth B. Armstrong, MAM, CAE
703-538-1795, ext. 8
armstrong@iaem.com

Deputy Executive Director EMEX Exhibit Manager

Clay D. Tyeryar, MAM, CAE
703-538-1795, ext. 7
ctyeryar@iaem.com

Membership Manager/Registrar

Sharon Kelly
703-538-1795, ext. 2
info@iaem.com

Communications Manager Scholarship Program Director

Dawn Shiley-Danzeisen
703-538-1795, ext. 3
shiley@iaem.com

Certification Administrator

Kate Walker
703-538-1795, ext. 6
kwalker@iaem.com

Program Manager

Julie Husk
703-538-1795, ext. 1789
jhusk@iaem.com

IAEM Bulletin Editor Website Content Manager

Karen Thompson
703-499-0441
thompson@iaem.com

IAEM-USA Policy Advisor

Martha Braddock
703-644-8557
braddock@iaem.com

IAEM Headquarters

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

Is There Legal Liability for the Failure to Train and Prepare Our Personnel?

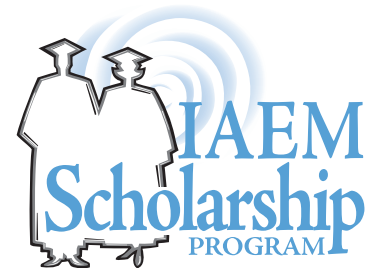
This month we are featuring a special PDF supplement to the online edition of the October 2011 *IAEM Bulletin*. “Deliberate Indifference: Is There Legal Liability for the Failure to Train and Prepare Our Personnel?” was contributed by Robert C. Hutchinson. The author is a Supervisory Special Agent with a federal law enforcement agency. As a collateral duty, he is responsible for emergency preparedness within the South Florida area for that agency. Download the supplement at www.iaem.com in the *IAEM Bulletin* members only archives.

The Center for Rebuilding Sustainable Communities after Disasters

at the University of Massachusetts Boston, U.S.A., in collaboration with University College, proudly offers

- ▶ An online non-credit professional development certificate in **Global Post-Disaster Reconstruction and Management**
- ▶ An online 18-credit graduate certificate in **Global Post-Disaster Studies** with a focus on Reconstruction with Vulnerable Populations

For more information, please contact
cjscad@umb.edu | 1+617.287.7116 | uc.umb.edu



Support the future
of emergency management
www.iaem.com/Scholarships

A Nationwide Demographic Study

The psychology department at Colorado State University is assisting the National Oceanic and Atmospheric Administration (NOAA) in building a demographic database to help NOAA understand the wide spectrum of emergency managers and response agencies across the country. The goal is to help improve the public warning system.

Background

The project leader for this study is John Weaver. He was a NOAA meteorologist for more than 30 years, working at the National Severe Storms Laboratory in Oklahoma for seven years, then the Cooperative Institute for Research in the Atmosphere (CIRA) at Colorado State University (CSU) in Fort Collins, Colorado, for 25 years. He specialized in severe weather (tornadoes, severe storms, flash floods, etc.) and in satellite meteorology. After retiring in 2005, Weaver returned

to college to pursue a BS degree in social psychology. His interest was in trying to understand a number of social problems related to the warning process. This includes such questions as, “How do groups come to believe what they believe?” or “Why do people respond to warning messages the way they do?” or “Is there a way to improve the warning process?” – to name just a few. He has now been rehired part-time to pursue this interest.

Weaver is working with a doctoral candidate in the psychology department at CSU named Lindsey Harkabus. They decided that the best place to start was to put together a large demographic database that will help define the broad spectrum of the emergency management community across the nation. Following this step, they plan to tackle the problem of public response.

For this study, the researchers are interested not only in city and county emergency manager

demographics, but are also trying to include as many participants as possible from the growing number of emergency managers associated with institutions such as schools, hospitals and corporations. The survey includes a total of 36 questions and has been taking participants anywhere from 20 minutes to an hour to complete, depending on whether they comment on any of the questions. The comments allow participants to expand the study beyond the preset specifics. These answers will be coded once the study closes in December 2011.

Whether full-time, part-time, big city or rural, your participation is important. If you would like to help with this project, just click on the link below, which will lead you to the survey. It is being handled through a third party server and is anonymous.

http://colostatepsych.qualtrics.com/SE/?SID=SV_0AssehBGOzyVrko

“LIVES DEPEND ON MY LEADERSHIP. AMU teaches what I use in the field.”

Shannondor Marquez | Graduate, School of Public Safety & Health

AMU is proud of our graduates' success. A retired Sr. Chief Petty Officer, Shannondor combines education with 28 years of experience to help lead emergency operations at Naval Medical Center Portsmouth. Like 40% of our graduates, Shannondor chose AMU to pursue his master's based on academic quality and the caliber of its faculty.

Learn More at www.PublicSafetyatAMU.com/IAEM

American Military University

What's This? AMU-QR.com

Art & Humanities | Business | Education | Management | Public Safety & Health | Science & Technology | Security & Global Studies

Preparing for an EMAC A-Team

By Kerry L. Kimble, CEM, Plans Officer, Colorado Division of Emergency Management

This year started off with a flurry of activity: deadly tornadoes in Alabama, Massachusetts and Missouri; massive wildland fires in Arizona and Texas; unprecedented flooding in North Dakota, along both the Mississippi and Missouri rivers, and from the above average snow packs in the Rocky Mountains; and hurricane season then began. All of this has and will lead to requests for assistance, not only through local mutual aid but through the Emergency Management Assistance Compact (EMAC) as well.

EMAC is a state-to-state agreement that facilitates the flow of vital resources into a disaster area when the need exceeds resource availability. The actual mechanism to accomplish this is the deployment of an A-Team that can assist the impacted state in requesting, coordinating and scheduling the arrival of these needed resources.

“Help Me to Help You”

To quote from the movie *Jerry Maguire*, “help me to help you,” there are several items the impacted state can do to prepare for the arrival of this A-Team and to assist in the successful accomplishment of their mission – which is to help the state. A few of these preparatory items could be:

- Have an organizational briefing ready. How do things work in the Emergency Operations Center (EOC)? Is it organized into Emergency Support Functions (ESF) or branches or something different? Who does EMAC directly work for, the Logistics Section Chief (LSC) or someone else?

- Who or what positions have signature authority for Parts I and III of the REQ-A paperwork?

- Have an information technology system that is easily plugged into while still maintaining network

security. Specifically, how does the team gain access to the network, a printer or the state EMAC e-mail address?

- Determine participation in scheduled conference calls. Should they attend or not?

- What information is needed for other meetings? For example, at the logistics and finance meetings, funding commitments may be reviewed. There may be a need for the EMAC unit to provide a modified ICS Form 215 (Operational Planning Worksheet) on resource status.

- For the EMAC unit, what are the required deliverables within the EOC? For example, is there a need to submit ICS Forms 204 (Assignment List) and 214 (Unit Activity Log) and parts of a 209 (Incident Status Summary) on a regular basis?

- Determine organizational procedures. At what point does finance get a copy of a completed REQ-A, and do they forward a copy to the documentation unit?

Importance of Periodic Exercising of Policies

Periodic exercising of policies and procedures is a key task in making an EMAC A-Team successful. A prime example of this was the state of Missouri. From May 16-19, Missouri participated in the 2011 National Level Exercise (NLE), which dealt with a 7.7 magnitude earthquake 40 miles north of Memphis, Tenn., and a simultaneous 6.0 magnitude earthquake 40 miles north of Evansville, Ind., both along the New Madrid fault line. Needless to say, the need for outside resources was great. Anything from search-and-rescue Teams to building inspectors to National Guard security forces were requested. A-Teams from Colorado and Utah deployed to the state EOC and processed 67 resource requests

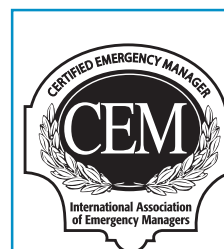
over a three-day period. The exercise ended a day later, and hot wash occurred.

On May 22, an EF-5 (200 mile per hour) tornado tore through the City of Joplin in southwest Missouri, destroying more than 8,000 homes and approximately 500 businesses in a four mile long by 0.5 mile wide swath. Local mutual aid responded immediately, but as the incident continued, missions changed and on-scene resources needed to be rotated out. The Colorado A-Team redeployed back to Missouri to assist.

