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## WHAT TO DO ABOUT NARROWBANDING?

Feb 18, 2010 5:12 PM, By Glenn Bischoff

A couple of weeks ago, I [wrote a column](#) in which I shared the thoughts of a public-safety official in a major East Coast city that were mentioned to me by Senior Writer Donny Jackson, who spoke to the official during last month's Association of Public Safety Communications Officials' winter technology summit.

The official had expressed concern that his department wouldn't be able to meet the Jan. 1, 2013, deadline set by the FCC for the migration of radio systems operating below 512 MHz to 12.5 kHz-wide channels (or equivalent), from the current 25 kHz-wide channels. The official also had expressed concern that the migration would have a negative impact on interoperability in his region, because his city is surrounded by much smaller entities that he believes will have a difficult time coming up with the money for the migration.

Several readers commented on this column. The prevalent sentiment was, "too bad, so sad." The FCC set the deadlines for this requirement back in 2003, so a decade should have been plenty of time to get the job done, and any public-safety agency that misses the deadline deserves to face enforcement action — as the FCC has insisted that it will do if a non-compliant system causes interference with an adjacent, compliant system. I also heard from a few readers who scoffed at the idea that interoperability might be negatively affected.

So, I called Billy Carter, APCO Northern Illinois frequency advisor and Region 54 RPC chair. I had been told that Carter has been very proactive regarding narrowbanding, particularly as it relates to interoperable communications. While Carter agreed that there's no excuse for procrastination in this matter, he also told me that the East Coast official isn't off base in either contention.

Carter said one of the big problems is that narrowbanding isn't a priority yet for many elected government officials, especially when they are struggling to maintain services — items their constituents view as inalienable rights — while property and sales tax revenues have plummeted.

"It's not something that a public official can go on TV and say, 'Look what I've done,'" Carter said.

Until these officials make narrowbanding a priority, the money that is needed to execute the migration isn't going to flow. In that regard, it doesn't really matter how proactive a public-safety representative is about narrowbanding.

Carter said this is especially true for smaller agencies, particularly those in rural communities. "How many rural agencies are going to be able to find the money to buy new radios?" he said. "Volunteer fire departments are holding pancake breakfasts just to be able to put gas into their trucks."

Misperception is another problem that is looming large. Carter believes many public-safety communications officials are under the mistaken impression that all that needs to be done to bring radios and base stations into narrowband compliance is to swap out some of the internal components. But Carter told me that any radio manufactured before 2000 will have to be replaced, which would add a significant layer of complexity and cost to the project. He estimated that 10–15% of the rural agencies across the country will have such older equipment. Carter added that this is not a rural-exclusive problem, telling me of one agency in a major city in the Midwest — one he asked me not to divulge — that currently has 900-1,000 radios that must be replaced.

All of this brings me back to the interoperability issue. Based on what I heard from Carter, the concern seems legitimate. Carter said he finds it odd that the federal government made narrowbanding an unfunded mandate, given the millions of dollars the feds have spent to foster interoperable communications nationwide. Carter opined that "the federal government had a certain responsibility to provide grants" specifically for narrowbanding.

Next week, Carter will be joined by Ralph Haller, chairman of the National Public-Safety Telecommunications Council, and Dr. Chris Gilmore, consultant with Gilmore-Tragus Strategies, on an *Urgent Communications* narrowbanding webinar sponsored by Kenwood USA. They will offer valuable insights and tips about executing the narrowbanding migration. I urge you to participate in this free event, which will begin at 2 p.m. EST/11 a.m. PST ([click here to register](#)). I think Gilmore's perspectives as a grant consultant will be particularly interesting. If there's money out there for this initiative, he'll know where to find it and the best practices for getting it.

I also strongly urge you to attend IWCE 2010 in Las Vegas next month. IWCE always has a very strong conference program, but this year Stacey Orlick and Cristina Cotto — with the considerable help of Alan Tilles, who represents numerous public-safety entities as a partner in the law firm of Shulman, Rogers, Gandal, Pordy & Ecker and authors the "Final Word" column in UC's monthly

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print edition — have put together a very comprehensive, [multi-session program dedicated to narrowbanding](#).

