

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Revitalization of the AM Radio Service) MB Docket No. 13-249
)
)

*REPLY COMMENTS OF
T Z SAWYER TECHNICAL CONSULTANTS, LLC.*

T Z Sawyer Technical Consultants, LLC, (“TZS”) submits these reply comments in response to the Commission’s *First Report and Order, Further Notice of Proposed Rulemaking, and Notice of Inquiry*¹ (the “NPRM”).

Comments of the AM Radio Preservation Alliance

The AM Radio Preservation Alliance (“Alliance”) “Exhibit Q” incorrectly identifies contour overlap as “interference.” The result is a vastly overstated area of interference. We’re sure it’s just a misunderstanding on their part and an overly reliance on software tools. Nevertheless, the areas of interference are greatly overstated as a result.

Contour “overlap” by itself does not result in interference to a primary signal, signal interference occurs only when the predetermined desired to undesired signal ratio is exceeded at a particular point location.

¹ *First Report and Order, Further Notice of Proposed Rulemaking and Notice of Inquiry* in MB Docket No. 13-249, (rel. October 23, 2015)(the “NPRM”).

The procedure for determining an interference area involves the plotting of multiple contours, both desired and undesired, then drawing a line between the individual contour intersections to determine the boundary of the interference area, the resulting area most often results in a crescent-shaped area, an area in which locations within the area can be assumed to be subjected to interference from an undesired signal.

Comments of Du Treil, Lundin & Rackley, Inc. (DLR)

Utilization of the AM Expanded Band.

We support the comments of DLR that the technical regulations for the expanded band and the remainder of the AM band should be identical and concur with their recommendation that the designation “expanded band” be dropped and that all frequencies between 540 kHz and 1700 kHz be referred to in the rules as the same band. The “expanded band” exists as an under utilized public asset and should be opened immediately for use by all applicants.

Nighttime Protection to Class-A AM Stations.

We support the comments of DLR concerning changing the nighttime protection requirements to Class-A stations to the 0.5 mV/m 50% RSS limit (site to site) method as outlined in the DLR comments.

Our own comments and nighttime interference 50% RSS tabulations to Class-A stations in this proceeding echo the findings of DLR (and others) concerning existing nighttime interference to these stations.

An alternative to the site-to-site 50% RSS calculation method would be a “clipping” study based upon the 0.5 mV/m groundwave contour of the Class-A station. In any event, we believe that if any adjacent channel protection is provided at night to Class-A stations that it is limited to

protection of the 0.5 mV/m groundwave contour. The need to protect Class-A stations from adjacent channel interference (domestically) is a bow or nod to the once protected status of these stations and nothing more.

Modify Rules for Method of Moments Proofs.

We support the comments of DLR and (others) concerning method of moments proofs (M-o-M), and in particular the elimination of reference measurements (field strength measurements).

Consider the fact that new reference measurement locations can be established during the now existing recertification process one has to wonder what value field strength reference measurements (during the original M-o-M proof or re-certification process) may have to outside interests (a frequent argument for keeping reference measurements).

The new locations and values if established during the recertification process are kept only in the station's files. The arguments that reference field strength values are required to allow outside interests to "check" the operation of the directional antenna system without contacting the station are simply not true. One may determine the mode of operation of a facility by simply having a working knowledge of the directional pattern shape and the associated radiation values and a field meter. It's not rocket science.

We differ from the DLR proposal as to the recertification period of the antenna sampling system. While we agree that a detailed inspection of the sampling system might induce errors from the haphazard connecting and reconnecting of the sampling system components during a biannual inspection (i.e., if it works don't touch it), we are more concerned about shifts in the operating parameters of the antenna system that go undetected and that are corrected by station personal chasing the false indicators which results in a misadjustment of the antenna

array.

Certification should be required of the sampling system, perhaps not as frequently as biannually but certainly every 5-years. That being said, there is of course no engineering basis for suggesting a 5-year interval over a 2-year interval or even a 10-year interval without data that indicated a failure rate - It's simply a compromise between too little and too much and nothing more.

We also agree with DLR that the rules should be modified (as needed) to not require re-proofing of stations that have been licensed with M-o-M proofs should a change be made that does not affect the modeled value(s) used in the license proof.

Changes above or across the base of a tower that do not materially change (within the tolerance used in the model) should not require re-proofing of the system. For example, replacement of a tower lighting choke or other filters/isolation devices that do not impact the M-o-M model should not trigger a re-proof requirement.

Require Surrender of Licenses by Dual Expanded Band / Standard Band Licensees.

We support the comments of DLR (and others) and agree that it is very much in the public interest to maintain as many local radio services as possible.

The FCC should allow standard band stations in standard-expanded band pairs to remain on the air if the originally-considered interference no longer exists or can be reduced. For example, stations that only have interference issues at night should be allowed to convert to daytime-only operation or reduce power as necessary for interference reduction (until they do not enter the 50% RSS nighttime limit of another station afterwards).

Additional Comments of T Z Sawyer Technical Consultants (TZSTC)

In reviewing the comments of others in this proceeding concerning the potential lost of service area to Class-A stations at night should any change of the status quo be enacted is much ado about nothing, in particular I'm concerned that the Commission might be swayed by claims of service required for a national emergency as part of FEMA's Primary Entry Point (PEP) system. Realizing of course that the Federal Government has made a significant investment in 25 of the nation's Class-A facilities to harden them for "trans-event and post-event reliability"² their domination of their operating frequency is not needed at other times at the expense of locally provided service and based upon a doctrine developed nearly 30 years ago. Clearly should we reach a point in time when they are called upon as a "last-resort" communications medium those few remaining and able to operate non Class-A facilities could be silenced if needed.

One should really inquire about how many of these spectrum blackholes are truly staffed at night and able to perform their FEMA PEP duties should they be called upon before we continually overly protect them. I really don't know - but is it not worth considering what the real operation status is of these stations?

Respectively Submitted,
T Z Sawyer Technical Consultants, LLC

A handwritten signature in blue ink that reads "Timothy Z Sawyer". The signature is written in a cursive, flowing style.

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² Comments of Alfred S. Kenyon, III page 1, paragraph 4

Addendum In Support of Local Programming
(Circulating on Various Internet/Social Media Web Sites)

