Over the past few years, a significant number of students in the Emergency Management Professional Program (EMPP) academies expressed the desire to achieve a professional certification upon graduation. The academies’ curriculum focused on readying the nation’s emergency managers for catastrophic disasters through a whole community approach to emergency management, not necessarily on providing students the opportunity to achieve a professional certification.

The Director of the EMPP innovatively approached key officers of IAEM to explore aligning the EMPP academies with the Certified Emergency Manager (CEM®) certification process. Collaborating with stakeholders such as Cathy Clark, chair of the IAEM-USA Training and Education Committee; Nick Crossley, IAEM-USA president; and Keith Dowler, chair of the IAEM Certification Executive Committee. This collaboration resulted in a detailed educational crosswalk of the EMPP academies’ curriculum with the CEM® certification training requirements.

The collaboration between EMPP and IAEM created a significant benefit for students by aligning the widely recognized CEM® professional credential with the EMPP academies. Not only does graduating from the EMPP academies provide the opportunity for students to receive a comprehensive professional development experience throughout their careers in emergency management, graduating also serves as a pathway to achieving certification or recertification as a CEM®.

The impact and influence of EMPP extends beyond the borders of the Emergency Management Institute (EMI) campus, as we increased the number of field deliveries by more than 200% during the past two years. As a result of these efforts, EMPP provides the opportunity for more students to receive professional development and education in the next-generation emergency management competencies required for success in the contemporary emergency management environment. The EMPP is emerging as the preeminent emergency management school of continuing and professional studies in the nation.

The EMI website states that the EMPP vision is to strengthen the field of emergency management by providing programs with a structured and progressive framework for acquiring the knowledge, skills and abilities to enter and progress through the field of emergency management. This vision does not adequately convey the scope of the EMPP. The EMPP has evolved into much more than a training framework.
Collaboration Between EMPP and IAEM

continued from page 1

EMPP is comprised of three distinct, but competency-linked, academies, focused on providing the knowledge, skills and abilities needed by emergency managers. The EMPP embodies a whole community-centric approach to creating a body of knowledge that meets the challenges of the dynamic and complex environment known as contemporary emergency management.

A Whole Community Forum

The three academies of the EMPP evolved into a whole community forum for the education and professional development of the emergency management profession during the past two years. Our curriculum is designed along a continuum of learning that serves emergency managers throughout their careers. This approach created a school of continuing and professional studies with a student body that represents the tactical, operational, and strategic levels of the emergency management community.

- The tactical level conducts emergency management operations and utilizes resources to achieve the mission objectives.
- The operational level plans and coordinates emergency management operations by assigning missions, tasks and resources.
- The strategic level focuses on the art and science of employing emergency management policy and doctrine.

The Basic Academy

The Basic Academy serves the tactical level of the emergency management community by providing a foundational understanding and application of the key concepts of contemporary emergency management. Starting with course prerequisites encompassing 23 hours of independent study, then offering five residents' courses consisting of 152 hours of classroom instruction, the Basic Academy enables students to gain a common understanding of the duties, roles, responsibilities and implications of a career in emergency management.

Through the Basic Academy, students establish professional contacts and build an emergency management community of practice during the initial phase of their careers. A recent analysis of student feedback, alumni focus groups, and conversations with State Training Officers indicates the Basic Academy in general, and the Foundations Course in particular, are highly valued by the emergency management community. A total of 99% of the respondents indicate they would recommend the academy to their peers. And 24 states have adopted the academy as one of the requirements for state qualification as an emergency manager.

The Executive Academy

The Executive Academy serves the strategic level of emergency management executives by providing the ability to apply executive leadership core competencies in a collaborative learning environment. During 128 hours of classroom interaction, in four separate weeks over an eight-month period, students in the Executive Academy build and sustain a network of peers that leads to improvements in policy and doctrine throughout the community. These peer groups form cohort Capstone Project teams that research, discuss, and share potential solutions that address contemporary issues in emergency management as a means to better prepare the nation for disasters of all types.

Curriculum Supports Goals

The notion of the EMPP as a school of continuing and professional studies is supported by the curriculum of the three academies. The EMPP curriculum is informed by the knowledge, skills, and abilities (KSA) required of emergency managers, as well as the duties, responsibilities and roles in which they apply those KSAs throughout their careers. The EMPP academies are sought after by members of the emergency management profession because the curriculum enhances their student experiences through a practical and rigorous approach to professional development.

The ultimate goal for the EMPP academies was not only to become

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The 2018 National Strategic Leadership in Emergency Management Symposium 2018 will take place on Sunday, Oct. 21, 2018, at the IAEM Annual Conference. The event will be conducted by the Naval Post Graduate School and the International Association of Emergency Managers. If you are interested in the symposium, don’t delay. Purchase your ticket now before all 40 seats are filled. The cost of $65 offsets IAEM administrative expenses. Course materials, continental breakfast, and lunch are provided.

A true leader has the confidence to stand alone, the courage to make tough decisions, and the compassion to listen to the needs of others. He does not set out to be a leader, but becomes one by the equality of his actions and the integrity of his intent (General of the Army, Douglas MacArthur).

The Naval Postgraduate School’s Center for Homeland Defense and Security and IAEM are proud to again offer this graduate-level leadership seminar. The National Strategic Leadership Symposium provides a challenging and dynamic experience for current and emerging leaders in emergency management or related fields. Symposium cadre are tasked with helping participant-leaders examine, construct, deconstruct, or reconstruct their assumptions and biases about the art and science of leadership in public service. Seminar content enhances the participant-leader’s growth and encourages a leadership approach characterized by “respect, commitment, and professionalism” (IAEM Code of Ethics and Professional Conduct, 2011).

This year’s Strategic Leadership Symposium will explore ethical and critical decision-making frameworks for leaders as they confront the reality of more frequent and more complex emergency management challenges, with special reference to those decisions affecting the life and death of fellow-citizens and responders. Participants will advance their critical thinking and strategic leadership skills through facilitated discussions and small group problem-solving exercises focused on the tough questions leaders face when allocating finite resources under extreme time constraints.

Symposium selectees should understand that modest, remote preparation is required (e.g. prerequisite reading, video viewing, etc.). Participant-leaders can anticipate transformative instructional methods that will accommodate various learning styles.

Collaboration Between EMPP and IAEM

Established as the professional standard across the emergency management profession, but also to become closely aligned with the International Association of Emergency Managers (IAEM), and recognized as meeting a significant part of the training requirements for achieving the Certified Emergency Manager (CEM®) certification/recertification.

Achieving the Goals of the EMPP

This goal was achieved through the realization that graduates of the EMPP academies had experienced most of the facets of emergency management professional development and education through a competency-based application of learning. This learning was evidenced through the hours of emergency management and leadership training acquired in the classroom, in writing student academic papers, by conducting student capstone research projects, and in developing public/private partnerships through a whole community approach that formed the core of the EMPP experience.

See conference presentation:
Oct. 22, 2018. 1:45-2:45 p.m.
“New Opportunities for Collaboration: The Emergency, Professional Program (EMPP) and the IAEM Certification Process”
Conference News

IAEM2GO: Your Free IAEM 2018 Annual Conference & EMEX Mobile App

IAEM2GO is the best way to stay updated on event information, including any last-minute changes. Once downloaded, the information stays within the app even if your cellular data or WiFi connection abandons you.

Download IAEM2GO now!
- Search “IAEM” on the Apple App Store or Google Play.
- OR visit the app download link on your mobile device.
- OR Scan the QR code at the lower right.

Need Help?
We will have people on hand at the Crisis Technology Center, who will be happy to assist you in the EMEX exhibit hall.

Features of IAEM2GO
- Complete program schedule and exhibit guide.
- Interactive site maps.
- Social media links, including Twitter #iaem18, Facebook, and LinkedIn.
- Ability to customize your schedule, take notes, find contact information, and search.
- Easily located conference and session surveys.
- Up-to-the-minute conference updates.
- Sections highlighting special events and Grand Rapids.
- Exciting QR Code Hunt game – have fun and explore EMEX.
- Speaker bios and presentations.
- Sponsor and Media Partners information.
- Ground and transportation schedule.
- Information on how to play the IAEM Twitter contest.
- Links to IAEM association information, including leadership, membership, conference planning, committee members, and more.

Quick Links
- Hotel and travel.
- Things to do in Grand Rapids.
- Special events.
- Pre/post-conference training.

Come Early to IAEM 2018 and Reap the Benefits

IAEM has negotiated favorable discount rates at many area attractions. Get an exclusive Private Tour of Spectrum Health, one of the nation’s top 15 health systems – free for registered attendees on Saturday, Oct. 20, 5:30-7:30 p.m. Attend a Grand Rapids Griffins hockey game on Saturday, Oct. 20, at 7:00 p.m. with discounted tickets. Get your team together or join other IAEM attendees in an Escape Room Adventure and see if you can solve the puzzle. Take a tour of one of the many local attractions: Frederik Meijer Gardens & Sculpture Park, Gerald R. Ford Presidential Museum, Grand Rapids Art Museum, Grand Rapids Public Museum and the John Ball Zoo, with discounted entrance as a conference attendee. Plus Show your Badge and receive numerous discounts for dining, shopping and other area attractions.
Kick Off the Conference on a High Note, and Attend the Welcome Party

This not-to-be-missed event is your opportunity to network, see old friends, meet new friends, and explore one of the oldest history museums in the United States. The Grand Rapids Public Museum is the location of this year’s Sunday Welcome Party. It is just steps away from the Amway Grand Plaza Hotel and the DeVos Place Convention Center.

The museum features world-class exhibitions on history, nature, cultural heritage, Native Americans, and so much more. A ticket to this event and free entry to the museum is included for attendees who registered at the full registration type. If your registration does not include a ticket, you may add this event to your registration. Heavy hors d’oeuvres and one complimentary drink will be provided. ▲

New to the IAEM Conference?

Stop by the Pre-Welcome Party Meet and Greet, 4:30-5:15 p.m. in the Amway Grand Plaza Hotel Ambassador West Room. Join other new and seasoned attendees, and expand your circle of friends and colleagues. ▲

Visit the IAEM Annual Conference Website at www.iaemconference.info

Welcome to Grand Rapids, Michigan, USA!

Get the Most Out of the Conference

View the recording of the IAEM Conference Committee webinar on “Expanding Your Conference Experience: Getting the Most out of the IAEM Annual Conference.” This webinar covers the information that you need to know about attending the IAEM 66th Annual Conference & EMEX, Oct. 19-24, 2018 in Grand Rapids, Michigan. ▲
We hope you’ve marked your calendars. The IAEM-Global Student Council’s (GSC) second annual EMbark Student Career and Professional Day will be take place on Sunday, Oct. 21, 2018, 12:00-4:00 p.m. at the IAEM conference in Grand Rapids, Michigan. We want you there!

EMbark offers sessions designed for IAEM’s diverse student members and new professional members. Whether you’re a student, scholar, new practitioner – or all three – you’ll find something of value at EMbark. Speakers, presentations and sessions are geared specifically for students and new professionals.

**Acquire the Skills You Need**

EMbark aims to bring you interesting and beneficial topics, as well as the opportunity to learn and use needed skills. These skills include learning how to: navigate the terrain of both academics and practice; successfully transition after your graduate; network; engage with colleagues and peers; and identify mentors. In addition, EMbark will help you learn about the various career opportunities available in the EM field. Thus, grab an early lunch so you have enough fuel to actively participate – and join us! There will be a couple of breaks for you to grab some quick snacks and caffeinated beverages from nearby places.

**Speaker Presentations**

EMbark will feature three distinguished speaker presentations this year. GSC is honored to announce our guest speakers for 2018:

- Mr. Leslie Luke, deputy director, Los Angeles County Office of Emergency Management, and chair of the IAEM-USA Diversity Caucus;
- Sarah Miller, CEM, owner of S.K. Miller Consulting, chair of the IAEM-USA Emerging Technology Caucus, and co-lead of the IAEM Student Task Force; and
- Charles Palocy, President of the IAEM-USA Student Region.

Come hear them speak, learn from them, and take advantage of the opportunity to ask them your burning questions.

**EMbark Rapid Fire Talks**

This year, EMbark is introducing EMbark Rapid Fire Talks. This interactive opportunity is a platform for you to talk about a specific topic of interest. This is a chance for you to participate, practice your public speaking skills, and get positive feedback in an encouraging space. We will have distinguished judges providing you with valuable and encouraging feedback on how to improve your talks.

The EMbark Rapid Fire Talks are designed to be five minutes long. You choose the topic you feel most comfortable with addressing. Some ideas for talks include: current research projects/dissertation; a special research interest; five-minute job/internship pitch (your elevator pitch); or an introduction pitch on your educational and work background.

You can sign up in advance for a spot. Send us a private message on the IAEM-Global Student Council Facebook page, or send us an email at iaemgsc@gmail.com. You can also sign-up at EMbark for any open spots available that day. If you’ve ever secretly wanted to do an IAEM EMvision Talks (based on TED® Talks), this is your chance to get some practice and overcome your fears!

