

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

In the Matter of)
)
An Inquiry Into the Commission's Policies) MM Docket No. 93-177
and Rules Regarding AM Radio Service)
Directional Antenna Performance Verification)

To: The Commission

COMMENTS

The AM Directional Antenna Performance Verification Coalition (“Coalition”) hereby submits these Comments in response to the Media Bureau’s May 23, 2007 Public Notice in the above-captioned proceeding. *See* Public Notice, “Comment Sought on Proposed Rules Permitting Antenna Modeling To Verify AM Directional Antenna Performance,” (DA 07-2143, released May 23, 2007). In that Public Notice, the Media Bureau solicited comments on the Coalition’s May 4, 2007 recommendations that the FCC authorize the use of moment method computer modeling to demonstrate that AM directional antennas perform as authorized and to assess the effects of nearby reradiators on AM patterns. The Media Bureau also sought comments on the Coalition’s proposed new and modified rules that would implement those recommendations.

The Coalition now represents 23 AM station group owners as well as a number of broadcast engineering consultants and broadcast equipment manufacturers,¹ whose members continue to believe that computer modeling and internal array pattern monitoring will accurately and reliably verify the performance of most, if not all medium wave antenna systems.

¹ Emmis Communications Corp., Radio One, Inc. and Saga Communications have recently joined the Coalition. A complete list of Coalition members appears Attachment A to these Comments..

As the Coalition noted in its initial submission, it is widely acknowledged that the present process of using field strength measurements to verify the performance of an AM antenna system is fundamentally flawed. Because field strength measurements are subject to substantial variation caused by, among other things, proximity effects, scattering, seasonal changes in ground conductivity, and land development along propagation paths, they often result in an oversimplified and therefore unreliable analysis. Computer modeling using method of moments analysis, such as Numerical Electromagnetic Code (“NEC”) or MININEC programs, are not subject to these same variations and limitations, and can predict accurately the relationship between pattern shape and internal array parameters such as impedances, currents, and voltages at locations within the power distribution and radiation system. These programs use the current flowing in each tower of an AM directional antenna to predict the electric and magnetic fields that will be produced by that tower, which then can be used to predict accurately the current that will be induced by this field into the other towers. By performing this analysis for each tower in an AM directional array, and then combining the fields created by each tower, the programs can accurately predict how the overall AM antenna system will perform.

As the Media Bureau correctly observes in the Public Notice, method of moments analysis has become widely accepted by broadcast engineers and Commission staff, and the Coalition’s recommendations reflect current broadcast industry practice. Moreover, as the Media Bureau acknowledged, the use of method of moments analysis will advance the public interest by substantially reducing the time required of both applicants and Commission staff to perform a directional antenna proof of performance.

The Coalition also proposed a new rule under Part 17 that would harmonize the disparate treatment afforded under Section 22.371, Section 27.63, and Section 73.1692 with respect to disturbances caused to AM stations as a consequence of construction near or installation on an AM broadcast antenna system or tower. The Coalition continues to believe that this proposal will reduce confusion among affected FCC licensees with respect to the proper procedures for the protection of AM broadcast stations whose antenna patterns can be adversely affected by the proximity of new towers or antenna. In addition, the proposed procedures will substantially reduce the time required to determine the impact on the affected AM station and the expense associated with that analysis.

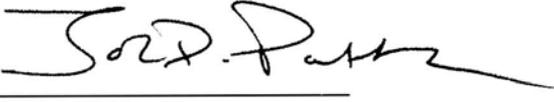
The Coalition notes that in a separate proceeding under WP Docket No. 07-100, the Commission has proposed the adoption of a new rule to address the potential for disturbance of AM broadcast antenna patterns by Part 90 licensees. *See Amendment of Part 90 of the Commission's Rules*, Notice of Proposed Rulemaking and Order (WP Docket No. 07-100, released May 14, 2007) ("NPRM") at ¶15. Although the Coalition fully supports the Commission's efforts in WP Docket No. 07-100 to protect AM broadcast stations whose antenna patterns can be altered by the proximity of new or modified towers and antennas, the rule proposed by the Commission in WP Docket No. 07-100, as well as Section 22.371 and Section 27.63, the rules on which the proposed new rule is based, rely on outdated magnetic field measurement techniques to establish whether the construction or modification would affect an AM directional or non-directional pattern. The Coalition believes that the Media Bureau is the most appropriate forum in which to consider the adoption of rules relating to the protection from disturbance of AM broadcast station antenna patterns, and is filing comments in that proceeding requesting that the issues raised in Paragraph 15 of the NPRM

be considered by the Media Bureau in connection with this proceeding. The Coalition believes that consolidating the review of these interrelated issues under the Media Bureau would avoid confusion and potentially inconsistent results and would conserve scarce Commission resources by eliminating unnecessary duplication of efforts.

For the reasons set forth herein, the Coalition respectfully requests that the Commission authorize the use of moment method computer modeling to verify the performance of AM directional antennas and to evaluate the potential effects of nearby reradiators on AM patterns, and adopt the new and modified rules proposed by the Coalition.

Respectfully submitted,

**AM DIRECTIONAL ANTENNA PERFORMANCE
VERIFICATION COALITION**

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ATTACHMENT A

AM DIRECTIONAL ANTENNA PERFORMANCE VERIFICATION COALITION

Broadcasters

Beasley Broadcast Group, Inc.
Bonneville International
Buckley Broadcasting Corporation
CBS Radio Inc.
Citadel Broadcasting Company
Clear Channel Radio
Cox Radio, Inc.
Crawford Broadcasting Company
Cumulus Media Inc.
Emmis Communications Corp.
Entercom Communications Corp.
Entravision Communications Corporation
Family Stations, Inc.
Journal Broadcast Group
Lincoln Financial Media
Morris Communications Company, LLC
Multicultural Radio Broadcasting, Inc.
Peak Broadcasting LLC
Radio One, Inc.
Regent Communications
Saga Communications
Salem Communications Corporation
The Walt Disney Company

Consulting Engineers/Equipment Manufacturers

Carl T. Jones Corporation
Cavell, Mertz & Associates, Inc.
Communications Technologies, Inc.
du Triel, Lundin & Rackley, Inc.
Edward A. Schober, P.E., Radiotechniques Engineering, LLC, Consulting Engineers
Hammett & Edison, Inc.
Hatfield & Dawson Consulting Engineers, LLC
Khanna & Guill, Inc.
Radiotechniques Manufacturing, LLC
Sellmeyer Engineering