Public Service
Advocacy
Education
Technology
Membership

"It Seems to Us"

Our Future in Emergency Communications

"Dramatic advances in telecommunications technology may suggest a diminishing role for Amateur Radio in future disaster communications scenarios, but while our role may change it will not disappear."

You would have to be living in a very deep cave not to know that information and communications technologies (ICTs) that were barely imaginable a generation ago are now available to nearly everyone, at a cost that most people can afford. We must admit that when compared to smartphones and tablets, most Amateur Radio equipment looks pretty crude and its capabilities may seem rather limited.

Public safety communicators are in the same boat with us. A young police officer who manages his or her personal life by smartphone is likely to be underwhelmed by the communications gear he or she gets to use on the job. Most emergency 911 call centers cannot receive photos and videos — images that literally could save lives — from mobile phones.

There are other challenges facing the public safety community. An age-old problem, highlighted in the recommendations of the 9/11 Commission, is that First Responders from different agencies often lack communications interoperability. They are unable to talk to one another and thus to share information at critical moments. And of course, in these times of shrinking budgets at all levels of government the issue of funding is very difficult indeed.

The Digital Television Transition and Public Safety Act of 2005 cleared 24 MHz of spectrum above 700 MHz for interoperable public safety use, split between narrowband and broadband networks. When first offered by auction for commercial use, an adjacent 10 MHz of spectrum — the so-called D Block — failed to attract adequate bids. Now the question is whether another auction should be held, with the proceeds possibly used to fund the buildout of the public safety network within the existing allocation, or whether the D Block should be reallocated to public safety in order to double the amount of broadband spectrum.

The latter alternative poses another question: how to offset the loss of revenue that an auction would generate. The answer proposed by Rep. Peter King in his bill, H.R. 607, is for public safety to give up all of its allocations between 170 MHz and 512 MHz and to auction that spectrum instead. As you know if you read this page in the May 2011 issue of *QST*, Mr. King's solution included auctioning 420-440 MHz and 450-470 MHz, most of which is not even public safety spectrum. The ARRL has made it clear that not only is this utterly unacceptable, it doesn't make any sense at any level. Fortunately, the committees of jurisdiction in both the House and Senate have a better grasp of spectrum issues than does the sponsor of H.R. 607.

Whatever happens with regard to the D Block it appears that the public safety community is moving toward putting its radio communications eggs in one basket, namely the band above 700 MHz. Perhaps the most surprising aspect of the H.R. 607 debacle is that some public safety advocates have promoted the bill, which suggests that they either didn't read it or don't understand its consequences. Aside from the enormous cost of mothballing existing VHF and lower UHF equipment, much of which was just purchased in order to meet an imminent FCC narrowbanding mandate, public safety communications is not "one size fits all." The needs of police and fire departments in a major metropolitan area are quite different from those of a sheriff or fire chief in a sparsely populated county. The complex, infrastructure-dependent communications tools that are appropriate for one should not, and need not, be forced upon the other.

Back to Amateur Radio. While in normal times we may be unable to match the ICT offerings of commercial providers such as Verizon and AT&T, their impressive networks are not immune to failure or overload. They rebound very quickly from most disruptions, but after a major disaster their customers may be cut off for days. Clearly, in the context of public safety such outages would be intolerable — yet the blueprint for the nationwide interoperable broadband network appears to draw heavily from the commercial model. The more heavily public safety communicators rely on infrastructure, the more likely it is that their systems will fail — and at the worst possible time. It may not happen very often, but it will happen.

FEMA Administrator Craig Fugate knows this. He said so on May 3, right after returning from tornado-stricken Alabama, at an FCC forum on earthquake communications preparedness. In remarks quoted on page 66 of last month's *QST* he urged his audience to recognize that their communications systems will fail and to include Amateur Radio in their plans, because "…when you need Amateur Radio, you really need them."

The challenge for us is to be ready when needed, even if that's not very often. Being ready means building and maintaining relationships with those who will need us, even if they doubt they will. It means recruiting good people to our ranks, for in most places there are not enough of us to cover every contingency. It means training, not only in how to set up and operate our equipment under difficult conditions but in how to work with served agencies and with one another. It means being ready to go, fully equipped, on short notice.

Finally, it means that we must not become infrastructure-dependent ourselves. Our community has embraced the Internet, as we should. The Internet enriches and enhances our Amateur Radio experience. But we should never forget that we don't need it to communicate. A radio, a battery and a piece of wire are all we need — that and the skills we gain and sharpen as active radio amateurs.

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