

I am an electrical engineer and former civil service tasked then and now, in identifying methods, systems and architectures of critical systems to insure mission readiness and reliability for systems subject to extraordinary conditions and injury, including shock, fire and explosion. I am also an amateur radio operator.

The 2017 hurricane season proved what we already suspected from earlier disaster events – namely the events that unfolded from Hurricane Katrina, Rita, Storm Sandi, etc.: FEMA is unable to timely and effectively respond. They are unable to respond because they do not have a plan. They do not have a plan because of the political confusion and un-productive in-fighting amongst the lawmaker leaders. There is no leadership and commitment to provide certain disaster direction and funding to FEMA – therefore, FEMA drifts at the mercy of the prevailing turbulent hot winds emanating from Washington. The one thing everyone should take away from this: **We are on our own.** In the event of a substantive casualty, do not expect assistance from the local fire departments, the police departments, the hospitals, and least of all, FEMA. While the local governments functions are more organized and able to deal with local events, a mass event will quickly overpower these activities, and owed largely to FEMA's failure to coordinate, guide and fund local emergency responders.

In any activity subject to injury and damage, a distributed architecture not only is most efficient and sustainable, it is most likely to survive. The amateur radio services, comprised of dedicated and knowledgeable volunteers, is such a distributed architecture facilitating emergency communications in the face of devastating weather events. This was proven in Texas and in Puerto Rico, where all structured communications systems failed because of collapsed cell phone towers, failed internet branches, etc with the only reliable communications resulting from volunteer radio amateur operators who routinely apprised disaster officials with condition updates. There were no other communications modes. The FCC would do well to take advantage of the thousands and thousands of amateur radio volunteers, and instruct FEMA to definitely incorporate this resource into their fold, as they will sorely need to re-examine their failures and take the necessary steps to re-organize and restructure themselves into a body capable of providing some metric of relief and assistance in the course of a disaster. The radio amateur service should serve as the keystone in adopting a distributed control arrangement to insure communications.