What helped was that the Colorado team was familiar with Missouri’s procedures, but more importantly, Missouri had already acted upon the lessons learned from the NLE. This helped streamline or made more efficient the acquisition of needed resources, especially as the recovery process continued. Resources were demobilized when they were no longer needed, fresh resources were brought in for new missions, and follow-on resources were scheduled over the long haul.

Conclusion

So here’s the bottom line. When it is applicable, incorporate the EMAC function into exercises to help identify potential gaps in procedures, because you never know when the need for that function will become all too real.



Learn about
the CEM®
Program and
apply to be
a CEM®
or AEM
candidate at:

www.iaem.com/CEM

9/12/11 Reflection and Strategy: The Second Decade

By Michael E. Sutherland, AAE, EOC and Public Works Director,
Terrorism Liaison Officer, and IMT Member, Town of Parker, Colorado

The 10th anniversary was indeed a time of somber reflection and choke-back-the-tears gratitude for the heroism and spirit, newly defined in September 2001. While none of us currently serving in the all-hazards platoons of today expect to be heroes, we plan, train, hypothesize and respond when called.

As we watched again the efforts, actions and sacrifices made by so many ordinary citizens on 9/11, it was inspiring and uplifting. It bolsters our commitment to whatever role – small or large – we play in the preparedness and response arenas. Recovery and mitigation gain a heightened value and importance as we look back at the rebuilding decade that unfolded as the days, weeks and years raced by.

A New Normal

Appropriately, the emergency management industry (or science or art, call it what you may) is seeking a new normal in the building of partnerships with our able-bodied and capable citizenry, whom we endeavor to serve. If this new objective is achieved, our country should far exceed all efforts to prepare itself than it ever did during those early Cold War days. Getting knowledge, skills and confidence into the hands and homes of our stakeholders may be our new “highest calling.” When successful, citizen emergency response training frees us up to pursue myriad other critical emergency management responsibilities in times of crises.

The challenges for the EM profession – as individuals, teams,

sections or departments – are predicted to be neverending. Assuming this is an accurate forecast, we will serve ourselves well in bypassing the logical next reaction, which is “feeling overwhelmed.” Instead, refreshing progress is reached by going back to the rational foundation of strategic planning.

Revisit the Strategic Planning Process

Recognizing that the world changes in a fairly rapid sequence, it only makes good sense to step back and take a fresh look at each emergency all-hazards program, all of our plans (of course *not* found collecting dust on any shelf), and even our mission and vision statements.

The following simple outline can be used for a fresh analysis of our own community programs, and for separately critiquing threats and vulnerabilities that we once prioritized. Though nearly parallel in tracking, these efforts will inevitably converge into a strategic plan that is ready for whatever the “second decade” will toss our way.

It is fully expected that this material will look somewhat familiar to all readers. At some point in our careers we were guided (okay, maybe pushed, cajoled or forced) through a strategic plan of some sort, and hopefully emerged on the other side with a much clearer picture of why and how our mission is to be accomplished. Generally, emergency management organizations that have undertaken this challenge have become a more cohesive, determined and productive team.

A number of leaders will think to themselves, “We never created a strategy; our program just sort of evolved as emergencies came and went, as we tried to improve our process.” If this is the case, I suggest there is all the more

reason to invest time toward a contemporary strategy for the future.

A Sample Format, Among Many

While there are numerous well-written books on the subject, and even more out there on the Internet, a general format that has withstood the test of time is outlined below. Adapt your own recipe for what works best for your emergency management program.

- Table of contents
- Executive summary (key decision makers may not have time to read it all)
- Mission and vision statements
- Goals and objectives defined
- Agency organization
- Critical issues and SWOT analysis (strengths, weaknesses, opportunities and threats)
- Metric and benchmarks
- Appendices

What’s New, What’s Not?

Was GIS technology anticipated for use in search and rescue, or debris management, back when your program developed? How about social media for notifications to your population? Did anthrax spills in your mailroom get much thought in the last century? Are your designated shelters sufficient (and legal) for the physically challenged? Was a capable team created and trained to deal with the massive influx of volunteers and donated goods that can cripple a response and recovery?

These questions could go on and on, but you get the picture. Change is certain, and occurs without our endorsement or permission. Rethink the unthinkable, as well as the imaginable, in order to be ahead of the challenges you’ll face as the “second decade” of the new normal arrives at the doorstep. You may sleep more soundly at night!



Recalling Why the Stakes Are High

By Rodney E. Enevoldsen, AEM, Chief of Police,
Bristol Bay Borough Police Department, King Salmon, Alaska

I am sure that most if not all of us emergency managers, especially those in the United States, remember exactly where we were and what we were doing on that fateful Sept. 11, 2011, morning. At the time, I was the Chief of Police for the Kalispel Tribal Police Department in northeast Washington.

We All Remember What We Were Doing at the Time

I had left my house at 5:00 a.m. PDT and was driving across the state to Ocean Shores for, of all things, a hazmat conference that was to begin the following day. As I was driving into Spokane a little over an hour later, I was listening to a morning comedy show on the radio. The announcers began talking about an airplane that had struck the World Trade Center.

While I was waiting for the punch line, the DJ excitedly announced that a second plane had struck the World Trade Center. I then switched to a news station and learned, as we all did, that it was true. I learned of the crash at the Pentagon while I was at a rest stop on I-90, and only learned of the sacrifice of passengers on the plane that crashed in Pennsylvania after I arrived in Ocean Shores.

My personal story goes on for that day, including deserted highways except for Army National Guard convoys, determining whether I needed to return to my jurisdiction, and seeing what other emergency managers, if any, would actually show up at the conference.

We learned that nearly 3,000 innocent civilians lost their lives that day. The Fire Department of New York suffered 343 fatalities, the Port Authority Police suffered 37 fatalities, and the New York

Police Department 23 fatalities. Millions of people, not only those of us in the United States but around the world were affected by the actions of that day, and thousands suffer adverse health issues to this day as a result of those events.

Things to Think About as We Continue to Prepare

In the wake of that horrific tragedy, many grants were made available to address the many identified shortfalls. Communications issues, the sharing of intelligence, and the manner in which we prepare for and respond to disasters are issues we have all had to address. A few things to think about as we continue to prepare:

■ **Interoperability.** Can we communicate any better now with not only the other agencies within our jurisdiction but also with any other outside responders that may come to our aid?

■ **Emergency Operations Plans.** Have we reviewed our plans and shared them with other jurisdictions that may come to our aid?

■ **Mitigation of Disasters.** Have we truly considered *all* possible disasters and taken steps to mitigate them?

Lessons Continue to be Learned from Many Events

In the last 10 years, we also have experienced or witnessed other major disasters. These included: tsunamis in Indonesia; deadly earthquakes in Chile and Haiti; the shootings in Norway; bombing attacks on subways in the United Kingdom; hurricanes, most notably Katrina in the United States; and the trifecta of earthquake, tsunami and nuclear reactor meltdown in Japan. While we tend to think of these major events, we also have to plan for the other events which have catastrophic effects, such as flooding, tornadoes, wildfires, terrorism and countless other catastrophes.

Conclusion

Let's continue to prepare by reviewing and updating our plans, exercising our responses, and educating our politicians and community members as well as ourselves. As we remember 9/11 ten years later, let us also learn from it and other devastating events throughout the world. As we have seen and continue to experience, the stakes for emergency managers are *indeed* high.

THE IAEM BULLETIN

The IAEM Bulletin is a benefit of membership in the International Association of Emergency Managers.

The IAEM Bulletin is in its 27th year of providing news and resources for IAEM members.

The past 11 years are available online for Members Only at www.iaem.com.



Author's Guidelines at www.iaem.com/Bulletin

It Will Happen Again: What We Can Learn from the October 2010 Hungarian Red Sludge Disaster

By Ali Asgary, Ph.D., *Emergency Management, School of Administrative Studies, York University, Toronto, Canada*, and Nassim Tajadod, *BA Kinesiology and BES Environmental Studies, York University*

On Oct. 4, 2010, the red sludge reservoir of MAL Aluminum Plant, located 165 kilometres west of Budapest, breached and left 10 dead and 150 injured, creating what was later known as the third largest environmental disaster in Europe. More than one million cubic meters of spilt mud and alkaline slurry swept through several villages, polluted about 1,000 acres of land, and ultimately impacted the Danube, Europe's second largest river.

