

Solving the Nation's Public Alerting Problem

A Resilient Alerting Network built by Television Broadcast Partners

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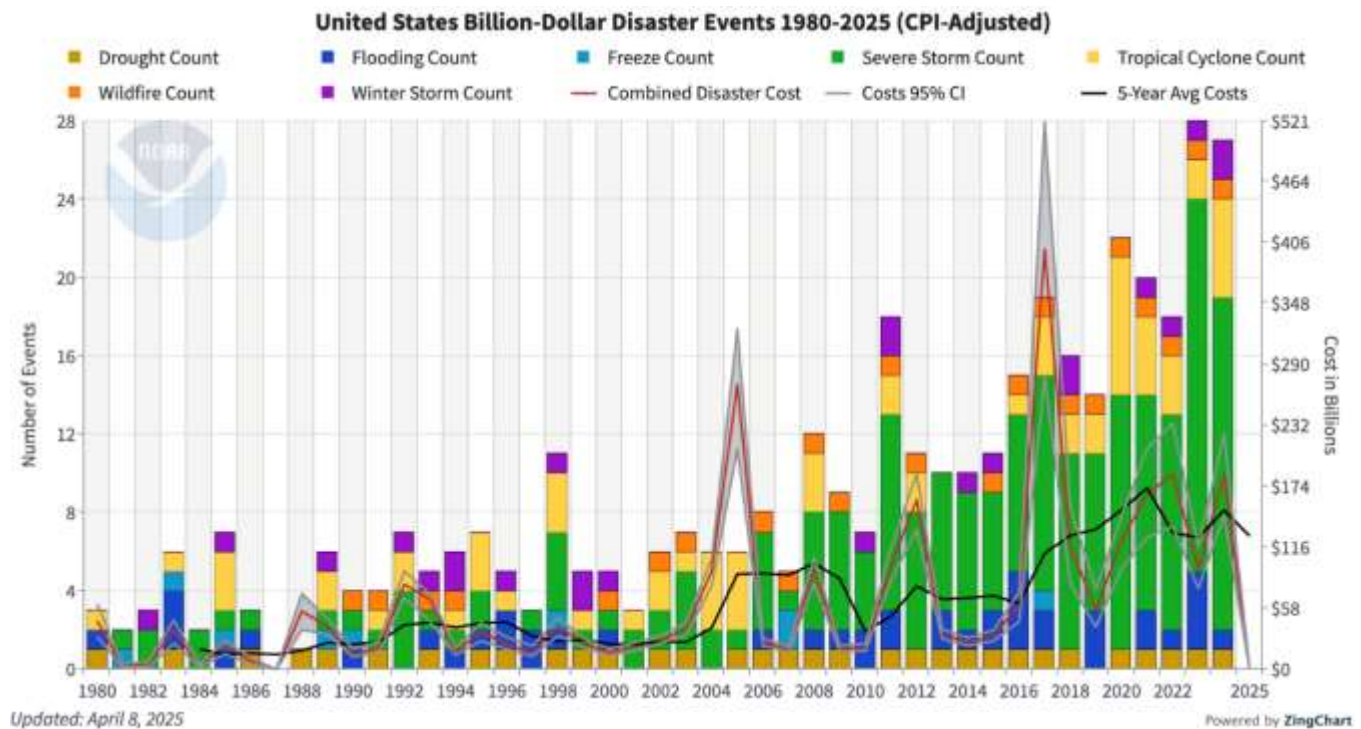
Prepared for prospective television station partners

*A small amount of bandwidth and a few hours of engineering time positions your station as **critical infrastructure** that can help **save lives in your community during emergencies.***

The Problem That Broadcast Television Can Address

Public safety, emergency management, and public alerting agencies rely on a mix of systems including cellular broadband, notification platforms, and cloud-based command tools. These multiple paths appear independent, but run on the same power grids, fiber routes, and commercial carriers. Even the platforms built specifically for public safety still rely on those same commercial networks.

That shared dependency is being tested more often, and increasingly more severely. FEMA recorded 90 major disaster declarations in 2024 alone. When Hurricane Helene struck that September, it knocked out thousands of cell sites, leaving large stretches of the hardest-hit counties without service for days. During the 2023 Lahaina wildfires, many residents' phones never received evacuation alerts because the cellular network carrying them was crippled by the same disaster it was meant to warn people about. As shown in the following chart, the situation is becoming worse and solving this problem is becoming more important.



