


IAEM

Bulletin

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Make the Most of Your IAEM Membership: Join Us in Long Beach

Emergency management is a profession built on relationships, shared experience and the ability to learn from what works — and what does not. This November, IAEM conference attendees will have an opportunity to strengthen all three at the [IAEM 74th Annual Conference & EMEX, Nov. 9-11, 2026, at the Long Beach Convention & Entertainment Center in Long Beach, California.](#)

The Annual Conference is more than a few days away from the office. It is an opportunity to connect with the emergency management community, learn directly from colleagues tackling many of the same challenges you face, and return home with ideas you can put to work.

And for IAEM members, it is one of the best opportunities of the year to experience the full value of the association.

A Program Built Around Today's Emergency Management Challenges

The [core conference program](#) runs Monday through Wednesday and includes general sessions, breakout sessions, Spotlight Sessions, EMvision Talks®, the Poster Showcase and numerous opportunities to learn from emergency management professionals representing communities and organizations across the

profession.

The breadth of the program means attendees can build an experience around their own responsibilities and professional interests.

Among the topics scheduled for 2026 are:

- Crisis communication and communicating when public attention is at its highest.
- Tsunami evacuation readiness and innovative approaches to preparedness.
- Rural resilience and collaboration in communities where resources may be limited.
- Public health and emergency management integration.
- Behavioral science and its application to emergency management practice.
- Access and functional needs during disasters.
- Building and sustaining volunteer programs.
- Agriculture and community resilience during catastrophic disruptions.
- Whole-community partnerships and building emergency management teams that extend beyond traditional response agencies.

These are not abstract conversations. Sessions are designed around real programs, experiences, lessons learned, and practices that attendees can consider for their own organizations.

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From the IAEM-USA President

Finishing Strong

By Josh Morton, CEM, IAEM-USA President

There's a strange temptation that shows up whenever we get close to the end of something.

We start looking ahead.

We think about what comes next, what still needs to be wrapped up, and maybe even what we'll do with a little extra time once the responsibility belongs to someone else. After a long year, it would be easy to take our foot off the gas and begin coasting toward the finish line.

But leadership doesn't end just because the end is in sight.

As I write this, I'm entering the final weeks of my term as President of IAEM-USA. Our Annual Conference is right around the corner, newly elected leaders are preparing to step into their roles, and our Association is getting ready to begin its next chapter.

I'll save most of my reflections on this past year for my final article next month. For now, I want to talk about something that matters in every leadership role: **Finishing strong.**

We spend a lot of time talking about how leaders begin. We talk about setting a vision, building a team, establishing priorities, and creating momentum. Those things matter. A strong beginning can bring people together and set an organization on the right path.

But how we finish matters just as much.

Leadership isn't just about launching new initiatives or introducing big ideas. It's also about following through on commitments, completing the work already underway, and making sure the next group of leaders is prepared to keep moving forward.

That last part may be the most

important.

A healthy leadership transition isn't something that happens during a quick conversation on the way out the door. It takes preparation. It requires sharing information, explaining the history behind decisions, introducing people to key partners, and making sure important work doesn't stall just because a name or title changes.

But I've also learned that preparing the next leader can't wait until your own term is almost over.

Over the past couple of years, Carrie Speranza, our immediate past president, and I have tried to be very intentional about this. We've made room for our first and second vice presidents to begin working on their priorities while they're still moving through the presidential rotation.

In the past, incoming presidents often had to wait until their presidential year to begin moving their priorities forward. By the time they brought the right people together, developed a plan, and built some momentum, much of that year was already gone.

We wanted to approach things differently.

Instead of treating the presidential year as the starting line, we've tried to give each officer the full time they spend in the rotation to develop their ideas and begin putting them into action. That allows priorities to grow thoughtfully, gives members more opportunities to contribute, and creates continuity from one president to the next.

Of course, that also means the work doesn't always line up neatly with the title. Some projects you begin may not be completed until someone else is sitting in the



*Josh Morton, CEM, President,
IAEM-USA*

president's chair. Others may come together before you ever get there.

And that's okay.

If an idea is ready to move forward, we shouldn't hold it back just so it can happen during our presidential year. And if the work needs more time, we shouldn't rush it across the finish line just so we can say it was completed on our watch.

That's where humility comes in.

Leadership requires us to spend less time worrying about who gets the credit and more time worrying about whether the work gets done. Sometimes we'll lead an initiative. Sometimes we'll support it. And sometimes we'll get to stand back and celebrate as someone else carries it across the finish line.

The name attached to the accomplishment matters far less than the progress we make together.

The next leader may approach the work differently. They may ask different questions, establish different priorities, or see opportunities

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Finishing Strong

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that we missed.

That's okay, too.

If we've done our jobs well, the people who follow us won't simply preserve what we built. They'll improve it.

That can be difficult for leaders to accept. It's tempting to measure our success by how closely an organization continues to follow our direction after we leave. But I believe a better measure is whether we leave behind an organization strong enough to grow beyond us.

This principle applies far beyond elected office.

In emergency management, transitions happen all the time. Employees retire. Department heads change. Elected officials begin new terms. Committee chairs rotate. Partners move to new organizations, and the person we've worked with for years is suddenly replaced by someone who doesn't know our history, our plans, or all those unwritten agreements that helped everything work.

If all that knowledge lives with one person, the organization becomes vulnerable.

Strong leaders prepare for transition before it happens. They document what needs to be documented. They develop people before a vacancy appears. They share relationships instead of guarding them. They give others opportunities to lead while they're still available to offer support.

And perhaps most importantly, they understand that preparing someone to take their place doesn't make them less valuable.

It proves that they led well.

Throughout this year, we've talked about leadership from several different angles. We've talked about vision, simplicity, consistency, cooperation, adaptability, stewardship, developing others, and the impor-

tance of showing up. Each of those ideas has something in common:

Leadership is never really about the leader.

It's about the mission.

When we keep the mission at the center, transitions become less about what we're giving up and more about what we're handing forward. We stop asking whether the next leader will do things exactly the way we did them and start asking whether we've given them what they need to succeed.

That doesn't mean we disappear the moment our term or title ends.

Some of the best leaders I know continue to serve long after they leave office. They become mentors, trusted advisors, and steady sources of institutional knowledge. They remain available without standing in the way. They know when to offer guidance, when to encourage, and when to step back.

There's real wisdom in knowing the difference.

As we prepare to gather in Long Beach, many of us are approaching transitions of our own. Some members will assume new leadership roles. Others will complete years of

service on a board, committee, commission, caucus, or regional council. Some will attend their first IAEM Annual Conference and discover an opportunity to get involved that they never expected.

Every ending creates space for a new beginning.

But before we turn the page, there's still work to do.

There are commitments to honor.

There are people to thank.

There are new leaders to encourage.

There are relationships and lessons to carry forward.

Finishing strong doesn't mean trying to squeeze one more major initiative into the final few weeks. It means remaining present. It means continuing to serve with the same energy and care we brought to the beginning. And it means doing everything we can to leave the mission, the team, and the organization stronger than we found them.

Starting well may create momentum.

Finishing well creates a legacy.

And strong leaders understand that both matter. ♦

**LONG BEACH.
HERE WE COME.**
NOVEMBER 6-12, 2026



**74TH IAEM ANNUAL
CONFERENCE**



Join Us in Long Beach

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Tuesday also features [EMvision Talks](#), including presentations exploring why failure matters, the use of Earth observations in disaster management, developing a more complete operational picture and leadership development. Plan to attend this always-popular and highly rated session.

Learning Starts Before Monday

Attendees who want to [expand their conference experience](#) can arrive early to maximize their time; pre-conference education begins Friday, Nov. 6, and continues through the weekend, with offerings covering a wide range of professional development needs. The schedule includes

courses on disaster recovery and public assistance, public information in all-hazards incidents, critical infrastructure physical and cybersecurity, psychological first aid for rural responders and volunteers, extreme heat preparedness, and other topics.

[Sunday offers additional opportunities](#), including the **AEM/CEM Exam Readiness Course**, the IAEM-USA Healthcare Caucus Symposium and the **IAEM Leadership Symposium: Resilient Leadership in an Era of Constant Change**.

Reconnect With Your IAEM Community

Some of the most valuable conference conversations happen between sessions. The Annual Conference brings together emergency managers from different levels of

government, the private sector, higher education, healthcare, nonprofits and other parts of the professional community. That creates opportunities to compare approaches, find potential partners and build relationships with people who understand the challenges of emergency management. IAEM members can also become more involved in the association itself.

Regional meetings are scheduled Monday, while IAEM-USA caucus, committee and council meetings are incorporated into the conference schedule Tuesday and Wednesday. These meetings provide members with opportunities to participate in the work of IAEM, contribute their expertise and connect with colleagues who share their professional interests.

First-time attendees, students, and those new to IAEM can start building those connections at the [First Steps Mixer on Sunday after-noon](#), followed by the Welcome and Networking Party.

Experienced conference attendees can get involved, too. The IAEM Ambassador Program gives members who have previously attended an Annual Conference an opportunity to welcome participants, answer questions, help attendees navigate the conference and make connections — while expanding their own networks in the process.

See What's New at EMEX

Technology, tools and services available to emergency managers continue to evolve, and [EMEX 2026](#) gives attendees an opportunity to explore many of them in one place.

The exhibit hall opens Monday evening with the EMEX Opening Reception and continues Tuesday and Wednesday. Breakfast, breaks and lunches are incorporated into

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Join Us in Long Beach

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portions of the EMEX schedule, creating dedicated time to visit exhibitors without having to choose between the exhibit hall and educational sessions.

Use that time to ask questions, compare solutions and talk directly with organizations serving the emergency management community. Even if your organization is not currently purchasing a new system or service, understanding what is available can inform future planning and budgeting.

Celebrate the Profession

The conference concludes Wednesday evening with the [IAEM-USA IAEM Certification & Awards Ceremony](#).

It is an opportunity to recognize professional achievement, celebrate colleagues and reflect on the work being done across the emergency management community.

For AEMs, CEMs and members working toward certification, the conference also provides another connection to IAEM's broader commitment to professional development and advancement of the profession.

Make Your Case to Attend

Training and travel budgets remain tight for many organizations, which makes demonstrating the return on investment especially important.

IAEM has developed [resources specifically to help attendees gain approval to participate](#). Members are encouraged to review the program, identify sessions that directly support organizational priorities and determine which exhibitors or networking

WHAT'S ON THE PRE-CONFERENCE AGENDA

Explore these caucus symposiums taking place in Long Beach.

IAEM-USA Universities & Colleges Caucus Symposium

Nov. 7-8, 2026

Designed for emergency managers working in higher education, this event offers an opportunity to explore campus-specific challenges and gain insights to support institutional preparedness.



IAEM-USA Healthcare Caucus Symposium

Nov. 8, 2026

Designed for healthcare emergency managers and partners, this event will offer expert-led discussions, peer collaboration, and practical strategies for strengthening preparedness and response.

opportunities could benefit their organization.

When making your case, focus on what you will bring home: new approaches, contacts, lessons learned, professional development and solutions that can be shared with colleagues.

The [IAEM member full registration fee is \\$849](#) and includes conference sessions, scheduled breaks and lunches Monday through Wednesday, the Sunday Welcome Party, Monday EMEX Opening Reception, Tuesday breakfast and the Wednesday IAEM Awards & Certification Banquet.

Your IAEM Community Is Heading to Long Beach

The value of an IAEM Annual Conference is difficult to measure

only by the number of sessions attended. It can be the idea you hear from another emergency manager that solves a problem back home. It can be the colleague you meet who becomes a trusted resource years later. Or it can simply be the opportunity to spend several days surrounded by people who understand the work you do.

From professional development and EMEX to IAEM meetings, networking and recognition, the Annual Conference brings many of the benefits of IAEM membership together in one place.

Join your IAEM colleagues in Long Beach, California, Nov. 9-11, and make the 74th IAEM Annual Conference & EMEX part of your professional development plans for 2026.

[Explore the program and register for the 2026 IAEM Annual Conference & EMEX.](#) ♦

Support the IAEM Scholarship Program – Events Held In Conjunction with the IAEM Annual Conference

Every year, the International Association of Emergency Managers (IAEM) empowers exceptional students pursuing degrees in our field through its competitive annual scholarship process. This year, you can directly support the next generation of emergency management leaders by joining the exciting lineup of IAEM Scholarship Program events held alongside the IAEM Annual Conference & EMEX.

From high-stakes bidding to giving, there are plenty of ways to get involved, have fun, and make a lasting impact. Here is your ultimate guide to this year's scholarship events.

Important: Are You Bringing an Auction Item?

Our members' generosity makes these events possible, and we welcome your item donations! **If you plan to bring an item to the conference for the Scholarship Auction, please notify us in advance, if possible.** Before you arrive, please email dawn@iaem.com to let her know what you are bringing. She will help pre-register the item for the auction

so that you can simply drop it off when you check in at the conference.

Do you have a **challenge coin** to spare? You can bring those directly to the scholarship booth at any time during the event to fuel future auctions.

The Scholarship Auction

Bidding has opened in this year's auction. We're adding items daily and **expect more than 100 unique items**, including highly sought-after challenge coins, collectibles, books, artwork, and gifts.

■ **How to view:** See the items up close at EMEX Booth 210 starting Monday, Nov. 9 at 6:00 pm PT, or check them out online [via Better World](#).

■ **How to bid:** Bidding takes place online via the Better World platform. You do not need to attend the conference to participate—winning items can be shipped directly to you!

■ **Deadlines:** Bidding officially closes on **Wednesday, Nov. 11 at 3:30 pm ET / 12:30 pm PT**. If you are attending the conference in person,

you can pick up your winning items between 1:00 pm and 2:30 pm PT on Nov. 11.