After EMbark is over, the IAEM conference really kicks-off. As part of GSC’s commitment to supporting and encouraging students, we’ll all be going as a group to the IAEM Pre-Welcome Party Meet and Greet, which starts at 4:30 p.m. Then it’s off to the Welcome & Networking Party.

GSC wants you to have the most educational, productive and fun conference experience. As such, we’ll keep sending reminders about EMbark until the IAEM Annual Conference. We’ll also send you more information on speakers and sessions as we get closer to the IAEM conference.

Don’t forget to check out the GSC on Facebook, LinkedIn and Twitter. We’ll see you soon in Grand Rapids! ▲

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**Conference News**

**IAEM-Global Student Council Presents EMbark Student, Career and Professional Day at the 2018 IAEM Annual Conference**

2018 marks the 25th anniversary of the IAEM Certification Program.
Help the IAEM Scholarship Program by Participating in Special Fundraising Events – Conference Attendance is not Required for Participation

By Dawn Shiley, IAEM Scholarship Program Director

Your participation in IAEM special events will support the IAEM Scholarship Program, which provides scholarships through a competitive process to students working towards degrees in emergency management, disaster management, or closely related fields of study. To date, the IAEM Scholarship Program has provided $107,000 in scholarships to 59 students.

Online Auction – Open to All, Even Those Not Attending the Conference

The Silent Auction to benefit the IAEM Scholarship program is being hosted online via BiddingForGood. We invite anyone at the conference or at home to participate. Register using the online link and track bids online or via the mobile link. Participants may preview the items online or visit the Silent Auction Booth in the IAEM registration area of the DeVos Place Convention Center, in Grand Rapids, Michigan. Here are the important facts about the silent online auction.

- Donations of items are being accepted now and will continue to be accepted onsite as in the past. To donate now, upload a picture of your donation and then bring the item to the event.
- Bidding in the silent auction has begun and is open to anyone (even non-members). Please tell your friends about the auction, and spread the word on social media. The more bidders participating, the more IAEM will raise for the scholarship program.
- You must register to bid. The process is very easy, and all information is kept in a secure portal. Your information is not shared. Register via the link provided above.
- Items will continue to be added to the silent auction. So, keep checking back. There is a category that lists newly added auction items.
- Look for the special featured items. You may be able to place a winning bid for a special experience or vacation that is a “Bucket List” item.
- Silent Auction bidding will end at 12:30 p.m. ET, Wednesday, Oct. 24. If you are present at the conference, you should pick up the items between 1:00-2:00 p.m. ET.
- If you are not present, the items you win will be shipped to you. There will be an additional shipping charge as noted in the auction portal.

IAEM Live Auction

The Scholarship Live Auction will start promptly at 6:00 p.m. and will conclude by 7:30 p.m., Tuesday, Oct. 23. Don’t miss the fun on the stage in the back of the EMEX hall. Items may be previewed in the BiddingForGood portal, or you may stop by the Live Auction Preview Booth in the IAEM registration area of the DeVos Convention Center. Bidders must be present at the auction to participate.

IAEM Basket Bonanza

The IAEM Basket Bonanza is a raffle of themed baskets created by IAEM councils, regions, student chapters, caucuses, and other groups. The event opens by Monday, Oct. 22 at 7:00 a.m. Blue baskets will be drawn at 5:30 pm on Tuesday, Oct. 23. White baskets will be drawn at 12:15 pm on Wednesday, Oct. 24. Scholarship Commissioners and student members will be selling tickets during the conference, or tickets may be purchased at the Basket Bonanza booth in the registration area in the DeVos Convention Center.

Screenshot of the IAEM BiddingForGood site.
last month we continued our discussion on resubmissions with a focus on part two of the professional contributions requirements and the general errors Commissioners encounter while reviewing certification applications. This month I will continue the resubmissions discussion focusing on the last five of the 15 professional contributions.

(K) Awards or Special Recognition

The requirement here is “any personalized award, honor, or special recognition received within the disaster/emergency management community or in conjunction with an emergency preparedness activity.” If the award is not addressed to the individual submitting the application, the Commissioners will not approve it.

Many candidates who receive resubmission letters for this contribution submitted an award or special recognition that was addressed to the office or was not addressed at all. It was not personalized. Other reasons for non-approval of a submission are longevity or routine performance awards.

However, there is an exception to the routine performance award. The application requirements state, “Routine, mass-mailed thank you letters or certificates of participation are acceptable, provided the candidate adequately describes why the award is unique or special.” Here the emphasis is on “unique or special.”

(L) State or Province Certification

The requirement is for the candidate to have “earned a certification as an emergency manager through a government agency, state/province/tribal association, or professional association that is emergency management related, contains a continuing education unit (CEU) requirement, and a term of expiration.” In addition, the certification must be in comprehensive emergency management.

The Commissioners are looking for independent documentation that the candidate has earned an emergency management certification within the application period – 10 years for initial certification and five years for a recertification. They also want to see a document (a copy of the information from the web page is acceptable here) that describes their continuing education requirement and an expiration date for the certification.

Those candidates who receive a resubmission letter usually forget to upload one or both of the required documents. Candidates also will receive a resubmission letter when the certification is for something other than comprehensive emergency management (all four phases of emergency management).

Recently, some candidates have submitted a certificate in emergency management rather than a certification. It is different. A certificate is a document that demonstrates a candidate completed one or more courses of instruction on the given topic. Certification is a warranty or guarantees that a person has accomplished a variety of requirements and possesses some specified level of skill(s). Don’t confuse the two, as the Commissioners do not confuse them.

(M) Legislative Contact

The requirement is for the candidate to “contact an elected representative at the national, regional, tribal, or local government level regarding an emergency management issue.” The main requirement here is elected representative. Candidates who must resubmit under this contribution usually claim an appointed official or a government agency leader. Neither person is an elected representative.

The next requirement is that the issue is emergency management.

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related. Ensure your issue involves some activity under one or more of the phases of emergency management. Highlight the issue in your letter before uploading, to make it easy for the Commissioners to verify your claim.

The last requirement here is that the candidate also must “submit a copy of his/her original correspondence and a copy of the reply or email receipt from the elected official.” Don’t forget to upload both documents. Submitting only one document will result in a resubmission letter.

(N) Research

The requirement is for the candidate to “play a significant role in the development and execution of an emergency management research project.” We define a significant role as being “the primary researcher and author or secondary researcher and author. It does not mean being “the research subject, interviewee, supervisor, college professor, photographer, typist, proofreader, printer, or similar role.”

Research in the requirement here is defined as “a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.” These activities include research that may have been “conducted or supported under a program which is considered research for other purposes. For example, some demonstration and service programs may include ‘action’ research activities and they would be included in this definition of research.

Examples that qualify under the Research contribution include “professor-supervised graduate-level research for graduate thesis or dissertation, developing a project under the Natural Hazards Centers’ Quick Response program, publishing research that updates previous research projects with new data, producing independent analysis for government or nongovernment interest groups (ex. Congressional Research Service, IAEM, Rand Corporation), or research related to expert testimony before relevant government bodies with subpoena authority (state legislatures, some city councils).”

A key aspect most candidates overlook that may result in a resubmission letter is our list of examples that do not qualify under this contribution category. The requirements specifically state, “Producing after action reviews, local hazards analyses, and regular school reports and papers do not qualify under this contribution. Being an interview subject for a research project does not qualify either.” Yet despite these specific instructions, candidates still submit these types of documents for “research” contribution credit. Don’t do it. The Commissioners will not approve the submission.

(O) Other

The requirement states: “Other contributions may be recognized if they do not apply to one of the other established categories. An example is volunteering to go on a disaster assignment not in your jurisdiction. Contributions must clearly demonstrate a commitment to the emergency management profession.”

Candidates often submit a contribution here that clearly fits under a different category. When that occurs, the Commissioners may choose to move it to the category where it really belongs. If there is an approval already made for that category, the Other contribution is not approved. Another issue resulting in a resubmission is that the documentation provided does not “demonstrate a commitment to the emergency management profession.” The documentation is about an activity not related to emergency management (four phases), but to something else. It could be tactical issues like fire, law enforcement, military, or medical. It could be a business issue not related to emergency management or a personal issue. If the activity does not “demonstrate a commitment to the emergency management profession,” Commissioners will not approve the submission.

Final Words

Understanding and following the detailed requirements for each specific professional contribution category and providing adequate documentation that validates your claims will go a long way in preventing a resubmission. Should you still receive a resubmission letter from the Certification Commission, don’t despair. Read the instructions carefully in your resubmission letter, and follow them exactly. Do a final review of your resubmission and all its associated documentation to ensure that you provided everything your resubmission letter specifies. The Commissioners will use that letter to assess your resubmission. Not meeting the requirements therein will result in a rejection letter and the loss of certification.

When you conduct your final review, use the same procedures the Commissioners use (as described above) so you won’t be surprised. Check to ensure that the documentation you upload is complete, accurate, and validates the claim being made. Also, ensure the documentation is readable. If we cannot read it, it will not count!

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Where Are They Now?

Michel C. Doré, PhD, BSN, PCP, CEM, CGU

Editor’s Note: 2018 marks the 25th anniversary of the IAEM Certification Program. Each month this year, one individual from the original certification class of 1993 who has maintained the CEM® for 25 years will be highlighted.

Michel C. Doré PhD, BSN, PCP, CEM, CGU
Associate Professor
Université du Québec a Montreal (UQAM)
Montreal, Quebec, Canada

Years in emergency management: 32 years

Job responsibilities:
Associate professor, responsible for the EM - Major Risk Management graduate certificate program, Université du Québec à Montréal.

Why is your IAEM certification important to you?
The CEM professional certification, provides a sense of community in working environments where EM is often marginalised. It provides credibility and legitimacy to advocate for stronger EM profile and support. It illustrates the professionalization of our field.

What is the best benefit of being certified?
Credibility

Last county I visited: Croatia

Most exciting thing I’ve ever done:
Skydiving

Top thing on my bucket list:
Complete my black belt in tae kwon do

The hardest thing I’ve ever done:
Get my Ph.D.

A Reason to Celebrate!

2018 marks the 25th anniversary of the IAEM Certification Program – and we’re celebrating all year long!

Anniversary news and updates will be posted on the IAEM website and IAEM social media throughout the year.

CEM® Corner
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It is your responsibility to ensure that the resubmission is correct and complete and submitted on time (within 90 days of the date of the resubmission letter).

In the Next Issue

Next month I will describe continuing errors the Commissioners encounter with the essay. As usual, please send any questions you have about the examination or the certification process to me at info@iaem.com, and I will address them in future articles.

Support the future of emergency management through your donations to the IAEM Scholarship Program.

www.iaem.com/Scholarships
Editor’s Note: IAEM launched the IAEM Certification Profile Series as a way to highlight AEM®s and CEM®s across the world. Each month we will spotlight another emergency manager.

Art Kirkland, CEM
Director, Office of Emergency Management
UCLA
Los Angeles, California

Years in emergency management: 12

Job responsibilities: All hazards planning, response, recovery for a large, state-sponsored university.

Original certification date: Sept. 13, 2014

Why is your CEM® certification important to you? I think it both speaks to my dedication to the profession, while also inspiring me to keep pushing.

How do you promote the IAEM certification program? It is one of the first things I talk about with anyone who inquires about EM as a career.

What is the biggest benefit of being certified? Credibility with others in the field.

If you could create a tagline for the certification program, what would it be? Let others know that you know.

Top thing on my bucket list: Visit the Antarctic.

My pet peeve is: Tardiness.

My motto is: I drink coffee for your protection.

Learn about the IAEM Certification Program and apply to be a Certified Emergency Manager or Associate Emergency Manager candidate at: www.iaem.com/CEM

All IAEM Headquarters staff were pitching in to get the conference badges mailed on Oct. 9, 2018.
IAEM in Action

L-R: Paul Taylor, FEMA Region 7 administrator; Dan Robeson, IAEM-USA Region 7 president; Teri Smith, IAEM-USA second vice president; and Keith Haberer, KEMA president, at Kansas Emergency Management Association Conference, Sept. 13, 2018.

L-R: Chelsea Firth, IAEM program manager; Erik Caldwell, director of economic development, City of San Diego; Sundip Doshi, founder and CEO, AerNos, Inc; John Valencia, executive director, San Diego Office of Homeland Security; and Rich Serino, distinguished visiting fellow, Harvard University, and IAEM Think Tank Moderator, after the IAEM Think on “Smart Cities – How New Technology, Including Nanotechnology, Can Enhance All Phases of Emergency Management,” San Diego, Sept. 25, 2018

IAEM-USA Treasurer Hugh Daniels, CEM, UCEM, pictured here with IAEM CEO Beth Armstrong, visited IAEM Headquarters Sept. 18-19, 2018, to complete financial tasks and then stayed for the Certification Commission Meeting Sept. 19-21.

IAEM Certification Commission Chair Keith Dowler, CEM, with new Commissioner Deb Teske, IAEM-USA Treasurer Hugh Daniels, CEM, UCEM, and Tom Ignelzi, CEM, at IAEM Headquarters, Sept. 19-21, 2018.

