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INTERNATIONAL ASSOCIATION OF EMERGENCY MANAGERS

IAEM Bulletin

In This Issue

Behind the Scenes of the AEM®/CEM® Exam Updates

By Kate W. McClimans, QAS, IOM, Certification Manager, IAEM

The IAEM Certification Program has been on a multi-year journey to make programmatic improvements and changes with the ultimate goal of achieving ANSI Accreditation. Earning accreditation status validates the rigor of the program and confirms the competence and integrity of the issuing certification body.

IAEM began by conducting a job and task analysis for the emergency management profession in March 2021. The job and task analysis identified the scope, depth, and breadth of content to be assessed within the certification examination.

Using a diverse panel of subject matter experts (SMEs) representing all industries of emergency management, the group identified a list of duties and tasks, as well as the knowledge, skills, and abilities deemed necessary to perform an emergency management job successfully. Outcomes were corroborated using a validation survey that was disseminated to approximately 5,000 practicing emergency managers in the spring of 2021. The survey results verified the knowledge, skills, and abilities necessary for safe and effective practice for emergency managers.

At this time, the credential requirements for the Certified Emergency Manager program were also independently reviewed to ensure alignment with professional rigor associated with the targeted profession.

Results from the job task analysis were used to compute critical indicators of the profession, which in turn were used to compute the exam blueprint. An exam blueprint is used to outline the framework of the exam as well as the content

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From the IAEM-USA President

The Path to Power

By Carolyn Harshman, CEM, IAEM-USA President

Greetings All! In this month's article, I will provide highlights of my activities as president during September. Additionally, the focus of this month's discussion is on The Pathway to Professionalism.

Activities as USA President

In September, I was delighted to speak to a class of emergency management students at the University of Akron. I was invited by IAEM member Stacy Willett, Ph.D., to present my views of the profession through the lens of my career. The presentation turned out to be a fascinating exchange of thoughts and information with a group of students already possessing considerable experience in emergency management. If this experience was reflective of the future of the profession, then we will be in very good hands.

In addition to serving as a presenter, I led the monthly USA Council Board meeting and attended meetings of the Strategic Planning Ad-Hoc Committee, the Diversity, Equity, and Inclusion Committee, the Conference Committee, the Mitigation, Climate Resilience and Adaptation Caucus, and the new Regional Events Task Force. During the September meeting of the Board, I was delighted to present and gain approval for an issue paper creating a new Higher Education Academician Caucus.

The Pathway to Professionalism

Throughout my term as president, I have been increasingly impressed with the breadth of support from our members within the higher education academician community. Specifically, the FEMA Higher Education Program's Ethics Special Interest Group whose focus is on efforts in support of the argument that successful professionalization efforts are necessarily dependent on emergency management higher education, an established emergency management academic discipline, and a robust body of knowledge. Under Co-Leads Sandy Maxwell Smith, Ph.D., RN of Arkansas Tech University; and Shirley Feldmann-Jensen, Ph.D. of California State University Long Beach, the SIG has worked since 2016. On the Higher Education website, the description for the Ethics SIG states "Values-based decision making is an indispensable element within any set of disaster risk management and resilience building considerations. While a central focus in the field of EM is the reduction of human loss and suffering, the dynamic context of concentrated risks, diminishing resources, and changing nature of hazards, exposures, and vulnerabilities require EM professionals to make difficult and unclear value-based choices." The description continues with "The moral basis for action within the EM field has not yet been well established and articulated. Ethical matters are seldom clear in discourse, and as a result, are not thoroughly analyzed. This SIG answers the call to begin the dialogue. The collective discourse will not only move toward the formation of an EM ethical framework but will also consider how to best incorporate ethics instruction into EM education programs."

Carolyn Harshman, CEM
IAEM-USA President

The Ethics SIG Subcommittee on Ethics Framework Development has been led by Carol Cwiak, Ph.D. of North Dakota State University. The subcommittee is comprised of emergency management educators and practitioners, as well as ethicists. After several years of study and consideration, a survey instrument was developed for The Code of Ethics and Professional Conduct for Emergency Management Professionals (Code). In all, 31 professional standards were offered for consideration and input during 2021. The input gathered was reflected in the 2022 final version of the document. In summary, the Code: 1) Presents ethical expectations for all emergency management professionals and extend across all areas of practice as well as individuals' representation of the profession of emergency man-

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The *IAEM Bulletin* is published monthly by IAEM to keep members abreast of association news, government actions affecting emergency management, research, and information sources.

The publication also is intended to serve as a way for emergency managers to exchange information on programs and ideas. Past issues are available in the members-only IAEM Bulletin Archives.

Publishing an article in the *IAEM Bulletin* may help you to meet IAEM's certification requirements. Check out the author's guidelines.

Articles should be submitted to Bulletin Editor John Osborne via email at john@iaem.com.

The Path to Power

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agement; 2) Focuses heavily on the duty of care inherent in the practice of emergency management and seeks to clearly delineate expected professional behaviors; 3) May reach beyond organizational or jurisdictional policies, requirements, or laws; conversely, organizational or jurisdictional policies, requirements, or laws may issue more stringent standards; and 4) Should be viewed as universal baseline expectations for all emergency management professionals. Just as an example, Standard #1 relates to Responsibility to Affected Populations and reads: "Emergency management professionals recognize that diversity in needs, resources, abilities, cultures, beliefs, and societal equity exist within affected populations and treat all affected populations' interests and needs in a fair, equitable, compassionate, and sustainable manner."

You may be thinking "IAEM has a Code of Ethics and Professional Conduct", so isn't that enough? The answer is "no" because those standards apply only to our members, participants in any event hosted by IAEM or on behalf of IAEM, or awarded the AEM ®/CEM ® designation. The Code of Ethics and Professional Standards of Conduct for Emergency Management is intended to guide the entire industry.

Now, with the importance of the Code established, it's important to realize that this is only one piece of a larger effort. **The Pathway to Professionalization has been prepared to provide the emergency management community with an opportunity to take control of the future of the practice.**

As pointed out in Carol Cwiak's article, Forging Our Own Path: Emergency Management's Pathway to Power, "emergency management professionals manage the most complex, diverse risk portfolio of any field. The work done by members of our community serves to protect lives, livelihoods, and quality of life. All too often we do this in relative anonymity, with limited resources, while dancing around political land mines that make our efforts more difficult and stressful. It is time for the emergency management community to take control of the future of practice."

Clearly, the Code of Ethics and Professional Standards of Conduct for Emergency Management Professionals is only the beginning of our journey as we seek acknowledgment,

The Pathway to Professsionalization

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The Path to Power

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respect, and professionalization. As obvious stakeholders in this effort, back in February, I convened a meeting with the Presidential Team for a briefing by Carol Cwiak on The Pathway to Professionalization. Carol's article on the topic was soon to be published in the Bulletin so I thought it important for the Presidential Team (President, 1st Vice President, 2nd Vice President, Immediate Past President) to learn about this legacy project. A legacy project because it would be a multi-year commitment by IAEM-USA to FEMA's Higher Education Program that would include the four steps identified in the Pathway to Power. Since the meeting in February, the Code was finalized and a variety of presentations made to spread the word and gather stakeholders.

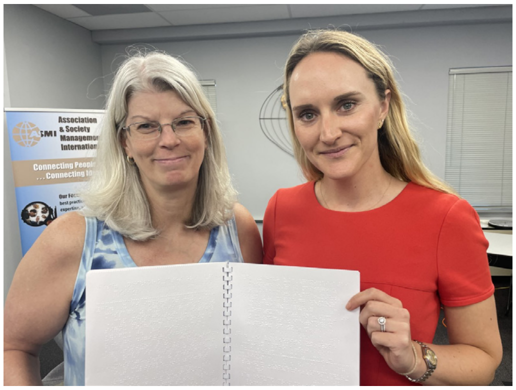
It's been my pleasure to serve as one of the advocates of this effort. Learning about the history and publications of the SIG was my first step followed by setting the meeting with the Presidential Team. Next, I sought out an opportunity to deliver a keynote speech in June at the Higher Education Symposium. While there I was a participant in the working session of the Ethics SIG. Next, Carol and I were approached by IAEM-USA Region 1 about presenting the Code at their webinar in August. The session was well attended and the level of interest was rewarding. In September, Carol traveled with SIG Co-Lead Sandy Smith to Denmark to present the Code to the Exploring Ethics Roundtable at Roskilde University. Although invited to attend with the SIG representatives, I was restrained by my work and life schedule. The Roundtable came together out of concern for the increasingly challenging ethical issues that face disaster and emergency management practitioners in a volatile, uncertain, complex, and ambiguous (VUCA) world. Recent examples of such issues include the COVID-19 pandemic, the 2022 flooding in Pakistan, and global shortages affecting human well-being. The Roundtable's agenda included an expansive discussion of topics relevant to the understanding, advancement, and practice of ethics in disaster and emergency management; and an exploration of contributions to be undertaken by Roundtable members and partners that advance the knowledge, discussion, and application of ethics.

Most exciting is our breakout session in Savannah entitled "Advancing Professionalism." Carol and I will be joined by Higher Education Program Manager Kelly Fitzgerald, MA. Our presentation is scheduled for Wednesday, Nov. 16 from 1:30-2:30 p.m.

Like the other emergency management artifacts, Principles of Emergency Management and the Next Gen Core Competencies for Emergency Management Professionals, the Code of Ethics and Professional Standards of Conduct for Emergency Management Professionals is the step on our trek to professionalization. Please join us on this exciting adventure.

Carol Cwiak, Ph.D., traveled with SIG Co-Lead Sandy Maxwell Smith, RN, Ph.D., to Denmark to present the Code to the Exploring Ethics Roundtable at Roskilde University. Pictured are Ross Upshur BA, MA, MD, MSc, MCFP, FRCPC, FCAHS, University of Toronto (Kneeling); Elite Hasson, BSc, MA candidate, York University; Austin Dalgo, MD, MA Methodist Le Bonheur Healthcare System, Roy Smith, Mdiv, Arkansas Conference of The United Methodist Church; Andrea Adams, Ph.D., JD, MBA, University of the District of Columbia (on screen); Erik Baekkeskov, BA, MA, Ph.D., University of Melbourne; Carol Cwiak, JD, Ph.D., North Dakota State University; David Etkin, MSc, York University, (Roundtable Lead); Sandy Maxwell Smith, RN, Ph. D., Arkansas Tech University (Roundtable Lead), Olivier Rubin, Ph.D., MSc, BSc Roskilde University (Roundtable Lead); and Peter Timmerman, MA, York University (sitting).

IAEM in Action



Certification Staff Sharon Kelly and Assistant Executive Director Chelsea Steadman admire the first ever braille IAEM exam.

IAEM HQ Staff Chelsea Steadman and Beth Armstrong were joined Sept. 22-23 for a work session with IAEM-USA Treasurer Walter English, CEM. Incoming 2nd Vice President Carrie Speranza, CEM, met the group for dinner in Falls Church.

On Oct. 14, IAEM-USA Treasurer, Walter English, CEM, with Assistant Executive Director Chelsea Steadman; Robert Greenberg, founder and CEO, GH International Services, Inc; and Rich Serino, senior fellow, Harvard NPLI and 8th FEMA Deputy Administrator prepare for the Think Tank, "Use of Data to Support EM Decision-making."

On Sept. 21, IAEM HQ staff used algebraic formulas to make projections for the 2022 Annual Conference and event planning.

On Sept 22-23, the Treasurer's-Executive Director's work session task list included calculating the 2021-2022 FYE reserve, analyzing the current investment portfolio, checking audit status, working on Annual Conference decisions with financial implications, and reviewing the contract renewal for the certification exam psychometrician. Pictured are Assistant Executive Director Chelsea Steadman, QAS; IAEM-USA Treasurer Walter English, CEM; and IAEM Executive Director Beth Armstrong, CAE.

IAEM Conference News

There is still time to Register for the IAEM 70th Annual Conference

The IAEM 70th Annual Conference & EMEX is going to be one of our biggest conferences ever. Don't miss out on the excitement and learning opportunities others will be getting with all the dynamic sessions and events planned. We have a great line up of speakers and special events providing numerous networking opportunities. Check out our conference website for more information and register today. Even if your funds are not available today, you can still register and pay by check.

Learn How to Get the Most out of the IAEM Annual Conference

On Wednesday, Oct. 26, at 1:00 p.m. EDT, the Conference Committee will host a webinar on "Expanding Your Conference Experience: Getting the Most out of the IAEM Annual Conference." This is your opportunity to hear from the planners and make sure you are aware of all the events and sessions of importance to you. Don't wait till you get to Savannah and miss an event. Come prepared with knowledge of all the conference has to offer and make the most out of your time away from the office. Register today for the webinar.

Get Your Conference Challenge Coins Available for only $15, these sought-after coins will be the talk of the conference. Hurry, there is a limited supply. Coins will be sold in the registration area starting on Saturday, Nov. 12, 2022.

Featured IAEM Plenary Speakers

Leading in Harms' Way
General (ret.) Stanley A. McChrystal

Addressing Weather, Water & Climate
Richard Clark, Ph.D.
Department of Earth Sciences, Millersville University

Are You Ok?
Andrea Davis, CEM,
Founder and CEO, The Resiliency Initiative

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IAEM Conference News

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Is Your Career Killing You?
Jeff Dyar, B.S. NREMT-P, EFO
Adjunct Instructor - Disaster Preparedness Programs, Texas A&M University

Keynote Address
Erik A. Hooks, MA
FEMA Deputy Administrator

2022 I-95 Shutdown
John Scrivani, CEM
Director of Safety, Security & Emergency Management, VDOT

2022 I-95 Shutdown
Erin Sutton, CEM
Chief Deputy, Virginia Department of Emergency Management

IAEM Speakers Panel – We Are All Emergency Managers, Right?