Basket Bonanza and Liquid Bonanza

Gather around for two of our most high-energy traditions! The [Basket Bonanza](#) features incredible themed gift baskets provided by IAEM Caucuses, Regions, and Student Chapters. Meanwhile, the [Liquid Bonanza](#) lets you take home premium, member-donated beverages like bourbon, wine, and rum.

■ **Ticket sales:** Buy tickets online now through Nov. 11 at 12:00 pm PT or pick them up in person at the registration area (Saturday, Nov. 7 – Monday, Nov. 9) and EMEX Booth 210 (Monday evening through Wednesday morning). Liquid Bonanza tickets are just \$10 each.

■ **The Draw:** Head over to EMEX Booth 210 on **Nov. 11 at 1:00 pm PT** for the live drawings. **Note: You must be present to win either bonanza!**

Commemorative IAEM Scholarship Coins

Take home a piece of history! This conference marks the conclusion of the IAEM Scholarship Program's 25th Anniversary Year. Celebrate the program with a purchase of a coin.

■ **25th Anniversary Coin:** Celebrate this major milestone with a special 2.5" commemorative coin. Only 150 coins were produced, and a limited supply remains. Buy yours in person at any scholarship table for \$50, or online for \$55 (includes shipping and handling).



Front and back of the official
IAEM Scholarship coin.

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Support the IAEM Scholarship Program

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■ Official IAEM Scholarship

Coin: Available at the conference for \$30, or online for \$35 (shipped to your door).

2026 Annual Giving Campaigns

Direct gifts are being accepted in the Annual Giving campaign launching **November 1 and running through Giving Tuesday (December 1)**. This friendly competition pits IAEM regions and the UCC against each other to see who can raise the

most support for our students.

Find your specific campaign on the [IAEM Scholarship Program Better World site](#), make your donation, and help your region earn ultimate bragging rights.

Participation Makes a Difference

Thanks to generous donations and active participation in IAEM's Scholarship Program fundraising events, the organization has supported 95 students and provided \$251,250 in scholarship funds. Your participation and gifts this year will help IAEM shape tomorrow's emergency managers, one student at a time. ♦



Front of the IAEM Scholarship 25th Anniversary Coin



Back of the IAEM Scholarship 25th Anniversary Coin

SUPPORT THE IAEM SCHOLARSHIP PROGRAM

Do you have a unique item, challenge coin, patch, or experience to donate to a future auction?

All proceeds benefit students pursuing an education in emergency management.

Email dawn@iaem.com to learn more.



Special Focus Articles, Part 1:

Due to the volume of submissions on this special focus topic, it is necessary to present the content in three parts. Part 2 will be available in the November edition of the IAEM Bulletin, and Part 3 will be available in the December edition.

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Certification News

IAEM's new AEM®/CEM® Interest Self-Assessment can help you explore which certification fits your background. The checklists walk you through key requirements and highlight areas that may need additional preparation. Use it alongside the Applicant Guidebook to plan your next steps toward certification.

The self-assessment is available on the [Certification Resources page](#).

Who Takes Care of the Emergency Manager? Building Human Resilience Before the Next Disaster

By Ashley Tye, CEM, Emergency Management Director, Lowndes County, Georgia

The author will be speaking as part of the IAEM 74th Annual Conference on
Nov. 11 from 11:30 a.m.-12:30 p.m.

Throughout our careers, emergency managers prepare for the moment when normal systems are overwhelmed. We develop plans, conduct exercises to test our capabilities, identify resource gaps, establish redundancies, and build relationships well in advance of needing them. Once a disaster occurs, we coordinate different organizations, address problems, brief decision-makers, support responders, and help communities begin the lengthy recovery process.

We are used to being the ones other people turn to when they don't know who else to call. There is another question we do not ask nearly as often: **Who takes care of the emergency manager?**

It is an increasingly important question for our profession. Emergency management has become very good at talking about community resilience. Plans are made for resilient infrastructure, communications, supply chains, organizations, and communities. Yet the resilience of the people responsible for coordinating those systems can easily be overlooked. That needs to change.

The Disaster Is Over, But The Work Continues

The occupational stress emergency managers experience differs from that of most traditional first responders. A firefighter, paramedic, or law enforcement officer may encounter an extraordinarily traumatic event during a shift. Emergency managers can certainly suffer acute trauma too, but much of the stress associat-

ed with our work accumulates over time.

Consider the life cycle of a major disaster. Long before impact, the emergency manager monitors conditions, coordinates preparedness activities, briefs leadership, communicates with partners, answers questions from the public, and prepares the EOC. Then comes response.

The hours become long. Decisions become consequential. Information is incomplete. Resources are limited. The phones keep ringing. Everyone needs something, and many of those needs are urgent.

Eventually, the storm passes, the fire is brought under control, the floodwaters recede, or the immediate crisis ends. For much of the community, that marks the beginning of a return toward normal. For the emergency manager, it may simply mark the transition to the next operational phase.

Damage assessments begin. Debris operations continue. Disaster assistance programs start. Public Assistance documentation accumulates. Recovery meetings fill calendars. Mitigation opportunities emerge. Elected officials and residents need answers. After-action reports are due. Exercises and planning requirements that were postponed during response return to the schedule. Meanwhile, the next hurricane season, wildfire season, severe weather event, exercise, grant deadline, or unexpected crisis is already approaching.

The disaster cycle and the human recovery cycle do not necessarily operate on the same timeline.

That distinction matters.

When "Doing The Job" Becomes The Warning Sign

One challenge with cumulative stress is that it rarely announces itself. There may be no single moment when someone realizes, "I am burning out." Instead, the warning signs can look remarkably similar to behaviors our profession sometimes celebrates: working extraordinarily long hours, being constantly available, skipping vacations because there is too much to do, eating meals at the desk, answering emails late at night, moving straight from one major project to the next, and being the one who can always take on another problem.

At times, we treat exhaustion as a sign of our commitment.

I understand why. Emergency management attracts problem-solvers. When something needs to be done, our instinct is to do it. When someone needs help, our instinct is to provide it. During disasters, that mentality is often exactly what our communities need.

The problem comes when surge capacity becomes the normal operating model. Human beings can surge remarkably well. We cannot surge indefinitely. Fatigue eventually impairs concentration, routine decisions begin to demand more effort, patience shortens, creativity declines, people withdraw, and the kind of work that once brought great satisfaction begins to feel like yet another obligation.

None of those things necessarily means someone has stopped caring about the mission. Sometimes it

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Building Human Resilience

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means they have cared intensely for a very long time without adequate opportunity to recover.

Peer Support: Someone Who Understands

My work as a peer counselor has reinforced something I have observed throughout my emergency management career: sometimes the most valuable thing we can offer another person is not an answer. It is understanding.

Peer support works because it removes one of the barriers that often prevents people from talking about what they are experiencing—the need to explain the context. There are some aspects of emergency management that another emergency manager simply understands: the pressure of briefing elected officials when you do not yet have all the answers; the responsibility that comes with knowing thousands of people may be affected by decisions being made in the EOC; the frustration of trying to solve problems with resources you do not control; the emotional weight of talking with people who have lost homes, businesses, livelihoods, or loved ones; and the strange transition from an adrenaline-filled response operation back to a quiet office filled with reimbursement paperwork.

A peer does not necessarily have the solution. Often, that is not what is needed. Peer support offers connection, provides perspective, and gives people a safe place to talk. It may also help someone recognize when additional professional support would be beneficial.

Peer support does not replace professional mental health care. Sometimes it is the bridge that helps someone become willing to seek it.

We Have a Battle Rhythm. Where Is The Recovery Rhythm?

Emergency managers understand the importance of battle rhythm. During an activation, we intentionally schedule operational briefings, planning meetings, situation reports, executive updates, shift changes, and other activities needed to maintain situational awareness and coordinate operations.

We would never tell an EOC staff, "Just fit the planning meeting in whenever you get a chance." We schedule it because it matters.

We need to show the same kind of discipline when it comes to human recovery. I call this the Human Recovery Rhythm. If the battle rhythm manages the incident, the recovery rhythm helps sustain the people managing it.

That can be remarkably simple: predictable work/rest cycles, actual meal breaks, opportunities to step outside the EOC, peer check-ins, maintaining contact with family, adequate shift rotations, and meaningful time off after long activations. These are not luxuries. They are readiness measures.

An emergency manager who is tired does not become more effective by working six more hours. At a certain point, additional hours create diminishing returns and ultimately increase the likelihood of poor decisions.

Recovery should be planned with the same level of discipline as operations.

Resilience Cannot Be An Individual Responsibility Alone

There is another uncomfortable truth in conversations about workplace wellness: we cannot place all responsibility for resilience on the individual.

Exercise matters. Sleep matters.

Nutrition matters. Family, faith, friendships, hobbies, and time away from work matter. All of us have a responsibility to develop healthy ways of managing stress.

But organizations have responsibilities too.

We cannot create an unsustainable operating environment and then tell employees to practice better self-care. Leaders establish what is considered normal. If leaders never take time off, employees notice. If leaders glorify working twenty-hour days, employees notice. If leaders dismiss conversations about stress, employees notice.

On the other hand, when leaders check on their people, encourage sensible work/rest cycles, support peer programs, recognize the signs of fatigue, and openly acknowledge that difficult events affect all of us, employees notice that too.

Culture is shaped less by what appears in a wellness policy than by what leaders repeatedly model, reward, and tolerate.

Human Readiness Is Operational Readiness

In the EOC, critical systems are monitored continuously. Are communications functioning? Do we have adequate staffing? Are resources available? Is information flowing? Do we have redundant capabilities?

We should ask similar questions about the people who operate those systems. Are they rested enough to make good decisions? Has someone been working too long? Is a normally engaged employee suddenly withdrawing? Has the team had the chance to recover from the most recent major event? Do our people know where to turn when they need support?

The greatest asset in emergency management is not a plan, a grant, a communications system, or a piece

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Anchored in Resilience: Why Recovery Must Begin Before Disaster Strikes

By Brittany Kelly, PMP, Senior Vice President, WSP

The author will be speaking as part of the IAEM 74th Annual Conference on Nov. 11 from 10:15 a.m.-11:15 a.m.

The historic South Carolina floods of 2015 shaped my understanding of resilience and recovery. Working alongside state and local entities, I witnessed firsthand how communities struggled not only with damaged infrastructure but also with navigating disaster recovery programs, funding requirements, and difficult decisions that would affect their future for years to come.

Many of the organizations involved had never experienced a disaster of that magnitude or managed the complexities of federal recovery programs. What became immediately clear was that recovery challenges rarely begin after a disaster. They often stem from decisions made long before the event occurs.

That lesson has remained constant throughout my career. Recovery begins before disaster strikes. It begins through preparedness activities, relationships, and planning efforts that create the foundation for long-term resilience.

As emergency managers chart a course through increasingly complex disasters, we must broaden our definition of preparedness. Our ability to recover is just as important as our ability to respond.

Moving Beyond the Traditional Lifecycle

Emergency management has traditionally been organized around preparedness, response, recovery, and mitigation. While these categories remain useful, disasters do not occur within neat boundaries.

Actions taken before an incident

directly influence recovery outcomes. Decisions regarding planning, contracts, communications, resource management, and partnerships all shape how quickly a community can stabilize, rebuild, and move forward.

The most successful recoveries rarely start from scratch. They are built on investments made before disaster strikes, including established relationships, identified recovery priorities, and clearly understood roles and responsibilities.

Instead of viewing preparedness and recovery as separate functions, emergency managers should recognize them as complementary responsibilities working toward the same objective: helping communities emerge stronger after disaster.

Recovery Planning Is Preparedness

One of the most significant opportunities facing emergency managers is strengthening pre-disaster recovery planning.

Many jurisdictions maintain comprehensive emergency operations plans but dedicate considerably less attention to recovery planning. As a result, recovery structures and decision-making processes are often developed after a disaster, when leaders are already operating under pressure and uncertainty.

One lesson I frequently share with emergency managers is that short-term recovery decisions often determine long-term recovery success. Communities understandably focus on immediate response operations, but the processes established

during the first days and weeks after an event influence funding outcomes, project delivery, and community resilience for years afterward.

Jurisdictions that invest in pre-disaster recovery planning, mutual aid agreements, and pre-positioned contracts often recover more effectively because they already understand their available resources and know how to access them.

Emergency managers should ask several important questions before a disaster occurs:

- Who will lead recovery operations?
- How will recovery priorities be established?
- What processes will be used to assess damage?
- How will financial recovery be managed?
- What roles will community organizations and external partners play?

Recovery planning helps communities identify critical dependencies before an event and establish a framework for coordinated decision-making when recovery begins.

Partnerships Build Resilience Before They Are Needed

No organization can manage today's disasters alone.

Whether responding to a hurricane, flood, wildfire, public health emergency, or technological incident, successful outcomes depend on relationships among government agencies, nonprofit organizations, private-sector partners, and community stakeholders.

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Recovery Before Disaster

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Throughout my career, I have repeatedly seen the value of what many emergency managers refer to as "blue-sky relationships," partnerships developed before disasters occur.

During one disaster response, a county emergency manager quickly addressed operational gaps because trusted relationships already existed with state partners, volunteer organizations, and private-sector stakeholders. Instead of spending valuable time identifying resources or establishing new connections, the team focused immediately on solving problems and achieving shared objectives.

Trust is difficult to build during a crisis. The strongest partnerships are created long before disaster strikes through routine collaboration, planning efforts, training activities, and exercises.

Strong relationships create resilient networks, and resilient networks enable communities to recover faster and more effectively.

Recovery Is About People, Not Just Infrastructure

Recovery discussions often focus on rebuilding infrastructure, but resilience is ultimately measured by how well communities support people.

Roads can be repaired. Utilities can be restored. Buildings can be rebuilt.

Helping individuals, families, and businesses regain stability is often far more challenging.