The IAEM Certification Commission met for credential reviews at IAEM Headquarters, Sept. 19-21, 2018.
IAEM in Action

Left to right: Joel Thomas, SPIN Global; IAEM-USA President Nick Crossley, CEM; and IAEM-USA First Vice President Marty Shaub, CEM, UCEM, discussed public-private collaboration at the 2018 National Emergency Management Association (NEMA) Annual Forum, Savannah, Georgia, Oct. 2, 2018.

NEMA Legislative Committee Chair Dr. Jeff Stern (VA), with IAEM-USA President Nick Crossley, CEM, (right), who presented remarks at the Oct. 4 committee meeting held during the 2018 (NEMA) Annual Forum, Savannah, Georgia.

L-R: Ohio Director and NEMA Secretary Sima Merick with IAEM-USA President Nick Crossley, CEM, at the FEMA PrepTalks, Morton Auditorium, Washington, D.C., Sept. 6, 2018.

IAEM-Latin America & Caribbean President Roberto Macchiavello, CA, visited IAEM HQ Sept. 4, before returning to his home in Chile. He has spent the past several months in Emmitsburg, MD, and is the first non-U.S. graduate of all three EMI Academies (Basic, Executive and Advanced). Shown with IAEM CEO Beth Armstrong, MAM, CAE, at IAEM HQ.
Disaster Zone

Preppers: What Is Your Approach?

by Eric E. Holdeman, Senior Fellow, Emergency Management Magazine, blog at www.disaster-zone.com

As an emergency manager, I’m always interested in meeting people who take an interest in disasters and disaster preparedness. National surveys say that 40% of the United States population is prepared for disasters. Personally, I don’t think 40% of emergency managers and their families are personally prepared for disasters!

Getting prepared and staying prepared is not that easy. You must have the economic wherewithal to put together a disaster kit. You need the desire and ability to plan for a disaster and all the ramifications that come with being personally impacted. Ideally, these same people will seek out training in disaster response skills like first aid. Earlier this year, I was inventorying the backpack I keep in my car for what I had for food, water, clothing, etc. At one point I was going “Yikes” at the age and status of some of the canned food that I had on the bottom of the backpack. I was personally embarrassed with my lack of attention to my car kit.

Nationally, the preparedness message is to be prepared to be on your own for three days or 72 hours. On the West Coast, the states of Oregon and Washington are advising citizens to be prepared to be on their own for two weeks/14 days. This is because of the threat of catastrophic earthquakes and the inability to get government or other aid into disaster zones within the normal three-day standard.

Depending on the jurisdiction and make-up of a community, it is not unusual to see government assisting their communities to take collective action towards disaster preparedness by promoting neighborhood coalitions of people who team together. Another form of this teaming is Community Emergency Response Teams (CERT) that get some basic disaster response skills and are equipped to help as a more cohesive team with first aid, light search and rescue, communications or other similar disaster skills. Much effort has gone into organizing these teams, with the challenge of keeping them trained and active when you are not having an annual disaster to which they would respond.

The next group of people who take disaster preparedness to an entirely different level are what is popularly called “Preppers.” In another era, they might have been called survivalists. These individuals and families are ones who are not thinking three days, not two weeks or two months – they are thinking a year or even more.

One element that is not 100% consistent across the board with Preppers is their interest in owning and maintaining weapons, that include pistols, shotguns, hunting rifles and even assault rifles. My favorite quote from a book on “Prepper Guns” is “You can never have too much ammunition.” This one element of weapons is perhaps a piece of what separates many Preppers from those who are interested more in what would be the purist view of disaster preparedness. For people who are hunters, having a rifle and shotgun to harvest wild game to feed your family is certainly an option.

Conceptually, we as emergency managers should embrace anyone who is so dedicated to becoming prepared and maintaining that level of disaster preparedness. So, what has your approach been to engaging with Preppers?

For me, what I look for is the motivation for becoming prepared. Generally, there is the disaster theme, but that can quickly evolve into thinking about “have nots” coming to get “what I have” and needing weapons to protect my family, property and possessions. This type of thinking is fed by our modern movie culture extending back decades that has a breakdown of civil order occurring. Mad Max or Escape from New York movies epitomize this type of thinking.

Another element that can come to the fore and feed people’s thinking about the need for a higher level of preparedness, and the need for weapons, are those people who anticipate a government takeover of personal property or a race/cultural war occurring. They feel driven to arm themselves to become prepared to survive that type of national calamity.

There certainly is a gun culture within the United States, and I have many personal friends who own weapons for self-protection, hunting or just target shooting. These are not wild-eyed extremists.

Personally, I’m OK with Preppers and their goal of taking their preparedness beyond what governments may recommend. It is the individuals and groups that espouse the more extreme views who I choose not to embrace. Which brings me back to the title of this column, “What is your approach to Preppers?” ▲
Series from the IAEM-USA Training & Education Committee

Systematic Approach to Training – Implementation Phase

By Dirk L. Foster, CEM, IAEM-USA Training & Education Committee Member

Editor’s Note: This is the fifth in a series of articles from the IAEM-USA Training & Education Committee on “A Systematic Approach to Training.” Previous articles included an overview of the process and articles on analysis, design, and development. This article will discuss implementation of the training, and a future article on evaluation will appear in the December 2018 IAEM Bulletin.

The ADDIE (Analysis, Design, Development, Implementation and Evaluation) model of the Systematic Approach to Training (SAT) can be used to design a training program for almost any organization. Commercial nuclear power plants are required to use it to design training programs for their operators and engineers. While you do not have to be as rigid as those programs, understanding and applying the basic principles of ADDIE will give you a strong and fundamentally solid training program for your Emergency Response Organization (ERO).

A Quick Review

Before we jump to the implementation phase, let’s do a quick review of the first three phases of ADDIE.

- Analysis – The analysis phase sets the foundation of your training program. (See my article in the April 2018 IAEM Bulletin). You’ve done needs and job analysis, identified the tasks, and assigned them to individuals in your ERO. You’ve done task analysis by determining the importance, difficulty and frequency of those tasks and determined which ones require initial and refresher training or no training at all. Finally, you’ve put it all together in a Task-to-Training Matrix (TTM), which documents your team’s decisions, and you’ve reviewed the heck out of your TTM using subject matter experts and incumbents to ensure that you’ve covered all the tasks that your ERO might perform.

- Design Phase – (See my June 2018 Bulletin article). In the design phase, you’ve created your Terminal Learning Objectives (TLO), which clearly stated the measurable performance the trainee should be able to demonstrate at the conclusion of training and the enabling objectives that support the TLOs. Also, in design, you’ve determined your settings in which to conduct the training and developed training/evaluations standards which link TLO to training material. Additionally, you’ve developed your evaluation items and exams containing higher cognitive written questions and job performance measures. In the emergency management world, training drills and evaluated exercises also should be part of the training program. Finally, you’ve documented your program in a training and administrative guide.

- Development Phase – (See my August 2018 Bulletin article). The first step in development is to select your training methods based on your TLOs and settings. Methods include lectures, drills, discussions, oral questioning, walkthroughs, and self-paced (also known as computer-based) training. Development of the lesson plans is the next step in the phase. Lesson plans need to be more than just an outline. Their primary purpose is to provide consistency between the instructors, so provide ample details. Next is the development of training support material, such as PowerPoints, handouts, props and demonstrations. Finally, if possible, you should conduct a dry run or trial and make any needed adjustments.

Steps of the Implementation Phase

- Prepare for Training – Step 1 of the implementation phase is to prepare for the training. This isn’t difficult if you’re the one who wrote the lesson plan. But if you are having an incumbent conduct the training, make sure they know what is in the lesson plan and will cover the important points in it. Don’t just let them cover what they want to cover. Also, if you are having an incumbent conduct the training, choose wisely. Just because someone is good at their ERO position doesn’t mean they are good instructors. You should plan to be in the classroom at least for the first few times an incumbent gives the training until you are comfortable he or she does a good job training.

My biggest pet peeve is electronics that don’t work in a classroom. Get there early, and check, double-check and triple-check to make sure all of the videos work. Be sure you have access to the Internet if you need it, as well as access to any programs such as WebEOC. Also, have a backup plan. I don’t know how many times, I’ve said, “It was working just a minute ago.”

Delivering the Training – This is training, not education, and you

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are talking to adults, not young people. Individuals have Ph.D.s and have written entire books on adult learning theory, so I can’t do it justice in this short article. But what I will say is that there will be a lot of experience in the room, so capitalize on it. Your students will want to talk about their experiences that relate to the topic, so try to draw those out of them.

Keep it light and moving. Watch how your students are reacting to your presentation. If they are engaged and asking questions, great. If not, try to get them engaged. Ask the entire class general questions, and see who responds. If there is an individual who isn’t engaged, ask a directed question to them. Throw them a softball question at first to build their confidence. You need to cover everything in the lesson plan, but the level of detail can vary. Know what is on the exam, if there is one, so you are sure to cover that material in sufficient detail. Don’t stamp your foot when covering it, however. That’s an old Navy trick.

Evaluate Student Performance – Monitor student performance during and following the training. Exams created during the design phase would be the best indication of performance and could be something other than a written exam. Job performance measures, where the student is given a situation and needs to perform a task identical to the one they will be performing during an incident, are great evaluation tools. But be ready to transition to the job performance measure quickly. Minimize your down time, and if it is administered individually, consider multiple work stations and multiple examiners if possible. Written exams, including multiple choice, also can be effective if well-written.

The most effective time to administer an exam is a day or two following the training, but that is not efficient and not very practical. Usually an exam takes place immediately following the training, and I get that. The important point is that the exam is graded and the student receives feedback very soon after the exam is turned in. Multiple choice exams are the quickest to grade. I highly recommend going over the exam as soon as the last student’s exam is graded.

In emergency management, exercises are the ultimate evaluation tool and should be part of the qualification of a candidate. The timing of exercises is usually governed by factors external to a training program, and I would recommend you keep it that way. A candidate should have completed all of the training and drills on their qualification card weeks and even months prior to an exercise. Don’t try and schedule all of the training just prior to the exercise. You need to evaluate whether your students have retained the information in the long term.

In-training Evaluation – During training, data should be collected in order to evaluate and improve training effectiveness. Consider three sources.

Test performance data is a great indicator to identify improvements in a training program. Every time an exam is taken, data should be collected on how students perform. When enough data is collected, analyze it for problem areas. Is it a bad question? Is the material not in the lesson plan? Was the material in the lesson plan, but the instructor didn’t cover it in enough detail? Ask the instructor for his or her feedback, especially if it is an incumbent. Usually this is informal feedback, just a verbal discussion or maybe an email, but there is nothing wrong with creating a form and making it formal feedback.

Student feedback always should be formal and should be solicited every time. I always like to hand out the form at the beginning of the training and collect it after the exam. That gives the student the opportunity to write something down as soon as they think about it during the training. However, some would argue that this will disrupt the thinking of the individual and draw them away from the training. Either way, just make sure it happens.

The feedback form should ask about the training environment, pace of the training, clarity of material, quality of media, and instructor performance. Always include the general question – “What could be done to improve this training?” – at the end.

Document Training – The final step in the implementation phase is documenting the training program and the student’s performance. Maintaining training program records include most recent job and task analysis, course schedules, lessons plans, exam items and exams, qualification cards, student attendance, instructor evaluations, and audits and evaluations.

Student records include: an individual’s education, training, experience, and qualifications at the time hired; a summary sheet indicating the individual’s current and previous positions with the organization; training received, qualifications achieved, and continuing training required; a record of emergency management training completed, including course title, attendance dates, test

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You’re Invited to Join the IAEM-USA Transportation Ad Hoc Committee

Are you interested in helping to shape the future of emergency management in the transportation sector? Would you like to contribute your knowledge to identify best practices and lessons learned to inform the industry? Then join the IAEM-USA Transportation Ad Hoc Committee!

Our mission is to help strengthen the emergency management field in the transportation sector, to include airports, rail, ports, maritime, transit, or any other transportation provider. Our first meeting will be at the IAEM Annual Conference on Tuesday, Oct. 23, 2018, 4:15-5:15 p.m. At that meeting we will codify our mission, purpose, and annual goals for the collaborative. We look forward to seeing you there. To join, please visit our web page.

Help give emergency managers access to the right information about children and disasters.

The IAEM-USA Children and Disasters (CAD) Caucus has the goal of making the CAD Resources page “the” place for IAEM members to go for information related to children and disasters. The sources and links were scrubbed and new categories provided to help emergency managers more quickly find references and sources of information that are both relevant and timely. There is much more to do. If you would like to join our caucus or learn more about out projects, please contact us. We are stronger and better armed to do our jobs when we have the diverse and valuable feedback you all can provide.

Systematic Approach to Training: Implementation

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performance, and certifications of successful course completion, and a record of waivers or exceptions granted, including course titles and statements of justification.

Finally, provided periodic emergency management training reports to appropriate levels of management. Examples of items included in the report are number and percentage of personnel qualified for a specific position, number of individuals working on their qualifications, analysis of recent courses provided and summary of the feedback, and training issues and problems being addressed.

Last Thoughts

As you can see, there is a lot more to a successful training program than just presenting material to your ERO. But the implementation phase is what your ERO sees and is the face of your training program. If you have done a good job and task analysis, developed good lesson plans, and designed well-written exams, implementation should be easy. Just make sure you use instructors who can relate to your students and can keep them engaged in the training.