Paula Buchanan, MBA, MPH
Instructor, Disaster Resilience Academy (DRLA), Tulane University

Moderator
Cathy Clark, MA
Deputy Director and Statewide Interoperability Coordinator, Division of Emergency Communication Networks, MN DPS

Paul Downing
Director of STOF Department of Emergency Management Adjunct Instructor

Chelsea Sawyer, MA, CEM-GA
Emergency Management Coordinator in Community Outreach, Chatham County EMA

Celebrating 70 years
IAEM • 1952-2022

Chris Soelle, MS
Executive Officer, Recovery Division, FEMA Region 7

IAEM Certification News Continued

AEM/CEM Exam Updates

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weight. The number of questions per topic category reflects the importance of the topic based on the information collected during the job task analysis process. The exam blueprint also ensures each version of the exam is comprehensive and covers the same general topics.

IAEM then began the extensive process of reviewing the current exam questions. Using a pool of subject matter experts from around the world, each question was reviewed by three to five experts for relevance and accuracy, and then labeled based on how it corresponds to the exam blueprint. Every question was either revised or retired from the exam. A gap analysis was conducted to identify the topic areas that required additional questions to increase item volume. Another group of subject matter experts was trained on how to write new exam questions (item writing) to maintain consistency, both with tone and format. Hundreds of new questions were submitted for review. Each new question went through a technical review with three to five subject matter experts to verify the content, resource, and formatting. New versions for each exam were created from the bank of exam questions to align with the exam blueprint.

IAEM held Form Assembly Review meetings for each version of the exam (International, USA, Canada, New Zealand, and Australia) with subject matter experts in each region to review the content of the exam for language and content accuracy.

Standard setting workshops for five versions of the AEM/CEM exam were conducted on Aug. 25-26, 2022, and Sept. 6, 2022. An onsite standard setting was conducted for the core (international) exam, along with USA-specific and Canadian-specific forms at IAEM headquarters in Falls Church, Virginia. Virtual standard settings were conducted for Australian- and New Zealand-specific exams. Collectively, this group of SMEs represented a wide range of practice settings, areas of expertise, and geographic locations as a way to generalize well to the target AEM/CEM population. Subject matter experts were trained on how to evaluate exam questions. Panelists rated the likelihood that candidates will answer each question correctly and discussed their opinions in depth with other panelists.

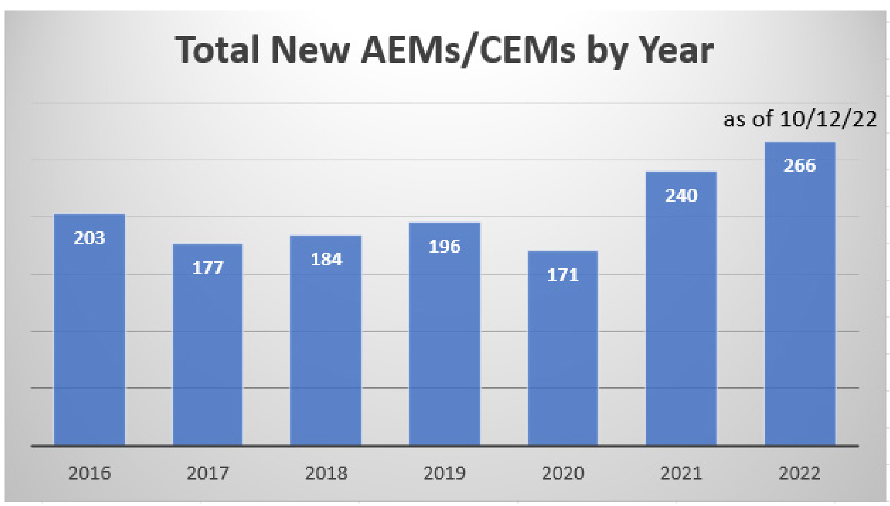
Under the guidance of a senior psychometrician, the data and outcomes of the standard-setting workshops were considered and a passing score was presented to the IAEM-USA Board for adoption.

The new version of the exam is scheduled to launch on Nov. 13 after a beta-test phase, for which 454 certified emergency managers volunteered. IAEM will follow an exam maintenance plan to monitor item performance and pass rates.

The feedback from volunteers involved with this process has been complimentary. Paul Cull, CEM, served as a subject matter expert from New Zealand and said, "IAEM has put in place an impressive assessment evaluation process. It is definitely a very robust system that will ensure that the AEM/CEM certification is relevant, applicable, and equitable in an international context."

Certification candidates should use the updated resource list on the IAEM Certification Resource page to study for the new version of the exam. IAEM's preparatory course is being revised and will be piloted at the IAEM Annual Conference on Nov. 13 in Savannah, Georgia. IAEM's partner, MindEdge Learning, is also working to update the online preparatory course. It is expected to roll out in late 2022.

IAEM is moving to a new electronic exam platform. Complete details including how to request an exam and instructions on how the exam will be administered will be outlined on the IAEM website before the exam launch.



The above chart shows the total new AEMs/CEMs by year since 2016.

IAEM Members: Emergency Management's Past

Meet Randy Duncan, CEM

By Sarah Cowan, York University Student, IAEM Student Member

Vince Lombardi noted that "the achievements of an organization are the results of the combined effort of each individual." Organizations reach milestones because they are founded with a strong vision, demonstrate value for their members, maintain strong leadership, and encourage participation from each individual member.

This year, IAEM reaches the milestone 70th anniversary. Today, when you mention IAEM to emergency managers, we all know the organization's work for our profession; however, that was not always the case. IAEM owes our success to the pioneers of the field, which helped move an idea forward from a mono-focused organization working in the United States – the U.S. Civil Defense Council which became the National Coordinating Council of Emergency Managers (NCCEM) in 1985 – to the International Association of Emergency Managers that we are today.

To celebrate IAEM's 70th anniversary, we will highlight members who have guided IAEM to success. This month, we highlight Randy Duncan, CEM, including an in-depth Q&A session conducted by IAEM Student Member Sarah Cowan (provided below).

Finding his way to an emergency management career as a young person called to a life of public service, Randy started his career in media. At a colleague's request, Randy was told he needed a hobby and that he should serve as a storm spotter. From 1981 to 1986, Randy served as a storm spotter and his passion for emergency management grew. Through training, hard-learned lessons, and networking, Randy was able to find his place in emergency management, when in 1986, the emergency manager retired and he was selected to serve as the replacement. Randy has witnessed many changes to IAEM and in the field of emergency management. Randy looks back fondly on the memories that IAEM has provided not only to him, but to those in the emergency management field.

Sarah Cowan (SC): Could you please briefly summarize your career in emergency management?

Randy Duncan (RD): My role in emergency management (EM) officially started in 1986, in a small rural county in the state of Kansas where I worked as the local emergency management director until 2014. Upon my retirement, I transitioned into a private enterprise, where I now work as the deputy director of training. We provide training to public officials and emergency responders on how to respond to pipeline incidents and accidents safely and effectively.

SC: How did you get into the field of emergency management?

RD: That's a bit of a story. It was certainly not my original intent or goal in life. I always knew that I wanted to be somewhere in public service, I just didn't know exactly where that would be. After graduating with my baccalaureate degree in political science, I worked for about six years in the media, one year in radio, and five years writing in the newspaper. While I was working for the local newspaper, my colleague gently told me, "Randy, you have no hobbies, you need to get one. You need to become a storm spotter in my husband's emergency management program." So that's how I got started in the field. I worked as a storm spotter for about five years from 1981 to 1986. When the emergency manager retired in 1986, I was one of several applicants for the job and the Board of County Commissioners selected me. I became the emergency management director for the county without really knowing very much about emergency management or having an emergency background. I have been in the field ever since.

SC: Tell me more about being a storm spotter, what does that look like in practice?

RD: As a new recruit, I was assigned to a senior member of the storm spotting group to learn the ropes. Anytime severe weather moved into the area, it was our job to go out and look at that weather event and provide a description to the Emergency Operations Center (EOC) using a two-way radio system. The EOC was in contact with the National Weather Service, and they would pass along our descriptions as needed.

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Emergency Management Journey

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After each storm, we held an after-action session to discuss how it went so that we could improve for next time. Annually, our local storm spotters met with the National Weather Service to train and review our activity from the past year. I think we, especially myself, greatly improve our skills and abilities through this process. It was my time as a storm spotter that led me to become interested in the other areas that belonged to emergency management.

SC: How has the field of emergency management changed since your initial experience as a storm spotter?

RD: It seems like emergency management works like a pendulum clock, our concerns swing back and forth. One side of the swing is national security and nuclear warfare-related concerns, and the other side of the swing is the wider conception of what constitutes a disaster. When I started as a storm spotter, it was a very interesting time, at least from the perspective of the United States because we were very heavily concerned with the population protection program - the old FEMA version of nuclear warfare planning. As a field, we were only just beginning to consider the idea that emergency management might encompass more than nuclear warfare planning. I began to realize that maybe we have a role and involvement that goes simply beyond looking at nuclear warfare. It seems that after the attacks on 9/11 and Hurricane Katrina, the pendulum has swung back into the national security realm. I had the great fortune to be allowed to represent IAEM in what we call the stakeholder meetings, which occurred in the immediate aftermath of the World Trade Center attacks. We had a series of meetings with people in the Clinton administration, the Attorney General, and several other major players. The United States government was having very serious discussions about how it was going to reorganize itself to become more responsive to the issue of terrorism. Now, I do think we are on the pendulum side of an all-hazards approach to emergency management. I think we're headed in a very good direction. As a field, we are leaning toward professionalism, education, and inclusivity. We are realizing that emergency management is not solely a government responsibility and that there are other issues related to private enterprise and business continuity. I think as our society continues to become more technologically advanced, we're going to find more interdependency and increased complexity of disasters. It's going to impact multiple different systems, public and private, and we are going to have to figure out how to work together to make sure that we've not only protected our constituency but at the end of the day, everybody.

SC: When in your career did you discover IAEM?

RD: When I first heard about IAEM, it was the National Coordinating Council on Emergency Management (NCCEM). My predecessor made it very clear to me that it was important to be involved with professional organizations, so I did. I couldn't tell you how long I've been a member for, but it's been a fairly long time.

SC: Have you held any leadership roles in IAEM?

RD: The membership was so gracious to provide me with the opportunity to serve as president of the association when we officially changed our name from NCCEM to IAEM. This was in 1997. The year I was president, I ended up with a presidential declaration of disaster for flooding in my jurisdiction, and I was unable to attend my presidential meetings. It's important to remember that your job has to come first, even though it's vitally important to support professional associations, our primary role is to save lives and manage disasters.

After serving as president, I then served on several different committees, but the role that I most enjoyed was sitting as the chair of the IAEM-USA Government Affairs Committee. I was privileged to occupy that role for nearly a decade, during which time I had the opportunity to work with a very seasoned Washington, D.C. professional, Martha Braddock.

SC: What did the period of transition from NCCEM to an international organization look like?

RD: Well, the actual process was certainly fraught with lots of issues. Since before we were officially international in scope, we regularly had conference attendees from Canada and Mexico. I think the attendance of Canadian and Mexican delegates was one of the factors driving the whole conversation about the need to become an international association. It was a recognition that we, as emergency managers from different countries, had more in common with one another than we had differences.

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Once we became IAEM, we saw an overall increase in the professionalism of our members. When I originally started in the field, many programs were still focused on civil defense and the type of vision of the leader of those programs was - forgive the vernacular - an old, retired military guy. Not that there's wrong anything wrong with old, retired military guys or gals, but it was different back then and I think even our military folks entering the field today are more professional and take EM more seriously.

One thing that disappeared from the association in the transition to IAEM was the atmosphere of our business meetings. These meetings had a history of becoming quite, shall we say boisterous. The meetings were filled with interesting, thoughtful, and frequently high-volume discussions. For several years afterward as kind of a memory of that, I would ceremonially stand up and object to the adoption of the business at the beginning, just so that we would not have a conflict-free meeting.

SC: What are some of the moments you are most proud of in your career?

RD: Probably the single thing that I'm most proud of in terms of association-level accomplishments has to be our work post-Katrina with the Emergency Management Reform Act. We had the opportunity to be very actively involved at the congressional level with that act. We were able to review the language and provide suggestions. Because of that, I feel that working on the IAEM-USA Government Affairs Committee is probably one of the highlights of my career.

As a local emergency manager, I am most proud of the opportunity to build a brand new, state-of-the-art emergency operations center, and to oversee the installation of an updated and modernized outdoor tornado warning system. The big innovation with the new warning system was that we were able to connect with the National Weather Service to activate only those outdoor warning devices in our jurisdiction that were inside the warning polygon. Previous to that, our outdoor warning system was at all or nothing. We had maybe 900 square miles, and it was every single siren or none. Now, we can specifically target regions of the larger metropolitan area that are most likely to be impacted by a tornado.

SC: What were some of the considerations when developing and implementing a warning system like this?

RD: One of the things that we very carefully discussed was the tradeoffs of an automated system. Automation is great, as long as somewhere along the line there's a human check before the final alarm goes off. Our system was designed so that a computer notification says, “the National Weather Service has issued a tornado warning polygon that impacts our jurisdiction. The sirens are selected and ready to go, issue the warning yes, or no?” At that point, human intervention is required to activate the sirens. I can tell you both from my time in the media, and my time in emergency management that if we are not putting out accurate information, whether it's a statement or a warning alarm to the public, the public will not have confidence that the information is correct and actionable.

SC: How do you personally deal with managing the public’s trust as an emergency manager?

RD: Well, for me it's very simple, when I made a mistake, I owned up to it as publicly as I could. I would also stress the importance that there is a system in place and that the system consists of multiple layers. I would always say to listen for the official warning, monitor local media, and if you're out and about, use your senses. In the state of Kansas in the springtime, a person who lives in this area knows the warning signs. Don’t rely on one source of information, look at the layers of sources available.

SC: For the readers who may not live in Kansas, can you describe the warning signs that you are referring to?

RD: If you walk outside before a tornado, the sky will be pea soup green, and the little hairs will stand up on the back of your neck and your arms. That's mother nature's layer of warning, and it's important you pay attention to it.

