



Revitalization and Interference: Fact vs. Science Fiction

Mark Fowler says the protection enjoyed by Class As under antiquated rules is illusory

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[By Mark Fowler](#)

The pending “Revitalization of the AM Radio Service” rulemaking, MB Docket No. 13-249, offers the opportunity for a long-overdue revision of the FCC rules to align AM technical standards with reality.

The antiquated standards we live with today still define AM signal levels for service contours and the levels of undesired signal interference. These standards were designed in the 1920s and 1930s. Rural families like the fictional Waltons gathered around the family tube radio set to listen to Jack Benny and “The Grand Ole Opry.” Electronic external interference did not exist.

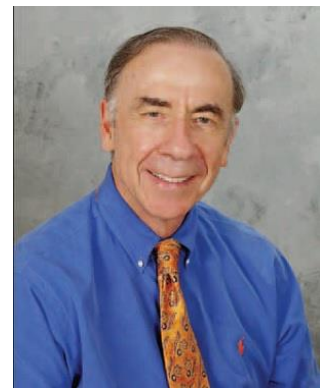
Clear-channel licensees want the commission to retain these old, crusted, irrelevant interference standards as if time stood still.

“PRO-SERVICE” AGENDA

Extensive changes in AM allocation standards have not been considered since an “AM improvement” rulemaking proceeding over 25 years ago.

The comments of the engineering consulting firm du Treil, Lundin and Rackley Inc. in the AM Revitalization proceeding provided detailed information on research into the present-day environment of noise and man-made interference. They explained that a 1986 “AM improvement rulemaking” included “a misguided attempt to legislate an AM radio Utopia by pretending to ‘outlaw’ interference between stations and hoping new receiver technology would overcome the ills of AM radio.”

The ambient interference situation has become much worse, not better, for AM stations in the last 25 years. True “revitalization” of the AM band now calls for focusing on how the rules can be changed to promote a “pro-service” instead of “anti-interference” agenda. That pro-service agenda may require undoing other changes that were made in the name of interference reduction



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which have proven counterproductive.

The controversy surrounding the FCC's proposal to change the daytime protected contour for Class B, C and D stations from 0.5 mV/m to 2.0 mV/m is critical and deserves careful consideration. The AM Radio Preservation Alliance opposed any change at all in the protected contour level out of concern for increased interference between stations, rather than considering steps to account for present-day environmental interference conditions. However, the interference calculations underlying the alliance position were shown to be defective by several expert engineers in their reply comments.

The Association of Federal Communications Consulting Engineers said in its reply comments that "the AM Radio Preservation Alliance employs an incorrect definition of interference in identifying the areas where actual interference would be caused to the signals of Class B, C and D stations. The Alliance's analysis portrays a much larger area of interference than would be the case *if desired/undesired signal ratios* were analyzed."

As to interference standards for clear-channel Class A stations, Carl T. Jones Corporation and dLR were joined by Hatfield and Dawson Consulting Engineers LLC in suggesting that, instead of the proposed standards, the FCC should adopt a method that takes into account the *actual nighttime interference level*, which in *reality* is the desired/undesired signal ratios calculated for Class A stations.

This real-world standard would replace the 80-plus-year-old, single-signal overlap avoidance method that wrongfully assumes a Class A receives no interference at all within its 0.5 mV/m 50 percent of time skywave contours.

Importantly, their reply comments provided information on the actual interference levels at licensed domestic Class A stations. Hatfield's reply comments were particularly striking in noting, "Calculation of the actual levels of interference received by Class A stations presently licensed shows that not one of them in the contiguous 48 states is actually protected to its nominally protected value at its transmitter site, much less at the skywave nominally protected contour."

BENEFICIAL CHANGE

The rule change offered by these consulting firms would actually promote improved local nighttime service by other classes of stations. Importantly, it would also improve service from Class A stations that employ directional antennas at night, all without raising the interference levels that Class A stations already receive. Other reply comments demonstrate that the potential service benefits of a change to Class A actual interference levels will increase primary service to millions by many broadcasters.

Conclusion: The protection afforded Class As by antiquated rules is illusory, i.e., they *provide no real protection* as they do not eliminate *the actual interference* experienced by the Class As since the beginning. It's past time to exit from the alliance's 1920s time machine and get back to the future.

In this way, more people will receive strong AM service from broadcasters now handcuffed by the past; and no actual increased interference to the clear channel stations will result.

The writer was chairman of the FCC from 1981–1987. He is chairman of LN2D LLC, a digital signal processing company.