



## TABLE OF CONTENTS

<b>Executive Summary</b> . . . . .	i
I. Background and Introduction . . . . .	1
II. The Commission Should Adopt the Policy and Technical Proposals Set Forth in the Notice, Subject to Certain Modifications Designed to Maximize Their Benefit to AM Radio Stations and Listeners. . . . .	4
A. An AM-Only Filing Window for FM Translators Would Expand the Benefits of Cross-Service Rebroadcasting. . . . .	4
1. The Processing Approaches in the “Mattoon Waiver” and “Tell City” Waiver Cases Can Help AM Stations . . . . .	9
2. The Commission Should Consider Ways to Provide More Certainty to Licensees of Cross-Service Translators and Their Listeners . . . . .	11
B. Modifying the Daytime Community Coverage Standards Would Facilitate Improved AM Radio Service Without Significant Reductions in Signal Quality . . . . .	13
C. Modifying the Nighttime Community Coverage Standards Will Better Enable AM Radio Stations to Accommodate Changes in Population Served and Real Estate Values. . . . .	14
D. Broadcasters Support the Elimination of the AM “Ratchet Rule”. . .	16
E. Simplified Implementation of Modulation Dependent Carrier Level Control Technologies Should Be Permitted . . . . .	18
III. The Commission Should Carefully Consider Certain Other Proposals Concerning AM Radio Broadcasting . . . . .	19
IV. Conclusion . . . . .	22

## EXECUTIVE SUMMARY

The National Association of Broadcasters (NAB) applauds the Commission's initiation of this comprehensive review of its rules and policies governing AM radio service. As the Commission recognizes, AM radio broadcasters face certain technical, regulatory and economic challenges that may undermine the long-term competitive viability of the AM radio service. These obstacles include unique interference concerns that compromise the quality of AM signals, particularly in comparison to the growing number of higher fidelity sources for audio programming. The resulting pressure on AM radio listenership and advertising revenues has negatively impacted the financial viability of many AM radio stations and, thus, these stations' ability to improve their service to the public.

Despite these challenges, AM radio remains a distinctive, popular source for local news and talk, public affairs, sports and foreign-language programming. Many AM stations provide niche formats targeted at diverse local communities, and in a sizeable portion of America's rural areas, AM service remains the primary source for radio programming for residents and travelers. AM radio service is also an important source for news and information during emergencies.

NAB accordingly supports the Commission's focus on AM radio, and appreciates this opportunity to address the specific technical and policy changes proposed in the Notice. Implementation of these proposals should allow many AM stations to improve their signal quality. NAB and its radio members look forward to working with the Commission to develop additional policies that will fully revitalize AM radio.

NAB specifically supports the opening of a special filing window for FM translators for AM stations because it will extend the clear benefits of cross-service

translators to additional AM stations and their listeners. We further support processing rules to facilitate the relocation of FM translators for use by AM stations. The approach followed in the so-called Mattoon Waivers has been helpful, and processing as suggested in the “Tell City” waiver request would also further this goal. Finally, we request that the Commission consider ways to provide more certainty to licensees of cross-service translators that are displaced due to interference concerns.

NAB also agrees with the Commission’s proposals to relax the AM broadcasting daytime community coverage standards, and eliminate the nighttime standards. These rule changes will remove certain technical obstacles to relocating AM transmitter sites, and in some cases, save broadcasters the considerable expense of operating separate daytime and nighttime transmitter facilities. Permitting AM stations to conserve resources on these types of utility and infrastructure costs will increase broadcasters’ resources for services that more directly benefit the listening public. We further support the proposals to eliminate the AM “ratchet rule” and facilitate the use of Modulation Dependent Carrier Level control technologies, as both will foster the improvement of AM radio service.

Finally, NAB will continue to coordinate with the Commission on the testing of all-digital AM radio service. NAB and the entire broadcasting industry appreciates the Commission’s support, including its prompt review and approval of requests for Experimental Authority to allow certain AM stations to interrupt their regular programming to participate in all-digital tests. The feedback from these tests has been invaluable, and we look forward to working with the Commission on next steps towards a potential all-digital AM radio broadcasting service.