A little bit of the science behind the green sky, the reason for the color is that tornadoes usually form from very large thunderstorms. When the thunderstorms are that large, they have an updraft that forces rain up to where the air is below freezing. The rain freezes becoming

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hail and drops down where it hits the updraft and then it goes through another cycle coating the hail in another layer of ice. You can tell the strength of the thunderstorm by the size of the hailstone – it equates to roughly how many times it's circulated through the storm. Now, where does the green come from? Well, the ice acts like a prism and separates the light making it look green.

SC: What do you consider to be the most difficult moments of your career?

RD: The single most difficult experience I've gone through is when we lose local lives due to a disaster. I've had that experience twice due to tornados. It doesn't matter the size of the event, it doesn't matter the number of lives that were lost, each one of them was an important individual. Each person had a life, and their death had an impact on the community and their loved ones. Survivors need compassion and empathy from those of us who are responding. I think, our empathy helps them to begin the process of closure.

We had a tornado in Kansas on May 3, 1999, that resulted in a presidential declaration of disaster. We lost about half a dozen lives. People lost their homes and livelihood. Vice President Gore came to visit our jurisdiction, and several families were given the opportunity to sit down with the vice president, a representative from FEMA, and myself to share their experience. We sat in that room, and I had feelings for each one of the folks that lost something in that disaster—whether it was a home or a loved one. It's a terrible feeling, but it's a very humbling and necessary experience to go through. There's nothing in the world that will emphasize the importance of double-checking every system involved in your program more than hearing from the survivors. At the end of the day lives in your jurisdiction are going to depend on your work.

SC: During your time with IAEM, are there any memories that stick out in your mind?

RD: As a professional association, we're very serious about our profession, but not everything that happens at our conferences is serious. One moment that sticks out the most in my mind is the mushroom sandwich debacle. Our beloved Executive Director Beth Armstrong decided she was going to go out onto the culinary cutting edge, so the menu for one luncheon was portobello mushroom sandwiches. I'll never forget, I laughed so hard. As I was walking by one table of attendees, who shall remain nameless, they were looking at the sandwich and they said, "I think we're going to send this back for the vegetarian alternative." I thought to myself, "I'm not quite sure how much more vegetarian you can get than mushroom." Anyway, in the aftermath of the portobello debacle, several members that were sitting at that table pooled their money together and purchased a cookbook to present to Beth. Let me just say that our association is blessed with an outstanding number of very strong female leaders who have a well-developed sense of humor, and I was never gladder of that than when we presented the cookbook to Beth.

SC: Does humor play a role in the life of an emergency manager?

RD: I think that especially in our field, it's important to have a sense of humor. Humor is one of the primary mechanisms that I utilize to cope with the stress of the job. Of course, you have to be careful with humor because sometimes it can be inappropriate at the wrong time. In an emergency situation, it's always important to be very empathetic to those who have survived. But I'm always the first one to poke fun at us as responders because sometimes that just needs to be done to lead the sense of humor.

SC: Is there any other coping mechanisms you use?

RD: I like to focus my effort back in on my job. I find that when I am stressed, it means I need to go back and make sure that I have faith in my program. I strive for each element of my program to be well planned out and as executable as possible under the circumstances. In a roundabout way, the stress makes me work harder to make sure that things are right. I have also found that writing is a good outlet. I've had the good fortune to be included in several different textbooks that are available for purchase.

SC: Is there any knowledge you would like to impart to emerging professionals in the field?

RD: I think they need to know that emergency management is not a job, it's a disease. Once you catch it, you'll have it for your life, so be prepared and have passion for it.

Interested in knowing more about IAEM's history?

View Past editions of Emergency Management's Journey in the IAEM Bulletin Issues section of the IAEM Website

Profiles in Service: Raei Tesfazghi

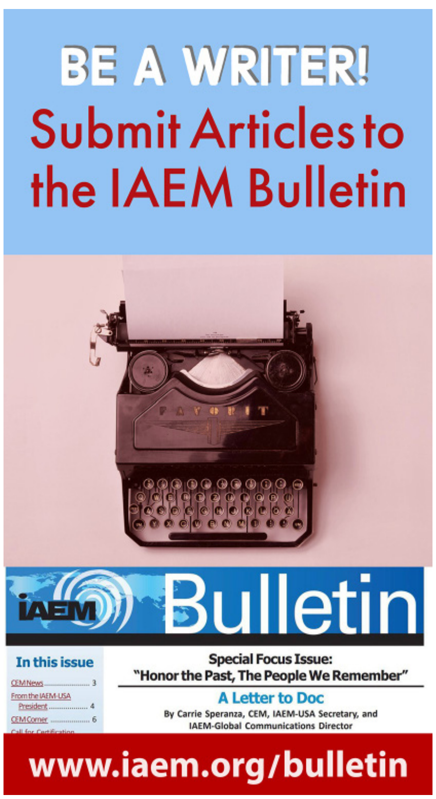
Raei@iaem.com

The Basics

■ **Years of Service to the IAEM Team:**
Raei has been working with IAEM for four months.

■ **Responsibilities:** I am IAEM's member services specialist. I primarily work on membership services/ client care, client event assistance, and project management (including workgroup management and contract fulfillment).

■ **Educational Background:** I went to the College of William and Mary and graduated with a degree in English.



■ **Skills & Experience:** Through my education, my skills are both technical and writing centered. I previously worked as an instructional assistant and before that I had a data internship at William and Mary's school newspaper. Through working at IAEM, I hope to augment my skills and learn more about emergency management.

Things you Probably Don't Know About Raei (in her own words)

■ **You'd be surprised to learn that:** Ethnically, I am Eritrean. My parents were born and raised in Eritrea, and I was then born in the United States.

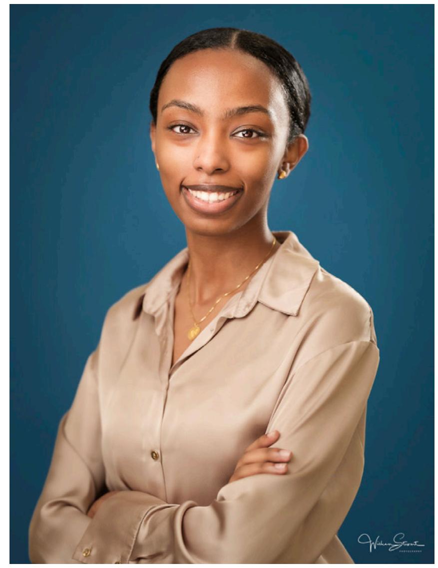
■ **My favorite book is:** I love to read, so picking just one favorite is hard. I always recommend that people read A Thousand Splendid Suns by Khalid Hosseini because it is so heartfelt yet so educational.

■ **Top thing on my bucket list (life goals):** My top two bucket list items is that I want to learn how to play piano before I turn 30 and I also want to own a personal library in my future home. According to the New York Times, a library has at least 500 books. Almost there!

■ **Favorite movie:** I love Pride and Prejudice (2005), especially the soundtrack.

■ **Favorite meal:** Sushi and fish is my go-to meal. Especially salmon. Give me any meal with salmon in it and I'll love it.

■ **My favorite way to relax is:** Reading a book and having some tea! 🔷



Raei Tesfazghi, IAEM's newest staff member

Disaster Zone

Climate Adaptation Is the Right Choice

By Eric E. Holdeman, Senior Fellow, Emergency Management Magazine
blog: www.disaster-zone.com | podcast: Disaster Zone

The disasters keep coming, both here in the United States and around the world. Flooding, extreme heat, hurricanes, drought, and on and on. Pakistan had one-third of their nation covered by flood waters! Today, Florida is now dealing with the aftermath of Hurricane Ian.

Most major disasters are weather-related. Climate change is making these disasters more frequent and much more destructive. While our ultimate goal is to reduce our carbon footprint, if we are to avoid the continued destruction and mayhem, we keep seeing repeated, we will need to focus in the near term on climate adaptation.

Climate adaptation means taking what measures are possible to avoid having people and property impacted by a disaster. This means building stronger, smarter, and in places that avoid the impacts of disasters. In emergency management terms it is called disaster mitigation.

The biggest problem we have is that people, individually and as families, are not making wise choices when it comes to where they choose to live and build. Our value systems in a climate disaster world are upside down. Property values are higher if you live close to the water, be it a river or the ocean. View properties on the side of a hill are more valuable than those that are not built on a hillside. We want sunny weather and warm temperatures versus the cold and wintery weather of the north.

All of the above means that people continue to move to places that match their long-term dreams, the ones they had before the reality of climate change and disasters has sunk into their decision-making on where they want to live.

Still today, people in the Northeast are flocking to retire to Florida. The lure of sandy beaches and warm temperatures continues to cause them to make irrational choices about their future personal and financial well-being. In the west, we have tens of thousands of people moving to arid states that have their water systems being challenged to provide enough water for the residents they already have.

Then we also have governments enabling people to put themselves at risk. The combination of developers, the construction industry, labor, and elected officials sacrificing the long-term safety of their community to fuel continued growth that comes with new construction and expansion. No one is looking beyond their nose at the hole they are digging for their community when disasters come calling.

The recent stop-gap funding bill to keep the federal government running includes $2 billion for the Federal Emergency Management Agency (FEMA) to handle disaster recovery costs for 2022-2023. One early estimate for the possible damages caused by Hurricane Ian was $70 billion. In Florida alone, in the last 30 years, they have sustained $213.2 billion in disaster losses. Can we afford to subsidize the irrational behavior of those unconcerned with the eventual cost of choices for where and how we build today? Eventually, the Piper will have to be paid.

In the immediate future, the only moderating factor that is going to have an impact on what gets built is the insurance industry. They are the ones who are insuring the property losses being suffered. We know by experience that companies will begin pulling back on property insurance. Some insurance companies will go out of business. Policy rates will go way up, and, in many cases, companies will stop offering hazard insurance altogether for those areas with the greatest risks. For those who are not buying a home with cash, they won't be able to get a home loan.

We are continuing to fail in planning for a climate-driven future. A favorite book of mine is Failing Forward, which has this quote about failure, "The lessons will continue to be taught until learned." Collectively we need remedial training on climate change and its impacts. 🔷

Special Focus Articles Part 1:

Because of the number of submissions, this *IAEM Bulletin* Special Focus issue on "Emergency Management—Unmuted" will be presented in two parts. Part Two will be made available in the Nov. 2022 edition.

Contribute to the conversation by submitting articles to the *IAEM Bulletin*

See the process for becoming a featured author on the IAEM Author Guidelines page

Thank you to the IAEM Editorial Committee

IAEM extends a warm thank you to the IAEM Editorial Committee for their assistance in compiling, editing, and publishing the monthly *IAEM Bulletin.*
Current Editorial Committee leadership includes:

- Committee Chair, Daryl Lee Spiewak, CEM, TEM
- Committee Vice Chair, Valerie Lucus-McEwen, CEM

Interesting in joining the IAEM Editorial Committee? Contact IAEM Bulletin Editor John Osborne and tell him how you can contribute to or learn from this committee's important work.

Turning Islands to Bridges: Community-based Response After a Catastrophic Earthquake

By Lucia Schmit, MS, CEM, Planning Coordinator, Seattle Office of Emergency Management; and Consuelo Crow, Ph.D., Planner, Seattle Office of Emergency Management

The authors will be speaking as part of the IAEM 70th Annual Conference Early Edition Speaker Series on Oct. 25

A catastrophic earthquake will occur in the Pacific Northwest, tomorrow or perhaps in a hundred years. When it occurs, the Cascadia Subduction Zone will devastate western Washington and the greater Pacific Northwest. The resulting widespread destruction of communications and transportation infrastructure will turn Seattle into not only an island in a sea of damage, but an archipelago—a recent study found that of the 185 state-owned elevated road structures in the city, every single one will be impassible after the big one. A systems failure of this magnitude requires re-thinking traditional centralized disaster response models. Building from lessons learned in past catastrophes, the City of Seattle is rewriting its earthquake response plan to account for this period of isolation. The new plan embraces decentralized decision-making, through Workforce Rallying Points and supporting the empowerment of spontaneous community response efforts.

Projected damage to state-owned bridges and elevated road structures in Seattle. Source: [Washington State Bridge Resiliency Assessment]

A Catastrophic Problem

We know that our community will need to be self-reliant for at least two weeks after a major disaster. This ask is not equally challenging for all members of our community to achieve—the most vulnerable communities and their people are more likely to suffer from a lack of in-home provisions and resource access. We also know that the isolation phase will impact city workers, many of whom will be unable to make it to their designated worksites. This is a central paradox of catastrophic planning: catastrophes blur the lines between survivors and responders. At the time when we most need our staff, facilities, and resources, they will be least able to perform. Since we know that our most important resource in emergency management is our people, our first goal was to solve this part of the puzzle.

The answer we developed is the Workforce Rallying Points (WRP): locations distributed across the city that will provide city employees with access points to critical information and early response work assignments after a catastrophic earthquake. In doing so, the WRPs will serve as the bridge between traditional government response and spontaneous community efforts.

Workforce Rallying Points

As a part of a FEMA Regional Catastrophic Preparedness Grant (RCPG), the Puget Sound region worked with a consultant CNA to use projected road and bridge impacts to identify the geographic areas that would be left isolated after the earthquake. This led to approximately 20 islands within city limits. Fortunately, many of these were small, or entirely within green space, or had few to no residents. This left us with seven large islands where we identified a need for Workforce Rallying Points. Working with other city departments, we identified eight city-operated sites within these islands to serve as WRPs.