The first author of this article had the opportunity to participate in the International Conference on Emergency Management Technology (ICEMT 2011) in Budapest and visited the disaster site in May 2011. This paper summarizes some of the key notes derived from this conference and field observations.

Mitigation

It is important that a safe distance between hazardous chemical sites and human settlement is established and enforced. In the case of the red sludge disaster, the nearby villagers had no time to take proper action. There should be a better way for treating red mud materials. More attention should be paid to develop and use technologies that can process mineral residuals to minimize their environmental impacts.

Standards must be updated in order to prevent hazmat spills of this scale. Ajkai's aluminum plant was built based on very old standards.

It is also necessary that frequent inspections, risk assessments and prolonged monitoring of red mud facilities, hazmat storage and reservoirs take place, especially when other environmental factors may increase the probability of failures.

Preparedness and Response

Industrial facilities that produce or store hazardous chemicals need to have an up-to-date hazard specific emergency response plan. Such plans need to be coordinated with local guidelines, and must be trained and exercised regularly to assure an effective response in case of an incident.

In this case, due to the lack of proper planning, the company, local elected officials and responders had difficulty in taking control in the response and recovery process, especially during the early stages of the crisis. None of the authorities substantially considered a dam break that could result in the release of one million cubic meters of chemical waste.

Importance of Communication

After a disaster takes place, the information and communication plan should be activated, and an emergency information center should be established to provide the response organizations, media and public with clear, accurate and timely information about the incident. In the case of the red mud disaster, confusion and lack of reliable information was evident. There was not enough information about the composition and the pH value of the red mud and the biological effect of the slurry. This could have helped trained personnel to move forward with treatment options. Media were everywhere, issuing false warnings and contradicting information that hindered crisis management.

Water, soil and air are very vulnerable to the release of toxic chemical materials. Such materials normally increase the pH level of water much faster than expected. All efforts need to be taken to

contain hazardous material and to minimize its contact with water resources, especially rivers, as soon as possible. In this case, an earth dike was created as a secondary containment to contain a possible new spill of toxic red sludge from the damaged reservoir. Decontamination and neutralization are two important functions that should be used in response to an environmental disaster such as this. Control measures worked very well in this case, and there were many lessons learned that will be valuable to others.

In the case of environmental disasters such as this one, when there is a potential threat of a hazard being released to other countries, early establishment of an international committee in the early stages of the disaster would be very helpful in order to coordinate any necessary international response efforts.

Important Role of Hospitals

Hospitals play an important role in responding to such crises, and they have to be equipped and prepared to deal with multiple casualty situations. In this case, local hospitals were not prepared and could hardly accommodate the number of victims as they rose above the hospitals' capacity. The rooms were flooded with victims with different types of injuries, mainly those who experienced caustic burns after being in contact with the red mud.

Finally, decontamination and clean up of the affected areas are daunting tasks, which should take place as soon as possible and before the recovery and reconstruction begins. It requires special equipments and supplies that are not often available.

(continued on page 29)

Legislating Stupidity

By Captain Steven Craig, CEM, MEP, MS, CG Sector Honolulu,
Author of "Chronicles of Katrina"

Recently, Hurricane Irene helped to illustrate the enormous advances that the U.S. government has achieved since the 2005 Hurricane Katrina disaster. The lessons learned from that disaster helped guide emergency management efforts toward improving not only response, but preparation as well.

The Federal Emergency Management Agency, much maligned because of its slow response and ineffectiveness, was brought into the spotlight, resulting in training improvements, an increase in personnel, and a much needed increase in budget.

Government officials, probably not wanting to appear as indecisive as the Louisiana governor did with Katrina, responded rapidly when it was time to call for mandatory evacuations. Some governors, notably New Jersey Governor Christie, didn't mince words. "Get

the hell off the beach in Asbury Park and get out," Christie said. "You're done. It's 4:30. You've maximized your tan. Get off the beach. Get in your cars, and get out of those areas."

But what drives normal human beings (or maybe not normal) to sit in lawn chairs in a park next to the beach, so they can watch firsthand the devastation that is to soon surround and engulf them? What motivates the surfer to hang in there for the ultimate "killer" wave? And why would a family joy ride around their community while power lines and trees collapse onto highways and homes?

The lack of hurricane experience or awareness was highly visible with this hurricane. Individuals standing on a pier for a closer look were almost swept off the dock, while people waiting until the last minute to evacuate, found roads closed due to trees lying on

the roadway. These are all examples of human ignorance about the dangers of hurricanes.

It is a tribute that many emergency responders and government officials literally saved thousands of lives through public announcements and evacuation orders. However, it is a sorrow that in this age of electronic communication – where information sent and received is instantaneous – the loss of any life is not only regrettable but also unwarranted.

Education of the masses is only part of the solution toward reducing unnecessary casualties; however, you can't legislate stupidity. To that end, deaths from disaster will continue to occur, even when the disaster is a slow-moving hurricane where public notice is more than adequate. "It won't happen to me" unfortunately does.

It Will Happen Again

(continued from page 28)

Recovery and Reconstruction

Dust management is the key component of the recovery and reconstruction phase. The red mud, especially when dried, could create major health problems. Such materials can be easily spread through the air, and reconstruction

activities can increase the spread even further by affecting human health and the environment.

Since reconstruction and recovery is mostly a long-term process in case of disasters such as this, it is essential that psychological support is provided to the local public in order to assist them during this process.

The red sludge disaster highlighted the importance of reassessing the risks of hazardous storage

facilities, updating standards, complying with zoning, and engaging in continuous monitoring. Frequent mandatory audits must be scheduled for environmentally high-risk facilities, including the participation of trained and independent experts. Detailed and up-to-date emergency plans are essential for an effective response in case of an incident.

In addition, an effective communication structure should be established to ensure that factual and crucial information on environmental health issues can be passed on to the community and response operations personnel. Since it will happen again somewhere, it is important to make sure that we have learned from what has happened in the past.

Emergency Management & Homeland Security Expo



Showcase your products and services at EMEX 2011, the top emergency management and homeland security expo – Visit www.emex.org

The Stakes Are High in Private Response Support

How Private Contractors Can Help Lower the Stakes by Augmenting Planning for, Response to and Recovery from Disasters

By Carlos J. Castillo, Frank Genco, and Natalie West,
Homeland Security and Law Enforcement Team, Pricewaterhouse

When the worst happens, it is not only one organization's responsibility to mitigate disaster impacts. Uniting as a community is the only way to ensure that we efficiently and effectively meet our nation's emergency preparedness goals. One group that is not always considered is private contractors. Incorporating the input of this key segment of the community during initial planning and preparedness and continuing throughout all phases of emergency management brings a different, much needed perspective to the whole community philosophy. Teaming with private contractors and local, state and federal emergency responders is an effective way to quickly augment local staff and capabilities. They provide support to all facets of EM, including planning, immediate disaster response and recovery operations, to facilitate a return to normalcy. Contractors often support events in the same capacity as their federal, state and local first responder counterparts

and are subject to the same risks, regulations and no-notice aspects of catastrophic disaster response. They have developed ways to prepare for and manage large-scale responses through project management techniques and technology to mitigate risk to responders and increase the speed of resources to the impacted area. The private sector has created innovative and efficient ways to measure and track performance.

Private Industry: A Force Multiplier for Local, State and Federal Responders

Through support to all levels of government in EM, contractors have intimate knowledge of how they work together during disasters. They bring specialized resources to disasters, often relieving first responders during initial response. These resources, located outside the impact area pre-event, allow contractors to bring fresh disaster response experience and resources to an event without the fatigue that local responders incur in the immediate aftermath. Private industry specializes in disaster response at home and abroad for various hazards, bringing best practices from previous events. Contract emergency responders are not typically tasked with collateral duties outside of their primary responsibilities, allowing them to focus on disaster

response scenarios pre-event. Extensive research goes into risk assessments and threat analysis studies, facilitating achievement of objectives in emergency situations – natural, manmade, large-scale or localized. Upon arrival, private contract support is trained, experienced and not previously impacted by the disaster – making it a significant force multiplier.

Private Sector Use of Project Management and Technology to Mitigate Risks

The project management skills of industry veterans and former emergency managers allow private contractors to apply methodical and repeatable processes in collaboration with government agencies. Private industry also has integrated technology into project management to increase situational awareness for disaster coordinators. The goal is to maximize the efficiency and effectiveness of a response to offer the most value to the customer. They combine years of experience with solid project management techniques to achieve high levels of efficiency, lowering costs and increasing the speed of the response. This maximizes the return on investment of grant money and disaster relief funds.