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

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

**COMMENTS OF THE  
NATIONAL ASSOCIATION OF BROADCASTERS**

The National Association of Broadcasters (NAB)<sup>1</sup> submits these comments on proposals to improve the AM radio service.<sup>2</sup> As discussed below, NAB generally supports adoption of the major proposals in the Notice as welcome policy and technical changes that will allow many AM radio stations to improve their signal quality. NAB applauds the launch of this proceeding as a meaningful first step toward a more viable AM radio service, and looks forward to working with the Commission to develop policies that will fully revitalize AM radio.

**I. Background and Introduction**

“I’m often asked why we should care about the future of AM radio. . . If you care about diversity, you should care about AM radio. Most minority-owned radio stations are located in the AM band. So are many stations aimed at ethnic and foreign-language minority populations. If you care about localism, you should care about AM radio. Many AM radio stations cover local news, weather, and community events. And if you care about an engaged citizenry, you should care about AM radio. Many AM radio stations provide a vital forum for discussing the issues of the day. These reasons, among others, are why I believe that the future of AM radio is worth fighting for.” Remarks of FCC Commissioner Ajit Pai, NAB Radio Show Luncheon (Sep. 20, 2013).

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<sup>1</sup> NAB is a nonprofit trade association that advocates on behalf of local radio and television stations and also broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the courts.

<sup>2</sup> *Revitalization of the AM Radio Service*, Notice of Proposed Rulemaking, MB Docket No. 13-249, FCC 13-139 (*rel.* Oct. 31, 2013) (Notice).

Commissioner Pai's statement captures the unique value of AM radio, and the need for prompt, decisive actions that will help rejuvenate this critical service.

Technical obstacles, interference concerns, and the influx of audio alternatives have all contributed to the competitive struggles of AM radio over the past two decades. AM radio service has certain inherent technical limitations that limit audio quality. The propagation characteristics of the AM band cause increased interference among AM stations at night, requiring many stations to reduce or even cease operations during nighttime hours and parts of the important morning and evening rush hour "drive times." Interference is also a major concern during daytime hours, given the proliferation of non-broadcast sources of electromagnetic radiation, such as fluorescent lighting, LED traffic lights, computers, power transmission lines, and HDTV sets.<sup>3</sup> AM radio signals are also impeded by aluminum siding and steel frames that reinforce many buildings located in urban areas. Notice at ¶ 5. As a result, many AM stations cannot serve sizeable portions of their audiences, causing a growing number of listeners to consider other, higher fidelity outlets.

Streaming services, web-based radio, satellite radio, iPods and MP3 players, and other new technologies now all compete with AM radio for audiences. The resulting decline in advertising revenues has substantially affected the bottom lines of AM stations, making it harder for stations to improve service quality or provide certain costly content, such as live, on-the-scene news reporting. Some struggling stations have even considered ceasing operations, especially in markets where real estate values for the property housing their antenna arrays has substantially increased.<sup>4</sup>

Despite these challenges, AM radio remains a critical source for news, talk, sports, foreign-language and religious programming. Many AM stations provide unique,

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<sup>3</sup> Comments of John Pavlica, Jr., MB Docket No. 13-249 (Dec. 13, 2013), at 2.

<sup>4</sup> Randy J. Stine, *Is AM Radio Still Relevant?*, Radio World (Aug. 30, 2009), available at [www.radioworld.com/article/is-am-radio-still-relevant/1752](http://www.radioworld.com/article/is-am-radio-still-relevant/1752).

niche formats as a means of distinguishing themselves from competitors.<sup>5</sup> The overwhelming majority of all-news/talk and all-sports programming is found on the AM band, Notice at ¶ 3, and AM broadcasting is often the only radio source for listeners living in and traveling through rural areas.

Most importantly, AM radio provides community-oriented news, information, public affairs, and discussions of local politics, culture, and entertainment.<sup>6</sup> In many communities, AM radio stations function as a megaphone for local charities and organizations, and are intimately involved in their neighborhoods. AM radio is also a critical source for timely, comprehensive, local information before, during, and after emergencies.<sup>7</sup> For example, AM radio was critical during Hurricane Sandy. New York-based WABC(AM) and WOR(AM) both turned their formats over to all-news during the storm, and a reporter from WINS filed news reports while trapped in a car by rising waters.<sup>8</sup> Many AM stations went commercial-free for days to keep listeners informed about the rapidly developing emergency, and partnered with television stations and FM stations to simulcast news to larger audiences. In many parts of the storm zone, AM radio was the only service available to connect the public with first responders.<sup>9</sup>

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<sup>5</sup> Rodney Ho, *Radio Trends Behind the Recent Upheaval on the AM/FM Dial* (Oct. 9, 2012), available at <http://blogs.ajc.com/radio-tv-talk/2012/10/09/radio-trends-behind-the-recent-upheaval-on-the-amfm-dial/>.