For the WRPs to be effective, we needed to ensure some level of communication between them and other

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Islands to Bridges

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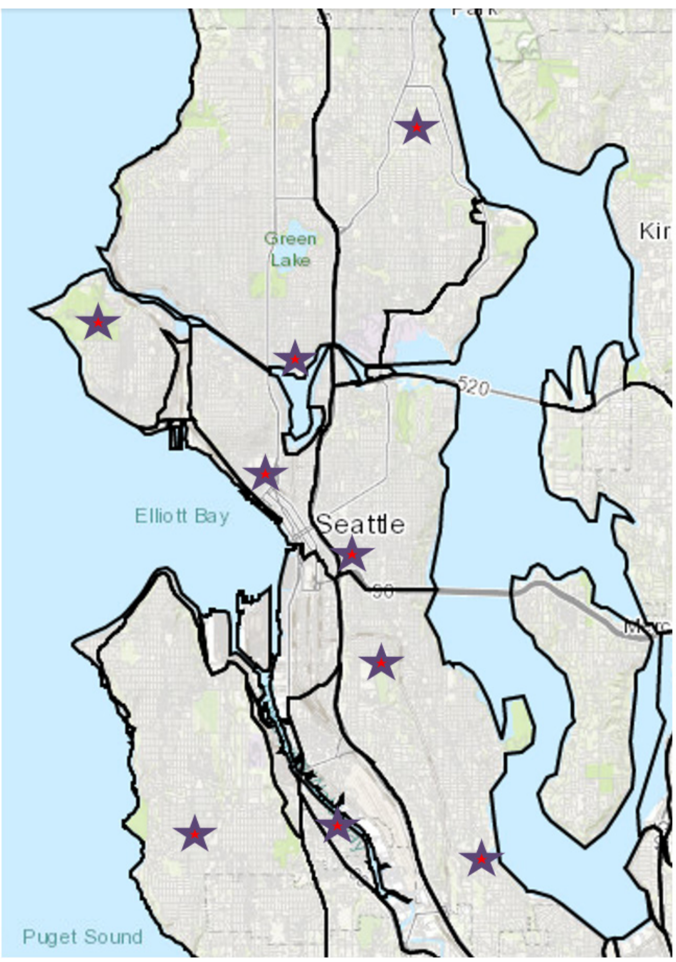
responders. Seattle's Auxiliary Communications Services, our amateur radio operator volunteer group, took on the challenge and reorganized according to the workforce rallying point islands. They will deploy HAM radio operators to each location, allowing communication between the WRPs and the EOC.

Once that citywide connectivity is established, WRPs serve three primary purposes:

- Staff collection and assignment points.
- Impact assessment hubs.
- Public information distribution points.



Projected Cascadia Subduction Zone Islands and Workforce Rallying Points; Source: Puget Sound Regional Catastrophic Planning Team

Overall, WRP staff will support communities by helping to first identify and subsequently assist in filling gaps as needed while performing their assignment. This may include translation, documentation, and information sharing with the community.

Staff Collection and Assignment Points

First and foremost, the rallying points will be physical locations where city staff come together after a disaster. These rallying points will serve as collection points for city staff who either have no explicit disaster response role or are unable to make it to their assigned work location. As they come to the rallying point, they will fill out screening forms identifying skills that we know will be in high demand (e.g., language skills or heavy machinery operation). Those skill sets can be deployed into the local community or relayed back to the EOC if they are needed elsewhere.

A catastrophic earthquake could happen today, but it is just as likely to happen fifty years from now, when our successor's successor's successors will be filling our roles. Ultimately, we don't know who will report on that day and we cannot count on employees having any specific training. Additionally, we can model and project the damage of an earthquake of that magnitude, however, we cannot predict what city workers will have been through—what they left behind at home, what they saw on the road—by the time they make it into their nearest rallying point. For this reason, we are building our materials with just-in-time training guidance, while being sensitive to the trauma that many people picking up the materials will have recently experienced.

Impact Assessment

In addition to serving as collection points for city staff, WRPs will serve as our eyes and ears in the community. Each WRP will contain a binder including just-in-time training, impact assessment forms, and maps of critical community locations to enable staff to go out into the surrounding neighborhood, collect information on the community's needs and spontaneous response efforts, and report back to the EOC.

The materials at the WRP will include lists and maps of critical community locations. These locations include:

- Standard community lifelines such as grocery and hardware stores.
- Places of cultural or local significance, like coffee shops where cultural communities gather otherwise.
- Local businesses that might help fill needed gaps until outside help arrives.

Impact Assessors from the rallying points will go into the community to observe and hear about impacts. Since we know that government capacity alone will not be sufficient to meet the need, they will also identify spontaneous community-based response efforts and ask how government might support those efforts.

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Public Information Distribution Points

The third key role that WRPs will play is in public information distribution. With communications disrupted and transportation limited, staff at WRPs may be the only source of reliable information that the community has in the immediate aftermath of the catastrophic earthquake. Each WRP will be pre-stocked with accessible, in-language flyers of standard safety messaging as well as materials to make additional flyers under the guidance of public information personnel at the EOC. As WRP staff go around in the community, they can distribute information in local gathering places and with community leaders, establishing government presence from the earliest stages of response. Connecting with cultural spaces that are already used by and serve the local community and are communally safe spaces for the community to gather and share information and reunite with loved ones.

Community Engagement

WRPs are a community-based construct, so their planning has been rooted in community. Throughout planning, we have been engaging the community, the city workforce, and our neighborhoods. We have met with labor unions to discuss possible opportunities to keep their skilled labor members working when they can't reach their worksites or when discretionary construction comes to a screeching halt after the disaster. We have spoken with community members to better understand which cultural spaces and organizations are instrumental trusted sites for community-based activities. Building bridges with community-operated volunteer response groups active in the neighborhoods around WRPs to identify potential opportunities for partnerships. We have held (and have just received new RCGP funding to increase!) community focus groups to identify and address gaps that can be mitigated before a catastrophic event occurs. By centering and listening to the community, we can be confident that our results will consider the gaps communities face daily with food security, socio-economics, and lack of information to aid in making the best decisions for their families.

We have a long way to go with our WRP planning—right now they are little more than a binder of materials and some critical supplies. But we know that people working together to solve the problem, with roots and familiarity with the neighborhood, will stand a better chance than those same people working alone. 🔷

Building Codes Continue to Save Lives and Property: FEMA Advances its Building Code Tracking Tools and Strategy

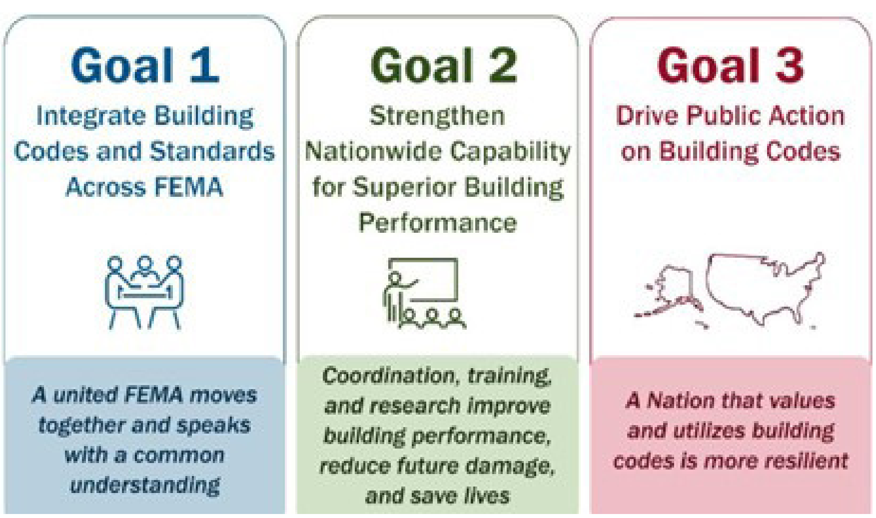
By John Ingargiola, Lead Physical Scientist, Federal Emergency Management Agency

The author will be speaking as part of the IAEM 70th Annual Conference on Nov. 15 at 1:15 p.m.

Building codes and standards play a key role in disaster resilience. Communities adopting and enforcing hazard-resistant building codes and standards lay the foundation for resilience by making mitigation standard practice. The 2019 National Institute of Building Sciences report Natural Hazard Mitigation Saves found that designing to the modern International Building Code (IBC) and International Residential Code (IRC) resulted in $11 saved for every $1 invested. However, only 26% of tracked communities have adopted the latest hazard-resistant building codes, according to FEMA Building Code Adoption Tracking (BCAT) FY22 Q3 data.

The need to address gaps arising from a lack of adherence to strong, resilient building codes drove the development of the FEMA Building Codes Strategy. The Building Codes Strategy also considers equity priorities to address the needs of underserved and vulnerable communities. The Strategy's three goals and 14 objectives provide a roadmap to unify FEMA policies, programs, and messaging.

FEMA has also been engaged in the recently launched White House National Initiative to Advance Building Codes. This Initiative will help state, local, tribal, and territorial (SLTT) governments adopt the latest building codes and standards, enabling communities to be more resilient to hurricanes, flooding, wildfires, and other extreme weather events that are intensifying due to climate change. It also requires the federal government to review federal funding and financing to incorporate modern codes, increase support and incentives for modern code adoption and lead by example across the federal building portfolio.



FEMA Building Codes Strategy Goals

Data-Driven Decision-Making to Support Communities

Concurrent with its development of the Building Codes Strategy, FEMA has developed new tools to investigate community building code adoption nationwide. The National Building Code Adoption Tracking landing page includes a new map data portal with detailed information on the current building code adoption status for about 22,000 jurisdictions, including adopted code editions and whether model codes have been weakened for hazard resilience provisions. The landing page also includes access to regional BCAT fact sheets describing each state and territory's adopted codes and any hazard-resilience weakening amendments within the region along with BCAT statistics showing national resilient code adoption percentages per hazard over time.

Additionally, FEMA's internal Building Codes Dashboard is a new platform with collaborative issues and actions tracking for building code implementation at the SLTT levels. FEMA's Building Code Strategy and tools support community implementation of building codes and best practices, furthering its mission of helping people before, during, and after disasters.

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Building Codes

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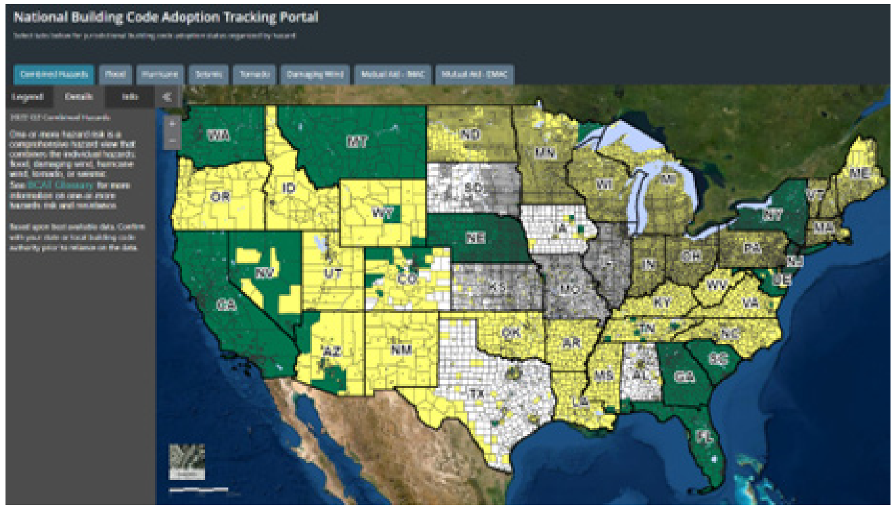
Building Code Adoption Tracking Portal Capabilities

FEMA has been monitoring code adoption quarterly since 2007, but until recently this data was not readily available across FEMA and to the public. The tool can be used to view which building and residential code editions are adopted in each area and whether any hazard-resilience weakening amendments have been documented for those code adoptions.

The portal looks at five natural hazards including flood, hurricane wind, damaging (straight-line) wind, tornado, and seismic, plus a multi-hazard metric. It provides data at the jurisdictional level (incorporated places, county subdivisions, and/or counties).

FEMA collaborates with partners from Verisk subsidiary Insurance Services Office (ISO) to utilize code adoption data from ISO's [Building Code Effectiveness Grading Schedule] (BCEGS®) program. The BCEGS® program is a comprehensive survey and assessment of building departments' code administration and enforcement in jurisdictions across the nation. This data is supplemented and augmented with additional research and vetting each quarter.

Separate from the BCAT portal, BCAT quarterly hazard maps provide county-level code adoption. FEMA publications and presentations often use this information to display hazard-resilient code adoption data visually by hazard. Further, the FEMA and Federal Alliance for Safe Homes (FLASH) Building Code Awareness Project, No Code. No Confidence, [Inspect2Protect.org] (I2P), a research-informed multi-year initiative, empowers consumers with information to identify the building codes used in their community and understand relevant retrofits to improve their home's resilience as top risks and disaster history.



An example of the BCAT Portal which maps hazards to the county level

Building Code Coordination Before, During, and After Disasters

FEMA is streamlining access to building code data and developing actionable resources on the benefits of hazard-resistant building codes. Communities can enhance their resiliency by advocating for building code changes that exceed the minimum requirements of the National Flood Insurance Program (NFIP) and incorporate best practices identified in post-disaster building performance studies.

Emergency Management Case Study: Puerto Rico After Hurricane Maria

Issue: The model building codes do not require the construction of storm shelters and safe rooms in Puerto Rico based on its designated wind zones. Storm shelters and safe rooms designed to the criteria of FEMA P-361 [Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms] or ICC 500 [Standard for the Design and Construction of Storm Shelters] are needed to provide purpose-built structures to protect residents when storms impact the islands. There were limited public storm shelters or safe rooms in Puerto Rico that have been constructed to these criteria. To address this gap, FEMA worked with Puerto Rico's government and other relevant stakeholders to adjust building code requirements, enable grant eligibility, and emphasize the need for FEMA P-361/ICC 500-compliant storm shelters and safe rooms. Stakeholders were equipped with the tools and information to ensure that storm shelters and safe rooms included life-safety protection from high-wind events such as hurricanes.

Response: On Nov. 15, 2018, Puerto Rico adopted the 2018 International Code Council (ICC) family of model codes including the IBC, IRC, and International Existing Building Code (IEBC) into the 2018 Puerto Rico Building Code along with strengthening amendments. For example, Puerto Rico added new wind speed maps and required new critical facilities and schools to include ICC 500-compliant storm shelters. Municipalities and residents were

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Building Codes

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also encouraged to create a system for identifying and tracking residential safe room and storm shelter locations. After a high wind event, communication may be limited, and people may even be trapped inside shelters by fallen trees or debris. Registering shelters and safe rooms allows emergency responders to check the status of residents and rescue survivors as needed.