Looking Forward

The last article in this series will appear in the December 2018 issue of the IAEM Bulletin and will cover the evaluation of your training program.

Are you interested in learning more about cybersecurity and other emerging technology topics?

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Nov. 16-17, 2018

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Plan now to attend!
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Watch for the November 2018 issue of the IAEM Bulletin, which will feature more articles on the special focus topic of “Opportunities and Innovations in Emergency Management, Part 2”

The IAEM Bulletin, a benefit of membership in IAEM, is in its 35th year of providing news and resources to IAEM members.

The Bulletin Archives are available online for members only at www.iaem.com/Bulletin.
When the massacre at Columbine High School happened in 1999, the concept of an active shooter event was rare.

Thirty-three years prior, a gunman perched upon a clock tower at the University of Texas at Austin and killed 16 unsuspecting people and injured 31 more. Thirty-two years passed before another large-scale incident happened – this time in Jonesboro, Arkansas. Five students died and 10 were hurt when 11- and 13-year-old middle schoolers opened fire on March 24, 1998.

Thirteen months after Jonesboro, two heavily armed high school students in the Denver suburbs killed 12 students and a teacher. Emergency responders, the public, and the media eventually took note of a disconcerting pattern emerging.

A Pattern Emerges

In the years since Columbine, we have seen similar attacks and assailants employing new tactics with the same harrowing effect. Sadly, these horrific incidents are happening with greater ferocity and frequency.

The uptick in active shooter/hostile event response (ASHER) incidents and their effects demonstrate that emergency responders and others can no longer afford to have a narrow view of response planning. The days of working in silos are gone. Police, fire, EMS, policy makers, AHJs, hospital officials, and those responsible for buildings or campus life safety must unify before, during and after mass casualty incidents to best protect citizens.

Chief Otto Drozd of Orange County Fire in Florida understands the importance of unified command. He and his department responded to an active shooting incident at Orlando’s Pulse Night Club on June 12, 2016, that killed 49 people and wounded 58 more.

Based on his experience that evening, and in the weeks that followed as Orlando worked toward recovery, Drozd knew that authorities could do more to come together and proactively address hostile events. He turned to the National Fire Protection Association (NFPA) to lead the charge less than four months after the incident in Orlando, and NFPA quickly responded.

Over the next three months, 103 Technical Committee applications and more than 150 comments were submitted to NFPA in support of a proposed ASHER standard. In April 2017, the NFPA Standards Council formed the Technical Committee on Cross Functional Emergency Preparedness and Response. This committee is comprised of representatives from the fire service, law enforcement, EMS, emergency management, higher education, private security, healthcare, facility management professionals, and more. Committee members hail from different disciplines and government agencies, including the FBI, Department of Justice, and Homeland Security. They responded to hostile events at Sandy Hook Elementary in Connecticut, the Pulse Night Club in Orlando, the Route 91 Harvest Festival in Las Vegas, and the Boston Marathon.

In May 2018, the NFPA 3000™ (PS), Standard for an Active Shooter/Hostile Event Response (ASHER) Program was released. It is only the second provisional standard developed by NFPA in its 122-year history. Provisional standards are developed in an expedited process to address an emergency situation or other special circumstance.

NFPA 3000 is a comprehensive model for holistically and proactively handling mass-casualty events. The standard covers every aspect of the planning, response, and recovery phase. The standard offers guidance for emergency managers, first responders, policy makers, healthcare practitioners, community leaders, and building authorities.

Here’s a sampling of what emergency managers will find in the standard’s 20 chapters.

Risk Assessment

NFPA broadens the scope of risk assessment by including components...
based on actual consequences from different types of domestic and international attacks. The standard encourages Authorities Having Jurisdiction (AHJs) to look beyond the number and types of injuries to individuals, and consider environmental damage, property/systems disruption and other broad-based outcomes, so that each organization’s plans and resources are recognized.

**Planning and Coordination**

The standard mandates that emergency managers and planners take an inclusive approach to ASHER planning. It establishes minimum emergency responder competencies, so that the overall capabilities of a unified planning system and the availability of response resources are clear. Then a gap analysis should be conducted, and a memorandum of understanding (MOU), standard operating procedures (SOP), and mutual aid details should be developed ahead of time.

**Resource Management**

Supplies for patient care, specialized vehicles/equipment, and disposable and durable resources need to be considered. AHJs should create plans for their own staffing and all response and emergency management entities, so that there is a full understanding of all resources and a complete record-keeping of supplies.

**Incident Management**

Unified command is especially vital for ASHER incidents due to the rapid evolution and mutable nature of events. NFPA 3000 offers size-up guidelines to ensure that early, cross-agency integration can be sustained as the ASHER incident progresses. Once life and safety objectives have been met, preservation of the scene and evidence as well as witness identification become primary considerations. In some cases an emergency manager may have the best, real-time information of campus/facility plans and capabilities, and can help response leaders quickly assess the threat and speed up the process for critical care.

**Facility Preparedness**

Collaboration is required to determine the number, location, and contents of bleeding control kits (as well as their use); internal staff response procedures; and how to notify occupants. Additionally, emergency action plans (EAPs) need to include:

- identification of lockable spaces that can be secured from the inside (as well as how to unlock them from the outside for public safety);
- egress procedures; and
- communication procedures for facility staff and responding entities.

**Financial Management**

The financial management section of NFPA 3000 stresses the securing of funds by multiple sources ahead of time. In addition, the creation and maintenance of a comprehensive management plan for program costs, inventory control and cost recovery issues are addressed in the standard’s annex.

**Law Enforcement Competencies**

NFPA 3000 identifies competencies for law enforcement professionals. This is a first for national standards. NPPA 3000 states that regional and local policy dictates the specific tasks and competencies that officers need to be proficient in, and indicates that police are required to have knowledge of a threat-based system of medical care that’s consistent with their AHJ’s policies and procedures.

**Fire and EMS Competencies**

NFPA 3000 covers fire and EMS responsibilities, including:

- threat-based care (determined by the hazard or risk present);
- hot/warm/cold zone tasks; and
- off-site operations.

The standard also addresses competencies for several ASHER scenarios, including:

- incidents with a vehicle as a weapon;
- improvised explosive device incidents;
- fire and smoke as a weapon scene; and
- immediate danger to life and health environments.

**Personal Protective Equipment (PPE)**

NFPA 3000 states that personnel exposed to ballistic risks or other hostile threats should be provided with body armor certified to National Institute of Justice (NIJ) Level III-A. Any deviation from this standard where immediate actions could prevent the loss of life, and where personnel are deployed without ballistic protective equipment, requires post-incident analysis and justification of the decision to the AHJ.

**Training**

The AHJ is responsible for determining the scope of training needed for their program and its support elements. NFPA 3000 codifies the manner and frequency in which these trainings will occur.

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The Days of Working in Silos Are Gone
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Training should be conducted jointly with all anticipated responding ASHER agencies, initially and periodically. It also should take place in the response jurisdiction wherever possible to familiarize responders with the geography and layout of the area.

Public Education and Information

Interaction with the public should happen before, during and after an ASHER incident. NFPA 3000 identifies communications methodologies, including what a crisis public notification should entail and the importance of funnelling inbound requests through proper channels so 911 centers and other critical infrastructures aren’t overwhelmed.

Continuity of Operation

Restoring mission-critical resources to operational status after ASHER incidents is essential. NFPA 3000 echoes the continuity requirements of NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs. Tragedy in a community does not put obligations to the general public on pause. NFPA 3000 outlines what needs to be in place to maintain a sense of business as usual.

Hospital Preparedness and Out-of-Hospital Incidents

For hospitals that receive ASHER-incident patients, response and communication needs must integrate well with the local AHJ’s plan (victim identification, facility security, patient screening for weapons/devices, etc.). The provisions in the standard are designed to enhance what is already required in Training should be conducted jointly with all anticipated responding ASHER agencies, initially and periodically. It also should take place in the response jurisdiction wherever possible to familiarize responders with the geography and layout of the area.

About the IAEM Bulletin

The IAEM Bulletin, the official newsletter of the International Association of Emergency Managers, is published monthly by IAEM to keep members abreast of association news, government actions affecting emergency management, and research and information sources. The publication also is intended to serve as a way for emergency management colleagues to exchange ideas and information on programs. Issues from 1999 through the present are available in the members-only IAEM Bulletin Archives.

Every one of us has a story to tell – and a lesson learned to share.

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The Bulletin is distributed electronically via the members-only archives to emergency management officials each month, representing all levels of government, industrial, commercial, educational, military, private, nonprofit and volunteer organizations.

Publishing an article in the IAEM Bulletin may help you to meet IAEM’s certification requirements. If you haven’t submitted an article lately, or at all, please review the IAEM Bulletin author’s guidelines.

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July 2012 marked a year of devastating fires across much of the western United States. Albany County, Wyoming, was competing for assets because of two fires within the county that were more than 100 miles apart. The Emergency Management Department had been moved from a city level to the county level, and one person held the position. The Squirrel Creek Fire involved mass evacuations, with more than 200 homes threatened, consuming more than 30,000 acres. The Arapahoe Fire consumed 100,000 acres and was located primarily on Forest Service lands. It is safe to say that hindsight is 20/20. Therefore, our after action reports are instrumental in creating change that will assist our community in being resilient.

Emergency Management Stretched Beyond Capacity

Emergency management was stretched beyond capacity assisting with communications, logistics, external affairs, mass housing and evacuations. The community donations were overwhelming and consuming the new emergency manager’s time. Identification of the successes and the improvement areas have been key in developing the department to what it is today. Improvements were not made in just equipment and resources, but also in relationships.

In 2018, the same county had two similar events taking place – again competing for assets. The Badger Creek Fire, which began in June, consumed 30,000 acres. The fire was complex and threatening major infrastructure. Residents again were evacuated, and major transportation routes were impacted. In August 2018, the Britania Mountain Fire began consuming private property and relying heavily on local assets. The majority of firefighters in this county are volunteers. The Badger Creek Fire stretched assets out for eight weeks, and the Britania Mountain Fire was so close on its heels that the cooperation from private industry was imperative to the success of the event. Two county jurisdictions were heavily impacted. Their cooperation was the key to the success of the evacuation operations and communications with the public.

Again, both events were more than 100 miles away from each other and, as in 2012, the community assets were stretched thin. The fire teams were subject to federal regulations. The planning and preparedness of the community was very different from 2012, and the weight on emergency management’s shoulders was vastly different.

How EM Is Impacted by Events that Stretch our Capabilities and Capacity

These emergencies from 2012 and 2018 are examples of how emergency management’s ever-changing world is impacted by events that stretch our capabilities and capacity. Emergency management is a relatively new field that is being assisted by the development of new tools to make our jobs easier. Resource management tools assist in being able to support logistic requests, while IPAWS and commercial companies can assist with alerting the general public. Statewide communication and interoperability requirements have assisted in being able to work across jurisdictional boundaries with your own equipment and mitigating the challenges of communication deficiencies. We have tools that can assist in sharing information across professional associations, private industry, and multiple levels of government and nonprofit organizations.

Think About Your Role in Your Community

Think about the role you play in your community. Your background is key to assisting you in understanding the situation and knowing the decisions that need to be made during the ever-evolving dynamics. I have seen emergency management professionals with backgrounds from an emergency responder field, military backgrounds, and business executives. Each brings to the table the diversity needed to provide insight during our emergency management cycle that includes mitigation, planning, response and recovery for events that impact various communities.

We all have those days when you want your emergency to stop. Consider for one moment that your role in daily decisions is not just during times of disasters. Consider what you can do to assist your community in being prepared to deal with the most controversial, dynamic situation before it takes place. Although every emergency starts local and ends local, there may be competing interests that involve federal regulating of assets. It does not matter if you work at a government level, private industry,
During the Fukushima nuclear accident in 2011, I served 11 months in Japan as the lead American nuclear representative during the crisis. With three hours’ notice, I was leading the largest-ever American international nuclear response while in an unfamiliar culture. I learned a great deal about diversity during my work there. As Americans, we are a diverse people, unmatched by any other country in the world. We look like the world, and that’s a benefit.

Our diversity experience is a strategic advantage in an international emergency response. People often ask me how the cultural differences between Americans and Japanese affected our response. This article summarizes my response to that question.

Making Adaptons Is Essential

During the Fukushima response, I had to make some fundamental adaptation of my own culture, and the Japanese had to adapt to us as well. We made some simple adaptations, and then there were more complex adaptations that were needed. One immediate adaptation was in the use of interpreters. After our first few meetings, I realized that our interpreters were striving to translate our words precisely. Often, we would leave meetings without reaching our strategic goals. As a result, I changed our interpreting process.

We began to meet with our interpreters before the meetings to explain our goals for the meeting. I asked them not to translate our words exactly and instead to interpret our words in Japanese in a way that would be meaningful for our Japanese colleagues. We would spend as much time with the interpreters before the meeting as we did in the meeting itself. The change worked, and our meetings become more effective thus we had adapted to their culture.