Specialized software, like FEMA's HAZUS, ESRI's ArcMap, Google Earth, and Hurrevac, can be used pre-event to identify high-risk areas, predict damage, and manage logistics routes. These tools enhance situational awareness, support decision making, and reveal patterns, relationships and trends. Geographic Information Systems (GIS) in particular help capture and organize data that is easily

(continued on page 32)



The Stakes Are High for Australian Emergency Managers

By Dr. Michael Eburn, Senior Fellow, ANU College of Law and Fenner School of Environment and Society, and Professor Stephen Dovers, Senior Fellow and Bushfire CRC Researcher, the Fenner School of Environment and Society and the ANU College of Law, Australian National University

The past two years have been particularly tough for Australian emergency managers. The 2009 Victorian Black Saturday fires claimed 173 lives. The summer of 2010-2011 saw significant flood events in Queensland and Victoria and fires in Western Australia that destroyed 71 homes. Following all these events, inquiries have been established to review the preparation for and response to these emergencies.

These events are not, however, new. Bushfires have been the subject of reports and inquiries since at least 1885.¹ The Queensland government built the Wivenhoe Dam near Brisbane after the record 1974 floods,² and Victoria suffered major regional floods in 1909, 1916, 1917, 1934, 1956, 1974, 1990, 1993 and 1998.³ Notwithstanding this long experience in natural disasters, the community remains surprised when such events occur. The review of the Queensland floods started with this statement:

"...No-one could have believed that people could be swept by a torrent from their homes and killed, as they were in Grantham; that nine motorists could be drowned in the attempt to negotiate floodwaters; that some towns could be

completely isolated for weeks, or that every last citizen of others would have to be evacuated; that residents of cities like Ipswich and Brisbane could lose everything they owned in waters which wrecked thousands of homes."⁴

Public Expectations

Australia's involvement with floods and other natural disasters means that people should have believed such events were not only possible, but likely. Towns are regularly isolated; drowning by entering floodwaters is a common cause of death; and the subject of repeated public warnings from the Australian emergency services and markers in Brisbane had been used to show the level of the 1974 flood to indicate possible flood levels in Brisbane. Although extreme, the 2009 Victorian bushfires were not unprecedented.⁵

Australia and Australians should therefore have a long-lived history of dealing with events such as fires and floods. But after each significant event, there are calls for inquiries or inquests to determine what happened to allow the disaster to occur. And the inquiries and inquests are getting longer and more personal. The 1939 Stretton Royal Commission was established

on Jan. 27, 1939, to investigate fires that had occurred in that month and that claimed 71 lives. The Commission had its first sitting day on Jan. 31, 1939, and its last on Apr. 17, 1939. The 36-page final report was signed off on May 16, 1939.⁶ The Teague Royal Commission, on the other hand, took from February 2009 to July 2010 to report on the fires, conducted 155 days of hearings,⁷ and produced a final report in excess of 1,000 pages in three printed volumes, plus a fourth volume that was only available in electronic format.

Focus of Inquiries

Early inquiries focused on the fires and their causes. Later inquiries have made personal comments and judgments about the conduct of individuals. Adverse comments have been made about the incident controllers and incident management teams in a number of inquests and inquiries.⁸ Few emergency managers have remained in office after adverse criticism in inquiry reports. Although most were allowed to resign (the Chief Officer of the Victorian Country Fire Authority

(continued on page 33)

¹ Select Committee upon the Fire Brigade System; Final Report (1885, Government of Victoria, Melbourne).

² C. Holmes, Queensland Floods Commission of Inquiry; Interim Report (2011, Government of Queensland, Brisbane), p. 39.

³ N. Comrie, Review of the 2010-11 Flood Warnings and Response; Interim Report (2011, Government of Victoria, Melbourne), p. 7.

⁴ Holmes, Queensland Floods Commission of Inquiry, p. 6.

⁵ B. Teague, R. McLeod and S. Pascoe, 2009 Victorian Bushfires Royal Commission; Final Report, Vol. I (2010, Government of Victoria, Melbourne), p. 17.

⁶ L.E.B. Stretton, Report of the Royal Commission to inquire into the causes of and measures taken to prevent the bush fires of January (1939, Government of Victoria, Melbourne).

⁷ Teague et al., Final Report, Vol. III, p. 2.

⁸ M. Doogan, Inquests and Inquiry into Four Deaths and Four Fires between 8 and 18 January 2003 (2006, ACT Coroner's Court, Canberra); A.E. Schapel Inquests into the deaths of [9 named people] [2005 Eyre Peninsula fires] (2007, Coroner's Court of South Australia, Adelaide); A.N. Hope, Record of Investigation into Death [2007 Boorabin fires] (2009, Coroner's Court of Western Australia, Perth); Teague et al, Final Report, Vol. I; M. Keelty, A Shared Responsibility; The Report of the Perth Hills Bushfire February 2011 Review (2011, Government of Western Australia, Perth).

Private Response Support

(continued from page 30)

shared, supporting tactical or strategic operations. Through the use of technology and communications, rosters of support cadre are continuously updated, putting responders on the ground within 12-24 hours of requests. Additional personnel are available for surge capacity during catastrophic events.

How Private Response Support Can Help Lower the Stakes for Emergency Managers

■ **Preparedness.** Studies show that one dollar in disaster preparedness/mitigation is equal to four dollars in disaster response.

Collaboration efforts between private and public entities before a disaster yield powerful results. Well-structured plans that can be adapted to support multiple scales and types of disasters are a must to reduce and mitigate risk to actual responders and to minimize loss of life and suffering in communities.

■ **Efficiency.** Lessons learned during previous disasters, along with new technologies in communication, mapping and hazard models, can help communities effectively and efficiently approach the challenges of emergency management. These tools will help to focus efforts and maximize results before, during and after disasters.

■ **Collaboration.** Working with our fellow emergency managers, first responders and recovery experts to “spread the wealth” of knowledge – not just in professional circles, but through outreach

and education in the community – is where collaboration begins. Efforts like the Community Resilience System Initiative (CRSI) and Community Emergency Response Teams (CERT) continue to build upon the whole of community notion that helps all of us to become more resilient to hazards and develop solid approaches to recovery.

■ **Accountability.** When government emergency managers implement performance measures to monitor progress toward meeting preparedness, response or recovery objectives that are field-feasible and realistic, they are better prepared. This shows what citizens are getting for their tax dollars spent on government emergency management. Private contractors have been held accountable to this concept for decades.

Stakes High for Australian EMs

(continued from page 31)

resigned 10 months after criticism in the 2009 Victorian Bushfires Royal Commission interim report and one month before the release of the final report;⁹ the Chief Executive Officer of FESA, on the other hand, resigned the day the Keelty report was released¹⁰, one can only imagine that the personal and political pressure after an alleged failure was enormous.

A problem for emergency managers is that there is a lack of clear guidance on what is meant to be achieved. Keelty asked:

“What is the measure of success of the outcome of a bushfire? Is the loss of no lives the only performance measure? If so, how many houses is an acceptable number to lose? Does one performance indicator have the potential to impact the ‘shared responsibility’ of all to build resilience of our community?”¹¹

Emergency Managers Held to Undefined Standard

Emergency managers are being held to an undefined standard. They are losing their jobs for failing to ensure that the performance meets community or politically acceptable standards, but those standards are neither clear

nor defined. Researchers, funded by the Bushfire Cooperative Research Centre, are studying fire law and policy and the concept of shared responsibility to identify the appropriate role of government and to explore success measures that may be defined and articulated so that emergency managers, the community, government and Royal Commissioners know what they may reasonably expect from their emergency services. The outcome of this research will help all Australians to understand that they have to live, and perhaps die, with the natural hazards that Australian have always faced.

⁹ Matt Johnston, Wayne Flower, CFA chief fire officer Russell Rees resigns, Herald Sun, 23 April 2010, <http://www.heraldsun.com.au/news/cfa-chief-russell-rees-set-to-resign/story-e6frf7jo-1225857253351>, at 7 September 2011.

¹⁰ Courtney Trenwith, Minister to receive greater powers despite calls for his resignation, WAtoday.com.au, 18 August 2011, <http://www.watoday.com.au/wa-news/minister-to-receive-greater-powers-despite-calls-for-his-resignation-20110817-1iy8a.html#ixzz1XF3Cy1t6>, at 7 September 2011.