<sup>6</sup> *The Towers of Microville* (Sep. 1, 2010), available at <http://theradiokitchen.net/category/band/mediumwave/feed/>.

<sup>7</sup> See Opening Remarks of FCC Commissioner Ajit Pai, Missouri Broadcasters Convention, AM Revitalization Panel (May 31, 2013).

<sup>8</sup> David Hinkley, *Radio Proved a Port in the Storm for New York Region During Hurricane Sandy*, New York Daily News (Nov. 26, 2012), available at <http://www.nydailynews.com/entertainment/tv-movies/radio-new-yorkers-connected-sandy-article-1.1196917>.

<sup>9</sup> David L. Donovan, President, New York State Broadcasters Association, *In the Eye of the Storm: New York's Broadcasters Provide a Bright Light on a Dark Night* (Oct. 31, 2012), available at <http://www.nysbroadcasters.org/wp-content/uploads/2012/11/NY-BROADCASTERS-HURRICANE-SANDY.pdf>.

Indeed, the coastal town of Hull, Massachusetts recently announced its intention to install its own AM radio station as a fail-safe means of transmitting emergency information to residents. The town concluded that “most forms of communication become ineffective during power outages. The radio station’s backup power system is capable of providing backup power for four days. The advantage of using AM radio for emergency news is that it will work even if there’s a power failure, since the broadcast is accessible on car radios or portable sets run by batteries.”<sup>10</sup>

NAB appreciates this opportunity to address the technical and policy changes proposed in the Notice. The proposals are fairly wide-ranging and their approval should enable many AM stations to improve service. We set forth our specific views on these proposals below, as well as additional suggestions intended to enhance AM radio. NAB and our radio members also want to work with the Commission to develop and implement further policies to truly revitalize AM broadcasting. As the Commission has recognized, a radio broadcaster’s “ability to function in the ‘public interest, convenience and necessity’ is fundamentally premised on its economic viability.”<sup>11</sup>

## **II. The Commission Should Adopt the Policy and Technical Proposals Set Forth in the Notice, Subject to Certain Modifications Designed to Maximize Their Benefit to AM Radio Stations and Listeners**

### **A. An AM-Only Filing Window for FM Translators Would Expand the Benefits of Cross-Service Rebroadcasting**

The Commission’s decision in 2009 to allow AM radio stations to use FM translators to rebroadcast their AM service has been a resounding success.<sup>12</sup> To date,

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<sup>10</sup> Lisa Pradhan, *New AM Radio Station Could Save Lives*, SmartSign Blog (Nov. 25, 2013), available at <http://www.smartsign.com/blog/am-radio-station-hull-massachusetts/>.

<sup>11</sup> *Revision of Radio Rules and Policies*, Report and Order, 7 FCC Rcd 2755, 2760 (1992).

<sup>12</sup> *Amendment of Service and Eligibility Rules for FM Broadcast Translator Stations*, Report and Order, 24 FCC Rcd 9642 (2009) (2009 Translator Order).

approximately 720 AM radio stations are using translators to overcome some of the technical and economic challenges described above. Translators enable AM stations to fill-in service voids in their coverage areas and enhance signal quality during daytime hours.<sup>13</sup> At night, translators allow AM stations to retransmit their signals on the FM band where skywave propagation and its potential to cause harmful interference do not exist. NAB members that formerly reported coverage losses of 80 to 95 percent during nighttime hours are now able to provide live coverage of numerous events, such as political debates and high school and college sports, as well as rush hour traffic and weather conditions.<sup>14</sup> The improved and extended service that translators allow have also helped AM stations save lives and property during emergencies, such as Hurricane Sandy, tornados in the Midwest, and wildfires in California. In many cases, an FM translator has been absolutely critical to an AM station's economic viability.