Lessons Learned: When developing plans for community safe rooms or storm shelters, designers and other stakeholders should consider hazard-specific constraints that may be governed by local emergency management or law enforcement requirements, mandatory evacuations, and other emergency plans that affect the movement of at-risk populations. For some communities, given sufficient warning of an impending hurricane, a large proportion of the population could be expected to evacuate and seek shelter outside the at-risk area. Only first responders and a small number of residents would not evacuate. In Puerto Rico, in contrast, it is not practical for residents to evacuate the islands, although it may be possible to travel within the main island when smaller storms threaten. The difficulty of evacuation emphasizes the importance of having purpose-built safe rooms and storm shelters in local communities to provide life safety protection for residents of Puerto Rico during hurricanes.

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How can IAEM members get involved?

Building code advocacy furthers the goals of IAEM and aligns with its mission. FEMA is building a “coalition of the willing” to advocate for stronger codes, seek funding opportunities, and promote building safety practices. There are several opportunities to get involved and be engaged by joining the "Code-alition" effort.

IAEM members are encouraged to first get to know the Building Science specialist in their region and then obtain and promote the FEMA Building Codes Playbook. IAEM members are also encouraged to explore FEMA funding opportunities such as Building Resilient Infrastructure and Communities (BRIC), Hazard Mitigation Grant Program, Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act’s Revolving Loan Fund Program, which supports states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face before and after disasters and natural hazards. Through these engagements, IAEM members can build relationships with other external partners such as their ICC representatives, building codes officials, and understand how their state navigates Emergency Management Assistance Compact (EMAC) and Intrastate Mutual Aid Compact (IMAC) to share resources during emergencies that aid public safety officials administer building codes and enforcement.

IAEM members can also carry the building codes message to relevant bodies including the Mitigation, Climate Resilience, and Adaptation Caucus and the Disaster Cost Recovery and Finance Caucus. For further questions about FEMA’s efforts, please reach out to FEMA-Building-Codes-Strategy@fema.dhs.gov.

Are You Ok?

By Andrea E. Davis, CEM, President and CEO, The Resiliency Initiative

The author will be speaking as part of the IAEM 70th Annual Conference on Nov. 16 at 8:00 a.m.

In Nov. 2007, I attended my first International Association of Emergency Managers conference in Reno, Nevada. I was still pretty junior in my career, and I felt it was a good way for me to network and grow in the field. Additionally, I needed to escape. I was dealing with the most devastating personal decision I had made so far in my life; I sent my teenage son away to a reform school in Utah on Oct. 31, 2007.

His behavior had turned my home life into a war zone putting a serious strain on my marriage and I was commuting three hours one way to work each day. To say that my life was stressful would have been an understatement. I did not have the capacity or ability to deal with the situation, so I felt my only solution was to send him away. I did not share what I was going through with anyone not even my closest friends. There is not a day since Oct. 31, 2007, that I have not wished I just reached out for guidance or help. At the time I was working in a law enforcement environment as one of the only females and I did not feel I could share what was going on. Especially since it was personal, not work-related, and I was very much a "check your sh**" at the door kind of person. I naively thought I could separate my personal life from my work life, but my son grounded me, and since I had him young, we matured together. With him gone, I was in a freefall.

I remember having all this personal trauma replaying in my mind as I stepped into the conference hall and immediately became overwhelmed. I felt the sinking feeling of a panic attack coming on. With my heart pounding and gasping for air, I turned around trying to find the exit door. I remember clutching the conference bag close to my chest almost like a security blanket and hearing my internal voice saying, "Please do not start crying. Please do not start crying."

Somehow, Ms. Avagene must have sensed I needed help. As I was walking out, she walked right up to me and said in the most elegant Southern drawl you can imagine, "Are you ok?" "You seem very upset." "I do not believe I know you, but I want to. My name is Avagene Moore. There are not that many of us girls here, so we must stick together."

I was taken off guard. I did not know what to do, and I think I just stared at her for way too long mindlessly blinking. Finally, all I could muster up was a faint, "No, I am not ok." Ms. Avagene took my arm and led me into an empty conference room. She hugged me, pulled up a chair, and said "Honey, tell me what is going on. You will feel better."

I sobbed for ten minutes straight telling Ms. Avagene everything. She just let me talk and cry everything out, holding my hand and listening. She was right, I did feel better, much better. She asked if I still wanted to leave or if she could be my host to show me around. I decided to stay.

Ms. Avagene escorted me back to the main conference hall and regaled me with stories of past conferences. I remember thinking how perfect she was. I wanted to be just like her; she exuded confidence. Her blond hair was beautifully done in an updo, and she was dressed in an impeccable suit with pearls on. I loved that she was unabashedly feminine. I wanted to emulate her in every way.

I would come to learn Ms. Avagene was one of the first female presidents of the International Association of Emergency Managers, and I quickly became her number one fan girl. That day, Ms. Avagene even convinced me to do a video message in support of IAEM and why attending the conference was so important.

As time came and went and my career changed several times, I did not get a lot of opportunities to speak to Ms. Avagene, but I could always count on running into her at the annual conference. I could always feel her before I saw her; she was one of those people who was effervescent and larger than life. She was always up to something: leading a tour for students, introducing someone, and so on. Her grace and capacity to support others seemed limitless.

In early 2020 when I took the opportunity to lead Walmart's Emergency Management Department, I leaned heavily on the lesson I had learned from Ms. Avagene. Ms. Avagene taught me how important it is to actively check on others. As a people leader in charge of the world's largest retailer responding to a global pandemic, I had a duty to ensure my team was taken care of both physically and mentally. The push to virtual tore down any perceived boundaries between personal and work lives; increasing an

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Are you OK?

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already heightened stress load for everyone. Everyone was impacted by the pandemic but in very different ways, with many struggling with personal and family issues. I remembered years ago how horrible it felt to be going through a traumatic experience where I was all alone. I also remembered how the three simple words that Ms. Avagene asked me- Are You Ok-, changed my life and helped me see a path forward. I wanted to do the same for my team by creating a culture of checking in on each other. Asking if someone is ok and not taking a "fine" for an answer. I was open with my team and shared what I was dealing with which made them comfortable with sharing how they were feeling. Being vulnerable created an environment where it was ok to say you were struggling because you knew you had a team that had your back. Even though I spent the majority of my tenure with Walmart working virtually, I felt so close to my team because of the safe space we had created.

There was so much that happened in 2020 that was devastating, but the news of Ms. Avagene's passing on Christmas Eve 2020 hit me the hardest. She had no idea how she saved me back in 2007. It is because of Ms. Avagene that mentorship is so important to me. To this day, I can still hear her encouraging me, and I hope to be that voice for many others and to carry on her legacy.

Thank you, Ms. Avagene.

Connect with Andrea on [LinkedIn here]().

FEMA's Dam Safety Collaborative Technical Assistance (CTA) Program: How Collaboration is Transforming Emergency Preparedness for Communities with Dams Across the Nation

By Rosemarie Bradley, Ph.D., Emergency Management Specialist, Technical Assistance Branch, National Integration Center, FEMA; and Preston Wilson, Training Manager, National Dam Safety Program, FEMA

The authors will be speaking as part of the IAEM 70th Annual Conference Early Edition Speaker Series on Oct. 27

Over the last five years, extreme weather has caused more than $600 billion in damages in the United States alone. Managing risk for natural disasters is critical for the overall resilience of the nation. Emergency management is a shared responsibility among the federal government, private sector, state, local, tribal, and territorial governments (SLTTs), non-governmental organizations, and individuals. As climate change increases the threat of natural hazards, mitigation efforts help communities reduce future disasters' effects on lives, property, and the economy. This holds especially true for communities with critical dam infrastructure.

The Federal Emergency Management Agency (FEMA) National Dam Safety Program collaborates with FEMA's National Integration Center to deliver the Dam Safety Collaborative Technical Assistance (CTA) Program to increase state, county, community, and individual preparedness in participating jurisdictions for responding to dam-related emergencies and conducting evacuation and shelter-in-place operations.

> **"I couldn't ask for a better partner than the CTA planning team for the California Dam Safety CTA. The CTA planning team has continually impressed us with their patience, listening skills, and willingness to adapt the program to meet the needs of California."** – ***Jose Lara, Division Chief, Hazard Mitigation Planning Division, California Office of Emergency Services***

The CTA is an example of how FEMA is working to shift the focus from reactive disaster spending toward proactive investment to create more resilient communities. What is unique about the CTA Program is that communities work collaboratively with FEMA to set their own goals and objectives to aid in that mission. Now in its fourth year, the CTA continues to evolve and now consists of three models: a national virtual workshop series, a community of practice webinars, and community cohorts:

- Workshops are designed to help state, local, territorial, and tribal governments obtain the knowledge, tools, and support that they need to plan and implement effective dam safety and emergency management strategies.
- Webinars are designed to educate stakeholders to reduce risks and mitigate the consequences resulting from a dam failure and to recover more effectively in the event of a failure.
- Cohort sessions include topics focused on planning for emergencies related to operational discharges or dam-related infrastructure failure.

The CTA process is a two-way commitment. FEMA provides participating communities with the necessary expertise, coaching, and tools. In return, each community is expected to provide dedicated involvement from participating community stakeholders. The process includes virtual and in-person sessions. The CTA series is flexible and can be adjusted accordingly to develop a framework of sessions that best fit the communities' level of capability.

Maryland/West Virginia CTA Cohort

In 2021 the Maryland Department of the Environments Dam Safety Inspection and Compliance Division applied for the FEMA CTA Program on behalf of a community located in a rural setting in Western Maryland. The community had extremely limited resources and expertise available for the upkeep of the dams and the development/exercise of Emergency Action Plans (EAPs). FEMA worked collaboratively with the community to develop a framework of sessions that best fit their level of capability. After discussions with the CTA planning team, it was jointly decided that the CTA be expanded to three counties to include Mineral County, West Virginia, and Garrett and Allegany counties Maryland. Garrett County is home to Maryland's two tallest dams, the Jennings Randolph Dam (296-foot-tall earth and rockfill dam) and the Savage River Dam (184-foot-tall earth

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FEMA's Dam Safety CTA Program

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and rockfill embankment dam). Both dams were originally constructed to alleviate downstream flooding along the Potomac River, however, they now present significant challenges from an emergency management perspective. The inundation area for both dams encompasses areas of both Maryland and West Virginia.

The CTA delivery team supported the entire planning process with subject matter experts, models, tools, and templates to foster the process. To support dam emergency exercises and community planning, the CTA delivery team developed an exercise planning toolkit, which focused on helping emergency managers and dam owners and operators in the communities conduct dam incident exercises.

Based on feedback from the community, the CTA process successfully brought stakeholders together and helped participants identify improvements for communication and evacuation and increased understanding of emergency management capabilities and resources. The CTA provided rural communities with access to national experts and engaged them in a facilitated planning process to collaborate with community partners to achieve the goal of increased preparedness for dam-related risks and hazards.

Lessons Learned from the Maryland/West Virginia CTA are:

- Local emergency managers should be included in dam site tours. Inviting emergency managers on the dam tours gives them a better understanding of the dam's functions, purpose, and operations.
- While virtual deliveries worked, there is a need, demand, and practicality for additional in-person meetings.
- Strong support from state-level agencies at the outset of any CTA delivery results in more successful outcomes.

L to R: Michael Nowlan with Wood Rodgers, Inc., Jose Lara with CalOES, Preston Wilson with FEMA, Eileen Takata with the USACE California Silver Jackets

San Diego CTA Cohort

In 2019, San Diego County applied for the FEMA CTA program. Prior to this CTA, the City of San Diego Public Utilities Department, along with San Diego County Office of Emergency Services and Cal OES, already had extremely mature dam planning and dam response processes in place. However, the CTA scoping process identified the need for more discussions on developing improved Emergency Action Plans, enhancing risk and crisis communication and messaging during emergency operations, examining evacuation and shelter-in-place protocols, and the lack of exercises.

During the San Diego County CTA process, participants completed benchmark activities such as forming planning teams; conducting community analysis; compiling infrastructure and dependency information; identifying operational priorities, goals, and objectives; integrating and developing/refining emergency planning documents; and participating in exercises to evaluate and identify planning gaps and further enhance relationships among stakeholders. The delivery culminated in a tabletop exercise (TTX) aimed at examining newly developed, or revised, plans and evaluating the knowledge of the core team.

At the conclusion of the CTA program, stakeholders had the opportunity to openly discuss the CTA and its procedures to help the delivery team identify best practices established before and/or during the process. In September 2022, FEMA's CTA Series, along with the San Diego cohort, were awarded the 2022 Award for Excellence at the Floodplain Management Association's Annual Conference.

Lessons Learned from the San Diego County CTA are:

- Smaller group discussions within virtual breakout rooms allowed the stakeholders to participate in more productive and detailed conversations.
- The redesigning and reworking of previously presented in-person sessions, to accommodate virtual deliveries due to COVID-19 restrictions, added value to the CTA delivery approach. It allowed for enhanced flexibility in offering these sessions to future CTA cohorts, as real-world emergency situations will continue to occur.
- Partnerships with organizations, in this case, the USACE Silver Jackets Program, helped support the development, funding, and facilitation of the final TTX.

The CTA Program improves the overall resilience of communities across the nation by collaborating with local organizations to deliver better emergency management practices. Dam safety and emergency management programs throughout the nation can apply for the FEMA CTA program to increase state, county, community, and individual preparedness for responding to dam-related emergencies. To learn more about the CTA Program, visit: fema.gov/emergency-managers/risk-management/dam-safety/technical-assistance.

Got KSAs? What About for Retirement?

By Mike Gavin, Emergency Management Consultant, Gavin & Associates LLC

The author will be speaking as part of the IAEM 70th Annual Conference on Nov. 14 at 1:45 p.m.

All of us had to have the right knowledge, skills, and abilities to get into the profession, however, do we have the correct knowledge, skills, and abilities (KSAs) when we decide it's time to retire or possibly change professions? The opportunity to develop our necessary KSAs may be looking us in the face as we move toward the next chapter in our lives, but many times we don't take advantage of the moment.