¹¹ Keelty, A Shared Responsibility, p. 3.

Evacuation and Transportation of Animals: Best Practices and Lessons Learned

By Dick Green and Renee Poirrier, International Fund for Animal Welfare, Yarmouth Port, Massachusetts

According to a study conducted in 2006, there are approximately 45 million household pets in the United States.¹ Pets are often considered part of the family, and the bond between humans and animals continues to strengthen to the point where a family is reluctant to be separated from their pet even in times of emergency.

Evacuation Planning

In 2006, the Pets Evacuation and Transportation Standards Act was passed, amending the Stafford Act to ensure that state and local emergency preparedness plans address the needs of individuals with household pets and service animals. The National Alliance of State Animal and Agriculture Emergency Programs formed working groups with subject matter experts to identify the best practices in critical areas of animal emergency response, including pet evacuation and transportation.

The working group reviewed existing evacuation plans and identified those best practices that address the needs of people with pets. Their recommendations address:

- Definition of a pet;
- Effective public messaging;
- Systems to register and link pets with owners;
- Identifying the number of pet owners who may require assistance and number of pets associated with a population;
- Separation of people and pets;
- How service animals differ from pets;
- Establishing co-located pet shelters; and
- Available, safe, appropriate transportation for pets.

Modes of Transportation

It is not possible to discuss every type of vehicle available for animal transport, and no mode of transportation is perfect in terms of guaranteeing animal health and safety. Even the best vehicle will only be as good as vehicle operation and operators. Adequate airflow, temperature control, and the ability to monitor air quality are just a few of the variables that should be analyzed when reviewing different types of vehicles.

■ **Transport Refrigeration Units.** Transport refrigeration units (TRU) range from 28 to 53 feet by 8 ft and can easily transport 100 large dogs. They have been used extensively over the years for short hauls. The current practice is to stack two rows of crates

along each side of the trailer and to stop every two hours to ventilate for 30 minutes. Most TRUs have ventilation doors that assist in bringing in fresh air and removing “bad” air, but they are not effective in maintaining ventilation with large loads.



Transportation refrigeration unit.



Sumter DART, FL.

■ Purpose-Built Animal Transport Vehicles.

These vehicles are custom built for the transportation of animals, and their biggest selling feature is the ability to maintain constant temperature and adequate ventilation. Given their relatively large hauling capacity (60-100 dogs) and controlled climate environment, they are the preferred choice of transport. Trailers, which range in size from 20-53 feet by 8 feet, can be very expensive (\$200,000+), and there are currently very few units available.



LSART.

■ **Modified Animal Welfare Units.** Typically operated by animal welfare groups, the trailer above is used for a State Animal Response Team and has been used for adoption fairs, clinics, outreach projects,

¹ AVMA 2007 U.S. Pet Ownership & Demographics Sourcebook.

(continued on page 37)

High Stakes – High Enquiries

By Senior Sergeant First Class Brian E. Mattner, CEM, Emergency Management Coordinator, Manager, PSSB Security Control Centre, South Australia Police, Adelaide, SA, Australia

On Feb. 7, 2009, the state of Victoria in Australia suffered the worst bushfires ever experienced in recorded history. The event became known as the Black Saturday Bushfires, which resulted in 173 fatalities, 2133 houses destroyed, and more than \$4 billion in additional damage and losses. Had the fires impacted more on the rural/metropolitan interface areas, the degree of loss may well have been into the tens of billions, with the possibility of more deaths.

On the day of the fires, temperatures had reached 40°C (105°F) by 11:00 a.m., heading to a maximum recording of 46°C (115°F). Of the 316 grass, forest and scrub fires that were attended on the day, 15 of the fires had the most effect on the Victorian communities, and it was about these fires that a subsequent Royal Commission was held. During the response phase of the event, some 800 fires were actioned, with more than 10,000 personnel recorded as being actively involved in the incident.

Royal Commission Formed to Examine Response to Fires

In Australia, a Royal Commission is the highest enquiry body that is formed to examine and report on a given incident. The Commission can be given extra ordinary legislative powers to conduct its enquiries, in much the same way as the United States conducts Senate and/or Presidential enquiries.

The Victorian Bushfire Royal Commission was formed within weeks of the cessation of the response phase of the disaster, concluding with the Commission's final report in July 2010. For those operatives who work within the emergency management (incident management) arena, the following

comments from the report offered extremely interesting reading:

- "Some poor decisions were made by people in positions of responsibility and by individuals seeking to protect their own safety."

- "State level emergency management arrangements still faltered because of confusion about responsibilities and accountabilities and some important deficiencies of leadership."

- "The roles of the most senior personnel were not clear, and there was no single agency or individual in charge of the emergency."

- "Elements of the leadership provided on 7 February were wanting."

Outcome of the Royal Commission's Enquiry

Sixty-seven recommendations were made by the Commission at the conclusion of its enquiry. As the appointed officer from my own department, given the task to review the Commission's recommendations, the most telling were the ones that focused on command, control and coordination.

The Royal Commission members were highly critical of the Chief Commissioner of the Victorian Police Service in her role as State Coordinator. The criticism was primarily centred on her wait-and-see management on the day, and her lack of notes detailing her actions and decisions throughout the event. Her actions on the day were found to be inappropriate and, more importantly, ineffective.

Additionally, the Fire Services Chief Officer also was criticised over his lack of control and direction of the incident. As the primary agency responding to the threat of bushfire, it was found that the Chief Officer had not made it clear that he had taken control of the response and incident manage-

ment components of the incident. What began as a "horror" day soon became a "catastrophic" event that was causing loss of life and creating a substantial safety risk to anyone directly involved in the fires.

The Commissioners overseeing the enquiry were clear that more warnings should have been made to the general public with a clear "mission" objective identified – that being "protecting life."

Of the 67 recommendations made:

- Twelve related to emergency and incident management.

- Seven related to fire ground response.

- Seven related to bushfire safety policy.

- Seven related to land and fuel management.

Half of the entire recommendations made related directly to how emergency services and support agencies operate within the prevention, preparedness and response phases of emergency management.

The remaining 34 recommendations related to: planning and buildings (19); electricity-caused fires (8); deliberately lit fires (2); organisational structure (2); research and evaluation (1); monitoring implementation (1); and enquiry legislation (1).

Conclusion

When life-threatening events occur, stakes are high for not only the members of the community, but for emergency managers as well. Our actions could and will be subject to legal, civil and peer scrutiny. In the aftermath of the Victorian Black Saturday Bushfires, both the Victorian Chief Commissioner and the Chief Officer elected to retire from service.

(continued on page 37)

Denial Doesn't Cost Anything: The Conundrum of Funding Emergency Management Activities

By Meghan McPherson, MPP, AEM, Program Coordinator and Instructor in Emergency Management, Center for Health Innovation, Adelphi University

As emergency management professionals, we have all been there. An event happens, whether man-made or natural, and we are expected to manage and coordinate the recovery from that disaster. Politicians and officials call for immediate action and many times produce reactionary policy that may or may not help the next time something happens in our community.

Soon enough, however, the klieg lights go away, and we are left to plan for the next emergency. Unfortunately, once the attention is gone, the citizenry and press have moved on to the next story and the financial support tends to dry up fast. The disaster is quickly forgotten by those who weren't devastated by it, and the majority of the population lets the notion of "it could have been me" fade into the back of their minds.

Funding Linked to the Hot Topic of the Day

Policy, and the funding that is linked to it, is made quickly available for the hot topic of the day so that policy makers look responsive to the public. Once the next topic takes over, the money supply shifts as fast as the wind can change direction.

Emergency managers have seen their budgets slashed, much like every other department in their jurisdiction, and now federal funding sources are drying up. After 9/11, there was a substantial influx of funding for municipalities to plan and prepare for disasters of all types.

For much of the eight years that followed, a "9/10 mentality" on funding for emergency management activities and planning was chastised by those in the highest levels of power. They insisted (and

rightly so) that policy makers couldn't go back to thinking about emergency preparedness the way they did the morning of Sept. 10, 2001. The next morning changed the game entirely.

Decrease in Funding Reflects Economic Woes

Then the economy started to take an historic nose-dive. Now funding for emergency management and homeland security activities has decreased dramatically in the current Congressional budget. The reason most commonly given is that we don't need the funds because such incidents are less likely to happen, especially since we haven't had another large scale attack since 9/11.