As the Notice states, however, the universe of FM translators that are both eligible and available for use by AM radio stations is largely exhausted. Notice at ¶ 13.<sup>15</sup> To alleviate this problem, the Commission proposes to open an FM translator filing window exclusively for AM stations. Notice at ¶ 16. NAB agrees that such an approach will help expand the pool of cross-service translators, and allow more AM

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<sup>13</sup> See, e.g., Comments of the Pocahontas Communications Cooperative, MB Docket No. 07-172 (Jan. 8, 2008) (translator helps AM station overcome interference caused by rugged, mountainous terrain and poor ground conductivity).

<sup>14</sup> See, e.g., Comments of WYGR Broadcasting, MB Docket No. 07-172 (Dec. 2, 2007) (translator allows the station to provide live coverage of evening events in the Grand Rapids, Michigan Hispanic community); Comments of Urban Radio Licenses, LLC and Zimmer Radio, MB Docket No. 07-172 (Jan. 7, 2008) (station uses translator to air locally relevant music during nighttime when many musicians and listeners are available).

<sup>15</sup> This problem is exacerbated by rules establishing strict fill-in coverage area restrictions on cross-service translators that often make it difficult to situate an FM translator. Commission staff also has denied requests by AM stations seeking to relocate a translator through multiple minor change applications so it can be used in accordance with the coverage area limits. As a result, many AM stations are unable to identify and obtain an available FM translator.

stations to provide enhanced service to more listeners and compete more effectively in today's marketplace. This proposal will also support minority broadcast ownership, as about "two-thirds of minority-owned radio stations are AM stations."<sup>16</sup>

The Commission proposes several conditions on an AM-only filing window for FM translators. First, the Commission correctly limits participation to AM licensees and permittees. Notice at ¶ 14. The public interest in fostering AM service is served by maximizing opportunities for AM stations to obtain a translator by preventing mutually-exclusive applications from other entities who might seek translators only for purposes of lease or resale. *Id.* Moreover, given the specific goal of revitalizing AM radio, a more limited auction with fewer filings will expedite the application review process. *Id.*

For the reasons discussed in the Notice, NAB also generally supports the proposed condition that an FM translator acquired in this filing window should be linked with the acquiring AM primary station and used to retransmit the primary signal of the AM station to which it is linked. *Id.* at ¶ 14. However, the Commission should consider circumstances when allowing an AM station to reassign ownership or use of a translator may be warranted and consistent with the public interest. For example, any entity which owns multiple AM stations in the same market should be allowed to transfer use of a cross-service translator obtained in this window among their stations, perhaps because the acquiring AM station has made other technical changes to improve service and no longer needs the translator. Or, perhaps the acquiring station is failing and the translator can be put to better use by another station. In this vein, NAB submits that any AM station which demonstrates financial hardship should be allowed to reassign or otherwise dispose of an FM translator obtained in this filing window. As a general matter, NAB encourages the Commission to consider favorably requests for waiver of

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<sup>16</sup> Letter from David Honig, President and Executive Director, Minority Media and Telecommunications Council, to FCC Chairman Julius Genachowski (Feb. 12, 2013), at 2 (MMTC Letter).

this condition, which demonstrate that transferring use of a translator obtained in this filing window would serve the public interest.

The Commission seeks comment on whether this special filing window should be prioritized or limited to certain classes of stations, such as Class C and D stations or “stand-alone” AM stations. *Id.* at ¶ 17. No such distinctions appear necessary. There may well be circumstances where Class A or B stations could benefit from the fill-in service provided by an FM translator.<sup>17</sup> Moreover, although certain classes of AM stations may encounter more interference than others, listeners of all AM stations are entitled to benefit from better reception. Whether an AM station is a Class A or stand-alone Class D is immaterial to listeners.<sup>18</sup> Finally, based on the universe of AM stations now using FM translators to provide improved service pursuant to the 2009 Translator Order, there is no evidence that certain types of stations are more likely to seek an FM translator. The approximately 720 AM stations currently using FM translators consist of all classes and ownership structures. The Commission did not limit or prioritize eligibility for a translator in the 2009 Translator Order, and there is no reason to change course. 2009 Translator Order, 24 FCC Rcd at 9653.