To solve this problem, the nation needs a solution that is not dependent on a single point of failure. It needs a solution that has a reliable backbone and alternative methods of getting the critical information to U.S. residents and emergency managers.

Television stations, whether ATSC 1.0 or the emerging ATSC 3.0 standard, are exactly the kind of hardened, licensed infrastructure this gap calls for: high-power transmitters on protected spectrum, engineered and generator-backed for uptime, and already wired into the fiber and satellite backbones that move content around the country. All television stations can deliver encrypted content to targeted receivers that is invisible to the viewing public.

Installing the gear and reserving a portion of spectrum means stations can provide greater value to their communities, bolster their funding case with policymakers, and unlock new revenue streams. All without impacting the core broadcasting service or mission.

About SpectraRep

For over 26 years, SpectraRep has partnered with APTS and Public Television stations across the country to explore ways Public Television can strengthen its role as critical infrastructure. It was founded by the BIA Financial Network, Inc., a long-term television and media consulting firm that also works with several of the largest commercial broadcasters. Over \$15 million has been invested in SpectraRep to develop a patented, multi-modal datacasting technology and network for emergency communications, public alerting, and educational content delivery.

Through its relationship with America's Public Television Stations (APTS) and its membership, as well as some of the leading commercial broadcasters, SpectraRep's gateway equipment is already installed at more than 125 full-power television stations and 120 translators, reaching over 150 million people across the country. SpectraRep's goal is to have full nationwide TV coverage before the end of 2026. In so doing, it will have created the required communications backbone, a crucial step in solving the public alerting problem in the United States.

Two additional necessary components are 1) providing multiple notifications paths, so the communications are not dependent on a single point of failure and 2) getting the alerts to the devices used by the public and emergency managers. Regarding multiple layers, SpectraRep has developed a patented transport-agnostic solution that processes alerts from FEMA IPAWS, NOAA and ShakeAlert and distributes it over multiple content distribution alternatives (TV datacasting, Internet, NOAA Weather Radio content distribution, and LTE and satellite, if needed) to ensure that the alert is received. The SpectraRep solution goes to mobile devices, even for NOAA Weather alerts that are designed for NOAA Weather Radio device reception, as shown in the following illustration.



And while the focus is on public alerting, SpectraRep has turned one patented, multi-modal datacasting network into three distribution platforms that can address multiple communications breakdowns running off the same station-hosted gateway equipment:

AlertNow™ Public Alerting delivers FEMA IPAWS, NOAA Weather Radio, and ShakeAlert™ IPAWS WEA notifications straight to datacasting receivers and then to mobile devices, even when cellular and internet networks are down or congested. Prior alerting funded demonstrations include:

- **Earthquake Early Warning (EEW) — California.** Built with Cal OES and APTS across 11 Public Television stations, this network reaches over 35 million people with ShakeAlert™ IPAWS WEA notifications delivered in under one second.
- **Wildfire Alerting — Boulder & Larimer Counties, Colorado.** Working with FEMA Science & Technology Directorate and local emergency managers and Rocky Mountain PBS, SpectraRep delivered datacasting alerts from a statewide Public Television system to schools, fire, and police stations, and EOCs.

IncidentOne™ Public Safety Communications gives first responders and emergency operations centers a way to share messages, files, images, alerts, and live video— independent of cellular and land mobile radio networks. Prior public safety communications pilots include:

- **Marine Corps Marathon Public Safety Communications — Washington, D.C.** SpectraRep worked with federal, state, and local agencies, including D.C.'s Homeland Security and Emergency Management Agency, to demonstrate datacasting over WHUT. Throughout the marathon, alerts were shared across D.C., Virginia, and Maryland, even delivering a BOLO message about a runner who veered off course.
- **FirstNet Integration Test — Harris County, Texas.** Using the Harris County Band 14 (FirstNet) LTE prototype, SpectraRep demonstrated support for next-generation public safety communications, evaluated by Johns Hopkins University Applied Physics Laboratory.

EduCast™ Education & Remote Learning delivers educational content and training materials to households and institutions that lack reliable broadband.

- **EduCast™ Remote-learning Deployments —** Statewide in South Carolina, Indiana, Kentucky, Tennessee, New Mexico, and South Dakota during the COVID-19 pandemic.

The Company has received multiple issued U.S. patents covering datacasting and emergency-notification architecture, plus a pending application covering AlertNow's transport-agnostic, multi-channel failover design. It has also received innovation awards at the **Secured Cities Conference** and from the **International Association of Chiefs of Police**.