We have been lucky enough to avoid such an incident, but it is widely accepted among homeland security officials that it is not *if* another event will happen, but *when* it will happen. One could contend it is because of the funding and the preparedness activities associated with it that we have in fact prevented another attack. Why cut funding when these activities have been so successful at keeping our citizens safe?

Leaders Finding It Easy to Deny Need for HS Funding

Emergency management and homeland security professionals plan every day for the next incident that may happen on their soil. But for the majority of general public and their leaders, it is easier and more acceptable to deny the fact that an incident could happen to them. They wonder why they are putting money into training and equipment that they don't feel they will ever need. Somehow the costs

of such measures are seen as unnecessary. Denial that anything could happen in a community costs less than what it would cost to build a more resilient community.

As emergency management professionals, we need to make it clear to our constituents and policy makers that the stakes have never been higher. We haven't dealt with an attack since 9/11, but many have been attempted and the methods devised by those who want to hurt us are constantly changing. We must keep up.

Conclusion

It was through the initiatives aimed at breaking down historic stovepipes that emergency managers were able to build public/private partnerships, develop interoperability, and conduct full-scale exercises and drills that those prior attempts were thwarted. It is imperative that significant funding remains available and is allocated to emergency management and homeland security activities in order to build the most resilient communities possible and to maintain the great strides that have been made in the last decade. Denial doesn't cost anything, but the human and societal cost of that denial will be extreme in the wake of a disaster.



Hatzalah: “Extreme” Faith-Based Emergency Responders

By Alfred E. Piombino

One of the hottest topics of emergency management today concerns inclusion of faith-based organizations in emergency preparedness and response activities. Naturally, when you mention faith-based groups in emergency work, the lions of the disaster relief field come to mind, including Salvation Army Emergency Disaster Services, Southern Baptist Convention and other religious congregations.

Hatzalah (pronounced HOT-zah-LA), sometimes spelled Hatzoloh, is another important name to know. You won't find this organization name listed on the membership roster of the National Voluntary Organizations Active in Disaster (VOAD) – yet. However, this grassroots emergency organization is alive and thriving, with thousands of zealous volunteers in many parts of the United States – from California to New York to Florida.

Hatzalah = Rescue or Relief

Hatzalah is a Hebrew word which translates to “rescue” or “relief.” The primary mission of Hatzalah is to provide emergency service to a local community during time of crisis. In the United States, operations are active in:

- Southeastern New York State, including New York City, Long Island and the Hudson River Valley (including The Catskill Mountain Region during the summertime);

- Northern and Central New Jersey, including the Jersey Shore;

- Philadelphia, Penn.;

- Chicago, Ill.;

- Baltimore, Maryland;

- Waterbury, Conn.; and

- Miami, Fla.

International operations are found in Canada, Mexico, Russia, Australia, South Africa, Belgium, Switzerland, England and, of course, Israel.

Unlike other international and national organizations, control and command of Hatzalah is based on a decentralized model. There is no headquarters office or extensive layering of hierarchy that regulates local “chapter” operations. Despite this loose coalition of units, the Hatzalah network is renowned for a high level of intra- and inter-agency coordination and resource sharing, all under rabbinical supervision.

Chevra Hatzalah: Largest U.S. Volunteer Ambulance Service

Chevra Hatzalah, the largest volunteer ambulance service in the United States, is based in New York City. Founded in Brooklyn, N.Y., in 1965, the organization was created because of a delay in the municipal ambulance service and the subsequent death of an Orthodox Jewish man.

The New York fleet contains more than 60 ambulances, hundreds of auxiliary cars, and more than a thousand volunteers. Emergency services vary on a state-by-state basis. Hatzalah of Los Angeles and Hatzalah of Miami-Dade have emergency response vehicles and provide urgent care, but do not transport patients. Hatzalah in New Jersey and Hatzalah of Baltimore have ambulance vehicles for urgent care and patient transportation to the hospital.

Membership is composed of the Orthodox Jewish faith motivated to perform acts of *mitzvah* or good deeds. The volunteer ranks are filled with state certified emergency medical technicians, paramedics, physician's assistants and medical doctors. In addition to providing basic and advanced life support, they also provide many other unique emergency services, such as urban, suburban and rural search-and-rescue services.

Although it was formed to serve local Orthodox Jewish communities, Hatzalah provides treatment and transportation to any person regardless of religion, ethnicity, economic status or citizenship. Members are multi-lingual in numerous, non-English languages, including Russian, Ukrainian, German, French, Hebrew and Yiddish.

Seeing a Hatzalah member rushing to an emergency or disaster scene can be a sight to behold – clad in a *yarmulke*, ritual knotted fringes and other traditional Jewish garments – underneath a florescent tactical vest. True to religious custom, most of the services are performed by married, male volunteers; however, a growing number of chapters are starting to integrate females into select field operations, such as for the care of female patients in obstetrical or gynecological distress. Orthodox Jewish women volunteers have customarily served in dispatch operations.

Placing Trust in Hands of Hatzalah Volunteers

Many reasons could explain why local Orthodox Jewish communities place their trust in the hands of Hatzalah volunteers. Sensitivity to Jewish Law, as well as ease of language and social customs, enables these volunteers to alleviate anxiety and better manage incidents. Hatzalah provides many extraordinary services to both a patient and their family not customarily provided by emergency responders, such as making sure a patient's home is locked and secure, children have sitters, even bringing Kosher food to a family or loaning money to a them. In the event of the death of an Orthodox Jewish patient, Hatzalah members are keenly

(continued on page 37)

Animal Evacuation and Transportation

(continued from page 33)

equipment and animal transport, and housing rescue workers. The unit is self-contained with radio and satellite communication. The cargo area is open and can transport 30-40 animals. This unit has transported birds from an oil spill, domestic birds from a seizure case, stranded marine mammals, and even three tigers. Most of these vehicles come with multiple A/C units, heater, and generator.

■ **Animal Control Unit.** These vehicles come in a variety of styles and sizes, ranging from fully outfitted vehicles to vans with either built-in or temporary caging. Capacity ranges from four to eight animals, and storage bays will be ventilated and may come with climate control. Many of these vehicles are outfitted with emergency lights, sirens, and communication equipment.



San Diego Animal Services.

■ **Climate-Controlled Cargo Vans.** These are standard cargo vans or multi-passenger vans with the seating removed. Size will vary depending upon the amount of cargo space or passenger room. These vehicles have been used extensively for emergency transportation as they are readily available, easy to drive, and air conditions in the cargo area are easily controlled. They are ideal for smaller species/crates. The van shown below was the type of vehicle used following the Deep Water Horizon oil spill for transporting birds.



Climate-controlled cargo van.

These are the most commonly used modes of transport for pets, but other modes of transport have been used, such as public transportation, farm/ live-stock vehicles, and box vans. Each has its pros and cons. For a full discussion on the different types of pet transport, see the full report from the NASAEEP Evacuation and Transportation Working Group at www.nasaep.org.

Faith-Based Emergency Responders

(continued from page 36)

aware of any immediate actions necessary to comply with Jewish Law concerning the body and burial rituals.

No Reimbursement Accepted from Patients, Insurance Companies or Government Agencies

Unlike many other groups, Hatzalah does not seek or accept *any* reimbursement from patients, insurance companies or government, including any county, state or federal emergency management agency. In and of itself, this is truly remarkable and nearly unheard of in this day and age of shrinking agency budgets. Nearly all donations go toward defraying direct operations expenses, including training, fleet purchases and maintenance, fuel, medical and first aid supplies, insurance, and extensive communications systems. Administrative costs are kept very low, with a modest paid staff managing and coordinating the non-profit management process, including fundraising and development activities.

Hatzalah provides its public service as a commitment to the sanctity of life and embodiment of the 2,000-year-old Jewish tradition – “Whoever saves even one life, it is as if he saved an entire world.” Emergency managers would do well to learn more about this robust organization and explore how Hatzalah volunteers might be integrated into local comprehensive emergency management planning for new and innovative partnerships, including: search-and-rescue operations; special medical needs shelters, points of dispensing (POD) for mass prophylaxis during bio-terrorism scenarios; pandemic influenza vaccination centers; mass care evacuation shelters; and potassium iodide distribution in emergency planning zones surrounding nuclear power facilities – to name a few. Enthusiastic Hatzalah volunteers with esprit de corps are ready to help! For more information, see <http://hatzalah.org> or www.facebook.com/HatzalahWorldwide.

