

**AM Licensee 'the Victim'****Interference Issues, Receiver Quality, Must Be Addressed to Fix AM Band, Engineers Say**

Regulatory and technical steps can be taken to improve the AM band, increase listenership and reduce interference, said Chris Horne, Spectrum Velocity chief technology officer. Listenership may die soon if the FCC doesn't manage the band, he said Thursday at an Association of Federal Communications Consulting Engineers event in Arlington, Virginia.

The industry must work to find solutions to interference problems caused by power lines, computers and other factors, Horne said. "We want to use our spectrum efficiently, and in the AM band, we don't want to lose it." Setting specific emissions limits on radiated emissions for power lines, and forming a task force with a diverse group of professionals to help revise AM band standards also are critical steps, he said.

Interference problems from power utility lines can be resolved through collaboration with those companies and through FCC regulation, Horne said. Utilities are required to use good engineering practices to avoid interfering with AM signals, he said. Those companies should be required to take specific steps to protect AM operations from interference, much in the same way that the FCC enforces rules for wireless carriers to avoid interfering with the AM band, he said. This requires specifications to be established in the Part 15 rules, which governs unlicensed transmissions, he said. There is no good specification for emissions limits below 30 MHz, he added.

Decreased consumer demand for AM radio is due in part to AM receiver performance issues, Horne said. New receivers and revised AM receiver performance standards can help boost listenership, he said. There also are advantages to having synchronous detectors, which can help reduce noise, he said. Other uses of technology, like modulation-dependent carrier level technology, or increasing transmitter power, also can help, he said.

Cooperation between AM operators and utilities needs to occur "before we call the FCC," Horne said. AM licensees and power companies need to work together when there are interference issues, he said. "The AM licensee is the victim," and should complain to the utility. Inspection and maintenance of power lines is practical, he said.

NAB Labs is continuing to test the feasibility of an all-digital AM capability, said David Layer, senior director-advanced engineering in NAB's technology department. All-digital AM may be a long-term solution for AM radio, he said. Digital capability is "populating the new generation of vehicles with receivers that could receive the AM signal," he said. NAB Labs has measured both hybrid and all-digital signal performance, he said. "The all-digital signal is significantly more robust than the hybrid signal."

Losing the existing base of analog receivers will be a big deal, Layer said. AM will lose a lot of listenership, he said. "That's why it's important to get cars out there with HD receivers in them for AM."

The NAB Labs testing consists of field testing, lab testing to assess interference behaviors between stations, and allocation studies to understand the impact on FCC rules, he said. The group has identified types of stations that should be a part of the test project, he said. An analog station, stations that use a directional antenna, stations operating in the expanded band, and a station in the lower band were among those identified by the NAB Radio Technology committee, he said. Tom Nessinger, senior counsel for FCC Media Bureau Audio Division also spoke, but stated that his comments were off the record. — ***Kamala Lane***