We all come from different cultures, but our relationships had to be flexible enough and go the extra mile for us to adapt to different cultures. You must respect the cultures of others. For instance, there was a difference in how we attended meetings. The first lesson was that by recognizing your hosts’ culture, you gain their appreciation. Just by recognizing their culture, they realize that you’re aware of their culture. When you drop into a country that’s more homogeneous than we are in the United States, suddenly you become a minority in a different majority culture. You walk into somebody else’s shoes at that point. It makes you hypersensitive to culture, because you spend a year trying to accomplish work. It’s not just vacationing and seeing the sights, but trying to get something accomplished when you are the minority culture.

At our first meeting, we went into the meeting room with the Japanese, and they were arranging the chairs and tables in a proper structure, and it took 20 minutes to get the chairs arranged. As a classic American, I was thinking, “Let’s just sit down and get to it. Let’s get it done.”

They’re arranging the chairs, and they’re all setting things up in the “right, proper manner.” I am thinking, “This is frustrating because we’re losing a lot of time here. We could be talking about reactor safety issues.” However, part of their culture is to set the stage for the conversation. Setting the stage is important.

Later we learned to use our new knowledge of their culture to our advantage. We decided to help put the chairs and tables in the right order to speed up the process. After a while, we understood what order the chairs need to be in and the proper arrangement.

We pitched in as soon as we arrived at the meeting location. “Okay, let’s move this chair. Let’s...”
move that chair. Let’s move this table. Let’s get it in the proper arrangement, and then we can have a dialogue.” You gain their appreciation because we were making a point of understand their culture.

Another lesson is to understand that your actions may send inadvertent messages to other cultures. We went to a strategic communications meeting where the Japanese were developing a worldwide communications strategy. They were communicating that Japan is “open for business,” that they wanted to send a message to the world that Japan is open for business. I was the leader of the delegation, but business marketing is not my area of expertise. That’s the expertise of the public relations staff at the embassy. I thought, “Well, I’ll push them forward. I’ll put the head of public affairs at the front of the table, and I’ll sit back against the wall in the back room and watch what’s going on – mostly to learn.”

That meeting was in chaos because the host was offended. He was offended because I, as a leader, sat back. In America, the leader doesn’t have to always be there at the front of the pack. American leaders push other people forward. He was offended because I sat at the side of the room. That’s an offense. I had to go up and sit at the front of the room to provide for the proper meeting protocol.

**Making Way for the Traditions of Others**

Sometimes you must make way for the traditions of others. Every night we met with the Prime Minister’s cabinet. When the Cabinet has visitors, typically they make a presentation, you listen, and then they adjourn the meeting. That’s it. To hear your response, they have another meeting the next day. I thought, “This is not working for me. I would like to ask some questions here.” Eventually, we asked them for the privilege to speak during their presentations. When I did have the privilege to speak, first I honored and respected and showed remorse for the losses that they have had. I congratulated them on the successes that they had in building a personal report.

To break the ice, the Prime Minister’s assistant and I developed this little thing going back-and-forth about my dog back in America. I shared that I’ve been in Japan for three months, and I said, “I’ve needed to get home because I have to feed my dog. I hear they have to eat.” It was a silly joke, but it broke the ice.

It became like a little running joke that if I had to go back to the States for something, he would say, “You’re going to go back to feed your dog.” I would respond, “Yes, I am going back to feed my dog.” This was a big formal meeting with the Prime Minister’s cabinet, but we had this little running joke. Most people love a pet. Who doesn’t love a dog (or cat)? Use these commonalities in adapting to another culture.

**Adaptation Is Mutual, as Each Party Adapted to the Other’s Culture**

Eventually, the meetings became extremely productive. It even got to the point where, after each speaker, they would allow us to ask questions rather than just at the end of the meeting. With a little bit of relationship building, they adapted to us. We had to adjust to them, and they also adjusted to us. The Japanese adapted to the American culture.

One of the biggest lessons that I learned was “Lead from where they are.” It’s similar to Stephen Covey’s “seek first to understand,” but I added lead from where they are. We were having difficulties getting our point across to the Japanese. We were struggling to get them to accept our points. Typically for Americans, we just talked louder. I had an epiphany one day: “We’re kind of like a classic American. We go in somewhere, we listen to the situation, we assess it, and then we tell them what to do because we know best.”

For Americans in a foreign country, it’s often: “listen, assess, and boss.” That’s what Americans do. Since they know best, they tell their international colleagues what they should do for their emergency response because we think that we know best. That’s what we were trying to do during the first couple of days.

**What I Learned About Building Trust**

What I learned is that it doesn’t matter if it’s your children, it doesn’t matter if it’s a colleague, and it doesn’t matter what the relationship is. It’s best if you listen to the other person. As Covey would say, listen to understand, and then help them with their issue, whatever it is, as they see the issue. Help them get over whatever it is that they’re struggling to get through. From that, you build trust. You listen to them, you learn what their issues are, and you help them get over whatever it is. By building trust with them, they’ll appreciate you. Then finally you can lead them somewhere.

Instead of listen, assess and boss, it’s better to listen, learn, help and lead. It doesn’t matter if it’s your

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Harnessing Big Data and the Power of the GPU: Transformational Innovation in Emergency Management Analytics and Situational Awareness

By Sean Michael Griffin, CEO, Agile Inclusion Inc., and Jonathan Flack, CEO, Disaster Analytics Corporation

As increasingly large data volumes become available to emergency managers, many are looking to leverage massive, heterogeneous data sets across lifeline sectors to enable better decision-making in all four phases of emergency management.

Smart cities, the Internet of things, improved sensor networks, and a plethora of new orbital platforms, are producing data at an ever-increasing pace. Yet, platforms utilized by emergency managers today lack the needed bandwidth, processing power, and memory bandwidth to analyze this growing onslaught of data fast enough, or accurately enough to glean useful operational insights.

Recent developments in GPU (Graphics Processing Unit) based platforms, built to meet computational demands ranging from artificial intelligence/deep learning to real-time intelligence data analysis, will soon transform how emergency management professionals collaborate and access these ever-growing volumes of data.

Emergency managers are now able to harness the power of the GPU to drive transformational shifts in collaboration between stakeholders, and dramatically improve situational awareness. Now they can do this in real time.

The Problem: Historically Poor Situational Awareness has Led to Poor Decision-Making

The Federal Emergency Management Agency’s (FEMA) 2017 Hurricane Season After Action Report (AAR) identified lessons learned and recommendations to build a culture of preparedness, reduce complexity, and improve the nation’s readiness for catastrophic disasters, in alignment with the FEMA 2018-2022 strategic plan. Key reflections from the AAR include:

“The public and private sector are inextricably linked and must have shared situational awareness and the ability to synchronize their respective efforts to be successful” and,

“Public and private sector response and recovery efforts were too ‘stove-piped’ to share timely information, too slow to consult, and as a result, often too late to synchronize stabilization efforts.”

These reflections are painfully illustrative, as government and industry continue to work on independent, incompatible systems, without any meaningful bilateral data exchange.

Despite all the advances in technology, information is transferred primarily through verbal or email communications, where lack of systemic interchange prevents a common operational or situational view of disaster response or recovery. In addition, where systems provide for cross-sector collaboration, the ability to produce real-time analysis, leveraging big data in a collaborative environment, is totally non-existent.

After the 2017 hurricane season, the NEMA Information Sharing Task Force (ISTF), with IAEM membership representation, submitted a paper titled “Recommendations for Advancing Public-Private Preparedness Integration,” which was approved by the NEMA Board and submitted to FEMA leadership as well as state emergency managers.

The paper stated: “[Information sharing] efforts were heralded as successes although there were no standards or agreed upon methods of practice or proofs of concept, and in many cases, these efforts were purely mechanisms to share essential information rather than make operational or strategic decisions toward achieving specific goals and objectives. At times, information shared lacked fidelity or was restricted by official owners, for

Using Diversity in an International Response

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kids or who it is. I think the process of standing in the other person’s shoes, and really understanding where they’re coming from and what their issues are, makes it possible to help their issues from their perspective.

Finally, deep down, people are people. The cultural things are norms. Those are learned behaviors, but deep down people are people. Find ways to accommodate their culture in your emergency response. Use our American familiarity with diversity in your International Emergency Response. ▲


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confidentiality or business process reasons” and,
“[there were not] any pre-defined process or set of community standards for sourcing, sorting, analyzing, providing, or mapping the information for the purposes of joint public-private decision-making processes, including the media and the public.”

The NEMA ISTF recommendation paper, like the 2017 FEMA Hurricane Season AAR, recognized the gap in information sharing and the need for real-time situational awareness, anchored by data standards and governance models that allow for the facilitation of cross-sector decision making. Solutions require infrastructure asset owners, operators and government agencies, across all critical sectors, to have “widely-distributed communications and decision support systems (including hardware and software) to establish situational awareness in severely disrupted environments and help guide and prioritize response operations.”

Solution: Leverage the GPU

A series of recent developments in GPU based platforms bring, for the first time, the possibility of systems to comprehensively handle multiple massive data sets concurrently allowing for situational awareness and analytics in real time.

These platforms will quickly replace aging platforms architected during the previous decades for the CPU, where performance has essentially flatlined over the past decade. Rapid gains in GPU performance have taken a “hockey stick” trajectory, with future potential estimated at 30 to 100 times current performance.

Analytics presents some very unique technical challenges. Memory bandwidth is absolutely critical for big data analytics, as these types of processing workloads are typically I/O bound. But gains in this arena have come rapidly in the past two years.

In 2016, the NVIDIA Corporation announced their Pascal architecture, nearly tripling memory bandwidth over previous generations. Eighteen months later, NVIDIA began delivering their Tesla V100 GPU, further increasing memory bandwidth by 150% over the earlier Pascal architecture.

Along with significant memory performance gains, dramatic improvements were made in GPU based server architecture. NVIDIA’s first generation DGX-1 Server™, released in April of 2016, initially featured 8 GPUs based on the Pascal or Volta GPUs with HBM2 memory, connected by a NVLink™ mesh network. This network allows communication between the GPU’s at high rates and sharing of memory across the interconnecting mesh.

These first generation DGX-1 Server provided 128GB of HBM2 memory on the GPU, readily delivering analytic results with datasets in the 10 billion record range in under 100 milliseconds. The second generation DGX-1 Server delivered a full petaFLOP of processing performance utilizing the next generation nvLink2, doubling GPU memory to 256GB, allowing even larger analytic datasets.

In March of this year, NVIDIA announced the next generation for this platform, the DGX-2 Server. An entirely new server architecture incorporating NVSwitch™, a non-blocking switch fabric supporting 16 Tesla V100 GPU’s, each with 32GB of HBM2 memory. These systems boast 512GB of HBM2 memory on a non-blocking GPU fabric, 1.5TB of system RAM, and 30TB of onboard NVME solid state storage. The performance is simply beyond the comprehension of most users, delivering 2 petaFLOPS of compute power in a single 8 rack unit server, weighing 350 pounds. The 14TB/s of aggregate system bandwidth on the DGX-2 Server is sufficient to transfer 1,400 high definition movies in just one second.

Then There’s the Software Side of the Solution

Visualization in a shared environment, where many stakeholders are bandwidth constrained or widely dispersed, has traditionally proven problematic, as every query results in tens or hundreds of megabytes of data. Emergency management geospatial tools, such as the FEMA Geoplatform, have been very useful. However, rendering time to create the full environments can be in the tens of minutes, if not hours.

Researchers at the University of Washington recently developed a new technology called Vega, a streaming dataflow architecture for interactive visualization. Vega allows interactive streaming of visualizations rendered from the result set on server, allowing a tiny graphical subset to be streamed to end users. This fundamentally changes the way in which analysts can interact with data on a massive scale.

Combined with recent advances in hardware architecture, it provides collaborative opportunities never before possible.

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Innovations in Citizen Alerts and Public Warnings

By Aaron R. Kenneston, Ph.D., CEM, Emergency Manager, Washoe County, Nevada

Natural disasters and international tensions have renewed interest in citizen alerts and warnings. Emergency managers continue to seek effective means to give citizens advanced warning and clear instructions for disaster situations. This is not a new challenge. A basic function of government is to provide for the safety of its citizens. Recent innovations have improved alerting and warning.

The Federal Emergency Management Agency (FEMA) and the Department of Homeland Security (DHS) have identified alerting and warning as a core competency. This year’s IAEM Annual Conference features a presentation titled “Citizen Alerts and Warnings: No Rockets, Please!” that will provide an informative and humorous overview of innovations for this critical emergency management skill set.

Of course, no single alerting system is 100% effective. Real life disasters have demonstrated that telephone lines can be severed, electricity and Internet service can be interrupted, and cellular towers can fail. So, emergency managers should use a combination of sending responders door-to-door, media releases, social media, reverse dial systems, and the Emergency Alert System (EAS).

Reverse Dialing Systems

Many emergency managers have acquired reverse dialing systems. Off-site, Internet subscription services eliminate the need for on-site computer maintenance, software version updates, and the use of local telephone lines. This is especially important when local lines are needed for incoming calls, such as 9-1-1 requests, rather than being tied up with outbound messaging.