Preparedness efforts should incorporate the needs of vulnerable and at-risk populations from the beginning. Older adults, individuals with disabilities, low-income households, rural communities, and others may face disproportionate challenges during and after disasters.

One area that communities frequently overlook is long-term housing stability. A common challenge involves managing shelter populations after immediate response operations have ended. Closing shelters requires more than restoring utilities or reopening roads. It requires understanding where displaced residents will go and identifying resources to support those whose housing situations remain uncertain for weeks or months.

Communities that proactively plan for these transitions are better positioned to support vulnerable populations and sustain recovery momentum.

A community's recovery is ultimately measured not only by restored infrastructure, but also by restored opportunity, stability, and confidence.

Leadership Creates Organizational Resilience

While plans, partnerships, and resources matter, resilience ultimately depends on people.

Emergency managers operate in environments defined by uncertainty. Conditions evolve rapidly, information is incomplete, and priorities shift constantly. Success requires more than technical expertise.

Resilient organizations are built by leaders who develop adaptable teams, encourage collaboration, and invest in professional growth.

Cross-training personnel, mentoring emerging leaders, and empowering staff to solve problems increase organizational flexibility during disasters. When team members understand multiple functions and feel confident making decisions, organizations become better equipped to navigate complex situations.

Most importantly, resilient leaders recognize that preparedness is not just about creating plans. It is about building teams capable of ex-

ecuting those plans when conditions are most challenging.

Three Actions Emergency Managers Can Take Today

■ **Invest in People:** Develop staff through training, mentorship, and succession planning. Building the next generation of emergency managers is one of the most important investments any organization can make.

■ **Build Community Relationships:** Establish and maintain relationships across government, non-profit, and private-sector partners. Trust built before an incident often becomes one of the most valuable resources available during recovery.

■ **Plan Beyond Response:** Preparedness efforts should include recovery objectives, housing considerations, mutual aid agreements, contracts, and support strategies for vulnerable populations. Recovery should never be an afterthought.

Charting the Future

The emergency management profession continues to evolve. Communities face increasing hazard complexity, workforce constraints, and growing expectations for performance. At the same time, emergency managers are expected to coordinate diverse stakeholders and support recovery efforts that extend far beyond the response phase.

As I reflect on the disasters, communities, and recovery efforts I have supported throughout my career, one lesson stands above all others: resilience is built through relationships.

The most resilient emergency management organizations intentionally develop and maintain relationships within their jurisdictions, across states, and throughout the broader emergency management profession. They understand where expertise exists, share lessons learned, and build trust before it is needed.

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Recovery Before Disaster[continued from page 12](#)

I am encouraged by the dedication of emergency managers across the country, but I remain concerned about the growing experience gap facing our profession. Workforce shortages, retirements, and increasing disaster complexity make it critical to preserve institutional knowledge while developing the next generation of leaders.

Preparedness charts the course. Resilience keeps us anchored.

Recovery is not the final phase of emergency management. It is a capability that must be built long before the disaster begins. ♦

Building Human Resilience[continued from page 10](#)

of equipment. It is the people who show up when everything else goes wrong.

If resilience is truly going to anchor our profession, then we must become as intentional about preparing, maintaining, and protecting those people as we are about preparing the communities they serve.

Because eventually another disaster will come.

The question is not simply whether our plans, systems, and resources will be ready. **Will we be ready?** ♦

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Make the Right Action, the Easy Action: Choice Architecture in Emergency Management

By Daniel King, CEM, Deputy Director / Emergency Manager,
Greene County Emergency Services, Cairo, New York

The author will be speaking as part of the IAEM 74th Annual Conference on
Nov. 11 from 2:00 p.m.-3:00 p.m.

Emergency managers spend considerable time asking a deceptively simple question: What do we need people to do? Register for alerts. Report damage. Evacuate. Check on neighbors. Seek shelter. Apply for assistance. Share information.

But there is another question that deserves equal attention: How easy have we made it for them to do it?

In emergency management, we often design programs around the assumption that if people have the right information, they will take the right action. Yet during emergencies—and even during routine preparedness activities—people face competing demands, uncertainty, stress, limited time and sometimes unfamiliar processes. When taking the desired action requires navigating multiple systems, making repeated choices or understanding unfamiliar responsibilities, even motivated people can get stuck.

This is where choice architecture can strengthen emergency management. Choice architecture is the intentional design of the environment in which people make decisions. It does not eliminate choice or tell people what they must do. Instead, it makes desired actions more intuitive, accessible and achievable.

For emergency managers, the principle is straightforward: If we want people to take an action, we should design the system so that taking that action is easy.

Reduce The Number Of Doors People Have to Open

Consider emergency alerts. A resident may want timely warnings but be confronted with multiple alert systems operated by different jurisdictions, agencies or organizations. The resident may have to determine which systems cover their address, what kinds of alerts are generated by that system, create several accounts, and provide the same information repeatedly.

From the emergency manager's perspective, those systems may make perfect sense. From the resident's perspective, they can create friction—and every additional step creates another opportunity for someone to stop.

A better approach is to centralize the choice while preserving the underlying capabilities. Imagine a single registration experience in which residents enter their address and choose the types and levels of alerts they want to receive. Behind the scenes, the system can route that information to the appropriate alert providers.

The principle is not necessarily “one system for everything.” It is one understandable front door for the person who needs the service.

Emergency managers can apply this approach by asking:

- How many registrations does a resident need to complete to receive comprehensive alerts?
- Are residents expected to understand which agency owns which warning system?
- Can one registration capture pref-

erences and distribute them to the appropriate systems?

- Are the default settings designed to provide meaningful protection while still respecting individual choice?

The goal is to move complexity away from the resident and into the system.

Collect Information Once— And Make It Work Harder

The same principle applies to disaster damage assessments.

After a disaster, residents may be asked to provide essentially the same information multiple times: once to a local government, again to a state agency, and potentially again to voluntary organizations or nonprofit partners. Each organization may have legitimate reasons for collecting the information, but requiring residents to repeatedly navigate different forms and tools imposes an unnecessary burden at precisely the moment when people are likely to be overwhelmed.

A more resilient model would be “tell us once, use it many times.”

A common intake process could allow a resident to submit basic information about damage, location, photographs and immediate needs. With appropriate permissions, governance and data-sharing agreements, that information could then become available to the jurisdictions and organizations that need it.

This does not mean every organization needs access to every piece

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Make the Right Action

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of information. It means the system should be designed around the residents' experience rather than around organizational boundaries.

Emergency managers can begin by mapping the journey of a person reporting damage:

- How many forms?
- How many logins?
- How many times is the same address entered?
- How many times must the resident explain what happened?

Every repeated step is an opportunity to simplify.

The same philosophy can improve internal government processes. If multiple departments need the same information, the goal should be to capture it once and securely share it rather than asking staff to repeatedly re-enter data into separate systems.

Design Disaster Responsibilities Around What People Already Know

Choice architecture also applies inside an organization.

Emergency management frequently requires employees to perform functions outside their everyday roles. Sometimes that is unavoidable. But when assigning disaster responsibilities, emergency managers should consider whether the assignment feels familiar or foreign to the person receiving it.

For example, a disaster shelter may need staff to conduct intake, document household information, identify needs and connect residents with services. A public health nurse might be capable of performing these duties, but a social services case worker may already perform many of the same tasks every day.

Assigning the case worker to shelter intake can reduce the cogni-

tive burden associated with learning a completely new role during a crisis. The emergency assignment becomes an extension of existing professional skills rather than an entirely unfamiliar task.

This concept can be applied broadly. When developing emergency staffing plans, ask:

"What does this person already do?"

Then look for opportunities to connect emergency responsibilities to those existing competencies.

The result is more than convenience. Familiarity can improve confidence, speed onboarding and reduce the likelihood of errors when people are operating under stress.

Design For The Stressed Person, Not The Ideal User

The most important implication of choice architecture is that emergency managers should design for the person who is busy, stressed and unfamiliar with the system.

Preparedness programs are often designed as though users have unlimited attention. Emergency operations plans can make similar assumptions about staff. Disasters create exactly the conditions in which people have the least cognitive capacity to navigate complicated systems.

A resilient system therefore minimizes unnecessary decisions.

That might mean:

- Providing clear defaults rather than presenting users with dozens of options.
- Pre-populating information that government already possesses, when legally and operationally appropriate.
- Using plain language instead of organizational terminology.
- Designing forms and processes around individuals' natural sequence of actions.
- Creating a single starting point for services that cross organizational boundaries.

■ Making the desired next step obvious.

■ Testing processes with actual residents, employees and partners before an emergency occurs.

■ Providing feedback to reassure individuals that they are on the correct physical or operational path.

None of these strategies requires removing individual choice. In fact, good choice architecture can preserve autonomy while reducing unnecessary complexity.

Make Friction Part Of The Planning Process

One practical way to incorporate this philosophy is to make "friction" a formal part of preparedness planning.

For every major preparedness or response process, identify the action you want someone to take. Then walk through the process from that person's perspective.

Ask:

- What are we asking the person to do?
- What decisions must they make before they can do it?
- What information do they have to provide?
- How many systems or organizations do they have to interact with?
- Which steps could be eliminated, combined or automated?
- What could we do in advance to make the process easier during an emergency?
- Have we tested the process with someone who did not design it?

That last question is especially important. Emergency managers know their systems intimately. Residents and front-line employees do not—and that is precisely why their perspective is valuable.

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Conifers and Communities

By Christy Ciccotelli, MS, CEM, NVEM, Public Outreach and Volunteer Coordinator,
City of Henderson, Nevada

The author will be speaking as part of the IAEM 74th Annual Conference on
Nov. 11 from 8:30 a.m.-9:00 a.m.

In beautiful Northern California, trees bring more than 2 million visitors every year. Trees. But not just any trees: Coastal Redwoods. These trees grow on the coast of Northern California, where it basks in the maritime climate and fog. As the tallest trees in the world, Redwoods reach up to 370 feet tall with a base trunk of up to 25 feet.

The cousin of the Redwood, the Giant Sequoia, claims the title of largest tree by volume. While not quite as high, up to 310 feet, they can grow bigger in diameter, up to 30 feet. These grow in the only place in the world that provides them with the climate, elevation, and fire ecology needed for survival: exclusively on the Western Slope of the Sierra Nevada mountains.

Both trees are impressive and have similar needs required for survival. We can learn a lot about being anchored in resilience through the communities these trees create that have helped them survive for millennia.

These trees have an incredible fire-resistant bark and high concentrations of tannic acid, which protect them from rot, insects, and disease. These features are shared among the entire tree system. If a smaller or unhealthy tree is lacking the nutrients or chemical compounds needed for protection and survival, other trees share them through the intertwined root system. If a tree dies, the stored nutrients are given to the tree community through the shared root system to nourish nearby trees. Interestingly, the roots of these massive trees only grow 6-12 feet vertically, then they spread horizontally up to

150 feet, intertwining with the roots of other trees for more stability and strength against erosion, flooding, and winds. Another remarkable thing that happens is that through the Mycorrhizal Network, trees can warn other trees of threats that could harm them.

Peter Wohlleben, author of *The Hidden Life of Trees: Discoveries from a Secret World*, writes: "Why are trees such social beings? Why do they share food with their own species and sometimes even go so far as to nourish their competitors? The reasons are the same for human communities. There are advantages in working together. A tree is not a forest. On its own, a tree cannot establish a consistent local climate. It is at the mercy of wind and weather. But together, many trees create an ecosystem that moderates extreme heat and cold, stores a great deal of water, and generates a great deal of humidity. And in the protected environment, trees can live to be very old. To get to the point, the community must remain intact no matter what. If every tree were looking out only for itself, then quite a few of them would never reach old age. Regular fatalities would result in many large gaps in the tree canopy, which would make it easier for storms to get inside the forest and uproot more trees. The heat of summer would reach the forest floor and dry it out. Every tree would suffer. Every tree therefore is valuable to the community and worth keeping around for as long as possible. And that is why even sick individuals are supported and nourished until they recover."

Individuals, households, and communities can be very resourceful when allowed to experiment and use what is available. When we allow a community the autonomy to work together and strengthen and heal itself, amazing things can happen. In her book, *A Paradise Built in Hell*, Rebecca Solnit recounts stories of those who experienced the 1989 Loma Prieta Earthquake that struck the San Francisco Bay Area of California. One citizen remembered how in her San Francisco neighborhood, the community came together during the days the power was off and everyone cooked up their thawing food and held barbecues on the street. People from all walks of life had gathered in candlelit bars that became community centers. Another remembered that on his way home from the World Series game during the quake, he was amazed that at every blacked-out intersection, everyday people were in the street directing traffic. Without being directed, people had stepped up to meet the needs of the moment, taking responsibility for and ownership of their communities and streets.

There is no government, organization, or group that has the resources and capacity to help everyone in their community to prepare for, respond to, and recover from disasters. As we engage our entire societal capacity, we can build resilient communities, not dependent communities. Experience tells us that when the whole community comes together, the result is more effective. Everyone, not just the government, needs to be involved.

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Conifers and Communities

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FEMA Administrator Cameron Hamilton recently said, “Across this nation, our people are our greatest strength. Their resourcefulness and civic duty bring them together after a disaster, supporting their communities through selfless acts of service. When Americans take steps to prepare for disasters and keep their families safe, every neighborhood and community is more resilient. That’s why it’s so important for everyone to take steps to learn the skills that will help their families and neighbors, so they can stand ready to help when things go wrong.”