High Stakes - High Enquiries

(continued from page 34)

As a postscript, much has been learned from the devastating fires. Eighteen months later, devastating floods consumed the State of Queensland, followed by Cyclone Yasi in the North Queensland region. The management of the event was clear and concise – we will protect life as our first priority. The general perception of the nation was to applaud the emergency managers who managed these events.

The Intersection of Engineering & Construction and Logistics Post-Disaster: A New Challenge for International Emergency Managers

Part 1

By

Bob Prieto & Al Whitaker, Fluor

Today's highly engineered environment requires a new first responder team that includes engineers and constructors. The importance of these new first responders could be seen in efforts to remove bent steel beams in the search for survivors on 9/11; seal levee breaches after Katrina; and restore power and water supply after the tsunami at Fukushima. These new first responders are also essential for rebuilding after the immediate response phase.

Events of scale change the normal construction process as new logistical challenges emerge and evolve in the post-disaster phase. These challenges include destroyed logistical facilities; competition with other post-disaster aid flows; and disrupted supply chains.

Today's emergency manager must be cognizant of the growing role these new first responders play and how their effectiveness and the effectiveness of longer term aid flows are closely coupled by a weakened logistical chain.

A previous article entitled, "Increased Focus on Post-Disaster Construction Required by Today's Emergency Manager", described logistics affecting changes associated with post-disaster construction. This is the first of two articles looking at specific logistics impacting engineering and construction activities and how they change from a "normal" large scale program. Suggestions for consideration by emergency managers are laid out in the extended on-line versions.

Logistics Affecting Activities

Many of the work processes and engineering, procurement and construction activities traditionally associated with large scale construction programs must be modified to deal with the realities of post-disaster construction. Some of these changes are driven by logistical constraints of the post-disaster environment while other changes are driven by changed institutional processes. Each of these changes impact the normal logistical processes expected in large scale programs. These articles look at changes based on prior experience

Client Capabilities and Resources - Client organization may be lacking resources that understand engineering, procurement and construction processes and how they change in a post-disaster environment. Impacts and importance of logistics in post disaster

situation may not be sufficiently understood or required resources not engaged. Lack of appreciation for nature or scale of logistical challenges adversely impacts overall construction effort

- **Client-Contractor Alignment and Contract** - Private sector efforts are in support of clients with flexibility to quickly execute risk appropriate contracts. Public sector efforts are effective where prior contract vehicles exist and alignment activities have previously occurred. Lack of prior contract impacts efficiency of logistical commitments being made.
- **Mobilization** - Certain government or aid agency contracts are task order based with no provision for mobilization costs. This delays activities to create efficient logistics operation.
- **Execution Plans** - Funding driven baseline shaped by donor community
- **Project Management Manual (PMM)** - PMM expanded to include procedures/ approvals linked to funding source. These procedures may vary by project delivery approach, contracting strategy and project phase. Added approvals and complexity impact logistics chain.
- **Workshare** - Funding agencies may drive work to be performed locally.
- **Design Basis** - Nature of funding sources constrains solutions reducing opportunities to modify supply chain.
- **Degree of Design Standardization** - Required volumes limit standardization opportunities
- **Labor** - OCONUS mobilization through Mobilization and Deployment Center (MDC). MDC in a Box for OCN mobilization (recruitment, training, and on-boarding process completed in 7 to 8 days)
- **Prefabrication** - Initially focused on response phase needs
- **Preassembly** - Typically limited by funding coupled to job creation in affected area; access route constraints
- **Modularization** - Use constrained by client awareness and procurement practices; site access may be limited to port areas and major routes

- **Degree of Client-Furnished Materials and Equipment** - Adequate owner provided advance financing limits use; contracting practices by government limit PMC+ approaches; multiplicity of buyers (lack of sourcing hub) reduces supply chain efficiency
- **Supplier Relationship Agreements (SRAs)** - Effective use limited by competitive procurement and form of contract; high demand drives use of non traditional sourcing for which reduced supplier-buyer information exchange has occurred.
- **Global Sourcing** - Expanded sourcing effort to meet times frames requires augmented vendor inspection, QA/QC and expediting. Supply identification of materials of construction should be undertaken for disaster types and locations in advance of disaster.
- **Sourcing Integrity** - Supply origins for certain bulk materials (timber) and their preparation for use may be difficult and compliance with procurement norms harder at the subcontractor level.
- **Mission-Critical, Unique Equipment Sourcing** - Supply chain compression activities may include new sources of supply, multi-vendor awards, use of CFM as feedstock to select vendors, phased procurement and pricing, expedited transport.
- **Locally Procured Material Quality** - May take physical possession but not title at end of inspection line to prevent material substitution further straining logistical chain.
- **Expediting** - Reflect evolving needs and on the ground conditions
- **Traffic Routing and Logistics Plan** - Reflect evolving needs and on the ground conditions; consider evolving condition of transport routes and other logistics facilities; increased number of logistics choke points and greater competition for logistics capabilities

Conclusion

Changes to some logistics affected and logistics affecting engineering and construction activities have been described and others will be covered in a subsequent article. The extended on-line version of the article includes a comparison with non-disaster programs and suggests some areas for consideration by international emergency managers.

Logistics-Affecting Activities	Global Scale CAPEX Program - Leveraged Execution and Procurement	Post-Disaster Reconstruction	Recommendations for Post-Disaster Management
Client capabilities and resources	<ul style="list-style-type: none"> Client organization is appropriately resourced or program manager engaged Combined team brings necessary understanding of EPC activities and how they interact with necessary logistics considerations 	<ul style="list-style-type: none"> Client organization may be lacking resources that understand EPC processes, and how they change in a post-disaster environment Impacts and importance of logistics in a post-disaster situation may not be sufficiently understood in client organization, or required resources have not been engaged Client lack of appreciation for nature or scale of logistical challenges may adversely impact overall engineering and construction effort 	<ul style="list-style-type: none"> Client organizations must recognize that the linkage between end use and shipping and other logistical activities grows in importance in a post disaster situation Pre-positioned contracts with experienced post-disaster construction contractors that have strong logistics capabilities provide owner organizations with the capability to efficiently respond and recover
Client-contractor alignment and contract	<ul style="list-style-type: none"> Pre-established contractual basis reflective of overall procurement and construction strategy Alignment with owner organization 	<ul style="list-style-type: none"> Private sector efforts typically in support of major customers, with flexibility to quickly execute risk-appropriate contracts Public sector efforts effective where prior contract vehicles exist and alignment activities have previously occurred (FEMA and LOGCAP IV) Lack of a prior contract impacts efficiency of logistical commitments being made Lack of well-defined responsibilities and authorities in post-disaster organization may delay completion of required RACI charts, creating uncertainties in approval process for crucial logistics-affecting activities 	<ul style="list-style-type: none"> Pre-positioned contracts allow for pre-disaster alignment around basic work processes, allocation of responsibilities, and delegated and retained authorities and approvals Supply chain and logistical strategies can be discussed and the new first responder in today's built environment can participate in select tabletop exercises
Mobilization	<ul style="list-style-type: none"> Typically recognized and funded activity 	<ul style="list-style-type: none"> Certain government or aid agency contracts are task order-based with no provision for mobilization costs, delaying activities and commitments to create an efficient logistics operation 	<ul style="list-style-type: none"> Create a limited mobilization task in pre-positioned contracts to accelerate response timeframes