There is more to retirement than finances and health concerns.

One should ask themselves, "What do I want to do with the rest of my life?" Many retired folks tell me the last thing they want to do is work. Well, that's OK if you are financially set and you have something to occupy your time. I see so many folks that have no plan and just…waste away.

What I am talking about is putting together a plan and making sure you have the correct KSAs to implement that plan. Here is one example: As a hazmat tech, this individual did not want to stay in the fire service after 35 years, so he retired. Several months later he was bored and had no plan as to what to do to occupy his time. Fortunately, he was able to begin teaching part-time at the local community college in a fire service program. Unfortunately, he had to take an instructional methodology course to be certified to teach. The course cost him $450 and if he had taken it while employed, his employer would have covered the cost.

There are many examples I could mention but the key is to plan. It doesn't always need to be in an area of subject matter that you may currently be involved with.

A friend wanted to open her own landscape business, so they took advantage of their employer paying for some college courses to complete her degree. She needed electives and landscaping was one option in the subject area. Simple, but she was able to gain some KSAs and network with others in the same area that she wanted to move into after retirement.

Another example: As an emergency planner, we look at the many aspects of hazards and how they impact our community. With your KSAs for a planner, think of the vast opportunities that await you when you retire or change professions. This may include part-time, full-time, or contractual work. The IAEM Job Board is full of listings looking for planners both part-time and full-time. That is what I consider a "no brainer."

One other option is to pick up a new skill that may be beneficial in a completely different field. I was on a flight from the west to the east coast and we happened to have a medical emergency on the flight. Being an EMT I responded to the area in the rear of the plane with a physician. The young lady was a diabetic and had some issues. Fortunately, all worked out and I returned to my seat. While deplaning, the captain thanked me and I mentioned I would be retiring soon and probably giving up my EMT. He encouraged me not to, and possibly look at doing flight attendant work, as they seek out individuals with EMT, fire, law, and emergency management experience.

The list of examples goes on and on. To hear more about making sure you have the right KSAs for retirement or changing your career, come listen to the breakout presentation in November at IAEM's 70th Anniversary Conference. 🔷

Best Practices for Mental Health Wellness: Focus on Resiliency and Recovery

By Chad Bruckman, CEM, TN-CEM, CHEP, Emergency Response Coordinator, Tennessee Department of Health, Northeast Regional Health Office; and Melissa Taylor, RN, CLNC, CHEP, Nurse Consultant, Tennessee Department of Health, Northeast Regional Health Office

The author will be speaking as part of the IAEM 70th Annual Conference on Nov. 15 at 1:15 p.m.

The COVID-19 Pandemic took its toll on our country. As we are still seeing cases of COVID-19 throughout our communities, we must be vigilant when detecting mental health challenges in our first responders, first receivers, and public health staff. In Tennessee, we see the resurgence of overdose deaths, many related to fentanyl poisoning, and then there is the Monkeypox scare. It is safe to say that there will always be that next "thing" that will challenge our country. Now is the time to ensure you care for your physical and mental health. Take a mental health day. Go for a hike. Take the day off and go fishing, or if you are like me, hook the camper up and go to your favorite campground. We were not meant to be in lockdown or wear masks for the rest of our lives. So even if you do not like to go for a long walk through your neighborhood, find something that you can do to promote a healthy mind and body.

Earlier this year, many Tennessee Department of Health's Mental Health First Aid Instructors started teaching the National Council for Mental Wellbeing's Mental Health First Aid course in person. In addition, the National Council for Mental Wellbeing introduced a blended learning option used throughout the pandemic. Still, there is no substitute for classroom learning, especially when discussing sensitive topics such as anxiety, depression, and suicide. Melissa Taylor and I have the honor to speak at the IAEM 70th Annual Conference & EMEX in Savannah, Georgia, this year. We are excited about the opportunity to share our passion for breaking barriers and the stigma around mental illness by bringing to light the best practices that the Tennessee Department of Health is using as an agency to promote mental well-being.

The Center for Disease Control and Prevention conducted a non-probability-based online survey between March 29 and April 6, 2021. This survey assessed symptoms of depression, anxiety, PTSD, and suicidal ideation among public health workers employed in state, tribal, local, and territorial public health departments. Of the 26,174 survey respondents, 53% reported signs and symptoms of at least one mental health condition in the preceding two weeks, including depression (32%), anxiety (30.3%), PTSD (36.8%), or suicidal ideation(8.4%). These numbers are staggering when compared to Mental Health First Aid acquired statistics showing much lower rates in an average year within the general population experiencing anxiety disorders (18.1%), Major Depressive Disorder (6.8%), and United States adults with any mental disorder (18.5%). Of those that responded to the CDC survey, the highest prevalence of symptoms was in those under 29 years old (13.6% - 47.4%), transgender or nonbinary persons of all ages (30.4% - 65.5%), and those who identified as multiple races (12.1% - 43.4%). In addition, symptoms of PTSD were higher among respondents with post-baccalaureate graduate education (40.7%). Of most concern, the survey found that of the 66.1% of public health workers who had access to Employee Assistance Programs (EAP), only 11.7% of respondents utilized those services, and 27.3% were unsure if their employer offered an EAP. Those who responded to the CDC survey reported experiencing traumatic events or stressors since March 2020, including feeling overwhelmed by workload or family/work balance (72%), receiving job-related threats because of work (11.8%), and feeling bullied, threatened, or harassed because of work (23.4%). Respondents who reported traumatic events or stressors (personal or work-related) were more likely to report symptoms of PTSD.

The Tennessee Department of Health has developed and implemented several best practices to address the mental health, wellness, resiliency, and recovery of its first responders, first receivers, healthcare workers, and public health workers. Our mental health wellness program consists of three tiers. The first tier is to practice mitigation using the Simple Psychological Triage and Rapid Treatment (PsySTART) during disaster times to help gauge our responders' mental distress and ensure that we help them seek mental health services. The second tier is prevention; we accomplish this through teaching the National Council for Mental Wellbeing's Mental Health First Aid curriculum. Lastly, we will respond using the Tennessee Disaster Mental Health/Crisis Response Strike Team, currently supported by the Tennessee Department of Health and the

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Adaptation: The Evolution of Emergency Management

By Randal A. Collins, Ed.D., CEM, Emergency Management Manager, Foundation for the Research and Advancement of Emergency Management

The author will be speaking as part of the IAEM 70th Annual Conference on Nov. 15 at 8:00 a.m.

As an impressionable high schooler and someone who had his eye on becoming a legacy United States Marine from an early age, I was enamored by the film Heartbreak Ridge which was released in 1986 and starred Clint Eastwood. As Gunnery Sergeant Highway, Eastwood taught his Reconnaissance platoon that Marines improvise, adapt, and overcome. Once I became a Marine, I discovered that Marines do in fact live by this mantra. These are just a few of the values beaten into Marines. They are values that make them successful on the battlefield, and I believe they are values that have served me well in my emergency management career.

About ten years later, while studying the teachings of United States Air Force Colonel John Boyd, I learned that not only is he the mastermind behind the decision-making process termed the OODA (eww-dah) loop, but that he also had many theories on learning, energy, warfare, and leadership (Coram, 2004). One of them was on developing an ability to unlearn. He believed being tied to obsolete concepts inhibited a person from their real potential and inhibited technological development (Coram, 2004). You must be able to discard and forget that which has become outdated and useless. Boyd also believed in the power of synthesis (Coram, 2004). If you called him a military analyst, he was insulted because that meant you were calling him a half-wit (Coram, 2004). He would say that analysis, or breaking things down into their individual parts, was only good if you were able to synthesize them after your analysis (Coram, 2004). Synthesis means to couple things together for a superior product (Coram, 2004). Good emergency managers do this. They can identify, in a collaborative process, how partner organizations may have individual assets that can be synthesized with other partner assets for a superior disaster-related product. Unlearning, analysis, and synthesis need to be in the emergency manager toolbox.

Two decades later, as a doctoral student of organizational change and leadership, another lesson was impressed upon me. That lesson was about creativity and innovation. To be good at these concepts, you must question everything (Dyer et al., 2019). You must ask yourself (or your bosses and others in positions of authority, some of whom may not like these questions), “Why is this that way?” Ask why, and whatever the answer is, ask why about that, and then why about that. Keep asking until you get to the root of the reason (Dyer et al., 2019). This will help you ascertain why things are as they are and then you can begin to imagine how things can be.

Over 35 years of learning, I have put these cognitive tools together to make a radical multi-dimensional proposal for the emergency management discipline. This discipline that seeks to mitigate, prepare for, and respond to disasters for the benefit of the whole of the community. This discipline, aside from the arguable changes made with the advent of homeland security, has doctrinally been unchanged since its genesis. The phases of emergency management have gone untouched and unquestioned as if they were written on tablets and handed down to us from Noah himself. Why are these the phases? Are they still applicable? Can there be other phases? Can there be change?

In November in Savannah, Georgia, I will propose to you at the IAEM Annual Conference that one phase has come to its end within our doctrine. Recovery is outdated. It had a good run. It has served us well. It is a part of our heritage. But, it is done. Its time has passed. Continuing to utilize recovery should be reserved for those that are still using fax machines, dot matrix printers, and the telegraph. Recovery gaslights your brain with a cognitive bias to go back. It sends a signal that implies returning to normal is the goal.

Psychology tells us that to heal from trauma, we must accept that it occurred. Recovery inhibits us from accepting the trauma that has occurred, making meaning of it, and learning from it because it seeks to return to pre-disaster status. The first objective of managing trauma should be to improve your quality of life (Rothschild, 2010). It shouldn’t be to return to your previous quality of life. Our communities are no different. They must accept, understand, and learn from the event, and then adapt to it to be transformed into a flourishing and thriving community.

Adaptation refers to a process, action, or systemic result within a particular community or cohort that allows a system to better cope with an altered state, stressor, hazard, risk, or opportunity (Smit and Wandel, 2006). When we replace recovery with adaptation, it allows us to un-learn returning to normalcy. Adaptation allows us to acknowledge a change and accept that there will be more change, more hazards and

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Adaptation

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risks, and opportunities to flourish and thrive amid the trauma.

Many emergency managers would be correct to point out that the emergency management definition of recovery includes wording that allows for improvement (National Governor's Association, 1979). However, the mindset cannot be to return to normal or better. The mindset of the new generation of emergency managers needs to be to respond to a disaster and then adapt so that our community thrives, and never has to incur this trauma again. The old definition and the word "recovery" makes returning to a previous state the standard and improvement a secondary option. Removing the word recovery and making adaptation the new phase of emergency management means that returning to the previous state is not an option and the only acceptable standard is change. The result of the change is not only an improvement based on the past disaster but an improvement based on the disaster that is yet to come.

In Savanah, you will hear me talk about adaptation, adaptable intelligence, adaptability, and embracing change with the change. The world is changing and when we return to previous states, we miss the goal of emergency management. We must change with the change. That is adaptation.

Accepting the proposal of replacing recovery with adaptation is not, however, the end point. It is the kick-off to a new era of emergency management that includes adaptation not only in our emergency management phases, but in the approach to our discipline, and as a personal leadership trait among emergency managers. We will seek to adapt the discipline of emergency management. We will question what we are doing and why, and we will adapt it to the changing world. We will apply adaptation in our office environment and with our elected officials and they will see us as the change agents of the community. We will unlearn the dogmatic traditions of our communities' past. We will analyze and then synthesize and create a vision of what the community should be, and because we are the great collaborators who were willing and able to say why we are changing, we will be able to elevate emergency management to its rightful place within the community, within the government, and within our private and nonprofit sector businesses. That will be the real and lasting change needed for emergency management. It starts with our willingness and ability to change just one word in the phases of emergency management.

It is time to change the way we do things now, and in the future, and for that, we need to change our mindset. We must have adaptable intelligence, and we must apply adaptation in our cyclic phases of the emergency management process. Adaptation allows us to transform. It allows us to flourish, and it makes us more resilient. See me propose this concept in detail on Nov. 15 at 8:00 a.m. in Savannah, Georgia.

Connect with Randal via email here. 🔷

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Mental Health Welness

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Tennessee Federation of Fire Chaplains. This tiered system can mitigate and prevent the trauma our emergency personnel experience during a disaster, outbreak, or pandemic.

I want to highlight some important resources that can help those who may be researching ways to support your journey with mental illness. Please check out OC87 Recovery Diaries' "Stories of mental health, empowerment, and change." According to OC86 Recovery Diaries, "OC87 Recovery Diaries exists to tell stories about how people with mental health challenges have created paths to meaningful lives. We feature stories that inspire and empower, stories that generate discussion and awareness. OC87 Recovery Diaries presents a range of experiences—personal perspectives, recovery innovations, examples of empowerment, strengths, and gaps in the mental health system, and efforts to dismantle stigma—all told by people moving through their recovery journeys."

Secondly, FireFighter Sam Mclain is passionate about helping those with Post Traumatic Stress Disorder. He just established a YouTube channel, Engine 7 Media, to capture stories of those who live with Post Traumatic Stress. You can view Engine 7 Media's videos here.

Moving forward, the Tennessee Department of Health is working to implement Mental Health First Aid Training for all employees and community partners, increase awareness of existing resources and continue to provide a "safe" place for employees to debrief and communicate through the resources offered by the Statewide Disaster Mental Health/Crisis Response Strike Team. The goals are to improve mental health awareness, erase the stigma and provide proven strategies for mitigation, response, and recovery. We look forward to seeing everyone in Savannah this November! 🔷

Disaster Risk Assessment: Challenges & Opportunities

By Madhury Ray, MD, MPH, CEM, NYC Department of Health and Mental Hygiene

The author spoke as part of the IAEM 70th Annual Conference Early Edition Speaker Series on Oct. 11

In a world shaped by climate change, terrorism, global commerce and migration, and perilous scientific advancements, the landscape of public health threats continues to evolve in complex and dynamic directions. How a government prepares for and responds to that evolving landscape will determine the fate of its citizens. But what threats are the most important to prepare for? What are the most critical functions for government to protect? The process of answering these types of questions is a disaster risk assessment, and a documented risk assessment should serve as a roadmap for policy development, strategy, and resource allocation. As one author puts it, "risk assessment is the tool that helps transform… visceral reactions to threats into rational strategies for risk reduction."