A tree is not a forest; one person is not a community. We need to continue reaching out to other people, organizations, groups, and agencies to strengthen the roots of our communities. The more we support each other, the stronger we will be together, and truly anchored in resilience. ♦

Resources

■ <https://www.nps.gov/articles/000/coast-redwood.htm>

■ <https://www.fs.usda.gov/sites/nfs/files/r05/sequoia/publication/All%20about%20the%20Redwoods%202024.pdf>

■ *A Paradise Built in Hell* -Rebecca Solnit



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Make the Right Action

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Resilience Is Also a Design Problem

Preparedness is often described in terms of plans, resources, training and public awareness. All of those remain essential. But resilience also depends on the systems we create around people.

A resident who wants to receive a warning should not have to become an expert in emergency communications. A disaster survivor should not have to understand the organizational structure of government and voluntary agencies to report damage. A public employee should not have to learn an entirely unfamiliar profession simply because a disaster has occurred.

The more difficult we make the desired action, the more resilience

we leave on the table.

Choice architecture offers emergency managers a practical way to close that gap. By reducing unnecessary choices, eliminating repeated steps, using familiar skills and designing around the user's experience, we can make preparedness and response more accessible.

The objective is not to make every system simple. Emergencies are complex and will always involve difficult decisions. The objective is to ensure that the complexity that must exist is managed by the system and not unnecessarily transferred to the person who needs help.

When we make the right action, the easy action, we do more than improve a process. We build systems that are easier to use under pressure, more likely to be used before a disaster and ultimately more resilient when the unexpected occurs.

That is preparedness with an anchor: designing our systems so people can navigate the storm, rather than asking them to navigate the system first. ♦



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Managing the Outpouring: Volunteers, Donations and Memorials Following a Mass Violence Incident

By Elizabeth Cronin, J.D. and Angela Moreland, Ph.D., National Mass Violence Center, Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina

The author will be speaking as part of the IAEM 74th Annual Conference on Nov. 9 from 9:45 a.m.-10:45 a.m.

A mass violence incident (MVI) can be chaotic and challenging. This is often compounded by a massive surge of attention from the public resulting in a logistical bottleneck of uncoordinated volunteers and unsolicited donations that can quickly overwhelm even a well-prepared community. Moreover, well-meaning people often create spontaneous memorials that can serve as a vital outlet for public grief but may create obstacles for emergency managers and municipal leaders.

Known in the emergency management community as “second disasters,” these expressions of grief and care can create chaos that diverts needed resources from active response and victim care.

It is essential for emergency managers to understand how navigating through even well-meaning gestures can exacerbate tensions and extend trauma if not properly planned for. Without proactive planning, these issues can derail the primary emergency response and longer-term recovery.

Volunteers

Any crisis will likely require some volunteers to assist responders. However, in an MVI, volunteers will often self-deploy, sometimes going directly to the active scene without any formal request by officials. This may inadvertently cause a cascade of operational issues, such as diversion of resources, safety and liability hazards, breakdowns in tracking, and security risks to

victims. With careful planning, these risks can be mitigated.

Volunteer management should include assigning a coordinator, making public announcements about volunteers needed, defining the roles, matching skills to roles, having job descriptions prepared and a clear line of professional supervision for all volunteers. The types of volunteers will likely include comfort animal trainers, crisis counselors, victim advocates, faith community members, medical personnel, the American Red Cross or other Voluntary Organizations Active in Disaster (VOAD) members, food service, translators/interpreters, transportation and administrative staff, IT, legal and crisis communications. It also makes sense to invite volunteers who have worked crises before or who are already vetted.

Preparedness should address scene integrity, mental health protections for untrained volunteers, intake, registration and credentialing, categories of volunteers and regular briefings.

Planners should set a cap on the number of volunteers needed depending on the size and scope of the incident. A standby list for overflow and a contact list of volunteers for tasks that may appear weeks or months later is helpful. Good scheduling practices will also avoid volunteer burn-out. Volunteers can be sorted into categories such as skilled vs. unskilled, trauma trained, immediate need vs. standby, and experienced vs. first-time.

It is critical to develop a system for tracking every assignment,

including the volunteer’s name, expertise, deployment location, tasks assigned and length of assignment. Volunteers must be rotated to keep them from becoming overwhelmed. Coordinating psychological first aid and check-ins/briefings for volunteers may help to decrease their secondary trauma and reactions.

Memorial Planning

Memorials are a common manifestation of a community in the wake of an MVI. These can be spontaneous, pop-up expressions that often occur at or near the site of the incident or more permanent memorials that honor the victims and survivors while creating hope for the future. Nonetheless, memorials can create conflict if not handled sensitively and with careful planning.

Planning should include understanding the purpose of any memorial, how the needs of the community may change over time, and recognizing that opinions on how to handle both the spontaneous and permanent memorials will vary widely and can be highly emotional.

Spontaneous Memorials

Many of us are familiar with the memorials that pop up immediately following an MVI. These often include stuffed animals, flowers, drawings, notes, candles, photos of victims, toys, flags, religious items, balloons, handmade signs, and personal mementos. The challenge for emergency managers is how to

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Managing the Outpouring

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handle these memorials after time has passed while remaining sensitive to their intent.

This must be part of the planning process. Emergency managers should coordinate with law enforcement about the safety and security of the temporary memorial; designate an area where items can safely be placed; plan for crowd management; and consider assigning staff or volunteers to monitor fire risk, biohazards and weather damage. Expect that the memorial will expand over the first few days.

The plan must include how long the temporary memorial will remain, what items will be maintained, where they will be kept, who will have access to them and what items will be discarded. There is no fixed rule on length of time for the memorial, but many jurisdictions use a window of two to six weeks, often tied to a marker such as a specific date. Managers should announce in advance when the items will be removed and what will be done with them. Otherwise, there will likely be a backlash. Common practice is to partner with a museum, historical society or library to preserve items and to repurpose others, such as by composting flowers.

Permanent Memorials

The most effective plan would be to establish a committee made up of victims, survivors, families, civic organizations, faith communities, schools, media, community members and officials. The memorial planning must be victim-centered and trauma-informed. The process is more important than the ultimate product. There should be transparency throughout, and a community might consider hiring an outside

consulting firm to serve as a neutral party.

Community leaders should be sensitive to the needs of the survivors. Decisions should not be forced – there is no time limit on recovery from trauma and grief. The memorial should reflect the entire community as fully as possible.

The timeline for the plan should include stakeholder engagement, conceptual development, financial planning, competitive framework, construction, inauguration and ongoing maintenance. There must be oversight of the project, which could be provided by a government agency, a nonprofit entity created for this purpose, a private entity, an established fund such as the National Compassion Fund or a private individual. The Fund provides a single, trusted way for the public to donate directly to victims of a mass violence incident and was developed by the National Center for Victims of Crime in partnership with victims and family members from past MVIs. The Fund was set up to address a lack of transparency and accountability with funding and avoid scams that often arise after an incident.

The most important task is to recognize all the victims affected by the MVI, including those killed and their families, those injured, present but not injured and first responders. Complete consensus is unlikely, but all views should be considered regarding the intention of the memorial, what it should evoke and any themes or symbols of importance.

Outreach is critical. Post all meetings, documents, agenda and schedules on-line. Use print and broadcast media and social media. Include those impacted as spokespersons for the project.

The memorial's location is important. Remember that the incident site may need to be returned to its original use. Memorials are often placed near the site. Part of the calculus is the memorial's purpose:

Will many people visit it? Will there be educational or other programs? Will it include displays or collections of items?

Planning should also include the unveiling of the memorial. How many people are expected? Will there be dignitaries? Is the event victim-centered? Will there be ongoing events?

A critical component is how the project will be funded. The memorial fund should be kept separate from any donation fund for victims and recovery efforts.

Donations

While it may appear counterintuitive, donations following an MVI can create management headaches. Well-meaning people step forward to provide goods, services and financial donations that, if not planned for and managed correctly, can overwhelm the system.

Cash donations are preferred so that funds can be directed to victims, survivors, and specific needs. Physical goods are the most common form of donations that can quickly overwhelm logistics. Used clothing, food, stuffed animals, and toys requires cataloguing, sorting and storing when staff and volunteers could be used for other purposes. Items that can't be used end up having to be hauled away. Distributing these items also raises issues of fairness and equity that may ultimately cause more problems for managers.

Financial donations, while preferred, can also present a challenge. Jurisdictions must be extremely cautious about accountability and fraud risk and be very transparent about the funds. There are tax and legal complexities that cannot be left to the last minute. Funds often pour in, but the long-term needs of victims and survivors may not be known for months or even years, and funds

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Preparedness Begins with a Plan. Resilience Begins with a Person

By Bruce A. Lockwood, CEM, Emergency Management Professional

The author will be speaking as part of the IAEM 74th Annual Conference on
Nov. 10 from 4:40 p.m.-5:15 p.m.

Emergency managers spend their careers preparing for what comes next. We write plans, conduct exercises, build partnerships, assess risk, and prepare communities to withstand disruption.

We ask whether our operations centers, communications, plans, partners, and recovery systems are ready. Those questions matter. But after more than four decades in the fire service, EMS, and emergency management, I believe we overlook another: **Are the people doing this work prepared to sustain themselves?**

The IAEM 2026 theme, Charting through Preparedness – Anchored in Resilience, asks what will help our profession navigate the future. For me, one lesson stands above the rest: Preparedness begins with a plan, but resilience begins with a person.

The Job Will Ask for Everything

Those who choose emergency management and public safety understand service: when something goes wrong, we show up.

Storms ignore birthdays. Disasters disregard calendars. Recovery does not end at 5:00 p.m. The job asks for time, energy, attention, heart, and sometimes more than we knew we could give.

For years, I treated giving more as proof of commitment. I took pride in always answering the phone, solving the problem, staying late, and accepting another assignment. Gradually, the profession stopped

being something I did and became who I was.

Across the fire service, EMS, and emergency management, I stopped being Bruce and became the role. Even off duty, part of me remained on call. My rule was simple: be available, responsible, and ready—always. I confused constant availability with leadership until it became depletion.

I learned that we could serve the mission without surrendering ourselves to it. Boundaries are part of resilience.

Burnout Whispers Before It Screams

Burnout is rarely a sudden collapse. It whispers before it screams. It appears as irritability, exhaustion, detachment, poor sleep, impatience, isolation, or an inability to stop thinking about work.

We may see those signs in colleagues before ourselves, and we may find ways to silence them. For a time, I used alcohol to quiet what I did not know how to discuss. The real issue was not what was in the glass, but what I was avoiding.

Looking inward may be the hardest preparedness practice. We assess incidents, identify gaps, and develop corrective actions, yet rarely apply that discipline to ourselves:

What is working? What is not? Which warnings have we ignored, and what must change before the next operational period of our lives?

We should become as comfortable conducting a personal after-action review as we are conducting one after an incident.

Resilience Is More Than Endurance

Our profession often defines resilience as absorbing impact and continuing to function. That may suit infrastructure and organizations, but it is incomplete for people. Human resilience cannot simply mean enduring more.

A person can keep reporting to work while a marriage struggles. A leader can run an effective EOC while becoming disconnected from family. I learned this the hard way: a marriage ended, relationships strained, and the job sometimes received my best while loved ones received what remained.

Boundaries are not about doing less. They are about lasting longer.

They are preparedness. Rest, relationships, an identity beyond the job, asking for help, and caring for physical and emotional health make sustained readiness possible.

The People Waiting at Home Matter Too

Service carries a cost often paid by people who never agreed to the terms. Families know the missed dinners, interrupted vacations, late calls, deployments, and the depleted version of us that comes home.

I learned too late that being home and being present are not the same. My mother lived nearby yet

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work and life sometimes made us strangers. She did not need another accomplishment; she wanted my time.

My three daughters taught me the same lesson. Work milestones repeat; family milestones do not. There will be another exercise, activation, meeting, and disaster—but not another first day of school, graduation, or ordinary evening when someone simply wants you at the table.

Your family deserves the best of you, not what's left of you.

That is one of the most important resilience lessons I have learned.

Our Stories Are Like Snowflakes

Every emergency manager's story is different—different communities, hazards, organizations, and careers. Like snowflakes, no two are alike, yet each requires the same basic elements to form.

Someone believed in us, challenged us, taught us, stood beside us, or helped us rise after a fall. Resilience is rarely built alone. Just as strong emergency management programs depend on relationships established before disaster, personal resilience depends on people who know us beyond our titles.

Preparing the Next Generation

Experienced emergency managers must decide what to pass on. Beyond doctrine, planning, ICS, exercises, recovery, and mitigation, we should teach lessons rarely found in a syllabus:

- You do not need every meeting to prove your value.
- Going home is not weakness, and asking for help is not failure.
- Leadership is not measured by

exhaustion.

■ Families matter, so model boundaries rather than merely discussing them.

■ Your worth is not defined by a title or the number of incidents managed.

If we want a resilient profession, we must develop resilient professionals.

Anchored in What Matters

Preparedness helps us chart the course; resilience keeps us anchored when conditions change.

Across four decades in the fire service, EMS, and emergency management, my course included success, failure, leadership, deployments, strained relationships, health challenges, loss, healing, and second chances. I cannot change that course, but I can learn from it.

Perhaps the greatest gift experienced practitioners can offer the next generation is not a perfect map, but an honest one—one showing the hazards we missed, the turns we should have made sooner, where we lost our way, and the anchors that led us back.

We will continue preparing communities for what comes next. As we chart the profession's future, we must also prepare the people who will lead those communities through it.

Take care of your people, your family, and yourself. The job will ask for everything; the challenge is knowing what not to give it.

Sometimes the most important person missing from the preparedness plan is ourselves.

You matter. ♦

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distributed right away may be depleted. Disputes about distribution are almost inevitable, and managers may be accused of favoring some victims over others or have to navigate the "hierarchy of grief" where a perception may develop as to whose loss counts more than another.

The best practice for handling financial donations is to have a plan. Create a committee with a well-respected and experienced chair to manage the funds. Include representatives from key agencies and enlist local banks to oversee collection. Consider creating a central not-for-profit to channel funds, with incorporation papers, a bank account, a website and a PayPal or other online payment account for ease of access. Communities may also consider using an entity like the National Compassion Fund for a safe, transparent way for the public to give directly.