Logistics-Affecting Activities	Global Scale CAPEX Program - Leveraged Execution and Procurement	Post-Disaster Reconstruction	Recommendations for Post-Disaster Management
Execution plans	<ul style="list-style-type: none"> • Scope-driven baseline 	<ul style="list-style-type: none"> • Funding-driven baseline shaped by donor community or “color of money” 	<ul style="list-style-type: none"> • Clearly identify any funding-source-linked requirements at earliest possible stage • Select major donor organization requirements can be pre-identified in pre-positioned contracts (examples: FEMA Public Assistance, State Emergency Management, Red Cross)
Project Management Manual	<ul style="list-style-type: none"> • Standard go-by template with client-specific forms, procedures, and approvals 	<ul style="list-style-type: none"> • Expanded to include forms, procedures, and approvals linked to funding source • Procedures may vary by project delivery approach (direct execution or grant funded); contracting strategy (design-bid build, design build); and phase of project • Added approvals and complexity may impact logistics chain 	<ul style="list-style-type: none"> • Pre-positioned contracts allow for pre-disaster alignment around basic work processes and reports • Critical logistical hubs and choke points can be pre-identified
Workshare	<ul style="list-style-type: none"> • Global Engineering Centers (GECs) workshare limits need to move many resources to project location 	<ul style="list-style-type: none"> • Funding agencies may drive work to be performed locally 	<ul style="list-style-type: none"> • Local engineering and construction resource surveys may be periodically conducted as part of pre-positioned contract
Design basis	<ul style="list-style-type: none"> • Optimized against well-defined owner criteria through a formal tollgate process 	<ul style="list-style-type: none"> • Nature of funding sources may constrain solutions to replace in kind, reducing opportunities to modify supply chain 	<ul style="list-style-type: none"> • Existing planning documents should be inventoried and collected to accelerate reconstruction planning • Efforts focused on achieving plans versus creating entirely new ones where possible • Planning collection in advance of disaster also facilitates resiliency reviews by local disaster planning agencies
Degree of design standardization	<ul style="list-style-type: none"> • Maximized to reduce supply chain 	<ul style="list-style-type: none"> • Required volumes limit standardization opportunities 	<ul style="list-style-type: none"> • Incorporate resiliency features as part of new design basis

Logistics-Affecting Activities	Global Scale CAPEX Program - Leveraged Execution and Procurement	Post-Disaster Reconstruction	Recommendations for Post-Disaster Management
Labor	<ul style="list-style-type: none"> Globally and locally sourced – standard HR systems and processes 	<ul style="list-style-type: none"> OCONUS mobilization through Mobilization and Deployment Center (MDC) MDC in a Box for other-country national (OCN) mobilization <ul style="list-style-type: none"> From first speaking to a recruiter to a putting boots on the ground, the recruitment, training, and on-boarding process can be completed in 7 to 8 days 	<ul style="list-style-type: none"> Client organization must ensure response and reconstruction contractors have well developed mobilization plans and capabilities
Prefabrication	<ul style="list-style-type: none"> Maximized to address labor availability and cost Eliminates shipments of temporary equipment, materials, and construction consumables Reduces construction waste streams 	<ul style="list-style-type: none"> Initially focused on response-phase needs 	<ul style="list-style-type: none"> Identify staging and prefabrication sites in proximity to critical infrastructure and population centers Identify similar regional areas outside the evaluated zone
Pre-assembly	<ul style="list-style-type: none"> Maximized to address labor availability and cost Eliminates shipments of temporary equipment, materials, and construction consumables Reduces construction waste streams 	<ul style="list-style-type: none"> Typically limited by funding linkages to job creation in affected area May be constrained by access route constraints 	<ul style="list-style-type: none"> Identify staging and prefabrication sites in proximity to critical infrastructure and population centers Identify similar regional areas outside the evaluated zone Identify major access routes and weight and size constraints as part of disaster planning efforts
Modularization	<ul style="list-style-type: none"> Maximizes benefits associated with manufacturing efforts, such as those realized on a smaller scale with prefabrication and pre-assembly Allows parallel construction to shorten schedules Facilitates pre-commissioning 	<ul style="list-style-type: none"> Uses constrained by client awareness and constraining procurement practices Site access may be constrained to port areas and, at later stages, major overland logistical routes 	<ul style="list-style-type: none"> Identify staging and prefabrication sites in proximity to critical infrastructure and population centers Identify similar regional areas outside the evaluated zone Identify major access routes and weight and size constraints as part of disaster planning efforts.

Logistics-Affecting Activities	Global Scale CAPEX Program - Leveraged Execution and Procurement	Post-Disaster Reconstruction	Recommendations for Post-Disaster Management
Degree of client-furnished materials and equipment	<ul style="list-style-type: none"> • Best practice moving beyond major equipment to include select construction bulks, piping, cabling, pumps, motors, and MCC • Targeted levels nominally 30 percent • Necessitates strong materials management organization as part of expanded program management contractor (PMC) role (PMC+) 	<ul style="list-style-type: none"> • Use adequate owner-provided advance financing limits • Contracting practices by government limit PMC+ contracting approaches • Multiplicity of buyers (lack of sourcing hub) reduces supply chain efficiency 	<ul style="list-style-type: none"> • Prepositioned response and reconstruction contracts should provide for use of commercial practices to the maximum extent possible • Contractors with well-developed supply chains are essential in post-disaster settings
Supplier relationship agreements (SRAs)	<ul style="list-style-type: none"> • Maximize use of PMC's SRAs to simplify supply chain, gain greater assurance on delivery timeframes, and consolidate shipments • High level of pre-transaction information transferred between buyer and supplier 	<ul style="list-style-type: none"> • Effective use limited to private sector facilities and clients due to traditional limitations on competitive procurement and form of contract for non-private buyers • High demand drives use of non-traditional sourcing for which reduced supplier-buyer information exchange has previously occurred 	<ul style="list-style-type: none"> • Prepositioned response and reconstruction contracts should provide for use of commercial practices to the maximum extent possible • Contractors with well-developed supply chains are essential in post-disaster settings
Global sourcing	<ul style="list-style-type: none"> • Leverage of ongoing supplier analysis and assessment activities consistent with anticipated business volumes by supply category and regions • Appropriate supply sources pre-identified prior to major program activities 	<ul style="list-style-type: none"> • Expanded sourcing effort to meet required timeframes and budgets requires augmented vendor inspection, QA/QC, and expediting efforts • Identification of supplies of materials for construction and required non-process infrastructure undertaken for limited number of disaster types and locations in advance of disaster-limiting logistics system planning activities 	<ul style="list-style-type: none"> • Periodic assessments should be made of basic construction material availability for a range of disasters (local, regional, multi-regional)

Logistics-Affecting Activities	Global Scale CAPEX Program - Leveraged Execution and Procurement	Post-Disaster Reconstruction	Recommendations for Post-Disaster Management
Sourcing integrity	<ul style="list-style-type: none"> • Pre-acquisition surveys confirm environmental, labor, and legal compliance by supply base • Local supply capabilities well defined and capacity building undertaken off a known base 	<ul style="list-style-type: none"> • Supply origins for certain bulk materials (timber) and their preparation or treatment for use may be difficult to ascertain • Compliance with global procurement norms harder to police at the subcontractor level 	<ul style="list-style-type: none"> • Best-value procurement, with strong quality and inspection efforts, produces more consistent and timely outcomes and, at the end of the day, the most cost-effective outcome, all costs considered
Mission-critical, unique equipment sourcing	<ul style="list-style-type: none"> • Traditional long-lead items procured through early funding commitments 	<ul style="list-style-type: none"> • Supply chain compression activities may include: <ul style="list-style-type: none"> ○ New sources of supply ○ Multi-vendor awards ○ Use of CFM as feedstock to selected vendors ○ Phased procurement and pricing ○ Expedited transport (Aeroflot) 	<ul style="list-style-type: none"> • Prepositioned response and reconstruction contracts should provide for use of commercial practices to the maximum extent possible • Contractors with well-developed supply chains are essential in post-disaster settings
Locally procured material quality	<ul style="list-style-type: none"> • Standard vendor qualification and inspection programs • Material (batch) inspections 	<ul style="list-style-type: none"> • May take physical possession, but not title, at end of inspection line to prevent material substitution further straining overall logistical chain 	<ul style="list-style-type: none"> • Strained logistical chains require the right shipments, at the right time, to the right place • Poor quality and associated back-shipment and rework or workarounds strain an already over-taxed supply chain
Expediting	<ul style="list-style-type: none"> • Focused on baseline schedule execution 	<ul style="list-style-type: none"> • Reflect evolving needs and on-the-ground conditions 	<ul style="list-style-type: none"> • Trafficking into disaster area should not be left to inexperienced suppliers buying shipment services on a low-cost and uncoordinated basis
Traffic routing and logistics plan	<ul style="list-style-type: none"> • Focused on baseline schedule execution 	<ul style="list-style-type: none"> • Reflect evolving needs and on-the-ground conditions • Consider evolving condition of transport routes and other logistics facilities • Increased number of logistics choke points and greater competition for logistics capabilities 	<ul style="list-style-type: none"> • Trafficking into the disaster area should not be left to inexperienced suppliers buying shipment services on a low-cost and uncoordinated basis