The Opportunities

SpectraRep has established relationships with FEMA IPAWS, NOAA, the DHS Science & Technology Directorate, and California Office of Emergency Services (Cal OES). In May 2026, SpectraRep and NOAA signed a Cooperative Research and Development Agreement (CRADA) to evaluate *"TV datacasting as a resilient, redundant pathway for delivering their audio and data, as well as exploring options for delivering to mobile devices."* SpectraRep technology is being evaluated for NOAA transmitter sites now. Beyond the CRADA, broader engagement is expected: NOAA will need nationwide coverage for Public Television to serve as a redundant delivery path to all the NOAA Weather Radio (NWR) transmitters.

Additionally, the pending NOAA Weather Radio Modernization Act is a bipartisan bill introduced in August 2025 and updated this year, calling for \$3-\$4 billion in upgrades for NOAA over the next decade. SpectraRep is well positioned to satisfy several of the Act's specific technical mandates. Enactment of the legislation would make SpectraRep and Public Television the logical implementation partners for a portion of the bill's \$100 million FY2026 enhancement funding and its \$25 million in annual operational support through 2031.

SpectraRep also maintains an ongoing relationship with FEMA IPAWS. Its AlertNow™ receiver and mobile app are featured in the lobby and on the "Alert Demo Wall" at the FEMA IPAWS lab near Washington, DC., as seen in the following photos.



Through SpectraRep's ongoing messaging with FEMA IPAWS, datacasting was included in the recently announced 2026 Next Generation Warning System (NGWS) \$48 million funding program. We partnered with Public Television stations and emergency managers in California, Tennessee, South Carolina, and Maryland to apply for NGWS funding. SpectraRep and its television station partners, along with their respective state agencies, will be sharing in the NGWS funding to expand public alerting over datacasting. Participating station partners will receive significant compensation during the initial term for providing a sliver of their bandwidth and will be providing a valuable service to their community that they can promote. We anticipate this will be an on-going service with funding after the initial term: the NGWS program is likely to continue for FY2027.

SpectraRep's datacasting solution provides **dependable public alerting for schools, nursing homes, hospitals, police, and fire stations** can be deployed nationwide in partnership with Public Television. Additional revenue can be explored with state and federal contracts, as well as enterprise and residential public alerting. Public safety communications and educational content delivery are also opportunities.

Management is also in conversations with FEMA IPAWS and the CEO of the LA28 Olympics (a former advisor to SpectraRep) regarding alerting and communications services at the upcoming games and other major events, such as the Super Bowl.

The Team Working with Public Television and Emergency Managers

SpectraRep's management team combines decades of Public Television and public safety experience — including an exceptionally close working relationship with many member stations.

- **Tom Buono, Chief Executive Officer**, founded SpectraRep's parent company, BIA, in 1983 and co-founded SpectraRep in 2000. He interacts with top executives at many large media and technology companies, as well as the investment community.
- **John McCoskey** brings 40+ years as an industry-recognized technology, operations, and policy executive, including service as PBS's first-ever Chief Technology Officer.
- **Mark O'Brien** is a SpectraRep co-founder. Mark is well-known within public media and public safety, with a long and exceptional record of datacasting projects.
- **Kevin Ruppenthal** serves as Director of Operations, bringing over two decades of PBS experience, customer service, and project management. His roles ranged from Traffic to planning TechCon, the annual PBS Technology Conference.

What We're Asking of a Station Partner

Joining the network is a light lift for your station:

- Install SpectraRep's datacasting gateway — typically a few hours of engineering time, with minimal to no ongoing time commitment.
- Provide a minimum of 500 Kbps for datacasting to be managed by SpectraRep. Additional bandwidth may be allocated later at your discretion as other opportunities are identified.
- Promote the service over the air and in your community.
- Help facilitate SpectraRep's introduction to state or local government, public safety, emergency, or other officials who might benefit from a relationship with your station.

Partnership Benefits for Your Station

You will receive multiple benefits from this light lift:

- **A share of the service revenue** SpectraRep generates from public alerting and emergency management services delivered in your market, with a guaranteed minimum of \$2,000 per month per market, plus additional compensation for helping secure any contracts or other benefits.
- **New grant funding**, donations, and goodwill generated from promoting the emergency communications service to your local community.
- Recognition as **critical infrastructure** that requires new and continued federal, state, and local investment.

These terms describe the current partnership structure and will be documented in a definitive partner agreement.

Further Questions?

Reach out to the SpectraRep team directly by email:

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