In the meantime, I'll close by sharing one final thought from Carter, who doesn't think the FCC will have the fortitude to force a public-safety agency that fails to meet the narrowbanding deadline to shut down its radio system. There will be threats and fines, sure, but none will be shut down, because of the liability exposure it would create for the federal government, he said.

I couldn't agree more. Can you imagine the mushroom cloud that would ensue should someone lose their life because the commission forced a radio system off the air? I can. And, believe me, so can the FCC.

But Roberto Mussenden, an attorney with the FCC's policy division, insisted that the commission plans to do just that, under certain circumstances. "Someone who doesn't comply would be operating outside the parameters of their license, which basically is a violation of the communications act. ... If operation on a wideband channel is causing harmful interference to a public-safety provider, we might have to have the wideband operation go off the air," he said last fall during the [first narrowbanding webinar](#) we presented.

Of course, the FCC has to talk tough, otherwise elected government officials aren't going to make narrowbanding a priority. But, when it comes to knocking a non-compliant public-safety radio system off the air — well, I'll believe it when I see it.

*What do you think? Tell us in the comment box below.*

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**nicktusa** 6 days ago

Glenn,

Unfortunately, you are wrong. The Commission does indeed have a track record for shutting down errant public safety radio systems....rather big ones at that. Do some research and you'll find them. Government officials have a responsibility to protect lives and property first. Without radio communications, there is no police, fire or emergency medical response. Officials need to consider the public backlash when forced to step before the TV cameras and explain why their mission critical radios systems fell silent due to funding the wrong priorities.

Actually, the Commission first began considered reforming in 1995. This didn't just happen overnight!

Regards,

Nick Tusa

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**Jiri Sykora** 6 days ago

I would think that if a non-compliant system is causing interference into a compliant public-safety provider, the FCC will shut down the non-compliant system; even if the non-compliant system is public safety.

Can you imagine the liability exposure it would create for the federal government, if there was a loss of life caused by inability to communicate due to non-compliant system caused interference and the FCC failed to do something about it - by ignoring its own rules?

The FCC must protect the legal, compliant operations from interference by those that chose to become non-compliant.

I doubt that the FCC will shut down non-compliant, non-interfering systems, but I do not think they will have any choice with non-compliant systems interfering into compliant public-safety operations.

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**cap1813** 6 days ago

I guess I must have missed something in the regs because I understood them to read that the radios had to be 12.5 KHz capable. I have a boatload of HT-1000s that were made pre-2000 and I'm pretty sure that they all are 12.5 capable.

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**genebair** 6 days ago

The County in Florida I sell, service and advise on all of their communications needs is one of 10 poorest in Florida. They have been making preparations for more than a year. They hunting for money they are purchasing new equipment when they can that meets the guidelines and asking the hard questions about what they currently have that can transition. Big city mentality don't you just love it.

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**helming** 6 days ago

What I don't understand is why radio user agencies aren't giving much more consideration to just going narrowband analog. The idea that the only way to narrowband is to go to the P25 and other digital systems is inaccurate, expensive, and troublesome.

Many vendor and users both are having trouble getting decent coverage out of digital technologies, then there are the issues with the vocoders and fireground noise and the digital systems are monstrously expensive. Every analog radio made after the mid 90s has the capability to go narrowband analog with just a software setting change. Some units made before that time can date can be converted by changing deviation and adding aftermarket filters.

Even if a public safety or other radio user agency has plans to go digital at some point, going narrowband analog is a way to get the FCC off of your back about narrowbanding, until you have time to better formulate a plan and secure funding etc. I have done this narrowbanding this myself and it works very well. It is simple, cheap, no new equipment required, and the coverage remains the same as with wideband analog. Another big plus is that a system still works fairly well with some radio narrowbanded and some still wideband, so it is not necessary to shut a system down to do the narrowbanding.

Check into it!

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