This is easier said than done. While many governments and international agencies are regularly required to complete disaster risk assessments, what a risk assessment entails – the data that is used, the stakeholders involved, the methods of calculation, and reported risk metrics themselves – vary widely from jurisdiction to jurisdiction. Currently, there is no one universal method that can be applied to governments with different resources, different operational mandates, and different makeups of their citizenry. Governments of all shapes and sizes must tackle three key challenges in ranking public health disaster risk if they are to prepare for and respond to the threat landscape of tomorrow.

Challenge 1: Minding the Gaps

Aspirations to make programming data-driven and evidence-based have spurred government into smarter, more logical service provision, and this principle is also true for risk assessments. However, there is a common misperception that "data" are restricted to comprehensive, numerical datasets and that "evidence" can only come from statistically significant, quantitative analyses. Such strict definitions rely on a non-existent availability of information about public health threats.

Existing tools are simply better at measuring some disasters than others. Technology and case definitions have advanced according to what we have seen in the past, but we may not yet know how to collect data now about the hazards we will see in the future. In the United States, a reliance on the historical record of disaster overemphasizes "natural" disasters and terrorist events but doesn't account well for emerging infectious diseases.

What data are available is also a function of out-of-date ideas about which disaster impacts are important and which are not. Financial costs related to insurance claims may be easy to quantify while community cohesion may not; if we only count what is easy to measure, we are implicitly giving importance to one consideration over the other.

Relying only on "low-hanging fruit" to assess risk (and thereby allocate resources) can amplify structural blindspots, widening existing gaps in public health preparedness and response instead of narrowing them. Whatever the inputs to a risk assessment, government must mind the gaps in the data. This means identifying the limitations of the inputs to any risk assessment at the beginning of the process and looking out for ways to compensate for those limitations using analysis.

Governments can approach the lack of comprehensive, numerical data in a different way. Rather than trying to quantify risk itself, risk assessment models often measure risk perception as a proxy for jurisdictional disaster risk. To put it another way, rather than engaging analysts to impute a holistic definition of risk to compensate for the limitations in disaster data, governments can instead rely on the human work done in the minds of disaster experts with extensive knowledge and experience.

Challenge 2: Expanding the Definition of Expertise

Whether stated explicitly or not, all disaster risk assessments are fundamentally shaped by the "experts" who participate in them. Risk assessments are full of subjective, human decisions, from what data to include, to which probability models we believe, to choosing the impact threshold that even defines a disaster.

The question of what is important to a government's citizens is the core decision of any risk assessment. Public health traditionally measures disaster impact in terms of morbidity and mortality, but this definition may be too narrow to capture what disasters can do to a citizenry. Shouldn't a risk assessment consider the community impacts of quarantine even in low mortality disease? What about

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Disaster Risk Assessment

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the long-lasting effects of a disease like Ebola, which did not result in any deaths in New York City, but generated stigma that is still impacting some citizens today?

Expanding the definition of expertise presents many challenges. Each new voice included is another data point that must be collected. Conversations conducted in public health jargon must be adjusted so that they combine with voices from outside the institution. Creating a consensus amongst public health experts is difficult enough; as the definition of expertise is widened to incorporate more and more perspectives, defining and documenting consensus becomes increasingly complex.

Luckily, there is a whole field of science dedicated to problems of group and consensus decision-making. Governments should determine whose input they need in their risk decisions. Is it a few or many individuals? Do they know each other or are they meeting for the first time? Do they come from similar backgrounds, understand the same lingo, and come to the table with similar assumptions? There is almost certainly a method that can be adapted to every government's needs and available resources, no matter the size or shape. With a little bit of innovation, governments can streamline and normalize the inclusion of all of the expertise necessary to make risk decisions.

Challenge 3: Operationalizing from the Start

Disaster risk assessments hold a wealth of intelligence about what is important to a government and its citizens, about what disaster is likely to strike next, and about what government can do to prevent or mitigate a disaster. Ideally, a risk assessment should act as a roadmap for policy, programming, resource allocation, and advocacy in public health emergency preparedness, but it can be challenging to translate complex, multi-dimensional decisions by a variety of stakeholders into budgets, assignments, and operations. Sometimes, this translation happens when leadership internalizes findings to use as they see fit when allocating preparedness resources or reviewing plans. At the other end of the spectrum, risk assessments may incorporate capability or other frameworks already used to structure preparedness activities so that findings can be directly "plugged in" to projects and planning.

Indeed, operationalizing a risk assessment in preparedness can be as difficult as conducting the risk assessment itself, unless operationalization starts before the process even begins. Risk assessments should be designed as part of a preparedness cycle, meaning that the decisions that make up the assessment should be presented in a way that contextualizes jurisdictional capabilities and weaknesses. Detailed definitions indicate how the assessment will be used, by whom, and for what should be documented long before the actual assessment is attempted. In this way, rather than being expected to change their decision-making processes after the fact, leadership can buy in before findings are present, making it likelier that findings will actually be used. Similarly, anticipated preparedness projects and activities can be planned so that they can incorporate jurisdictional risk assessment findings once the assessment is complete.

The challenges governments face in designing and executing a disaster risk assessment are daunting; still, governments must develop new strategies to rise to these challenges if they are to fulfill their responsibility to citizens in an evolving threat landscape. It's tough to find comprehensive inputs for hazard and vulnerability analysis, but that's okay as long as the institution minds gaps in the data with transparency and consistency. Similarly, whole community preparedness means that plans must be built not only for the jurisdiction but also for the people who live in it. Governments don't have to invent the wheel to do this; they can expand the definition of expertise in their risk assessments through a variety of existing consensus methods and engagement strategies. Finally, the best risk assessment is useless if no one uses it. With a little bit of intentionality at the beginning of the design process, a well-designed risk assessment can drive the planning, policy, strategy, and resource allocation necessary to prepare a citizenry for the disaster of tomorrow.🔷

Sources

1: Arnold, JL "Risk and Risk Assessment in Health Emergency Management." *Prehospital Disaster Medicine 2005*;2Q(3):U3-154.

2: The oldest and perhaps easiest way to do a disaster risk assessment is to collect a few friends, chat together in a smoke-filled back room, and come out with a ranked list of hazards to inform jurisdictional emergency planning.

The Code of Ethics and Professional Conduct for Emergency Management Professionals

By Carolyn Harshman, CEM, President, Emergency Planning Consultants; Carol Cwiak, Ph.D., Associate Professor, North Dakota State University; and Kelly Fitzgerald, MA, Higher Education Program Manager, FEMA

The authors will be speaking as part of the IAEM 70th Annual Conference on Nov. 16 at 1:30 p.m.

The Code of Ethics and Professional Conduct for Emergency Management Professionals was completed in April of 2022, after three years of dedicated efforts that included development, vetting, comment coding, and minor revision. The Code was developed by an Ethics Special Interest Group (Ethics SIG) established under the auspices of the FEMA Higher Education Program. This group included emergency management practitioners, scholars, and ethicists.

The *Code* represents a key milestone on the field's pathway to professionalization. Recognized professions bear the hallmarks of monopoly, autonomy, and authority, which equate with the acquisition of power necessary to perform the important work the profession does. This means that the profession's subject matter expertise is recognized and respected, the profession controls the expectations and parameters of practice, licensure to practice (as well as revocation of licensure) is likewise controlled, and education, ethics compliance, and other mechanisms that prepare individuals to practice within the profession's delineated professional space are required.

The *Code* has thus far been used in two ways: external, to support the practitioner community in their engagement with partners, employers, and others regarding the responsibilities and resources involved in professional emergency management practice; and internal, to inform other professionalization efforts at the local, regional, tribal, state, national, and international level. In the short period since its completion, the Code has already been used by members of the emergency management practitioner community to clarify the role and expectations of emergency management professionals. These types of efforts help to organically reshape the understanding of emergency management practice externally even before the *Code* is used for professionalization steps such as accreditation and licensure (see *Forging Our Own Path: Emergency Management's Pathway to Power*, IAEM Bulletin, February 2022).

A great example of the *Code*'s internal use occurred at the Exploring Ethics Roundtable held in Roskilde, Denmark (Sept. 28-30, 2022). This international panel of invited scholars gathered to further explore and expand the discussion and understanding of disaster and emergency management ethics. Several of the roundtable attendees that worked on the development of the *Code* attended the roundtable. The *Code* became a platform for many ideas and discussions amongst the panel and heavily influenced a number of efforts the roundtable committed to complete.

A portion of the report is shared below to illustrate the Roundtable's view regarding the importance of ethics in emergency management.

"*The Exploring Ethics Roundtable was held Sept. 28 - 30, 2022, at Roskilde University in Denmark. The roundtable came together out of our concern for the increasingly challenging ethical issues that face disaster and emergency management practitioners in a volatile, uncertain, complex, and ambiguous (VUCA) world. Recent examples of such issues include the COVID-19 pandemic, the 2022 flooding in Pakistan, and global shortages affecting human well-being.*

Disaster and emergency management professionals protect lives, livelihoods, and quality of life by using their subject matter expertise to manage a complex risk portfolio. Inherent in disaster and emergency management practice are a series of duties and responsibilities that are replete with moral and ethical issues. These issues have thus far received insufficient attention within the disaster and emergency management community, and historically have been addressed in the midst of a disaster as opposed to pre-disaster planning. Lessons learned are rarely retained and are regularly being rediscovered.

The Roundtable was attended by a group of invited international scholars invested in, and knowledgeable about, the advancement of ethics in the areas of disaster and emergency management. The Roundtable was preceded by a nine-part webinar series, offered April through June of 2022, that focused on ethical challenges and lessons from Covid-19 and other catastrophes (https://tinyurl.com/Exploring-Ethics-Webinar).

The Roundtable's agenda included expansive discussion of topics relevant to the understanding, advancement, and practice of ethics in disaster and emergency management; and, exploration of contributions to be undertaken by Roundtable members and partners that advance

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The Future of the Emergency Management Workforce

By Laura Bernstein, Senior Manager/ Future of Work Leader, Deloitte; and Taylor Gary, Human Capital Consultant, Deloitte

The authors will be speaking as part of the IAEM 70th Annual Conference on Nov. 14 at 10:45 a.m.

In the face of an ever-evolving and increasingly complex emergency management (EM) landscape, the EM workforce is at the forefront of helping our world and its people be prepared and resilient in the face of disasters – disasters that have increased in frequency and severity. For the EM workforce to meet these increasing demands, organizations must address the challenges of burnout, historically high "quit rates," and selecting from evolving workplace models as the world returns to work following COVID-19. To unlock, or unmute, its workforce's potential, EM professionals need to continue to embrace the Future of Work.

In our session at the 2022 IAEM Conference, entitled "The Future of the Emergency Management Workforce", you'll learn about:

- The importance and relevance of the Future of Work to the EM workforce of today.
- The different adaptive workplace models and their impact on workforce engagement, productivity, and wellbeing.
- How to maximize employee engagement in an adaptive workplace.
- How to create purposeful in-person interactions and maximize efficiency of "in office" time.
- How virtual collaboration technologies can enable the Future of Work for your emergency management workforce.

So, what is the "Future of Work?" The Future of Work is a result of many forces of change affecting three deeply connected dimensions of an organization:

- **The work**: the activities performed and technology applied to produce work outcomes and create value.
- **The workforce**: the combination of skills, talent options (such as FTEs, contractors, gig workers, and crowdsourcing), jobs, and teams to perform the work.
- **The workplace**: the context and environment in which work is done, including physical design and technologies, collaboration, culture, and workforce preferences.

The new realities created by these forces of change present organizations with complex challenges as well as the opportunity to enable people-focused transformations and improvements by rearchitecting work, unleashing the workforce, and adapting the workplace.

The COVID-19 pandemic accelerated us into the Future of Work and forced organizations across the globe to completely reimagine the ways in which they work. Workers in fields such as EM were suddenly forced to leave the office and work from home; something that was never imagined to be possible before the pandemic. However, while some fields of work were able to operate 100% remotely, the EM field is extremely unique. There is no replacement for the human touch during critical moments when we must stabilize the event to protect life, property, and infrastructure; however, there are opportunities to tactfully leverage virtual workers during these critical response efforts.

Throughout the pandemic, EM professionals challenged the traditional belief that work needs to be completed on-site by effectively maintaining daily operations through virtual work. EM organizations have learned that a hybrid workforce can be more resilient in critical situations, and that the human element of EM's core mission can be empowered by reimagining work through an adaptive workplace and virtual technology enablement.

The EM workforce needs to embrace an adaptable workplace by implementing flexibility through a hybrid workplace model and intentionally curating a culture that promotes inclusivity and supports mission-critical functions. Effective adaptive workplaces not only reimagine but also improve productivity. By finding virtual ways for employees to effectively collaborate with colleagues and partners across the globe and connect through virtual celebrations and relationship-building "coffee chats" or "watercooler" opportunities, EM organizations can strengthen their culture in a way that transcends traditional office walls. EM organizations can tactfully select key "moments that matter" to create purposeful in-person interactions such as working together on mission-critical tasks and uniting in moments of celebration. Providing the flexibility of remote work while maximizing the efficiency of in-person interactions will increase employee engagement, which in turn increases the ability of EM organizations to effectively carry out their mission. An investment in the workforce makes work better for people, and people better at work. When people are better at work, it allows organizations to drive strategic outcomes.

In this adaptive landscape, virtual-enabling technologies allow teams to work together remotely and productively through asynchronous communication, enterprise collab-

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Code of Ethics

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the knowledge, discussion, and application of ethics.

After extensive discussion, the Roundtable members assert the following:

1. Ethical codes are a necessary tenet of professions that frame ethical practice.

2. Ethical decision-making processes are essential to disaster and emergency management professionals' ability to arrive at just and equitable outcomes based on ethical reasoning.