This innovation uses commercial telephone service landline databases and map geocoding. Officials can use their office or mobile computers to designate an area on a map and record an audio digital (MP3) message. Then use reverse dial service to call thousands of telephone numbers in a remarkably short amount of time.

Yet, the systems do have drawbacks. These include citizens who screen calls, mute telephones, or are simply out of hearing range from their landline ring tone. The major issue with these systems is that citizens are disconnecting landlines and moving to cellular telephones at a rapid pace. Therefore, citizens must voluntarily enter their telephone numbers and addresses into databases through online portals.

National Emergency Alert System (EAS)

The system developed in the Civil Defense era to allow national authorities to send nationwide alerts of impending attack has evolved into today’s EAS. The system provides the ability to alert a higher percentage of the population than reverse dial. It is used frequently by the National Weather Service (NWS) for severe weather warnings and by law enforcement for Amber Alerts.

The EAS system has transitioned from analog to digital and uses a Common Alerting Protocol (CAP) to send standardized messages. It enables the creation of Collaborative Operations Groups (COGs) for communications among regional stakeholders.

Harnessing Big Data and the Power of the GPU

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Transforming Emergency Management Analytics and Situational Awareness

A rare opportunity to address longstanding systemic deficiencies in emergency management is emerging. Key breakthroughs in open source software development, the GPU, and supporting architectures have converged, providing the capability to deliver highly collaborative analytics environments with real time performance, at massive scale.

Companies are already working on next generation solutions which incorporate these technologies, and professionals working in emergency management can expect to see the first generation of new, real-time analytics tools within the next year. These tools will create a shared environment where public and private sector stakeholders can securely collaborate across sectors, share context, and dramatically improve situational awareness.

By harnessing these technologies, together with sound policy and standards development, it is now possible to deliver real-time situational awareness and predictive analytic tools that save lives, mitigate loss, and prevent cascading failures to the interconnected systems on which our modern society and global economy depend.

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public safety officials. The Federal Communications Commission (FCC) requires all television and radio stations to maintain EAS capability and transmit emergency messages to the public as a condition of their FCC license.

Equipped with innovative new digital tools, emergency managers can record MP3 messages on office and mobile devices to launch alert messages to citizens over local television or radio. The EAS system also has the ability to send “text-like” messages to local cellular towers. This is known as Wireless Emergency Alerts (WEA) which allow anyone within the signal radius of the selected cellular tower, with a newer “smart-phone,” to receive a short digital alert message.

Although cellular towers can be overwhelmed, and telephone batteries discharge quickly; the WEA technology offers the most reliable alert and warning method because it does not require citizens to sign-up for the service. Unfortunately, this ease of use has also resulted in several notable missteps. The good news is that there are tips, tactics, and techniques for emergency managers to be successful.

Public Call Centers

Effective communications require a sender, a mode of communications, a receiver, and a feedback loop to ensure the message was understood. When public safety officials do not provide a feedback mechanism, 9-1-1 lines are quickly overwhelmed with citizen requests for information. Citizens want to speak with an authority figure and often report damage, provide damage reports, or request assistance other than immediate life safety. Clearly, this is not the purpose of 9-1-1 Dispatch Centers.

Solutions for this problem include using social media and public call taking. When an emergency manager sends a citizen alert, he or she must immediately provide the details to Public Information Officers (PIOs) to relay on social media and to traditional media. This will reduce citizen confusion and the number of telephone inquiries to 9-1-1.

Many communities have a 2-1-1 call center to provide access to social services, charitable organizations, and behavioral health services. These public call takers can serve a valuable role in disasters. Local governments may also operate their own call taking services such as 3-1-1 so that citizens have a point of contact for government services. The biggest challenge is developing surge capacity for sudden disasters while keeping PIOs and call-takers informed.

Conclusion

No single system is effective in all situations, so emergency managers must possess alerting and warning skill sets and practice regularly. Social media and public call centers can be leveraged to allow two-way communications. Citizens should be educated on alerting technology and limitations. To learn much, much more, please attend the presentation “Citizen Alerts and Warnings: No Rockets Please!” at this year’s IAEM Conference.

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In October 2010, I embarked on a journey to a foreign land for a two-year contract. My intention was to add international experience to my resume, but little did I know, this journey would greatly impact me in ways I never could have imagined. Upon arriving to the Kingdom of Saudi Arabia, I was hired under the Department of Emergency Medicine in Ambulance Services, due to my experience with emergency or what is referred to in the Middle East, disaster management, and also emergency medical services (EMS). However, in terms of emergency management, there was no dedicated position, system or structure in place.

Flash forward to 2018, and the organization became the first hospital in the world to achieve the Emergency Management Accreditation Program (EMAP) accreditation. However, this article is not about this success story specifically but about emergency management in the Middle East as a whole.

The Middle East, and in particular Saudi Arabia, is a key strategic location in the world. This is due to regional projection of power (military force), because of its geographical location, and also immense natural resources. Furthermore, Saudi Arabia remained relatively unaffected during the “Arab Spring” (regional uprisings) and has been the regional glue in terms of stability.

It was no mistake that Saudi Arabia was the first country visited by President Donald J. Trump, as political ties to this region are critical for the economic and security prowess of the United States. During my eight years in country, I have had the pleasure to work with both President Donald J. Trump’s delegation and President Barack Obama’s delegation twice. When President Trump visited the region, he also met with 55 heads of state representing the Arab and Muslim nations of the world. The high number of VIPs in the region also increase the complexity in terms of all hazards and contingency planning and response.

In terms of threats, this region has many unique challenges that other parts of the world are not accustomed to experiencing. With countries dependent on the pumping and selling of fossil fuels at a cost that generates revenue, the region has been left vulnerable to both economic warfare and the development of clean technologies. Saudi Arabia, identifying this threat, launched the Vision 2030 initiative, which is focused on building...
alternate revenue streams to introduce a redundant way to generate wealth. However, the primary threat made evident by evening newscasts around the world, remains regional turmoil in Syria, Iraq, Afghanistan, and the conflict in Yemen. This has led to an increase of terrorist activity in the region and ballistic missile threats for Saudi Arabia, Syria, and Israel, which have not yet manifested but could bleed over to other key regional players.

Saudi Arabia is rich in culture and history. It holds the top two religious sites in the world for Islam within its borders. This includes Mecca and Madinah. These sites experience unique threats in terms of mass gatherings. More than 15 million pilgrims visit Mecca annually, which presents technological threats and has led to disasters in the past. In 2015, more than 2,431 people died and 934 were injured in a stampede which took place at the holy site, which was referred to as “the crush.”

Another concern with so many people in close proximity is an outbreak of a highly transmittable disease. Flashback to 2012, when the Middle East Respiratory Syndrome (MERS-CoV) was front page news, which highlighted this threat. This outbreak, although not directly impacting the holy sites, impacted many cities within Saudi Arabia and nine other countries worldwide.

Saudi Arabia is not immune to a common global threat that has caused seven of the ten most costly and deadliest disasters in the Kingdom – flooding. In a country that consists of mostly desert regions, this usually comes as a shock for the international community as well as the locals.

Although Saudi Arabia and the Middle East in general have many unique challenges, they also have many which are not unlike what the rest of the world faces or could face in the future. In fact, if one were to close their eyes and examine the regional challenges, they might not find themselves inside the Middle East but in a metropolitan area anywhere in the Western world.

The relatively young emergency (disaster) management shift in the region has led to many opportunities and innovations in emergency management. I hope you can join me at the IAEM 2018 Annual Conference in Grand Rapids to learn more about emergency management in the Middle East, including watching incident videos. Please join me on Oct. 24, 2018, at 11:15 a.m. in the Amway Grand Plaza Hotel – Vandenberg Room. See you there! ▲

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Winning or Losing at the Game of Debris Management

By Carolyn Harshman, MPA, CEM, IAEM-USA Region 9 President, and Past Chair, IAEM-USA Conference Committee; and Michael Martinet, MA, CEM, Chair, IAEM-USA Disaster Cost Recovery Caucus, Past IAEM-USA Region 9 Vice President, and Past IAEM-Global Board Member

Every year, local communities across the country are forcibly re-entered in a disaster lottery. The winners often end up the losers because they do not have policies, plans and procedures in place to deal with the massive debris streams that result from the disaster.

Disasters of all types are a re-occurring challenge for local government agencies of all sizes and demographic persuasions. No agency can safely say, it will never happen here.

The National Science and Technology Council estimates that these disasters cost the United States $52 billion per year in the form of lives lost and property destroyed.¹

Disasters can generate massive amounts of debris, which creates complex challenges for public officials at all levels, elected, senior appointed, and staff level.

Debris is the waste from a natural disaster and often may include: ammunition and explosives; animal carcasses; construction and demolition debris; cylinders and tanks; electronic waste; food; household furnishings; household hazardous waste; soils, sediments and sandbags; vegetative debris; vehicles and vessels; white goods (i.e., household appliances); petrochemical pollution; and biologically, chemically or radiologically contaminated waste.

Because of the often unpredictable and haphazard combination of debris, cleaning up the debris stream can be time-consuming, financially perilous and fraught with political challenges for communities unfamiliar with and unprepared for the cleanup process.

After a disaster, communities struggle with the dilemma of how to recycle, compost, burn or otherwise dispose of natural disaster debris. For most communities, their day-to-day household refuse collection processes are wholly inadequate to deal with the massive amounts of debris.

Almost never do their normal day-to-day processes have the capability to manage the usually complex mix of debris. In disasters, the merely useless nature of the debris is often combined with the seriously toxic aspects of the waste stream.

Therefore, it is usually not possible to rely on only one or two debris management options for the hazardous and complex task of cleaning up the community. Many communities will need to have large staging, storage and processing areas to process and dispose of the debris.

By having a disaster debris management plan, communities will be much better able to have effective options to avoid hurried, costly and ineffective clean-up operations. Frequently, the disaster clean up and recovery process will take months, even years.

With good pre-planning, communities can significantly minimize expensive mistakes; speed up the debris clean up; and contribute to the protection of health and the environment. Well-written debris management plans will also increase FEMA reimbursement and increase the amount of recycled materials.

Steps in Debris Management Planning

Important steps in the debris management planning process include:

1. Consultations with all stakeholders, including both the operationally involved departments and the community-at-large.
2. Identification of the potential waste streams within the community.
3. Evaluation of the existing recycling programs

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Invisible: Psychological Wounds of Mass Trauma

By Manya Chylinski, writer, speaker, marketing consultant, and survivor of the 2013 Boston Marathon bombing

The thing about a tragedy is: you never expect it. That’s a lesson I learned at 2:49 p.m. on Apr. 15, 2013, when a bomb exploded across the street from me as I stood in the bleacher seats at the finish line of the Boston Marathon. Twelve seconds later, a second bomb exploded a couple hundred yards up the street.

At the moment of the first bomb, the entire world around me collapsed. I had tunnel vision. For those moments, my world consisted only of the scene unfolding in front of me, watching the smoke rise, seeing people run away, like ripples on a pond. I was vaguely aware that there were runners still on the course. But at that moment I was alone. There were no other people near me. No sensations in my body. No sound. No pain. Nothing.

There were hundreds, thousands, of people there that day – runners, spectators, family, friends, police officers, EMS, volunteers, photographers, press, medical personnel. And there were others, not present on Boylston Street at the moment of tragedy, who were involved also – like dispatchers, hospital personnel, ambulance drivers. Three people were killed almost instantly. Many people were severely physically injured. And many people went to sleep that night without physical injuries, yet injured nonetheless, with the kinds of wounds that can’t be seen.

While I walked home and turned on the TV to find out what was going on, many others were living a different story. They were in ambulances on their way to a hospital, in operating rooms, in emergency rooms around the city. Families rushed to hospital waiting rooms or mourned the loss of their loved ones. That was real, that was visible. That’s what was on every news channel. Those people were victims. Because I left the scene without any physical injuries, it never crossed my mind that I had been a victim too.

After the Trauma

That first week after the bombing is a blur. I went through the motions, but I was not present for my life. Sleeping, eating, concentrating, working – all of these were a challenge. I had mood swings and was anxious. It didn’t take long for me to realize I wasn’t ok, that I needed help beyond the support of my friends and family.

Since I’d seen a therapist before, that’s the kind of help I sought. Since then, however, I’ve learned that my choice was a bit unusual:

- In the immediate aftermath, people are more inclined to look for advice and counsel from clergy than from mental health providers.
- Most people don’t seek any formal help for these kinds of psychological and emotional symptoms.

Some people may not realize or want to admit what is happening to them. Some may feel that since others were killed or hurt physically or more severely, they do not have a right to feel the way they do or to need help. And some people likely fear that admitting they need help means they are mentally ill.

In the days, weeks, and months after the bombing, I realized that the media was not sharing stories about people who – like me – were there or affected by the events that week, without physical injury but with emotional and psychological wounds. We were invisible.

I knew my life had been harmed by this crime. But the people in charge, like our civic leaders, and those who had a voice on the world stage, like celebrities and media outlets, were not talking about psychological wounds. So, if they weren’t talking about it, it must not be happening to anyone else.