The Commission also inquires about the impact of an AM-only window on full power FM and low power FM (LPFM) stations. Notice at ¶ 17. NAB does not expect any significant impact on either of these services. Regarding FM, full power stations will continue to have primary status and remain protected from FM translators under the Commission’s rules. 47 C.F.R. §§ 47.1203 and 47.1204. Like translators currently used by AM stations, translators obtained in this special filing window will remain secondary, at risk of displacement by primary FM operators.

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<sup>17</sup> Comments of the Crawford Broadcasting Company, MB Docket No. 13-249 (Dec. 12, 2013), at 3.

<sup>18</sup> Reply Comments of the National Association of Broadcasters, MB Docket No. 07-172 (Feb. 4, 2008), at 10.

As to LPFM services, the Commission worked diligently to make potential applicants aware of the recent LPFM filing window. It created an LPFM “channel finder” search tool to help applicants identify FM channels in their area; generated a scalable nationwide map showing how many LPFM channels might be open in a market, without the need for technical data; produced an LPFM Station Checklist, and released step-by-step instructions on how to participate in the filing window.<sup>19</sup> At the same time, LPFM interests encouraged nonprofits, charities, educational institutions, churches and other organizations to apply for LPFM licenses. These parties also assisted potential applicants in identifying channels and completing the required applications and engineering showings.<sup>20</sup>

The LPFM filing window, which closed on November 14, 2013, was a clear success. More than 2,800 applications were filed.<sup>21</sup> The Commission has stated its intent to promptly award construction permits to the approximately 900 “singleton” applications (i.e., those not in conflict with any other application), and promised to

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<sup>19</sup> See the FCC’s LPFM webpage, available at <http://www.fcc.gov/encyclopedia/low-power-fm-broadcast-radio-stations-lpfm>. In the run-up to the LPFM window, the Commission essentially froze the processing of applications for new FM translators or modifications of certain existing translator applications. See Public Notice, *Media Bureau Announces April 1-April 19 Filing Window for FM Translator Auction 83 Preclusion Showings*, DA 13-427 (Mar. 13, 2013), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-13-427A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-13-427A1.pdf); *Creation of a Low Power FM Service*, Fourth Report and Order and Third Order on Reconsideration, MM Docket No. 99-25, 27 FCC Rcd 3364 (2012) (requiring the dismissal of certain translator applications pending from Auction 83 to preserve LPFM opportunities). This caused delays for many AM (and FM) radio stations seeking to improve their service via translators. Mark Lipp, Wiley Rein, LLP, *FM Translators and LPFMs – What Lies Ahead*, (Aug. 20, 2013), available at <http://www.wileyonmedia.com/2013/08/fm-translators-and-lpfms-what-lies-ahead/>.

<sup>20</sup> See, e.g., *What is Low Power FM Radio?*, Prometheus Radio Project, available at <http://www.prometheusradio.org/what-is-lpfm>.

<sup>21</sup> Public Notice, *Media Bureau Provides Further Guidance on the Processing of Form 318 Applications Filed in the LPFM Window*, DA 13-2308 (Dec. 3, 2013).

resolve the remaining applications as quickly as possible.<sup>22</sup> Given all this activity, it appears that current LPFM interest in FM frequencies has been fulfilled.

Providing an opportunity for AM broadcasters to obtain FM translators is in the public interest. Existing LPFM stations and first-in-time LPFM applicants for FM frequencies are not at risk of interference or displacement by future FM translators, given the Commission's strict rules governing channel separations and power levels of operations on the FM frequency band. 47 C.F.R. §§ 74.1203, 74.1204 and 47.1235. In sum, the proposed AM filing window for FM translators should have minimal impact on other services in the FM band.

### **1. The Processing Approaches in the “Mattoon Waiver” and “Tell City” Waiver Cases Can Help AM Stations**

The Commission further seeks comment on whether opening an AM-only translator window may obviate the need for the so-called “Mattoon Waiver.” Under this processing approach, an AM station may be allowed, as a minor modification request, to relocate an FM translator between two points where the translator's existing and proposed 1.0 mV/m contours do not overlap.<sup>23</sup>

NAB believes that the Commission should continue processing requests to relocate FM translators using the “Mattoon” approach. The special filing window proposed in the Notice will not resolve all the obstacles that AM stations face in finding and utilizing an existing FM translator, particularly given the conditions to be imposed to prevent repurposing or reassignment of such translators. There may well be AM stations unable to participate or successfully obtain a translator in the window, which will then need the flexibility to relocate a translator not obtained in the window through the Mattoon Waiver process.

