

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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

To: The Commission

**REPLY COMMENTS OF GREATER MEDIA, INC. AND CHARLES A. HECHT &
ASSOCIATES, INC.**

Greater Media, Inc. ("Greater Media") and Charles A. Hecht & Associates, Inc. ("Hecht") (jointly referred to herein as "Commenters"), through their attorneys, hereby file their Reply Comments in the above-referenced proceeding. In support thereof, the following is shown:

1. The Commenters have reviewed the comments of other parties interested in this proceeding. As expected, the Coalition and its individual members broadly support the Coalition's proposal. Indeed, no one disputes the value of MoM in modeling AM directional arrays. However, it should be stressed that no commenter provided specific data support the general claim that MoM alone can reliably verify the compliance of a station's directional pattern with its authorized parameters. By contrast, the Commenters provided substantial data demonstrating that MoM alone in fact rarely, if ever, does so; some verification in the field is almost always required to adjust the array so as to bring it within authorized parameters and thereby assure that it is

performing in practice as it has been modeled in theory.¹ In this regard, attached is a Statement by Commenter Charles A. Hecht stating that, in his personal experience as a consulting engineer for over 30 years, he has never encountered an array that did not require some field adjustment to optimize the pattern or bring it within authorized theoretical parameters. Moreover, the Commenters note that there is significant concern among others in the engineering community and AM equipment industry regarding the efficacy of MoM without field study.² In light of evidence submitted by the Commenters and absence of hard data from proponents of MoM alone, the Commission should not take the precipitate step of abandoning field measurements entirely in favor of computer-generated models.³ Indeed, the overwhelming evidence that AM arrays modeled through the use of MoM require some adjustment in the field to comply with authorized parameters compels the conclusion that the Commission may not rationally abandon all field measurements.

2. The hybrid scheme of minimal field measurements in tandem with MoM urged by the Commenters will serve the interest of licensees and the public alike in the widest possible interference-free service by providing adequate assurance that AM arrays perform as expected. Further, the Commenters reiterate that the facial appeal of the Coalition's proposal as a big money-saver for licensees is belied by the facts;⁴ contrary to the claims that the proposed regulatory scheme will save licensees a lot of money, it would appear that the Coalition's cumbersome and perpetual recertification

¹ See Commenters comments, pp. 4-7.

² See, e.g., Comments of Donald L. Markley; Ex Parte Comments of Potomac Instruments; Comments of Sellmeyer Engineering. Formal Comment of Independent Broadcast Consultants, Inc.; Comments of Mullaney Engineering, Inc.; Comments of Cohen, Dippell and Everist, P.C.

³ Notably, too, while all parties agree that field measurements under some conditions may not be accurate, no party presented specific evidence that this circumstance is generally the case.

⁴ See Greater Media/Hecht comments, pp. 9-10.

program seems likely to cost far more in the long run than advertised. At the very least, the Commenters submit that their hybrid proposal could well result in reduced expense to licensee over the long run by minimizing measurement requirements attendant to the initial array adjustment and obviating the necessity and costs of a periodic recertification which would be required regardless of need.

WHEREFORE, the Commenters urge the Commission to adopt rules consistent with the views expressed herein and in their Comments.

Respectfully submitted,

**GREATER MEDIA, INC. AND CHARLES A. HECHT
& ASSOCIATES, INC.**

By: Malcolm G. Stevenson
Malcolm G. Stevenson

SCHWARTZ, WOODS & MILLER
Suite 610
1233 20th Street, N.W.
Washington, D.C. 20036-7322
Its Attorneys

September 7, 2007

STATEMENT OF CHARLES A. HECHT

I have been designing, tuning and adjusting AM directional antenna systems for over 30 years. During that time, I have had hands-on experience with hundreds of AM directional antenna systems, and I have learned that the sole common characteristic of AM directional antenna systems is that they are predictably unpredictable.

Often the reality of tuning and adjusting AM directional antenna systems is part science and part art. Sometimes, the art predominates, as best said by a colleague who made the wry observation, "Directional antennas are like people, each has its own distinct personality".

An excellent and not uncommon example of the inherently unpredictable nature of directional antenna systems occurs during the process of making system adjustments; the application of adjustments derived from theoretically correct data does not produce the desired result in the field.

Prior to commencing a proof of performance, I always begin by modeling the array employing the Method of Moments methodology. However, despite field experience with hundreds of arrays, I have yet to find a single one in which the final system operating parameters agreed with the original Method of Moments parameters. Method of Moments methodology is the best theoretical starting point to begin the proof of performance process. But it is just that – a theory – while reality requires adjustment of AM arrays to behave as authorized. The unlimited use of Method of Moments methodology as the sole source of proof of performance validation is flawed and should not be permitted without supporting field measurement documentation. In addition, a procedure consistent with current Commission allocation standards to provide protection for pertinent co and adjacent channel stations which are adversely affected by interference that may be generated by a theoretically properly adjusted directional antenna system should be established.

Charles A. Hecht, President
Charles A. Hecht & Associates, Inc.
16 Doe Run
Pittstown, NJ 08867

September 6, 2007