Winning or Losing at the Game of Debris Management

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5. Pre-determining criteria for temporary waste management processing sites.
6. Selection of waste management facilities.
7. Creation of a waste management outreach plan, particularly the PIO and social media aspects.
8. Evaluation of the health and safety aspects of the waste management operations.
9. Estimation of residual and potentially non-reimbursable costs, such as road damage from heavy equipment, which will add to the local cleanup cost share.

At the 2018 IAEM Conference in Grand Rapids, Carolyn Harshman, MPA, CEM, and Mike Martinet, MS, CEM, will present a comprehensive introduction to both the operational and financial aspects of effective debris management planning and strategy. ▲

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Invisible: Psychological Wounds of Mass Trauma

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Everyone else must be fine. If I was the only one feeling this way, I must not be a real victim. But if I wasn’t a real victim, why did I feel so horrible? What was wrong with me that I couldn’t just shake it off?

What Is Post-Traumatic Stress?

In those early days, nobody told me it was normal to feel this way after an abnormal event like a bombing. Practically everybody walks away from a tragedy or disaster like this with some level of trauma. Many people are able to recover quickly. For others it may take weeks, months or even years. We all have different levels of resilience that, unbeknownst to us, dictate much of how we deal with traumatic events. This is based on factors like personalities, past traumas, other life events, and support system.

Coping Mechanisms

- **Talk with someone** – friend, family, faith leader.
- **Take care of yourself** – eat right, sleep, drink lots of water.
- **Exercise** and move your body to relieve stress.
- **Calm yourself** – such as meditating or listening to music.
- **Follow routines** – this helps regain a sense of control.
- **Celebrate successes** and have fun.
- **Seek more help** if you are having difficulty making sense of the trauma.

*Source: Tips for Survivors of a Disaster or Traumatic Event, Substance Abuse and Mental Health Services Administration*

Most people who walk away from an event like this don’t get a diagnosable condition, like post-traumatic stress disorder (PTSD) or acute stress disorder. According to the National Center for PTSD, about 7-8% of adults in the U.S. will have PTSD in their lifetime, and from 6-20% of military personnel who spent time in a war zone will be diagnosed with the disorder.

I didn’t know any of that at the time. As the focus of the press, the entire city and world was on the bereaved families and those with catastrophic physical injuries, I felt more and more isolated. It wasn’t until several weeks later that I learned what it means to experience a trauma like this and walk away from it. Through the Massachusetts Office for Victim Assistance, I found trauma counseling and support groups.

Meeting Others With Psychological Wounds

That is when I started to meet other people with psychological wounds and started to become aware of the wide impact of this event, in Boston and beyond. And I learned that it wasn’t just the runners, volunteers and spectators standing at the finish line who were traumatized and having difficulty.

It was people in the medical tent who heard the explosions but didn’t see them, and dealt with some of the victims with severe physical injuries. It was first responders who saved lives and triaged the wounded. It was dispatchers who kept emergency services running for the whole city while this mass casualty event was happening in one neighborhood.

It was hospital personnel who treated catastrophic injuries, in at least one case while the hospital also dealt with a bomb threat. It was police officers and residents of Watertown, near where the perpetrators were caught in an overnight firefight that terrorized the neighborhood.

Post-Traumatic Stress Symptoms

- **Reliving the event** – such as nightmares, flashbacks, intrusive thoughts.
- **Avoidance of situations or people that trigger memories**.
- **Negative thoughts and feelings** – such as sadness, anger, anxiety.
- **Hyperarousal** – such as inability to sleep or concentrate, startled by loud noises.

Seek help if these symptoms:

- Last longer than three months
- Cause you great distress
- Disrupt your work or home life

*Source: National Center for PTSD*

Dealing with Emotional Trauma

Emotional trauma and mental health wounds are difficult concepts to understand for those who have not experienced them. The wounds are not visible, which is much different than a cut or a broken bone that can be seen or felt from the outside. There is still a stigma about talking about mental health conditions. And, I think, there is fear at work here – that accepting emotional trauma in oneself means that it must be PTSD or mental illness.

For those who do experience a traumatic event, there are steps to take to deal with the aftermath. Everyone has different coping mechanisms and strategies. One thing is clear: Finding support after a traumatic event is a major factor in building resilience and encouraging healing.

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Today, many nations are experiencing rapid ethnic diversification due to globalization, shifting economic patterns, and human migration. Communities are more mobile, fluid, and culturally diverse than ever before. For instance, in the United States alone, more than 300 languages are spoken.

Emergency managers are increasingly faced with the challenges of working in culturally complex communities where populations are migratory and can change very quickly. Identifying key community leaders, understanding the public safety needs and cultural beliefs of various populations, protecting these communities during disasters and emergencies, and learning how to effectively partner with multiple subpopulations in a jurisdiction are among the most pressing needs of emergency managers today in rapidly changing communities globally.

Development of T-CATs

Now more than ever, Tactical Cultural Asset Teams (T-CATs) are needed in many emergency management organizations. Depending on the size of a jurisdiction, budget realities, and the level of cultural complexity in a community, T-CATs can be developed to meet the needs of an emergency management organization and the community it serves. They can be large or small, permanent or as-needed. They can be made up of public safety and emergency management professionals, as well as lay community representatives as appropriate.

T-CATs can include: emergency management personnel with excellent community engagement skills; public safety staff; interpreters, cultural liaisons from particular populations of interest; key community leaders; anthropologists from local universities, and others with outstanding skills in communication, human interaction, who have a passion for cross-cultural interaction and analysis. Women are particularly valuable on cultural asset teams, due to special gender considerations within many cultures. T-CAT members should have excellent street “cred” and smarts, but need to be enthusiastic book learners and listeners about the history, traditions and values within various subcultures. Quite simply, T-CAT members thrive in working with chaos, where the challenge of responding to emergencies and crisis situations is amplified by language, cultural, literacy, and financial barriers.

T-CATs Provide Benefits

T-CATs can provide a number of important services for emergency management agencies before, during and after disasters. They can help conduct rapid needs assessments for planning and response. They can provide information regarding the approximate sizes of populations, socioeconomic patterns, common family structures, key leaders, languages spoken, literacy levels, geographic areas in a jurisdiction, best methods for mass communication, and so forth. They can collaborate with other agencies to share outreach information at the appropriate language and literacy level through preferred community methods about how to stay safe during a disaster. Many Tactical Cultural Asset Teams can be particularly useful in helping manage community and emergency management relations during high profile events — such as missing person searches — and they can be excellent liaisons with family members of victims in these crises. T-CAT members also can be used to provide cultural briefings and trainings to their public safety colleagues when they are working on special projects in particular communities with which service agencies may be unfamiliar.

Conclusion

In sum, emergency management agencies are increasingly working in culturally complex communities, and urgently need the assistance of tactical Cultural Asset Teams to effectively work with vulnerable populations before, during, and after disasters and emergencies.
Collaborations with the Private and Public Sector

By Jono Anzalone, CEM, Global Disaster Response & Relief, Airbnb

At this year’s 2018 IAEM Annual Conference & EMEX, Airbnb will be joined by the State of Florida Division of Emergency Management to highlight an exemplary private/public partnership that focuses on assisting communities impacted by disaster. You may be wondering, “What is Airbnb contributing in the disaster/humanitarian assistance space?” Since 2012, Airbnb has leveraged the generosity of their hosts to help communities impacted by disasters. In New York City, a host told Airbnb she wanted to open her home for free to people impacted by Hurricane Sandy.

This idea – Airbnb’s host community opening their doors for free to people in need – served as a catalyst for what would become Airbnb’s Open Homes program. To date, the program’s disaster team has responded to more than 250 disasters in 50 countries around the world.

When disasters strike, Airbnb works with local governments to provide temporary accommodations for those in need. If there is a need for emergency, temporary housing after a disaster, Airbnb contacts hosts in the impacted and surrounding areas, asking if they have extra space that they would like to share at no cost with their displaced neighbors or relief workers. Airbnb waives their fees, and the homes are listed on the company’s Open Homes platform to be booked by people displaced by disasters or relief workers for a short period of time.

Open Homes Achievements

During 2017 and 2018 Alone, Airbnb coordinated with emergency management to support:

- **Hurricane Harvey.** More than 700 hosts opened their homes between Aug. 31-Oct. 9.
- **Hurricane Irma.** More than 230 hosts from Central Florida to Atlanta, Georgia, opened their homes to evacuees and relief workers.
- **Pulse Nightclub Shooting in Orlando, Florida.** Through the donation of travel coupons, and the generosity of hosts and local government partners, Airbnb placed more than 150 people in temporary accommodations.

It’s All About Trust

At the core of the Open Homes program, as well as the partnerships with governments and non-governmental organizations, is trust. Airbnb hosts selflessly open their homes to those in need, based on a shared fundamental belief that all people deserve to belong, especially those who are in the most need of a welcoming place during a difficult time.

This trust is also the fundamental alignment that exists with partners such as the State of Florida Division of Emergency Management, where the care and wellness of citizens of Florida drives the desire to partner with Airbnb to provide emergency housing solutions.

Key Lessons Learned

Since the very first Open Homes activation in 2012, there are a number of key lessons learned that will be highlighted at the 2018 IAEM Annual Conference along with the State of Florida Division of Emergency Management.

While these early lessons may seem specific to Airbnb’s Open Homes program, the underlying principles apply to all private/public partnerships.

- **Lesson 1:** Government partners, specifically emergency management agencies, are critical. While there may be a tendency to go fast, as the ancient African proverb states, “If you want to go fast, go alone. If you want to go far, go together.”
- **Lesson 2:** Emergency management agencies are important conveners – bringing together government and private sector partners – during preparedness, response and recovery efforts. The core mandate of governments is inherently aligned to ensure the care and wellness of its citizens. Private sector partners bring humanitarian tools that governments can leverage for their constituencies.
- **Lesson 3:** The private/public collaborative can do more than just support cities during times of crisis, but also with preparedness before a disaster. Trust and the weaving of social capital still plays a key role in the field of emergency management, and private sector partners should carefully plan to build strong relationships with public sector stakeholders.

Learn More

We look forward to highlighting these and other lessons from the strong collaborative between Airbnb and the State of Florida Division of Emergency Management at the IAEM 2018 Annual Conference, and we hope you will join our discussion. To learn more about the Airbnb Open Homes and Disaster Response, please visit www.airbnbcitizen.com/disaster-response.
Collaborating with Water Utilities

By Lauren Wisniewski, Environmental Engineer, U.S. Environmental Protection Agency

Safe drinking water and wastewater treatment are critical to a community’s public health and economic vitality. The loss of water services during an emergency can have devastating consequences as hospitals, shelters, firefighting, businesses, and most community functions require water services to remain in operation. Emergency management agencies (EMAs) can collaborate with their drinking water and wastewater utilities to develop strong partnerships and reduce the chances of losing vital water services during a power outage, extreme weather event, or other emergency.

Between April 2016 and March 2018, the U.S. Environmental Protection Agency (EPA) conducted 10 Water and Emergency Services Sectors Coordination Workshops across the country. The workshops brought together drinking water and wastewater utilities and local EMAs to discuss how they can best coordinate and communicate. From these workshops, EPA developed a summary of best practices on how EMAs can collaborate with their water utilities to increase preparedness and effectively respond to natural and manmade disasters. These best practices are summarized below.

Build Relationships

EMAs and water utilities should share contact information for business hours and off-hour emergencies and include each other in training and exercises. They also can benefit from learning more about each other’s facilities and operations. EMAs can invite water utility personnel to visit their Emergency Operations Centers (EOCs) and request a tour of local drinking water and wastewater treatment plants. Through regular interactions, EMAs and water utilities have developed robust partnerships and enhanced community preparedness.

Coordinate Planning

EMAs and water utilities can benefit from coordinating their planning efforts. Both sectors can discuss their respective emergency response plans (ERPs) and emergency operations plans (EOPs) to ensure that they are aware of each other’s roles, responsibilities, and expectations during an emergency that disrupts water services. In particular, water utilities and EMAs should discuss roles and responsibilities for providing emergency water and sanitation services during a prolonged service outage. Additionally, most local government mitigation planners work with EMAs to develop their hazard mitigation plans (HMPs). EMAs could support incorporating water utilities into their city or county’s HMP. Water utilities also can participate in their Local Emergency Planning Committee (LEPC) to develop relationships with first responders throughout their service area. Through coordinated planning, water utilities and EMAs have received mitigation funding, identified gaps, and expanded their networks of response partners.

Share Emergency Capabilities

EMAs and water utilities may not be fully aware of each other’s capabilities or available resources. EMAs can share information about their EOCs, communication and alert systems, resource request process, and available local resources. Water utilities can share information on assets such as back-up generators, on-site fuel, and membership in a Water and Wastewater Agency Response Network (WARN). Critically, in a large-scale disaster, EMAs can assist water utilities in gaining access to the Emergency Management Assistance Compact (EMAC). EMAC provides the means to deploy utility assets across state lines quickly and effectively during a declared emergency.

EPA’s Response On-The-Go (OTG) is a useful application for both water utilities and EMAs. This mobile app includes important information and tools for responding to a water-related incident, including weather forecasts, a database of key contacts, a fillable damage assessment form, and Incident Command System (ICS) forms and resources.