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<sup>22</sup> *Id.*

<sup>23</sup> Notice at ¶ 18; *The Cromwell Group, Inc. of Illinois*, Letter, 26 FCC Rcd 12685 (MB 2011) (Mattoon Waiver).

There may be instances, moreover, where an AM station may need to relocate a translator within a fairly large market. As Crawford Broadcasting explains, even “a 250 watt translator may have a 60 dBu contour distance of only 8-9 km, so a move from one side of the contour or radius to the other could easily result in a situation with no overlap” of the translator’s existing and proposed 60 dBu contours.<sup>24</sup> Without access to a Mattoon Waiver, such an AM station would have to request a major modification. Accordingly, Mattoon Waivers will remain a necessary option, regardless of the AM-only filing for FM translators proposed in the Notice.

NAB further submits that the approach proposed in the long-pending “Tell City” waiver would also help alleviate the current FM translator bottleneck by allowing AM stations to relocate existing translators over longer distances.<sup>25</sup> Under the Commission’s existing rules, a long-distance move such as that proposed in the Tell City request requires an application for a major modification, given the distance between the existing and proposed sites of the translator. 47.C.F.R. § 74.1233(a)(1).

Granting requests such as Tell City would provide AM stations with much needed flexibility to search for and relocate available FM translators that may be placed 50 miles or more away from the AM station’s city of license, thereby opening up hundreds of existing FM translators for potential use by AM stations. Establishing such a process would be much faster and less costly than requiring AM stations to wait to participate in a future special translator filing window (assuming this proposal is adopted). Approval of the Tell City waiver would also serve the Commission’s goal of encouraging the efficient use of spectrum and communications assets, as a currently underutilized (or

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<sup>24</sup> Comments of the Crawford Broadcasting Company, MB Docket No. 13-249 (filed Dec. 12, 2013), at 3.

<sup>25</sup> Joint Request for Waiver, Hancock Communications, Inc. and Way Media, Inc., File No. BPFT-20121116ALE (filed Nov. 16, 2012) (Tell City Waiver Request). Approval of this request would allow the relocation of an FM translator from Central City, Kentucky, to Tell City, Indiana, as a one-step minor modification, where it would be used to rebroadcast the signal of Hancock’s WTCJ(AM).

even dark) FM translator could be moved and used by an AM station to provide enhanced radio service to listeners. In particular, a Tell City-type waiver process would assist minority-owned stations, as some minority broadcasters own stations that struggle to reach their target audience because the stations are located far from the centers of urban markets. MMTC Letter at 2. For these reasons, NAB requests that the Commission promptly approve the Tell City waiver request, while it continues to weigh the proposals raised in the Notice.

## **2. The Commission Should Consider Ways to Provide More Certainty to Licensees of Cross-Service Translators and Their Listeners**

Under the Commission's rules, FM translator stations are licensed as low power facilities to provide secondary "fill-in" service to areas and populations that are unable to receive adequate service from a primary station due to distance or terrain hindrances.<sup>26</sup> As a secondary service, the rules provide that an authorized FM translator will not be permitted to operate if it causes actual interference to the transmission of any authorized primary broadcast station or first-in-time secondary service, such as another translator or booster station. 47 C.F.R. § 74.1203(a). It is the responsibility of the licensee of a translator to correct any interference. *Id.* at § 74.1203(e). If the interference cannot be properly eliminated, an offending translator must cease operations until the interference can be resolved, or be displaced entirely. *Id.* at § 74.1203(b).

Under existing rules, the licensee of a displaced translator may immediately seek a replacement channel as a request for minor modification, provided the new channel is first, second or third adjacent to the current channel. 47 C.F.R. § 74.1233. However,

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<sup>26</sup> See *Amendment of Part 74 of the Commission's Rules and Regulations to Permit the Operation of Low Power FM Broadcasting Translator and Booster Stations*, Report and Order, 20 RR 2nd 1538 (1970); 47 C.F.R. § 74.123(a) and (b).

such channels are often unavailable, given the congestion of the FM band in many markets. In these circumstances, a translator licensee's only recourse is to cease operations and wait until the Commission opens a filing window for major changes to translator stations and new translator channels, and processes all the resulting applications. *Id.* This process can take many years, as evidenced by the Commission's still ongoing effort to process applications from the last translator filing window, which opened in March 2003.

