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# Fighting the Last War, or the Next?

“What does the multibillion-dollar FirstNet communications network mean for radio amateurs? Is it the future, or just a Maginot Line?”

Earlier this year, the First Responder Network Authority, known as FirstNet, announced that AT&T would receive a 25-year contract to build its dedicated nationwide broadband communications network for first responders. Spawned by the *9/11 Commission Report* of July 2004, the program responds to key Commission findings from the 2001 terrorist attacks: first responders couldn't communicate with each other; neighboring jurisdictions in New Jersey and northern Virginia lacked interoperability with the affected area, and commercial networks failed almost immediately in the wake of the disaster, without assistance from wind, rain, or fire.

Congress created FirstNet in 2012 to ensure a reliable common platform for emergency communications. Interoperability defines its goal, but not its only goal, tying together not only multiple communications modes but nearly all communications devices as well — smartphones, PCs, tablets — utilizing voice, video, texting, and data in a merger of means, devices, and modalities. It introduces yet another layer of capabilities to the already large menu of the emergency response community. This is important; we need to pay attention.

Beyond interoperability, the program seeks to expand geographic coverage, especially the extension of LTE (Long-Term Evolution) service to rural areas, where relatively small chunks of investment can produce outsized results. Broadband, broadly distributed. There's also the suggestion that FirstNet will achieve greater network resilience. How to accomplish it is not entirely clear at present, because FirstNet may rely in part on existing infrastructure.

FirstNet has invited detractors. US General Accounting Office estimates of its cost range from \$12 billion to \$47 billion. (Nothing resembles *precision* in that analysis.) Critics call it a \$47 billion network already made obsolete by new digital infrastructure currently installed in major metropolitan areas like New York City. However, most of the new infrastructure cited by critics is confined to a handful of large metropolitan areas.

All of this causes angst in Amateur Radio circles. Reactions range from, “This is the end,” to the familiar refrain, “When all else fails.” This is not the end: it may, in fact, be a new beginning. Read *opportunity* here. For the “when all else fails” crowd, consider how \$47 billion buys a lot of durability and optionality. In short, do not be seduced by the critics: FirstNet is real. The Amateur Radio emergency communications community can draw two enormously useful implications from FirstNet. We ignore these implications at our peril.

The first is strategic: beware the inherent shortcoming of deploying any fixed system in a fast-changing technology

context. Considering the speed at which digital communications evolved since 9/11, can we imagine that any solution that seems new today might not appear passé in 25 years? Can a solution crafted for a 2017 problem have much relevance in 2040? Is it a Maginot Line to be outflanked? Are we bringing a fixed solution to bear on a rapidly evolving environment? Or is it merely our own system of thinking that is fixed, like the French general staff, fighting the last war, not the next? Networks are highly adaptive, and a project of this scale and time frame will gain flexibility later from its early experience.

We must focus on the problem we are seeking to solve, not on the solutions we have at hand. We must be facile, agile, and always forward-thinking with regard to the public's needs. What have we learned by observing all the entities that have hardened-up and upgraded since 9/11, Katrina, and Sandy? First responders and their patrons demand capabilities that cannot be satisfied simply by analog voice. If you believe that this applies only to large population centers, read about the geographic aspirations of FirstNet. It's coming to a location near you.

In the 21st century, people want to communicate using the modes and devices they find most comfortable. Streaming video provides superior situational awareness. Facebook's *Safety Check* dominates the health and welfare world. So, this leads to the second, albeit tactical, implication: what does FirstNet tell us about the future needs of the Emergency Management establishment? They are digital. In the last analysis, the Emergency Management establishment doesn't care about what radio amateurs can do. It only cares about what amateurs can do for the Emergency Management establishment. And if our traditional skill set requires burnishing, let's burnish it. We can provide a meaningful contribution. Otherwise, we risk being condemned to irrelevance.

There's a role for us here; it's a new role. New is sometimes painful; change is often difficult. Let's face the change unafraid, and find our new place within this structure.

This topic is too large for a mere editorial. Over the ensuing weeks and months, we will attempt to bring you the most informed thinking from subject matter experts, and you can be the judge. I urge you to participate by e-mailing us at [firstnet@arri.org](mailto:firstnet@arri.org), with your comments on where and how radio amateurs may have the most value in the new scheme of things. Look to ARRL's print and digital media for a healthy debate.