Develop Joint Messages

Water utilities and EMAs can develop risk communication plans and pre-scripted messages for the public about boil water advisories and other water use notifications. Additionally, both utilities and EMAs could identify ways to distribute those messages, such as the Federal Emergency Management Agency’s (FEMA’s) Integrated Public Alert & Warning System. This proactive approach ensures that the public receives consistent information during an emergency.

Issue Access Cards

Water utility personnel need to pass roadblocks to access and repair their infrastructure. Water utilities have had difficulties accessing their facilities after disasters such as...
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Superstorm Sandy in 2012. Water utility personnel are not always recognized as first responders by law enforcement, making it difficult to reach their infrastructure which is spread over a wide geographic area. State and local EMAs with processes for credentialing and site access should consider issuing the appropriate identification to water utility personnel as well.


One example of a successful site access program for water utilities is in Utah. All water utilities in the state are encouraged to issue a common ID badge to identify employees and make it easier for law enforcement and the National Guard to recognize utility staff and to allow them past roadblocks. The Rural Water Association of Utah purchased equipment to produce the standard IDs, which are the size of a driver’s license. The program is voluntary, and the goal is to maximize the number of water utility personnel “badged” with a universal ID card recognizable by all other responders.

Know When to Involve Law Enforcement

Sometimes, a situation may call for law enforcement involvement in addition to the EMA. The following circumstances would likely necessitate a call to local law enforcement:

- Unusual or suspicious behavior.
- Unusual questions about water facilities.
- Evidence of tampering on fences, locks or gates.
- Abandoned items.
- Unauthorized vehicles.
- Surveillance and/or reported trips to water sites by unauthorized people.
- Cyber attacks.

Conclusion

There are many ways water utilities and EMAs can work together to strengthen their preparedness and protect the health of their communities. Regular interactions through trainings, exercises, and meetings can help ensure that both sectors are prepared to work together during an emergency and minimize the impact and duration of any loss of drinking water or wastewater services.

Save the Date!

Thursday, Nov. 15, 2018, 1:00-2:00 p.m. EDT
IAEM Thursday Learning Webinar Series: "Increased Preparedness Working with Non-Traditional Partners"
register online

About the webinar: Emergency managers often work with schools and hospitals to develop and exercise emergency action plans. However, dams and levee owners often have plans as well. Fort Bend County has integrated levee emergency action plans into their plans through a multi-departmental approach to planning, training and response. This coordination has improved preparedness of levee improvement districts throughout the county. The county is traversed by the Brazos River and has a long history of flooding. This system has been tested through multiple flood events in recent years; the county experienced three riverine floods between Memorial Day 2015 and Memorial Day 2016. The system was once again tested during Hurricane Harvey when record rainfall throughout the area caused massive flooding.

About the presenter: Rita Anderson, MS, is an environmental scientist with Freese and Nichols, Inc. in Houston, Texas. Her planning experience includes working with cities, counties and tribes in Oklahoma; and with dam and levee owners in Texas. She previously served as the Blackwell/Kay County Oklahoma director of emergency management and served as chair of the Kay County Local Emergency Planning Committee. She was a vice-chair of the Audit and Enforcement Subgroup of the Alliance for Uniform HAMAT Transportation Procedures under the Dept. of Transportation.
Learning from Cuba’s Disaster Management Model

By Eleonore (Nora) Yotsov, MS, CEM, Strategic Program Coordinator, Clackamas County Disaster Management

This past July, I had the privilege to attend and present at the X Congreso Internacional sobre desastres in Havana, Cuba. This opportunity provided a rare glimpse into a country that has, since 1962, been mostly hidden from us in the United States. This was the 10th congress of its kind since 1987. It was organized by Civil Defense and supported the United Nations.

The congress brought together attendees throughout the Caribbean, Africa, Europe and Russia. I wanted to attend because climate change, as one of the main themes, has long been recognized and incorporated into disaster risk reduction. I was interested in learning more about how climate science is put into practice in this highly vulnerable part of the world.

An excerpt from the conference program states:

“Climate change is one of the greatest challenges of these times, unleashing such phenomena as sea level rise, temperature upticks, extreme hydro-meteorological events, seasonal changes in rainfall rates, severe droughts and intense rains. If the mindset on this is not changed and dramatic measures are not taken, the future will not only hold a more expensive side, but it will also become more difficult for human survival in the face of these effects.”

– Division General Ramon Pardo Guerra

Until recently, the United States has had limited integration between climate change science and emergency management. We struggle to connect the gap and put into practice the vast knowledge and resources that are available to become more effective and innovative in our field. As a country, Cuba is different from us in almost every way – not just politically and economically, but also socio-ecologically. This is a country that is developing and grappling with limited resources and increasing hazards. However, one of the most incredible things I have learned is that, in general, the population has a pretty solid understanding of natural hazards and appropriate protective actions during disasters.

The conference provided a rich agenda with meaningful real world projects to address specific impacts from climate change. Presentations included: farming innovations and crop transformations; health monitoring and system changes; water source solutions; coastal mitigation projects; and building code changes for communities.

While these types of projects can be (and are) carried out in various parts of the world, the direct link to long-term forecasts and impacts from climate change, helped frame the larger picture of how this country is building long-term resilience. The vision is not to mitigate for today but for the future. Understanding the appropriate risk perception not only helps build buy-in, but also helps people understand their own responsibilities.

Recovery Efforts After Hurricanes Ike and Matthew

Following the conference, we traveled to two towns on the eastern side of the island to witness firsthand the recovery efforts following Hurricane Ike in Gibara and Hurricane Matthew in Baracoa.

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I was struck by the system in place to deal with not only the response to natural disasters, but also the overall risk perception by the general public – not just those involved in disaster management. Much of the public on this low-lying island is exposed to hurricanes, but long-term efforts to educate, prepare, and protect the population have resulted in very low fatality numbers throughout the years.

Factors Resulting in Low Fatality Numbers

These low fatality numbers can be contributed to many factors, but here a just a few I learned about:

■ Risk Perception. Education on appropriate risk perception is incorporated at all ages, from early years to higher education and adulthood. This includes forecasted impacts from climate change that are practical and meaningful to the general public. It became quickly apparent that this is not a political issue, but one linked directly to disaster risk reduction.

As we traveled and spoke with people we met at the conference and on the streets, we heard this general theme. We conversed with academics, professionals and farmers, as well as school children and shopkeepers. People recounted what they knew about climate change and how it is contributing to stronger storms, temperature changes, changes in water availability, drought and land degradation, erosion, and sea level rise.

■ Practice, Practice, Practice. Since 1986, the entire county has participated in annual drills called Meteoro conducted each May. These drills include evacuating and sheltering the public and responding to various types of disasters. This drill helps the country prepare for hurricane season (June 1-Nov. 30) and other types of disasters. Similar to the great ShakeOut in October, but more involved, Meteoro typically lasts two days and includes participation from all sectors. The act of physically practicing evacuation and protection measures provides knowledge and experience that will help people make quick and appropriate decisions when disaster strikes. Incorporating practical exercises has been valuable in engaging and educating the public. People understand when and where to evacuate when storms arrive.

■ National Priorities. Civil Defense’s Tarea Vida (Life Task) agenda addresses vulnerabilities throughout the country with specifically catered projects based on regional hazards. As one example, coastal communities are identified based on how exposed they are to extreme weather events (flooding, hurricanes) and sea level rise. Strategically, the agenda focuses on reducing population density and new housing along threatened coasts. There are plans in place to gradually move communities, while recognizing the plethora of associated issues. As a result, there is a commission for psychology and sociology to work with coastal communities. This commission provides resources and services to help communities move and rebuild with as little impact as possible to identities and livelihoods. In the Baracoa municipality, approximately one quarter of the population in 21 different communities are at risk. This is a direct conflict between tourism and hazard mitigation. We face similar conflict in many of our coastal communities in the United States. This type of strategic agenda is similar to our national priorities, or regionally as the Cascadia Subduction Zone efforts for the Pacific Northwest.

■ Whole Community. Culturally, family and neighbors are very important in Cuba. Everyone knows each other and understands who has specific capabilities and who will need extra help. During the Meteoro drills, participants actively check on family, friends and neighbors. This not only reiterates

Meeting with M.D. Ricardo Suarez Bustamante, Comprehensive Expert in Science, Technology and the Environment in Baracoa.

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appropriate actions, but highlights the general public’s responsibility during disasters. Participants connect, learn whose house is safe and whose is not safe to shelter-in-place during storms. This provides an opportunity to learn about any ailments or physical limitations that may be recent and expose the need to help each other. These close-knit connections are the backbone of increasing survivability and resilience. This concept is similar to the various CERT programs and planning efforts that highlight the importance of whole community inclusion. Where this does differ is in the cultural importance of these pre-established networks.

Recovery Assistance. Following disasters, there are limited government funding opportunities for any government. For Cuba, much of the post-disaster assistance comes from other countries in the form of international aid and rebuilding teams. Yet, one way in which the government does help is by subsidizing construction materials and expediting building permits and code changes for recovery. As prices are regulated across the country, a common practice is to provide building materials at a reduced cost (50% or more) for homeowners who are not financially capable of paying full price. Additionally, building permits are commonly expedited to a fraction of the standard time. Cuba has the ability to conduct these two processes in tandem and systematically countrywide due to its structure. In the United States, these processes vary greatly due to our complex codes and legal structures and to private and public interests. Yet, we also advocate for a similar process or structure through our national recovery frameworks and guidance tools.

Conclusion

Despite our differences, much can be learned from Cuba’s success in protecting its people during disasters. We will never be like Cuba, and they will never be like us. Cuba’s way of communicating the message and engaging the public has been an effective way to increase resilience. While their process is not ideal for our situation, there are valuable lessons nonetheless.

An Invitation

I hope that you will attend my presentation at the IAEM 2018 Annual Conference, where I will be discussing climate change resources and opportunities for emergency management. While I will not be specifically speaking about Cuba, I hope to share valuable information that can be incorporated into practice.
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<td>Nov. 1</td>
<td>Workshop, Hong Kong. Co-sponsored by IAEM.</td>
<td>Hong Kong.</td>
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<td>Nov. 5-7</td>
<td>ISCRAM ASIA PACIFIC 2018: “Innovating for Resilience, Wellington, New Zealand.</td>
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<td>Nov. 15</td>
<td>1:00-2:00 p.m. EDT, IAEM Thursday Learning Series: “Increased Preparedness Working with Non-Traditional Partners.”</td>
<td>Massachusetts Maritime Academy, Buzzards Bay, MA.</td>
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<td>Nov. 16-17</td>
<td>2018 IAEM-USA Region 1 Conference, Massachusetts Maritime Academy, Buzzards Bay, MA.</td>
<td>Massachusetts Maritime Academy, Buzzards Bay, MA.</td>
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<td>Dec. 4-5</td>
<td>Alberta Emergency Management Agency (AEMA) Stakeholder Summit, Edmonton, Alberta, Canada.</td>
<td>Alberta, Canada.</td>
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<tr>
<td>Dec. 5-7</td>
<td>RES/Con New Orleans: Global Resilience Summit, New Orleans, LA.</td>
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Visit www.iaem.com/calendar for details on these and other events.

Visit the IAEM Annual Conference Website at www.iaemconference.info
New IAEM Members: Aug. 16-Sept. 15, 2018

**IAEM-ASIA**
- Rohit Ghanbahadur
  Akola, India

**IAEM-INTERNATIONAL**
- Hirofumi Honzawa
  Suginamiku, Tokyo, Japan

**IAEM-CANADA**
- Shane B. MacDonald
  Calgary, AB

**IAEM-LATIN AMERICA & CARIBBEAN**
- HIroyuki Kato
  Osaka, Japan

**IAEM-OCEANIA**
- Rhonda Laplante
  Ottawa, ON

**IAEM-USA Region 1**
- Michael MacPherson
  Burlington, ON

**IAEM-USA Region 2**
- Mark Podgers
  Kingston, ON

**IAEM-USA Region 3**
- Jason Redlarski
  Toronto, ON

Please welcome these new IAEM members!

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Covington, KY

Samuel E. Shartar
Atlanta, GA

Erin Thomas
Brooksville, FL

Robert Topoleski
Cape Coral, FL

IAEM-USA Region 5

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Joliet, IL

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Robert Jostes
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Kristen Martin
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Kirk Paxson
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David J. Popoff
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William Porter
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Dawson K. Primes
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Vicki W. Travis
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CEM
Farmers Branch, TX

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June M. Richard
Loveland, CO

Jayme P. Trygstad
Brookings, SD

Cindy VonFeldt
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Keith A. Beaulieu
Riverside, CA

Joe Brothman
Orange, CA

Miguel Calderon
Queen Creek, AZ

Manuel Carbajal Jr.
Tucson, AZ

Please welcome these new IAEM members!

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New Members
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Tucson, AZ

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Elk Grove, CA

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Kapolei, HI

Jesus A. Haro
Phoenix, AZ

Jasmy C. Hopson
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Greg Whicker Esq.
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Robert L. Williams
San Marcos, CA

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San Diego, CA

Dan Zusman
Los Angeles, CA

IAEM-USA Region 10

Samuel G. Altenberger
Fairbanks, AK

Please welcome these new IAEM members!

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