NAB does not seek any change in the priority status of FM translators. We support the current protections provided to full-power facilities. Rather, in light of the significant benefits that cross-service translators provide, we request that the Commission consider ways to provide relief to cross-service translators that are displaced by a newly authorized full-power station licensed under Part 73 of the rules, or by the modification of a primary station.

One such approach would be to allow the licensee of a displaced cross-service translator to immediately apply to move the translator to any available FM channel in its market, including non-adjacent channels, as a minor modification or similarly processed request. There may be other solutions as well. NAB respectfully requests that the Commission consider ways to help AM stations provide continuous programming using cross-service translators, or at least minimize the period of time a displaced translator would be off the air, thereby serving the public interest in reliable AM radio service.

## **B. Modifying the Daytime Community Coverage Standards Would Facilitate Improved AM Radio Service Without Significant Reductions in Signal Quality**

The Commission's rules require that an AM station must provide daytime coverage to 100 percent of its community of license within the station's 5 mV/m contour, measured by either geography or population, 47 C.F.R. § 73.24(i), although the Commission routinely approves proposals that will cover at least 80 percent of a community of license's service area or population. Notice at ¶ 19. The rule is intended to ensure that stations deliver sufficient signal coverage to their community of license. The Notice seeks comment on modifying the daytime coverage standard to allow licensed AM radio stations to cover either 50 percent of their community of license's area or population. *Id.* at ¶ 21. NAB supports this proposal.

AM stations often need to relocate their transmitter facilities, either to improve service, or for other reasons, such as rising real estate rents for the property that houses their facility. Broadcasters often face problems in finding a replacement site where the transmitter can comply with the daytime coverage standards. AM transmitter sites are space-intensive because AM transmission equipment is relatively large, and for those AM stations that must broadcast on a directional basis during parts of the day, multiple towers and ground systems are typically required. Moreover, it can be extremely difficult to find an affordable site near metropolitan areas, especially one that complies with local zoning rules and does not provoke opposition by local residents. Many stations are therefore unable to locate a transmitter site near a population center.<sup>27</sup>

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<sup>27</sup> Comments of Educational Media Foundation, RM-11565 (filed Oct. 23, 2009), at 5.

All of these problems can make it difficult for AM stations to reach their target audiences in metropolitan areas. In particular, AM stations that provide unique programming to niche audiences, including foreign language programming to certain ethnic groups, face challenges in reaching listeners concentrated in core metropolitan areas.<sup>28</sup> Locating a transmitter site on the fringe of such locations is often precluded, given the obligation to cover a station's entire city of license, or even 80 percent.

NAB thus supports relaxation of the daytime coverage standard. Requiring a station's 5 mV/m contour to cover 50 percent of its community of license would provide substantial flexibility to broadcasters seeking to relocate their towers. It is likely that most stations taking advantage of this change would still be able to provide a listenable signal to the remaining half of the community.<sup>29</sup> Accordingly, we agree with the Commission that the proposed modification of the daytime coverage rule would strike a reasonable balance between AM stations' interest in being able to relocate their facilities as needed, and the public interest in a sufficient coverage of an AM station's community.

**C. Modifying the Nighttime Community Coverage Standards Will Better Enable AM Radio Stations to Accommodate Changes in Population Served and Real Estate Values**

Similarly, the Notice seeks comment on the nighttime community coverage standards. Under this requirement, most AM stations must to provide a sufficient signal to at least 80 percent of the station's community of license. 47 C.F.R. § 73.24(i). However, the propagation characteristics of AM radio signals during nighttime hours

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<sup>28</sup> Joint Comments of Multicultural Radio Broadcasting Licensee, LLC, *et al.*, RM-11565 (filed Oct. 23, 2009), at 5.

<sup>29</sup> Petition for Rulemaking, Minority Media and Telecommunications Council, RM-11565 (Jul. 20, 2009), at 16 (MMTC Petition).

allow some signals to carry hundreds of miles. If AM stations operated 24-hours a day at full daytime power levels, substantial interference would occur at night. As a result, many AM radio stations must reduce power, often substantially, or completely cease operation, during nighttime hours. 47 C.F.R. § 73.182. Many AM stations find it difficult to comply simultaneously with both obligations.