The plan should include records and transparency, accountability and oversight, records and transparency, and communicating with the public. The amount of donated funds can be massive and discussions about how to manage them should not be made after the fact if possible.

Key Takeaways

Volunteers, memorials and donations all present the same underlying challenge for emergency managers: genuine community goodwill, left unmanaged, can become a secondary burden. Process matters as much as outcome. Do not leave planning until after the fact. Coordinate and communicate. Ultimately, the goal is to channel generosity so that it helps rather than hinders recovery and resilience. For more information, see www.nmvvrc.org.



Designing the Decision: Serious Games as an Advancement in Training, Education, and Crafting an Effective Exercise

By Micael Sousa, Ph.D., Chief Game Designer, CAPTRS;
Associated Researcher CITTA, University of Coimbra

The author will be speaking as part of the IAEM 74th Annual Conference on
Nov. 11 from 11:30 a.m.-12:30 p.m.

Emergency management doctrine already knows what a game is. The Homeland Security Exercise and Evaluation Program (HSEEP) taxonomy, as presented in FEMA's Emergency Management Institute materials, lists games among the discussion-based exercises, alongside seminars, workshops, and tabletop exercises. In that framing, a game is a simulation of operations, usually involving teams, often in a competitive setting, built from rules, data, and procedures that depict a real or hypothetical situation. A defining feature of games is that their purpose is to guide players to identify critical decision-making points and explore the consequences of their decisions or actions—consequences such as a reveal of new choices or deeper cascading effects; this makes games useful for validating plans and processes, and evaluating what resources are needed to move ahead. The definition is precise and has been part of the framework for years. What's been missing is the design knowledge, facilitation practice, and evidence base needed to make games a routine, high-quality instrument in the preparedness toolbox. That craft is where to find the real advancement in training, education, and exercise design.

The Decision Is the Curriculum

Each exercise type in the HSEEP continuum has a distinct pedagogical engine. Seminars orient. Workshops produce. Tabletops generate discus-

sion of a hypothetical scenario, with a facilitator introducing problems and keeping the group on track. Drills, functional exercises, and full-scale exercises rehearse the actual performance of plans and capabilities, at increasing cost and complexity. Games take a unique position in this landscape because their engine is neither presentation nor performance: it is consequence. In a well-designed serious game, players make decisions inside a system of rules and data—and the system answers back. Resources committed to one problem may be unavailable for the next. A neglected risk resurfaces, amplified. A coordination failure becomes visible on the board, or a new set of conditions is revealed, introducing an opportunity to consider a new plan of action.

FEMA's definition emphasizes the implications of player decisions and the open, decision-based format that can incorporate what-if questions. This is also what distinguishes a game from even an advanced tabletop. In a tabletop, participants discuss what they might do, would do, and the scenario advances through scripted injects. In a game, participants act within the model; the scenario advances because of what they did. Player agency and interactive feedback loops turn abstract principles into practiced trade-offs.

Systematic reviews show that board, tabletop, and other analog game approaches foster engagement, collaboration, and higher-order thinking precisely because learners act and receive feedback

rather than only listen and discuss (Sousa et al., 2023). Such experiential learning builds what emergency managers need most, and classrooms teach worst: the capacity to anticipate second- and third-order effects of your own choices, under time pressure and with incomplete information, and to be able to fail safely in the process. This is the next level of tabletop exercises.

From Accessory to Methodology: Designing Games as Exercises

At CAPTRS, we start with learning objectives, not mechanics, to develop our games. Our interdisciplinary team of game designers, communication experts, cognitive scientists, engineers, and subject-matter experts anchor in a team's context and the competencies they need to practice, such as resource allocation under uncertainty, cascading-effect response, or cross-agency activation, and then we build the game mechanics, elements, and narrative arc that make those competencies playable.

Two further design challenges decide whether a game works as a real-world exercise. The first is the learning curve. Professional audiences cannot spend an hour reading rules, so a game that is too demanding will never enter the agency training calendar. The SIMRED framework (Serious Game Integrated Methodology for Real-World Development)

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Serious Games

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addresses the learning curve by designing the tutorial as part of the



Figure 1 - From draft to prototype playtesting and digital support tools

learning experience itself. Short introductory games and embedded, escalating tutorials let players build the cognitive model of the system while already playing it (Sousa & de Rosa, 2026).

The second challenge is to design a game for players across the continuum of experts and non-experts who play a role in emergency management. Real preparedness rooms mix seasoned responders with elected officials and community stakeholders; fast analog game formats with well-designed roles allow all of them to contribute meaningfully within a single session (Sousa et al., 2022). Analog games carry a further advantage here because the model is transparent. Every rule, dependency, and trade-off sits on the table where it can be questioned, which turns the game system itself into an object of discussion, exactly the strategic, policy-oriented conversation discussion-based exercises exist to produce.

Finally, no game is an exercise without a debrief. The simulation/gaming discipline has long argued that learning happens in the structured reflection after play, not only the play alone (Crookall, 2010). CAPTRS builds facilitation guides, facilitator training, and the CAPTRS

Digital Insight App in parallel with the game itself. These tools record key player decisions and outcomes during gameplay and return them as immediate post-action material. FEMA's own guidance notes how

identifying critical decision-making points is a major factor in evaluating a game. Capturing those points digitally makes the evaluation systematic and links game sessions to the improvement-planning step of the HSEEP cycle.

A Portfolio Mapped to Purpose

CAPTRS currently fields a portfolio of research-driven games that operationalize this methodology for the people on the front lines of crisis. The EMCE series (EMCE: City Blackout and EMCE: Hurricane), examined in detail in the August 2026 issue of this Bulletin, places cascading effects at the center of game architecture, training players to read a crisis as a system of interdependent failures rather than a sequence of isolated incidents. Our A3P game targets situational awareness, revealing how individuals and teams interpret risk, weigh the reliability of information sources, and align their assessments before activating response plans. The C3C game brings multiple agencies into a shared crisis simulation to expose coordination gaps and turn written activation protocols into practiced, collaborative actions. Beyond emergency management, we have piloted the same design approach in public health, including a

strategy game built around the 7-1-7 outbreak detection and response targets, played with World Health Organization teams.

These serious games simulate real-world operations with teams, rules, data, and procedures. They validate plans by stress-testing them against player decisions, evaluate resource needs by making scarcity a live constraint of play, and they open space for what-if by letting groups replay a crisis under different assumptions. Just as importantly, these next-level games do not compete with the rest of the exercise continuum. A game can precede a functional exercise and prime a team's mental models at a fraction of the cost. It can follow full-scale exercises, letting a team safely re-explore the decisions that went wrong, and fill the long gaps between formal exercise cycles when skills and memory decay.

What This Unlocks

Seen through the lens of training, education, and exercise design, well-designed serious games advance practice in three specific ways.

First, they make exercise continuous rather than episodic. Traditional operations-based exercises are indispensable but expensive, and most teams experience them annually at best. A boxed analog game with a facilitation guide and a trained facilitator is repeatable, portable, and cheap by comparison. And it sets a preparedness training cadence, which is how every other high-performance domain does it.

Second, these games widen who can be trained. Because tutorial and role designs drop the entry barrier, games extend meaningful exercise participation beyond operational specialists to elected officials, city leaders, teachers, and community partners, the very people whose crisis decisions are most consequential

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Serious Games

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and least rehearsed. Preparedness education becomes something that invites in the entire response ecosystem.

Third, exercises become measurable. When gameplay generates a recorded trail of decisions, timings, and outcomes, debriefs move from impression to evidence, and repeated sessions can be compared over time. This answers one of the oldest criticisms of discussion-based exercises: that their outputs are difficult to evaluate, and it gives the growing field of serious games for preparedness the data to advance its own designs.

Advances in Imagination

History shows we are often unprepared for crises because we fail to imagine what's possible. Games are imagination with consequences, when structured, replayable, and safe. The exercise doctrine that emergency managers already use has carved out a place for them all along. And in the past few years, we've seen the maturation of game design for preparedness into a rigorous, research-based discipline, with objective-driven mechanics, tutorial frameworks that break the learning curve, facilitation and debriefing practice, and digital tools that capture decisions for evaluation. Their purpose is not to replace exercises, but to complete the toolbox, and to practice today, seriously and playfully, for tomorrow's threats. ♦

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Every Emergency Is Fought on Two Fronts: Why Information Is Part of the Response

By Erik Scott, Fire Captain II / Paramedic - Lead PIO

The author will be speaking as part of the IAEM 74th Annual Conference on
Nov. 9 from 9:00 a.m.-9:30 a.m.

“Where is the fire heading now?” “Are my kids at school safe?” “Which way do we evacuate?” “Did my home survive?”

During the January 2025 Palisades Fire in Los Angeles, those weren’t simply media questions.

They were survival questions.

As the incident evolved, the questions changed: Why did the hydrants run dry? How were so many homes lost? What caused the fire? Who was accountable? How would the community rebuild?

That progression reinforced a lesson that we, as emergency managers, should keep at the forefront of our minds before the next major incident:

Every emergency is fought on two fronts. One is the operational incident. The other is public perception.

Operations determine what happens in the field, with boots on the ground and lives on the line. Public perception influences what people believe happened and how they respond.

That makes information more than something we communicate. Information is part of the response.

Information Is a Commodity

Information is a commodity, like food, water, and shelter.

Information is moving more rapidly than ever. If an emergency management organization does not provide credible information, someone else will: an eyewitness, social media user, news organization work-

ing with incomplete information, or someone simply speculating.

Do not wait for every detail.

Establish a credible source early.

An initial message can be simple:

This is what happened. This is where it happened. This is what we are doing about it. We are gathering additional information and will provide an update as soon as we have more.

The information can evolve, but the source is established.

**Timely + Accurate + Consistent
= Credibility**

In an emergency, people act on the information we provide. The goal is to get the right information to the right people at the right time.

Timeliness matters because information has a shelf life. Information that arrives too late may no longer help someone make a decision. Consistent delays can also erode credibility. That is why it is critical to establish a simple, credible source early.

Accuracy is paramount. Accurate information builds trust, supports sound decisions, and gives people confidence to act.

The Incident Commander should trust the PIO to release routine information without micromanaging. Critical information should be verified and approved by the IC before release.

Consistency is challenging under Unified Command, where multiple agencies may have separate PIOs and dissemination channels. The Joint Information System and Joint Infor-

mation Center help coordinate public information. The goal is coordinated messaging that gives the public a consistent understanding of what is happening and what they need to know.

That is what credibility looks like: timely, accurate, and consistent information. And credibility matters most when the stakes are highest. When we tell people to evacuate, shelter in place, avoid an area, or take another life-safety action, they have to believe us enough to act. In those moments, credibility can directly affect life safety.

Information Is a Team Sport

The PIO should not be the only person thinking about information. The best teams I have worked with understand public perception is a team effort.

Breaking down the silos of the Incident Command System matters.

Operations can provide the boots-on-the-ground picture: what Divisions and Groups are doing, the challenges they face, and what the public needs to understand.

Plans can help the PIO anticipate what is developing and what the next operational period, and even the next 72 hours, may bring.

Safety can identify critical concerns that may need to be shared with the public. Liaison can provide perspective on the multiple agencies involved and their unique insights. Logistics can surface behind-the-scenes stories, such as meaningful

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Offline-First Fallback

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donations that became a lifeline for operations.

Whether you serve on Command or General Staff, or somewhere in between, you will encounter information with public-information value.

Sometimes it is a major development; sometimes it is a photograph, video, recurring question, or small detail that explains the story.

Everyone does not need to become a PIO. Everyone does need to understand that information is part of the response and that public perception is a team effort.

Give the Public Meaning, Not Just Facts

Good communication helps people understand what happened and what it means. I use the Emergency Information Triangle as an operational tool:

- What's happening?
- What are we doing about it?
- What does it mean to the public?
- An organization may report that crews are moving, roads are closing, or resources are being deployed. The public needs to know what those actions mean: Should they evacuate? Which roads should they avoid? What should they expect next?

Effective communication bridges the gap between operational activity and public understanding.

Reduce the FUD: Fear, Uncertainty, Doubt

Poor communication creates uncertainty. Uncertainty creates anxiety. Anxiety creates rumors. Rumors create misinformation. Our responsibility is to interrupt that cycle.

Listen. The questions people

ask and the rumors they share are information about the information environment.

The PIO team can use that intelligence to identify gaps, verify facts, and shape the next communication:

Listen. Verify. Communicate. Monitor. Correct. Repeat.

The goal is to reduce fear, uncertainty, and doubt by providing information people can trust.

Build the Team Before the Incident

For lead PIOs, preparedness begins before the emergency. A strong relationship with the IC is essential, built on mutual respect and a shared understanding of what the public information function requires.

The Incident Commander should trust the PIO to release routine information without micromanaging, while the PIO should recognize that critical information must be verified and approved by the IC before release.

Good incident commanders understand that a major incident will require multiple PIO capabilities, including live and recorded television, radio, print, digital and social media, photography and video, multilingual communication, community outreach, monitoring, rumor management, and coordination with partner agencies.

Staffing Matters

A sustained incident requires enough personnel to rotate and rest while maintaining continuity and quality. The team also needs reserve capacity.

A weeklong wildfire can suddenly produce an incident within the incident (IWI), such as a helicopter crash, high-profile death, or other major event that generates a surge of public and media attention. If the PIO team is already at maximum capacity,

responding to that surge becomes much harder.

Preparedness means planning for the incident you know is coming and leaving capacity for the incident you don't.

Be the Voice People Can Trust

The public does not experience an Incident Action Plan. They experience uncertainty. They want to know what is happening and what they should do.

