Former FEMA Administrator on *The Importance of Ham Radio in Disasters*

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"On April 9, the [Coastal Plains Amateur Radio Club](https://www.facebook.com/W4PVW/) in southeast Georgia hosted a presentation by former two-term FEMA Administrator Craig Fugate, KK4INZ, titled 'The Importance of Ham Radio in Disasters.' [The club subsequently posted the video of the meeting and made it available on YouTube](https://www.youtube.com/watch?v=D7t9UOwGm74&t=24s).

"I have to say, Mr. Fugate hit it out of the ballpark: He provided *the* best insight and guidance I've ever heard regarding disaster communications and amateur radio support. When I watched the video I came away with a full page of notes that I've distilled here:

· Focus training on low probability/high consequence events -- hurricanes, wildfires, earthquakes, etc.

· ARES and auxiliary communications are not the same, and ARES still has a primary role at the local level.

· ARES #1 mission needs to be making sure the local EOC can talk to the state EOC. The #2 mission is making sure that the local EOC can talk to its subordinate fire and EMS stations and, by extension, its local medical facilities (hospitals, critical care centers, etc.)

· One of the first consequences of any disaster is that all commercial comms systems will be overloaded, particularly cell circuits. The cell sites may be up and functioning, but the demand will overwhelm them.

· All comms systems, regardless of how well they are hardened, have multiple points of failure. It's not uncommon for EVERYTHING to fail. In fact, it happens with alarming regularity.

· Any comms infrastructure reliant on IP -- cell phones, VOIP, internet, etc. -- is particularly vulnerable. Even commercial SATPHONEs at some point tie back to an IP-based ground system, and the connections will fail.

· AT&T's FirstNet is IP-based and is not well hardened (he wasn't very complimentary of the whole FirstNet concept).

· Supporting local shelters with communications really isn't all that important. Most of them will have all the comms they need.

· Focus on developing digital mode expertise. Digital can carry more traffic, more accurately and under more adverse conditions, than voice.

· Repeaters will fail and 2-meter simplex will run into coverage issues very fast. Focus on HF.

· Most emergency managers at all levels have no idea what digital capabilities ARES can bring to the EOC. Some have heard of Winlink, few know what it really is or what its capabilities are. Almost none have heard of FT8, JS8, etc.

· In a disaster, antennas are more vulnerable than radios. Have spares.

· Backup power -- YES! Generators fail with alarming frequency.

· Risk. FEMA reimbursement rules don't cover privately owned radio gear if it gets damaged or destroyed while supporting a declared emergency. The point here is to push your local EMA to fund the necessary gear and have the ARES operators fall in on it.

"Craig's strong focus was on the use of HF for both local and long-haul communications -- get the local EOC talking to state ASAP and don't rely on anything that has a high risk of failure (like repeaters). His perspective is interesting - he's seen too many commercial and government communications systems fail during real world disasters, particularly IP-based systems.

"We can distill Craig's guidance down to one simple statement:*EMAs at all levels need point-to-point communications systems that don't rely on any infrastructure.* This is the key role that ARES is best suited to fill at the local and state levels, and that needs to be our primary mission and training focus.

"I consider this presentation, the lessons learned it discusses, and the advice it provides, to be a critical guide to future ARES and auxiliary communications mission definition and training. Craig's advice is both invaluable and unassailable. If there was a way I could force every local and state emergency manager to sit down and watch this video and absorb the lessons, I would."

[[Haren's summary can be found here](https://www.prc-77.com/2022/04/sage-advice.html" \t "_blank).]