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THE READERS ALWAYS WRITE, AGAIN

Sep 5, 2008 10:17 AM, By Glenn Bischoff

My dentist always can tell when he hits a nerve—he has to put the drill down and pry me off the ceiling. A similar phenomenon happens in the world of journalism. When we write columns that hit a nerve, our e-mail boxes get inundated with reader responses. This is a good thing. Thoughtful responses from readers help to further educate us—and other readers—and help to keep us on our toes.

Readers offered many thoughtful responses to a column I wrote recently on the alleged problems digital radios are having in high-noise environments such as those found on the fireground. Evidence is mounting that digital radios are unable to distinguish between a firefighter's voice and background noise in some circumstances, leading to garbled transmissions that could put firefighters at greater risk. This obviously is reason for concern, but I had cautioned against the knee-jerk reaction of abandoning digital systems, that offer some performance advantages over analog, such as greater spectral efficiency and a stronger signal at the edge of the coverage area.

We shared many of these responses last week and today we share more. They have been edited for length.

"Performance advantages? Can you name any as they relate to the fire service? It's almost like you're saying 'other than intelligibility, digital radios work great.' Other than that, how was the play Mrs. Lincoln? In most cases, fire went digital because they were dragged along with police that wanted digital encryption. Contrary to what you read in all of the ads, digital isn't better because it's digital. Digital is better when it offers the customer something they need. When they don't need it, there's nothing wrong with analog. The industry needs to stop selling the customers something they don't want or need. Fireground radios should go digital right after the hydrants go digital."

"There is no place for digital on the fireground. None. Not now, not ever. There are NO advantages to digital. None. We have enough trouble with good radio training, good practice, experienced people, and excellent equipment with analog, but we have coping mechanisms to deal with it. Introducing digital will get people killed. It already has, or has contributed to deaths, if even incidentally. Please be aware that we are not Luddites, and we are not opposed to new technologies. But we are opposed to any new technology that introduces problems rather than solves them. We do not have a problem with fireground communications in the analog world. That is the point. We do not need a solution. To be driven to digital by the market is to put us in danger."

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"I participated with NIST in helping to review and provide input to the language included into this report that did identify that using any radio, not just digital, may require a different location or position to be used, in a high-noise environment. Our experience on this issue is that radio use and tactical positions cannot always be selected to optimize the best voice quality. There are many times, as in an enclosed room or near a saw, in which a "mayday" or other information has to be sent from the position the radio is available in. Training is always important in how to properly use a radio, but even with this knowledge, the best tactical positions are not always an option."

"I've been listening to handheld and land mobile radios for 50 years and today's digital cell phones and digital (P25) radios sound like crap. To suggest some training will fix what is inherently poor audio quality due to the low sampling rate is just silly. When I first heard a P25 radio demonstrated and read the technical specifications, I expected the emergency services users to shoot it down because they were so hard to understand. That hasn't happened, and I still don't understand why not. Perhaps, as is so often the case, it will take a major loss of life due to radios that can't be understood for a groundswell of resistance to develop. I pray it's none of my guys and gals that prove the point."

"I agree training in proper use is important, but training should not be asked to make up for real technical problems that have technical solutions. Humans have a tendency to speak louder and louder to get their point across or when they are excited and stressed. In a typical radio, it is possible, when full of adrenalin, to reach the compression ceiling where the signal is loud but heavily clipped and garbled. Unfortunately, many digital radios suffer from this problem more than their analog cousins."

"I have been working in communications for over 30 years, and the shoving of digital radios down the user's throat is the last straw. All too often, the manufacturers do not listen to the users before they release a product. If the users have ideas, they might show up in later product. As far as more training to be better users—suffice it to say that the tool should be almost idiot-proof. When you are facing the devil, you don't want to have to think, 'I have to hold the radio in just the right place to make myself heard.'"

Again, thanks to everyone who weighed in. We appreciate the feedback and love the fact we have such a passionate and engaged readership.

E-mail me at glenn.bischoff@penton.com.

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