Communication is an operational function, not simply something that happens after operations make their decisions. We do not need every answer. We need to be present, credible, and willing to communicate as the picture develops.

Because if we don't provide information, someone else will.

And in a crisis, information saves lives.

These principles are not theoretical. They were forged during the intense pressure of the January 2025 Palisades Fire. Preparedness helps us chart through uncertainty. Credible information helps anchor resilience.

I explore those hard-learned lessons in greater depth in my book, *Calm Amidst Chaos: A Frontline Memoir of the Palisades Fire and the Voice That Guided a City*, which features a foreword by Sean Penn and endorsements from former Los Angeles Mayor Eric Garcetti, IAFF representative Frank Lima, NBC journalist Robert Kovacik, and Pali Strong founder Larry Vain. ♦

National Weather Service Transformation

By Ken Graham, Director, NOAA's National Weather Service

The author will be speaking as part of the IAEM 74th Annual Conference on Nov. 10 from 1:30 p.m.-3:30 p.m.

When the National Weather Service (NWS) promised to transform, we made a clear, fundamental commitment to the emergency management community: we will no longer just send forecasts from behind a screen; we will be by your side, eye-to-eye, when critical decisions are made. Anchoring our shared resilience means embedding our science directly into your operations to protect the communities we jointly serve. From major international events to local county EOCs, we are backing our vision with action by expanding our physical presence, deepening our integration, and delivering critical weather information to support your decision-making every step of the way. We are transforming to be nimble, flexible, and mobile; eye to eye with you as we provide public safety and national security functions that enable the nation to prepare, respond, and recover from disasters.

Scaling Eye-to-Eye Support on a Global Stage

Behind every forecast, warning, briefing, and Core Partner update the NWS issued during the 2026 FIFA World Cup was an integrated network of NWS employees working across offices, centers, sectors, and multi-agency command posts to support the agency's largest Core Partner decision support effort. To match the scale of this international event, we took a page directly from the emergency management playbook and operationalized an Incident Command System (ICS) structure at a national level for the first time.

This incident management structure allowed more than 480 NWS employees representing over 125 offices across the agency to enable successful NWS operations during the tournament. Together, our local Weather Forecast Offices (WFOs), Center Weather Service Units (CWSUs), National Centers, Sector Operations Centers, and the NWS Monitoring, Response and Coordination Center sustained operations for more than 40 continuous days.

To deliver this level of support, NWS employees deployed directly to national coordination centers, emergency operations centers, WFOs, CWSUs, and other operational spaces. Some provided on-site Impact-based Decision Support Services directly to Core Partners, while others back-filled offices and centers to sustain forecasts, warnings, aviation support, and daily operations. The work required flexibility and focus as staff adapted to changing schedules, long shifts, new coordination tools, evolving partner needs, and fast-moving weather concerns. Backing these operational facilities and deployed teams was a comprehensive agency effort: logistics and administrative staff coordinated travel, staffing, and budget, while technical teams resolved critical issues surrounding communications, network access, radar performance, and IT troubleshooting. From aviation guidance and sector-level coordination to national situational awareness, each part of our organization played a crucial role in supporting your mission throughout the tournament.

While our on-site meteorologists provided rigorous support on match days, the operational footprint ex-

tended well beyond game day. Along the way, we repeatedly heard from partners across the country about how direct NWS support helped them navigate critical weather risks and make timely, confident public safety decisions. For example, Fan Fests on non-match days drew tens of thousands of people, and our deployed meteorologists provided decision-makers with the continuous weather updates needed when dangerous heat or lightning threatened these outdoor venues. That onsite support was critical not just for timing evacuations safely, but for knowing exactly when it was safe to bring people back in. Giving emergency management the confidence to reopen gates quickly ensured attendees could get back to enjoying the festivities and supporting local vendors the moment the threat passed.

At the end of the day, having our meteorologists sitting right next to you at the decision table made all the difference, and I couldn't be prouder of how our personnel stepped up to serve as your dedicated partners.

Operational Adaptability in Action: America 250

While World Cup operations were running at full speed across the country, NWS was simultaneously answering the call for another massive milestone: the July 4th America 250 celebrations. Nowhere was this dual effort clearer than in New York. When extreme heat was followed by an approaching line of severe thunderstorms, embedded meteo-

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National Weather Service

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rologists provided continuous timing updates to the Unified Command on the lightning threat. Based on those updates, emergency managers worked with event organizers to adjust the event schedule to start the fireworks display earlier, allowing the event to finish and giving public safety officials time to disperse the waterfront crowds before the storms arrived. At the same time, in our Nation's Capital, NWS meteorologists kept emergency managers informed of extreme heat conditions and approaching thunderstorms across the National Mall so leaders could manage public safety operations effectively.

Strengthening Local and State Integration

The foundation for supporting massive events is built through years of routine, day-to-day coordination. Following Tropical Storm Hilary in 2023, NWS Los Angeles/Oxnard established a permanent workstation inside the Los Angeles City Emergency Operations Center Planning Section. Embedding meteorologists directly into city workflows for nearly three years has allowed public safety officials and NWS personnel to collaborate in real time on everyday hazard planning, situational awareness, and executive briefings. Whether handling local wildfires, flooding, or complex multi-agency responses, having weather intelligence integrated directly into the city's daily operational setup means the communication channels and working relationships are already second nature. That long-standing, embedded alignment ensures local emergency management and NWS forecasters are fully prepared and

synchronized as Los Angeles prepares for the 2028 Olympic Games.

While major metropolitan hubs and international events grab national headlines, this same operational alignment happens every day across the country. From smaller cities to rural counties, NWS forecasters work hand-in-hand with municipal and county emergency managers who operate with leaner staffs and tighter resources. In Kansas, direct NWS coordination gave local fire task forces a 12-to-24-hour head start to pre-position apparatus ahead of critical fire weather. Across Indiana and Ohio, the NWS Ohio River Forecast Center provided flood inundation mapping directly to county emergency managers. That detailed lead time allowed local leaders to execute targeted evacuations, stage sandbags, and close flooded roadways before crests arrived. No matter the scale, our mission remains the same: putting weather and water experts right beside local decision-makers when it matters most.

Charting the Future of Preparedness, Public Safety, and National Security

The true value of our work this summer lies in how it strengthens our operational posture moving

forward. Every deployment, joint briefing, and high-density operation provided real-world testing that refines how we deliver decision support. By formalizing national-level ICS workflows and expanding embedded specialist positions, we are building a flexible, scalable framework that serves partners at every level of government. NWS teams will continue to integrate directly into multi-agency exercises, joint hazard planning, and after-action reviews alongside emergency managers.

Ultimately, the lasting story of NWS operations is about the people we serve: the emergency managers who rely on our team to make tough public safety decisions and the communities counting on all of us to keep them safe. Large-scale events and complex hazards will continue to test our systems, but no model or plan replaces the strength of face-to-face partnership. At the end of the day, our shared success comes down to people showing up, solving problems, supporting each other, and serving you when weather matters most. As we chart through the future of preparedness, the National Weather Service remains anchored in our promise to stand side-by-side with emergency managers, ensuring our science directly strengthens your resilience every single day. ♦



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When the Supply Chain Becomes the Incident: Building Food and Agriculture Resilience Before Disaster Strikes

By Kraig R. Kiehl, DBA, Director of Emergency Preparedness,
Pennsylvania Department of Agriculture

The authors will be speaking as part of the IAEM 74th Annual Conference on
Nov. 11 from 2:00 p.m.-3:00 p.m.

A regional disruption shuts down a food-processing facility. Initially, the incident appears to be an industry problem. Within hours, however, trucks begin backing up, and producers lose a destination for perishable products. Cold-storage capacity tightens. Livestock movement and processing schedules change. Transportation requirements increase while fuel, power, communications, and workforce dependencies emerge. Soon, animal welfare, product disposal, public information, and continuity of the food supply become concerns extending well beyond the affected facility.

At what point does this become an emergency management problem? ***Long before the grocery shelves are empty.***

Emergency managers routinely plan for disruptions to critical infrastructure and essential services. However, food and agriculture can remain underrepresented in preparedness efforts until a disruption produces visible community consequences. By then, opportunities to anticipate cascading effects, coordinate resources, and strengthen resilience may already have been lost.

Food Is a System, Not a Commodity

Food and agriculture are best understood as an interconnected system rather than a collection of individual commodities. The system begins with farms and agricultural inputs but quickly extends through

processing, transportation, distribution, retail and institutional feeding, and ultimately to the consumer. Each step depends upon the others, and disruption at one point can create consequences throughout the system.

This visible supply chain conceals another layer of critical dependencies. Agricultural operations require electricity, fuel, water, communications, transportation, labor, animal health services, refrigeration, information and operational technology, and a network of suppliers and vendors. Failure of any one of these dependencies can affect the production or movement of food, even when agricultural facilities themselves remain operational.

Emergency managers do not need to become agricultural experts. They do, however, need to understand how agriculture functions within their jurisdictions, which systems support it, and where failures can cascade. That understanding allows preparedness efforts to move beyond responding to consequences and toward anticipating them. That is where resilience begins.

The 72-Hour Problem

The consequences of a food and agriculture disruption may not be immediately apparent. During the first 12 hours, an incident may remain an operational problem managed by the affected business or organization. Between 12 and 24 hours, disruptions involving production, processing, transportation, storage,

or communications may accumulate. Secondary consequences can emerge between 24 and 48 hours: product losses increase, animal welfare concerns develop, deliveries are disrupted, employees are affected, and alternate suppliers or transportation may be needed. Between 48 and 72 hours, what began as an isolated operational problem can become a broader incident requiring coordination among industry, government, emergency management, and other partners.

Not every disruption will follow this timeline. Some consequences will develop within minutes; others may take days. The value of looking at a disruption through a 72-hour planning window is not predicting exactly when something will happen. It is asking what happens next. During planning and exercises, emergency managers can use that question to identify cascading consequences before an actual incident forces them to do so.

Five Actions Emergency Managers Can Take Now

Understanding the complexity of the food system is important, but preparedness must ultimately lead to action. Emergency managers can take several practical steps before a disruption occurs.

Know Your Local Food and Agriculture System: Begin by identifying the major components of food and agriculture within your jurisdiction. The objective is not to catalog every

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Supply Chain Becomes the Incident

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farm or business. Instead, identify critical nodes and concentrations. What is produced locally? Where is it processed? How does it move? What infrastructure supports these operations? Where are the potential single points of failure? These questions provide the foundation for understanding agricultural risk.

Map Dependencies, Not Just Facilities: Knowing where farms, processors, warehouses, and distribution centers are located is useful. Understanding what keeps them operating is more important. Consider a power outage affecting a dairy operation. Loss of electricity can disrupt milking and cooling, which can lead to animal welfare concerns and product loss. Those consequences can then affect processors and create transportation or disposal requirements. A power outage has now created an agricultural incident requiring capabilities well beyond the farm.

Bring Agriculture to the Table Before the Incident: Relationships remain one of the most important preparedness capabilities available to an emergency manager. Producers, processors, commodity organizations, veterinarians, extension services, transportation providers, utilities, food distributors, nonprofit organizations, and government agencies each understand different parts of the system. Bringing these stakeholders together before an emergency improves information sharing and helps identify capabilities and gaps that may not otherwise be visible.

In my experience, some of the most important preparedness work occurs before an incident, when government and industry partners have time to identify dependencies, clarify responsibilities, and understand what each can contribute during a disruption.

The first time an emergency manager meets the agricultural community should not be during an EOC activation.

Exercise Consequences, Not Just Hazards: Exercises should examine what happens after the initial disruption. A scenario stating that a cyber-attack has disrupted a food processor identifies the hazard. The next inject should ask what happens after the facility has been offline for 24 hours and producers can no longer deliver product. What changes at 48 hours? What happens at 72?

At each stage, ask: Who needs to know? Who has authority? What resources are required? What decisions must be made? What information does the public need? This approach shifts the exercise from reacting to an event toward understanding its consequences.

Identify the Coordination Mechanism Before You Need It: Finally, determine how agriculture will integrate into incident coordination. Emergency managers should know who represents agriculture in the EOC, how industry information reaches decision-makers, who coordinates animal and agricultural issues, and how private-sector needs connect with logistics, transportation, public information, health, and other functions.

Emergency Support Function 11 or an agriculture annex can establish this structure on paper. However, having an ESF or annex in the plan is not the same as having a functioning coordination network. Plans establish the framework. Relationships, exercises, and routine coordination make that framework operational.

Resilience Is Built Between Incidents

The IAEM conference theme, “Charting through Preparedness — Anchored in Resilience,” applies directly to food and agriculture

preparedness. Preparedness provides the chart. It helps us understand the system, identify vulnerabilities, establish responsibilities, and determine where resources may be needed. Relationships, capabilities, and a shared understanding of the operating environment provide the anchor.

Resilience, however, is more than the ability to recover quickly following a disruption. In a complex system such as agriculture, resilience requires the ability to anticipate dependencies, absorb disruption, adapt operations, and sustain essential functions when normal systems are unavailable or degraded.

Emergency managers do not operate farms, processing facilities, transportation networks, or food distribution systems. Nor should they. Their role is to understand how these systems intersect, establish the relationships necessary for coordination, and connect the organizations and people who operate them.

That work occurs between incidents.

Before the Shelf Is Empty

Empty grocery shelves are among the most visible signs of food-system disruption, but they are often among the last links in a much longer chain of consequences. Emergency managers have an opportunity to intervene much earlier through planning, partnerships, exercises, and a better understanding of agricultural systems and their dependencies.

Resilience is not simply the ability to improvise after a system fails. It is the capacity deliberately built before disruption occurs. Understanding critical dependencies, establishing relationships, and exercising coordination beforehand allow communities to respond more effectively when normal systems are disrupted.