3. Social justice issues must be recognized as essential elements of ethical disaster and emergency management practice.

4. The impacts of disasters result in preventable human suffering, property damage, economic loss, environmental degradation, collapse of livelihoods, and social disruption.

5. Disasters reveal, create, and exacerbate societal inequities and injustices.

6. Competing values and ethical orientations, such as the rights of the individual versus the protection of the community, contextualize complex ethical dilemmas that disaster and emergency management professionals must address.

7. There are insufficient trained professionals and resources addressing ethical dilemmas that arise in disaster and emergency management practice.

8. Disaster and emergency management professionals have a duty to engage in greater utilization of ethics training and research in professional practice structures.

Roundtable members discussed the value of a number of initiatives and committed to five focused efforts designed to gather additional data, facilitate discussion, more-fully integrate ethics into practice, support existing ethics codification, and integrate ethics structures within representative organizations. Each of these efforts will be shared across networks that represent, support, and advocate for the teaching, research, and practice of ethical disaster and emergency management practice. Particular focus will be placed on accessibility of the developed materials through a variety of mediums and widely accessed platforms."

The efforts the Roundtable committed to are: 1. A case study publication that will align with the areas of responsibility in the *Code* (i.e., affected populations; partners, stakeholders, and the public; environment; colleagues; employers; profession; and self); 2. An ethics-centered disaster and emergency management model; 3. Two research initiatives will be initiated – an examination of the ethical challenges practitioners face during disasters and the extent to which ethics-related standards are integrated into course objectives of emergency management curricula and the depth of coverage; 4. The sharing of the *Ethics in Action* appendix from the *Code* to help advance other Roundtable efforts (e.g., case studies); and 5. The creation and structural integration of ethical structures in representative organizations.

In regard to representative organizations, the Roundtable noted the power of IAEM as an organization with international membership to help "create a global community of practice within the disaster and emergency management community that is specifically focused on fostering ethical practice." This is particularly salient as we approach IAEM's annual conference which is attended by emergency management professionals from around the world.

There will be a breakout session on the *Code* at the 2022 Conference on Wednesday, Nov. 16, from 1:30-2:30 p.m., presented by the authors of this article—Carolyn Harshman, IAEM-USA president; Kelly Fitzgerald, FEMA Higher Education Program director; and Carol Cwiak, Code of Ethics co-chair. The session is designed to engage attendees in a dialogue about the *Code* and what it means for the future of emergency management. Please come and join the discussion! 🔷

Future of Work

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oration, and information and task management systems. In addition to evolving the employee experience, the enablement of new technologies can enhance the applicant hiring and onboarding experience. Technology can expedite hiring processes and streamline the onboarding experiences for new hires. The technologies driving the Future of Work are proving to be crucial tools for attracting, retaining, and unlocking human potential at scale for EM work and workers.

To learn more about the Future of Work of the emergency management workforce, please check out the additional resources below. We hope to see you all at the conference! 🔷

Resources

Deloitte's Future of Work Website
Hybrid Hiccups, *Deloitte 2022*
2021 Human Capital Trends Report, *Deloitte 2021*
COVID-19 and the Virtualization of Government, *Deloitte 2020*
Returning to work in the Future of Work, *Deloitte 2020*

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United States Small Business Administration Moves to Place Greater Emphasis on Pre-disaster Footing

By Francisco Sanchez, Associate Administrator, United States Small Business Administration; and Dolores Rowen, Public Affairs Specialist, Small Business Administration

The authors will be speaking as part of the IAEM 70th Annual Conference on Nov. 13 at 3:15 p.m.

The United States Small Business Administration (SBA) connects individuals, businesses, and private non-profits with disaster assistance programs that improve disaster recovery outcomes and economic resilience by helping communities prepare, respond, and recover from disasters. But above all what is more important is our ability to help mitigate future impacts by encouraging the acceptance of best practices and the implementation of protective measures by businesses.

Today's prevailing headlines help us see that natural disasters in this country and throughout the world are growing, both in complexity and scope. The sheer number of billion-dollar disasters is rising. In 2021, the United States suffered 22-billion-dollar disasters. Within the SBA alone, we issued over $582 million in loan approvals in FY 2020. In FY 2021, that number was over $1.6 billion. And this year, we have only begun to assess the economic impact of recent presidential declared disasters Hurricanes Fiona and Ian.

The SBA has supported the needs of disaster-impacted communities since 1953. What has remained true is that every business has unique vulnerabilities. Knowing which type of disasters, you are most likely to face and how to reduce your risk helps businesses recover faster and more efficiently. Regardless of the hazard, whether it's flooding, tornadoes, hurricanes, earthquakes, or wildfires, business owners should take steps to prepare for the new intricacies of modern disasters. As we call on business owners to elevate and evolve their thinking toward disaster preparedness and recovery, so must ODA conduct the same assessment of the same pressing issues.

When I came to SBA after serving in the emergency management community for nearly two decades, there was a clear direction given to me by United States SBA Administrator Isabella Casillas Guzman. She directed a re-engineering of ODA to reduce business exposure to disasters through advanced planning and mitigation. ODA wants to help businesses face this new reality by helping them reduce their particular risk exposure before a disaster strikes.

This is a transformational process within ODA. It requires leveraging the existing expertise within ODA to expand our focus toward preparedness, recovery, mitigation, resilience, and the emerging science around climate change. The goal is to build the ability of the nation's small businesses to reduce the cost of recovery by reinforcing their capacity to withstand the fallout of a disaster before it occurs.

We will be focusing our efforts on three critical areas:

Business Resilience: we will adopt better ways to provide resources to small businesses to build capacity to combat climate-induced disasters including fires and extreme weather to better serve those that need help preparing for larger disasters.

Disaster Recovery: we will increase our engagement in the nation's Economic Recovery Support Function as a part of the FEMA's National Disaster Recovery Framework to help businesses with long-term recovery and adapt mitigation strategies after a disaster. We will leverage the whole of SBA's portfolio to help ensure communities can strengthen their businesses and adopt efforts to manage and reduce the effect of future disasters.

Federal Coordination: we will enhance our role across the federal government in coordinating disaster resources to support preparedness, response, and recovery for businesses and the communities that they serve.

Our expanded focus requires a paradigm shift leading toward creating a culture of preparedness among small businesses. The success of this endeavor is dependent on our ability to forge strategic collaborations with our federal, state, territorial, and local municipality partners to reflect a determination in completing the cycle of recovery to resiliency. Engagement with stakeholders helps ensure that together, we are fully prepared to support the fastest most efficient path to recovery through resilience.

This transition will not be easy, and it will evolve, but it will lend itself to a better ODA and a stronger business community. In the meantime, there are steps every business can take now to build its resilience and bolster its ability to recover.

- Establish a communications plan with your employees and subscribe to local emergency management alerts to keep them informed during

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Passenger Rail Incident Response Capacity

By Mary Carlson Bis, Senior Director Emergency Management, Amtrak; and Christopher Faircloth, Emergency Management Contract Support, Amtrak

The author will be speaking as part of the IAEM 70th Annual Conference on Nov. 14 at 10:45 p.m.

The National Railroad Passenger Corporation commonly referred to as Amtrak, has provided intercity passenger rail service throughout the United States since 1971. Amtrak employs nearly 20,000 people and operates more than 300 daily trains across a 21,000-mile network. Amtrak trains travel through highly populated urban areas, sparsely populated rural areas, and everywhere in between, and carry an average of 150 people at a time to their destination. These routes pass through various terrains, changing weather conditions, and other hazards that make them susceptible to unforeseen incidents. The Amtrak Emergency Management Division is dedicated to working with stakeholders to mitigate the risk of and prepare for passenger rail incidents such as trespasser or vehicle strikes, natural hazards, and, in the worst case, derailments resulting from human-caused or unintentional acts.

Amtrak is committed to responding to an incident with the same dedication and professionalism used daily and maintains a robust Incident Response Team (IRT) comprised of management employees from across the organization. The organization sustains extensive plans, provides training for IRT members, and regularly conducts exercises to validate the effectiveness of plans. In addition, Amtrak routinely develops after action reports to identify areas for improvement. Amtrak leverages the organization's IRT to rapidly deploy employees from across the country to carry out family assistance (FA) operations designed to provide services and information to those impacted by an incident and to support the federal investigation at the incident site. The flexible Incident Command System (ICS) structure provides Amtrak with the framework and resources necessary for IRT members to respond and recover in coordination with local, state, and federal partners.

With trains operating across 46 states, Amtrak recognizes the importance of developing purposeful relationships, agile capabilities, and coordinating resources with state, local, and tribal emergency management agencies and response organizations that will inevitably be the first on-scene. Amtrak prides itself on working closely with communities across the nation to promote readiness among the communities they serve by collaborating on joint opportunities for multi-hazard planning, training, and exercises.

Amtrak offers no-cost Passenger Train Emergency Response (PTER) training, designed to inform emergency response personnel and public safety agencies about the hazards of and best practices to be utilized when preparing for, responding to, and recovering from an Amtrak passenger train emergency. Following this training, participants can:

- Recognize and evaluate railroad and passenger train equipment hazards associated with emergency incident response, mitigation, and recovery operations.
- Demonstrate basic knowledge of passenger rail operations, train control operations, and Amtrak facility locations within a specific region.
- Identify key railroad emergency contacts and be familiar with railroad incident communication notification protocols.
- Summarize key components required to prepare and preplan for a potential railroad emergency in their specific region.
- Recognize Amtrak train equipment specific to their region.

Amtrak facilitates training through in-person and virtual presentations with regional emergency managers. In addition to facilitating trainings, regional emergency managers provide information on Amtrak's emergency response capabilities, foster relationships with partners, and act as liaisons to coordinate resources with Amtrak and host rail partners in the case of an incident.

Additionally, Amtrak Emergency Management hosts workshops to strengthen response capabilities by recognizing the importance of collaborating, relationship building, and information sharing during steady-state times. Recently Amtrak Emergency Management hosted a series of workshops with federal, state, and local partners to discuss roles, responsibilities, and expected points of intersection during a response to a coordinated attack on public transit involving passenger rail. These workshops were conducted utilizing DHS/FEMA Intercity Passenger Rail (IPR) grant funding and focused on the initial response, unified command, critical information sharing, family assistance, and victim services, investigation, and external affairs/public information. More than 170 individuals participated, allowing Amtrak to validate critical joint coordination functions, modify plans and procedures, and identify areas for further exploration.

Recently, Amtrak's emergency

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Small Business Administration

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emergencies.

- Protect vital records and documents in a secure Cloud environment.
- Review your insurance coverage, take a video inventory of your property and assets, and consider business interruption insurance.
- Conduct facilities and operations planning and consider e-commerce solutions, temporary alternative locations to resume operations quickly, and evaluate supply chains.
- Engage in pre-disaster contract development opportunities.
- Test the disaster plan with managers and employees.

SBA remains committed to helping communities rebuild stronger and protect against future disasters by increasing community awareness of the SBA Mitigation Assistance Program. Disaster loan recipients with physical damages can increase the amount of their loan by an additional 20% of their verified property loss amount to integrate hazard protection measures to strengthen the property in a future similar disaster.

Business owners may be eligible for up to 20% of their verified physical losses not to exceed the $2M legislative limit.

Homeowners may be eligible for up to 20% of the verified physical losses not to exceed the $200K limit.

Generally, borrowers have up to two years after loan approval to request an increase for higher rebuilding costs including code-required upgrades or mitigation. A few examples of mitigation measures to consider include the following:

Flood mitigation options may include a sump pump, landscape improvements, and elevation.

Wildfire mitigation options may include class A fire-rated roof, noncombustible gutters, fences, and gates, and dual or multi-pane tempered glass windows.

Wind mitigation options may include wind-rated garage doors, hurricane roof straps, tornado-safe rooms, and storm shelters (built to FEMA guidelines).

Earthquake mitigation measures may include anchored rooftop-mounted equipment, or window film.

For more information on SBA or our disaster programs, visit sba.gov or disasterloanassistance.sba.gov. Disaster survivors can call 800-659-2955 for more information or dial 7-1-1 to access telecommunications relay services.

Passenger Rail

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operations plan was further validated in October 2021; during a Drug Enforcement Agency (DEA) incident onboard an Amtrak train, a passenger opened fire on law enforcement, fatally shooting a federal agent and injuring others. The federal lead investigatory agency and the Amtrak IRT responded to assist passengers and investigators. The incident, an officer-involved shooting, presented a nuanced scenario differing from what had been examined in the past. This shift presented Amtrak with the opportunity to leverage existing relationships with local, county, and state emergency managers to support passengers' immediate needs and facilitate access to supplementary resources. The successful incident response provided validation of preparedness exercise findings and identified additional areas for discussion around different categories of responses.

Amtrak also works with partners to design innovative emergency preparedness and response solutions that leverage Amtrak resources. For example, Amtrak has worked with major urban areas to identify how Amtrak resources, such as trains and facilities, can aid in the evacuation of residents ahead of natural disasters and navigated how trains might be used to relocate non-critical medical patients during an outbreak.

In summary, and most importantly, responding to rail incidents effectively and efficiently requires collaboration with a wide range of partners, including emergency managers, law enforcement, first responders, federal, state, and local government agencies, the private sector, and the public. Preparing for these types of incidents requires advanced planning and a thorough understanding of the unique challenges that should be expected when responding to a passenger rail incident. These activities would not be possible without innovative solutions and coordination between Amtrak Emergency Management and its valued partners.

EM Calendar

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

Nov. 1-3	2022 National Summit on K-12 School Safety Security
Nov. 3	6th Annual Security and Risk Management Symposium Doubletree by Hilton - Pittsburgh
Nov. 15-16.	Nicosia Risk Forum 2022
Nov. 11-17	IAEM Annual Conference and EMEX Savannah, Georgia
Jan. 11	ChemLock: Introduction to Chemical Security
Mar. 7-9	Critical Infrastructure Protection & Resilience North America (CIPRNA) 2023 Conference Baton Rouge, Louisiana
April 17-21	New Jersey Emergency Preparedness Association (NJEPA) 2023 Conference Atlantic City, New Jersey
April 12	ChemLock: Introduction to Chemical Security

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