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From Community Input to Preparedness Priorities: The City of Grand Rapids Community Preparedness Review

By Ingrid Scheer, MPA, PEM, Emergency Management Specialist, City of Grand Rapids, Michigan; and Mandy Gardner, Manager, Planning & Preparedness, IEM

The authors will be speaking as part of the IAEM 74th Annual Conference on Nov. 9 from 9:45 a.m.-10:45 a.m.

Preparedness plans document what a city is ready to do, but they do not always show whether residents feel ready to act. To better understand the perspective of the people who make up the community, the City of Grand Rapids launched a Community Preparedness Review (CPR), a locally driven process designed to collect resident insights, identify community-level gaps, and connect those insights to preparedness priorities.

Developed from an idea first advanced by Grand Rapids Office of Emergency Management leadership, the CPR took shape through the City's partnership with IEM. Rather than replacing existing tools such as the Threat and Hazard Identification and Risk Assessment (THIRA) or the Stakeholder Preparedness Review (SPR), the CPR created a way to bring community input into the broader conversation about risk, capability, gaps, and action.

THIRA and SPR Provide the Foundation

THIRA and SPR can be difficult processes to navigate; however, they encourage jurisdictions to focus closely on risks, capabilities, gaps, and priorities. When done well, that information can help move preparedness from broad goals to clearer decisions about what is working, what is missing, and what should come next.

Preparedness does not stop at the jurisdictional level. A community may have strong plans, capable departments, and clear priorities,

yet residents remain unsure how to prepare, unable to afford supplies, unaware of local risks, or disconnected from emergency information. The CPR process turns the informal feedback emergency managers hear every day into actionable data that can shape outreach, investments, and preparedness priorities.

For Grand Rapids, that meant moving beyond general assumptions about public preparedness and looking more closely at where residents felt ready, where they felt stuck, and what kinds of support would make preparedness more achievable.

The most consistent theme across survey responses and workshops was that residents feel "somewhat prepared," not unprepared, but not confident either. Many residents know what they should do; the challenge is turning that awareness into action. Even core preparedness steps weren't universal: emergency kits, communication plans, and backup power all showed gaps citywide.

Residents' confidence followed the same pattern. Most residents felt able to manage the first one to three days of disruption, but confidence dropped quickly after day three. That decline underscored a clear issue: people aren't planning for extended emergencies, even though local hazards make such planning important.

The CPR also surfaced barriers that weren't visible before. Time constraints, cost, accessibility needs, limited English proficiency, and uncertainty about "where to start" were common challenges.

Across neighborhoods and de-

mographics, five findings pointed to clear opportunities for action:

- **People trust text alerts:** SMS was the clear leader as the preferred emergency communication method.

- **Emergency kits resonate:** Kits were repeatedly named as the first step residents want to take.

- **Backup power and home security are major gaps:** These were the most widely missing components of household readiness.

- **Hands-on education works:** Residents prefer practical learning, building kits, reviewing plans, and walking through real scenarios.

- **Preparedness must be accessible:** Language access, disability inclusion, and neighborhood-level engagement weren't optional; they were essential.

Most importantly, the CPR did not stop at assessment. It shaped action.

Over the past year, the Grand Rapids Office of Emergency Management has distributed more than 750 starter emergency bags across the city, and 200 full-size preparedness kits are actively being distributed at targeted community events. These kits were intentionally designed around the gaps identified in the CPR: backup lighting, communication plan templates, emergency kit checklists, and practical tools families can use immediately.

Grand Rapids also expanded inclusive training by adding a fully Spanish-language Community Emergency Response Team (CERT) Level 1

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Community Input to Preparedness

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course to its biannual schedule. The City updated its emergency alert system to allow greater customization for subscribers and partnered with two local professional sports teams to host Emergency Preparedness Nights, helping boost opt-in alert registrations and reaching residents who may not attend traditional preparedness events.

The Grand Rapids Office of Emergency Management's partnerships with neighborhood groups, nonprofits, and other community organizations continue to grow, helping OEM meet residents where they already gather. Outreach now centers on the specific actions residents said they needed most: building kits, creating communication plans, preparing for outages longer than 72 hours, and understanding local risks.

The CPR made one thing clear: the Grand Rapids community is ready to engage. Residents just need a welcoming, relevant, and achievable entry point that helps them feel empowered to participate in preparedness efforts rather than seeing them as out of reach.

A Simple Model Other Communities Can Use

Grand Rapids' experience offers a practical model other communities can adapt. CPR can be used as an extension of THIRA and SPR, or as a standalone measure of community preparedness. The process does not need to be complicated: it can combine resident insights, community engagement, demographic and hazard context, and existing preparedness efforts to identify practical gaps and next steps.

In Grand Rapids, that included hands-on, themed workshops designed to be welcoming rather than

intimidating. Anonymous engagement boards generated some of the most candid insights in the review, revealing what residents fear, what motivates them, and what they need to take meaningful steps toward preparedness.

The value of the CPR process is not the survey or workshop itself. It is what happens when community input is translated into priorities, investments, and action. Residents are more likely to engage when preparedness feels relevant to their daily lives and when they can see how their input influences decisions.

Connecting Community Input to Preparedness Decisions

THIRA and SPR remain important tools for understanding jurisdictional preparedness. CPR builds on that foundation by bringing resident perspectives into discussions about planning, outreach, investment, and implementation. Together, they help connect preparedness across various levels, from citywide decisions to household and neighborhood action.

The City of Grand Rapids' experience shows what is possible when preparedness assessments move beyond jurisdictional capabilities and include perspectives from the people those capabilities are designed to support. Other communities can take the same steps: ask residents what preparedness means to them, identify what is getting in the way, and use that input to guide outreach, investment, and action. When preparedness reflects the experiences of the people who make up the community, it becomes more practical, inclusive, and achievable. ♦

Supply Chain Becomes the Incident

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For food and agriculture, that work starts long before the shelf is empty.

Additional Resources

■ Cybersecurity and Infrastructure Security Agency (CISA), Infrastructure Dependency Primer. [CISA Infrastructure Dependency Primer](#)

■ Federal Emergency Management Agency (FEMA), Emergency Support Function #11 – Agriculture and Natural Resources Annex. [FEMA ESF #11 – Agriculture and Natural Resources Annex](#)

■ U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), Emergency Support Function (ESF) #11. [USDA APHIS Emergency Support Function #11](#)



Understanding Increased Intensity Information From The Storm Prediction Center Convective Outlooks

By Evan Bentley, Warning Coordination Meteorologist, Storm Prediction Center, Norman, Oklahoma

The author will be speaking as part of the IAEM 74th Annual Conference on Nov. 9 from 1:30 p.m.-2:30 p.m.

Since 1955, the Storm Prediction Center (SPC) has provided Day 1 Convective Outlooks, indicating the risk of severe weather hazards (i.e., tornadoes, large hail, and damaging convective winds). As meteorological and forecasting capabilities have advanced, these products have expanded to anticipate severe convective threats up to eight days out.

The outlooks quantify both the spatial coverage (probability) and the conditional intensity of potential storms, which was a major enhancement introduced in early 2026. Previously, the SPC communicated thunderstorm intensity using a single threshold (a 10% or higher chance of EF2+ tornadoes, 2+ inch hail, or 75+ mph winds within 25 miles of a point). The 2026 update introduced the ability to forecast multiple intensity categories, empowering meteorologists to better describe the convective scenario and potential storm severity.

These Intensity levels describe the probable distribution of report

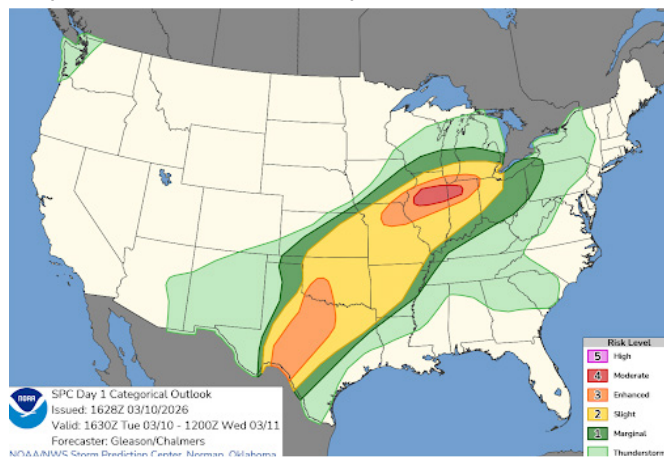


Figure 1. Example of a SPC Day 1 Convective Outlook on a day with a peak Risk Level of 4 (Moderate).

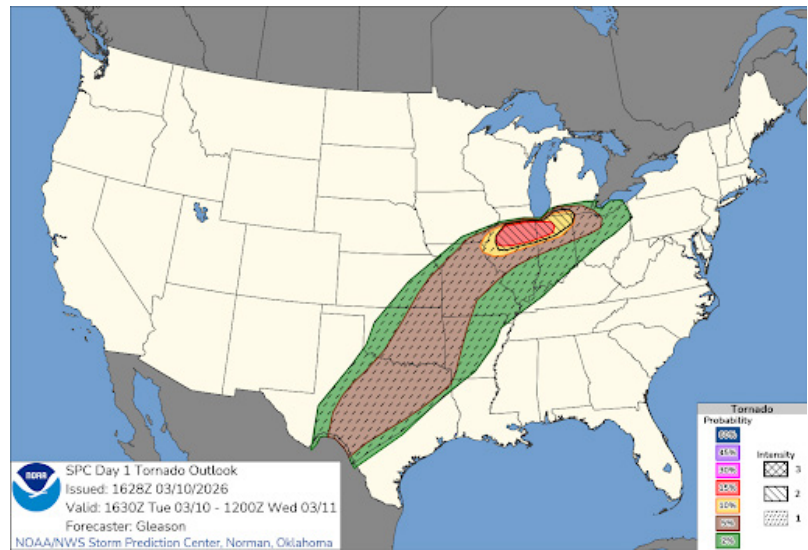


Figure 2: Tornado-specific forecast for the same day as Figure 1. Maximum Intensity Level 2 is shown across portions of northern Illinois into northern Indiana.

intensities should a severe storm develop.

What is a Severe Storm?

In the United States, a severe thunderstorm is defined as any thunderstorm producing a tornado, hail of 1 inch or greater, or wind gusts of 50 knots (58 mph) or greater. Annually, thousands of severe storms generate well over 30,000 individual severe weather reports. Nevertheless, the magnitude of these events spans a wide spectrum. An individual wind report might stem from

a single fallen tree, whereas another may denote measured gusts over 100 mph accompanied by widespread structural damage. Scientific and technological advancements have allowed forecasters to more accurately pinpoint meteorological environments and storm modes conducive to extreme storm magnitudes. These scientific breakthroughs served as the primary driver for modernizing the conditional intensity framework embedded within SPC Convective Outlooks.

How were Intensity Levels Derived?

To establish distinct, well-differentiated intensity levels, SPC meteorologists analyzed historical distributions of tornado, wind, and hail events based on environments

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Understanding Increased Intensity Information

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and convective mode (e.g., supercells and squall lines). Using cutting-edge operational techniques, SPC forecasters subsequently evaluated these intensity tiers through rigorous experimental forecasting. Following multiple years of testing, forecasters demonstrated skill in isolating diverse severe weather environments, prompting the official decision to operationalize the new conditional intensity framework.

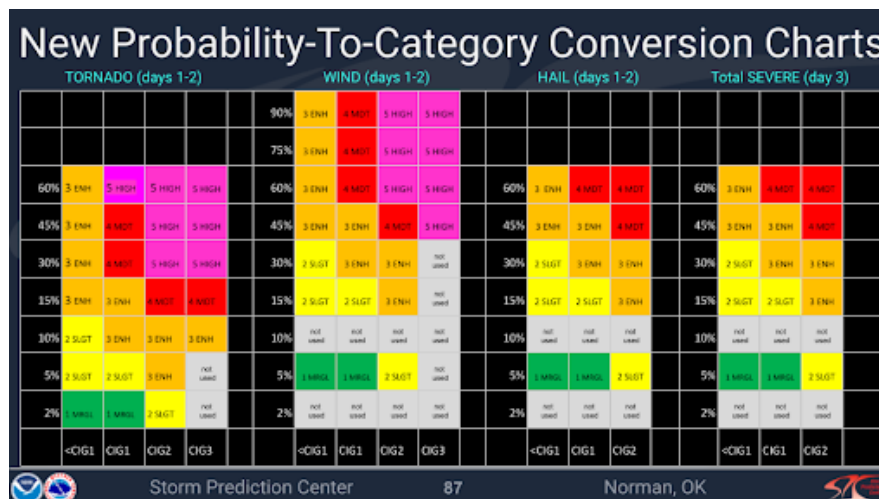


Figure 3. Probability to Category Conversion chart showing how the “Categorical” severe weather outlook (Figure 1) is derived from individual severe weather hazard probability and intensity forecasts.

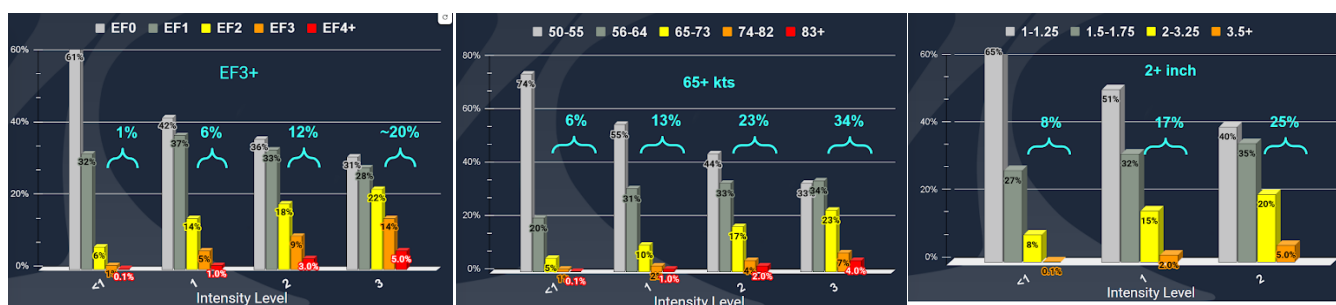


Figure 4-6: Charts showing the distribution of report intensity by Intensity Level for Tornado (left), Wind (middle), and Hail (right). Brackets show the % of events that are EF3+ for tornado, 65+ knots for wind, and 2+ inch for hail, for each Intensity Level.

How are these Intensity Groups Defined?

The charts below illustrate the statistical breakdown of tornado, wind, and hail intensity distributions spanning the various Intensity Levels.

These probabilistic distributions capture the spectrum of predictable severe-storm intensity. Nevertheless, operational partners require a straightforward answer to a practical question: How does this scientific framework impact local decision-making? The practical application of these intensity categories is outlined below.

Messaging

From a meteorological perspective, evaluating probabilistic distributions

and historical report trends offers a scientifically sound framework for severe storm forecasting. Nevertheless, conveying these complex mathematical metrics to external partners and the public requires a more intuitive communication strategy. To bridge this gap, forecasters synthesized these probabilistic expectations into a streamlined “Reasonable Maximum Intensity” framework. The reference table below details the corresponding Reasonable Maximum Intensity assigned across each operational Intensity Level.

Tornado

Tornadoes are categorized according to the Enhanced Fujita (EF) scale. Operational meteorologists and emergency personnel typically

classify tornado severity into the following tiers:

- Weak: EF0 to EF1.
- Strong: EF2.
- Intense: EF3.
- Violent: EF4 to EF5.

In baseline severe weather environments where no intensity highlight is designated (Intensity Level <1), weak tornadoes comprise approximately 93% of all anticipated events. As intensity levels increase, the probability of encountering strong-to-violent tornadoes increases dramatically. Crucially, upon reaching Intensity Level 3, 20% of reported tornadoes (representing 1 in every 5

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events) are anticipated to attain EF3 strength or higher.

Consequently, operational communication and community readiness strategies must adapt significantly between baseline scenarios and an active Intensity Level 3 risk. As illustrated in Figure 3, an Enhanced (Level 3 out of 5) Risk can stem from high spatial coverage (a 30% chance of a tornado within 25 miles of any given point) paired with lower intensity, or conversely, low spatial coverage (a 5% chance within 25 miles) coupled with extreme conditional intensity. In the high-coverage scenario, messaging should emphasize: “Numerous tornadoes are anticipated; however, most will remain relatively weak. Standard severe weather action plans should offer adequate protection within sturdy, permanent structures.” In contrast, the low-coverage/high-intensity scenario demands a distinctly different message: “Storm development remains uncertain, and many areas may see no activity. However, should a tornado develop, it possesses the potential to become intense or violent, capable of causing catastrophic destruction.”

Hail

Operational meteorologists and emergency managers typically classify severe hail severity using the following diameter spectrums:

- Large: 1 to 1.99 inches.
- Very Large: 2 to 3.49 inches.
- Giant: 3.5 inches or greater.

Because of this specific classification structure—coupled with the relative scarcity of historical reports exceeding 5 inches (which would serve as the baseline threshold for

	TORNADO INTENSITY	WIND INTENSITY	HAIL INTENSITY
None Highlighted	Mostly EF-0 to EF-1	Mostly <75 mph winds	Mostly <2"
Intensity Level 1	Reasonable Max EF2	Reasonable Max ~75 mph	Largest hail >2"
Intensity Level 2	Reasonable Max EF3	Reasonable Max ~85 mph	Largest hail >3.5"
Intensity Level 3	Reasonable Max EF4	Reasonable Max ~95 mph	

Figure 7: Table showing the common language used to communicate the expected impacts from different intensity levels.

Intensity Level 3)—the operational hail framework incorporates only two distinct intensity tiers. In baseline atmospheric conditions lacking designated intensity highlights (Intensity Level <1), severe hail remains smaller than 2 inches in approximately 92% of observed cases. However, as intensity tiers increase, the likelihood of encountering very large to giant hail escalates dramatically. Crucially, upon reaching Intensity Level 2, 25% of reported hail events (representing 1 out of every 4 reports) are anticipated to measure 2 inches or larger in diameter.

Regarding hail impacts, low spatial coverage paired with extreme conditional intensity frequently occurs across the Great Plains. Strong atmospheric capping often suppresses widespread storm development; yet, if a thunderstorm initiates, the thermodynamic environment is uniquely primed to produce giant hail. Consequently, communicating this conditional threat effectively requires highlighting that while many areas will stay completely quiet, any discrete storm that matures poses an exceptional risk for destructive hail.

Wind

Operational meteorologists and emergency personnel generally group severe wind threats into:

- Severe: (50 knots/58 mph).
- Hurricane Force: (64 knots/75 mph).
- Very Strong: (73 knots/85 mph).
- Extreme: (82 knots/95 mph).

Although measured wind reports reflect distinct speed intervals, antici-

pated convective storm mode plays a critical role in shaping severe wind potential. Consequently, conditional intensity metrics exhibit a strong dependence on overall storm organization. In general, for an event to verify with the needed coverage of more intense wind speeds for Intensity Level 2, an organized, strong MCS is generally necessary. Intensity Level 3 is reserved for high-end Derechos.

As depicted in Figure 3, an Enhanced (Level 3 out of 5) Risk driven by wind threats may originate from high spatial coverage (a 90% chance of severe wind within 25 miles) without designated intensity highlights, or conversely, a lower spatial coverage (a 15% chance within 25 miles) paired with an Intensity Level 2 threat. These contrasting scenarios demand dramatically different messaging. In high-coverage/low-intensity setups, communication should emphasize: “Widespread severe wind gusts are anticipated across the region which may knock down trees and blow over sheds/outbuildings; however, hurricane-force gusts exceeding 75 mph remain unlikely.” Conversely, low-coverage/high-intensity setups necessitate a distinctly tailored message: “Significant uncertainty remains regarding whether an organized bowing thunderstorm complex will materialize. However, should this convective system develop, localized gusts exceeding 85 mph are possible, posing a threat for damage to homes and structures.”

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Heart In The Mix: Adaptive Leadership And The Limits of the Technical Fix

By Merrie Garner, MS, CEM, Emergency Management Director, Carbon Valley Emergency Management Agency; Founder, The Balcony Guild, LLC

The author will be speaking as part of the IAEM 74th Annual Conference on Nov. 9 from 9:45 a.m.-10:45 a.m.

Most of what first responders do exceptionally well is technical. They train a skill, they follow the SOP, they drill until the response is muscle memory. This is a design feature of the way they operate. When a structure is on fire or a patient is coding, you want a practiced sequence executed under pressure by people who have done it a thousand times. That's not to say there is no room for creativity, but it generally comes after mastery has been earned through repetition.

We know that emergency management is different. It is an enterprise that spans myriad functions, often in complex and ambiguous environments, and its hardest challenges rarely come with a known procedure to address them. Most of the time, we are adapting to what is happening around us.

This year's conference theme asks us to think about charting a course when the way ahead is not obvious. Most days, our work runs on fair winds and following seas: familiar routines, known coordination patterns, the steady preparedness work that rarely makes the news. But our conference theme this year is describing what happens when the winds turn foul, and the seas come at us head-on, the moments when uncertainty abounds, and there is no chart already drawn. That is an apt description of our discipline, distinct from our first responder colleagues. How do we navigate challenges in emergency management when there are no technical solutions?

Disasters are rarely just technical problems. They are adaptive challenges. A technical problem has a known solution that can be applied by someone with the right expertise. An adaptive challenge requires the people experiencing it to change their behavior, their assumptions, or sometimes their identity, and it keeps shifting shape as you try to solve it.

Emergency managers live in that gap. We work in the spaces between agencies, between jurisdictions, floating around the tidy boxes on the org chart. That we are not responders, or not only concerned with response, became clear early in this career. Finding language for how we lead differently in those gaps took much longer. We support response, and we excel at nearly everything that happens before and after it: the mitigation, the preparedness, the long recovery work that does not have a narrative shape and does not make the news. In tactical response, the hero goes in, the hero comes out, problem solved. The framing persists because it is emotionally satisfying.

Sometimes our partners reach for us in the same transactional way, because it is what they understand. They are not being cynical or deliberately misunderstanding us. They are looking for the utility they recognize. They understand us as resource brokers. Like a vending machine.

You probably know the call. A law enforcement agency wants a grant for thermal imaging cameras, or an IMT coordinator wants an introduction to your fire district chief to ask for sponsorship. The request

arrives as a transaction: find the money, make the connection, deliver the thing. There is nothing wrong with the request on its face. Grants and relationships are part of what we do.

But sometimes the thing is a way of avoiding the harder work underneath it. The cameras will not bridge the communication gap between agencies if those agencies are not already talking about how they will use the data together. The connection will not move the needle if the requesting party is not willing to evaluate how they operate once the relationship is made. The transaction closes, the vending machine delivers, and the adaptive problem remains untouched.

Ronald Heifetz and his colleagues put it plainly in *The Practice of Adaptive Leadership*: "One distinctive aspect of leading adaptive change is that you must connect with the values, beliefs, and anxieties of the people you are trying to move. Being present in that way is tough to do unless your heart is part of the mix as well."

That sentence lands differently when you think about why first responders reach for the transaction in the first place. Perhaps it is a protective move. The whole architecture of technical training is designed to reduce cognitive load under pressure, to replace deliberation with practiced action. That is the right tool for a burning building. But it becomes a liability when the challenge

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Heart In The Mix

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is adaptive, because adaptive challenges require exactly what technical training tends to suppress: slowing down, sitting with ambiguity, questioning your own assumptions, being radically open to not knowing. For someone whose professional identity is built around decisive action, that kind of openness can feel like weakness. The reach for the technical fix keeps the discomfort at a distance.

This is where emergency management's structural position becomes both an asset and a burden. We sit at the intersection of every discipline without belonging completely to any of them. We are outside the chain of command in ways that give us a particular kind of standing to ask hard questions, to push back on a grant request in order to surface the coordination assumptions buried inside it, to remind a room full of agency or department heads that the EOC belongs to the jurisdiction and not to any one agency or department. But that standing comes with heat. Asking a police chief why two neighboring organizations are not actively collaborating to benefit the community is not a neutral question. Some people will

not like you for asking such things.

Here is what is at the heart of adaptive leadership for people in this role: the heat is the work. It is not a sign that something has gone wrong. It is a sign that you are doing the thing that needs doing.

For those of us who are wired as fixers, that is hard to sit with. The pull toward resolution is strong. But adaptive leadership requires you to stay in the heat until something starts to surface, until the real issue becomes visible, until something shifts. The connective tissue between siloed agencies does not build itself, and it does not get built by transactions alone. It gets built by people who are willing to hold the uncomfortable issues long enough to let the people involved do the real work of changing.

That is what adaptive leadership looks like in this profession. Not a vending machine. Not even a resource broker. Closer to dead reckoning: starting from what you know, estimating your position through foul winds and head seas, and correcting course the moment better information arrives, never fully certain, always moving with intent. There is no instrument for that kind of navigation except your heart, part of the mix. It is the human side of this work, and the reason most of us do it in the first place. ♦

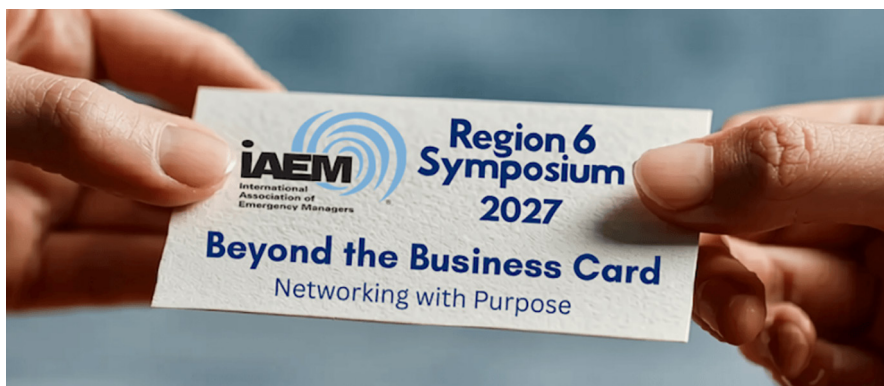
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Summary

SPC Convective Outlooks evaluate both spatial coverage probabilities and the conditional intensity of thunderstorms. Integrating both components yields an overall risk classification spanning Levels 1 through 5. Operational forecasters can dissect this overarching risk category to examine specific coverage and intensity expectations across individual hazard types—tornadoes, severe wind, and hail. Higher coverage probabilities denote an increased likelihood of experiencing a hazard within a local area, whereas higher conditional intensity levels indicate a greater probability that any localized storm will produce severe, destructive impacts. More information about SPC severe weather forecasts can be found at <https://www.spc.noaa.gov/about/outlooks>.

For organizations seeking specialized training regarding the operational application of these outlooks, please contact spc.wcm@noaa.gov to arrange a session. Furthermore, ahead of high-impact severe convective events, meteorologists remain available to deliver tailored decision-support briefings detailing meteorological expectations for your region. In addition, the SPC has become increasingly active on social media platforms with consistent posts about the evolving severe weather threat, video briefings discussing the event, and even YouTube live streams during some of the more impactful severe weather events. ♦



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Nov. 6-12	2026 IAEM Annual Conference Long Beach, California
Feb. 22-25	IAEM Region 6 Symposium Hyatt Regency Conroe, The Woodlands, Texas
Nov. 12-18, 2027	IAEM Annual Conference & EMEX 27

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