To alleviate this problem, the Commission proposes to eliminate the nighttime coverage standards for existing AM stations.<sup>30</sup> NAB supports this approach because it would help some AM stations overcome the various obstacles that hinder the siting of AM transmitter facilities, as described above. The current rule hampers AM stations by making it harder to satisfy both the daytime and nighttime coverage standards from the same transmitter site, because they must power down or cease operations at night. This forces some AM stations to operate two separate transmitter sites, and incur additional maintenance, electricity, fencing, lighting, and security costs. Similar concerns arise when a station seeks to relocate its transmitter site, perhaps to a site on the edge of the community of license to take advantage of more economical property values. AM stations may be able to fulfill the daytime coverage requirement from such a location, but not the nighttime requirement to cover 80 percent of the community, given their obligation to reduce or cease power at night.<sup>31</sup>

Eliminating the nighttime coverage standards would allow AM stations to select transmitter sites based solely on their ability to provide a sufficient daytime signal. As a result, additional locations on the outer limits of a community would become suitable

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<sup>30</sup> Notice at ¶ 26. The Notice proposes to reduce the standard to 50 percent for new stations and AM stations seeking to change their community of license. *Id.*

<sup>31</sup> Comments of the National Association of Broadcasters, RM-11565 (Oct. 23, 2009), at 4.

transmitter locations, so many stations would be able to avoid the expense of operating two separate transmitter facilities. Furthermore, as MMTC noted, such an approach would eliminate the regulatory burdens of demonstrating substantial compliance with the rule when applying for a new transmitter site, or preparing and submitting a request for waiver from the rule.<sup>32</sup> Accordingly, adoption of the proposal to eliminate the nighttime coverage rule would facilitate the Commission's goal in this proceeding by enabling broadcasters to direct more resources towards improved signal quality and expanded programming of interest to their local audiences.

#### **D. Broadcasters Support the Elimination of the AM “Ratchet Rule”**

The Commission proposes elimination of the so-called “Ratchet Rule,” which requires that an AM radio station seeking to modify its AM signal must demonstrate that the change will result in an overall reduction in the amount of skywave interference it causes to other stations. Notice at ¶ 28 citing 47 C.F.R. § 73.182(q) n.1. The rule requires such stations to “ratchet” back their radiation to reduce interference in the AM band.

NAB supports approval of the long-pending petition filed by the engineering firms of duTreil, Lundin & Rackley, Inc. and Hatfield & Dawson Consulting Engineers, LLC (duTreil *et al.*), which asked the Commission to eliminate the ratchet rule because it has failed to achieve its goal of reducing interference on the AM band.<sup>33</sup> The Petition explains that, as a practical matter, stations seeking to improve service, such as through a transmitter relocation, must reduce power to comply with the ratchet rule's obligation

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<sup>32</sup> MMTC Petition at 12.

<sup>33</sup> *Modification of Section 73.182(q), Footnote 1, to Promote Improvement of Nighttime Service by AM Radio Stations by Eliminating the “Ratchet Clause,”* Petition for Rulemaking, RM-11560 (Aug. 25, 2009) (Petition).

to reduce electromagnetic radiation. Petition at 3. This usually causes stations to lose a substantial amount of interference-free nighttime service. *Id.* As a result, many AM stations forego opportunities to improve service, or must seek a waiver of the ratchet rule to minimize losses of nighttime service. Notice at ¶ 30.

The ratchet rule “hamstrings” AM licensees that want to improve their facilities. Crawford Comments at 5. In particular, the rule unfairly affects stations that must modify their facilities for reasons beyond their control, such as having to relocate a transmitter site due to losing a land lease.<sup>34</sup> Moreover, the impact of the rule is uneven. It typically harms the long-standing, clear channel stations because they have the largest coverage areas and lowest amount of nighttime interference, compared to newer stations that accepted existing levels of interference when they launched service. Petition at 3.

The net effect of the ratchet rule therefore is counterproductive.<sup>35</sup> Elimination of a rule that discourages improvements to AM service will serve the goal of the Notice. Given the numerous examples in the record of stations that have declined opportunities to enhance service because of the ratchet rule’s requirements, it is clear that removing the rule could benefit a sizeable number of AM broadcasters and their listeners. For these reasons, NAB supports eliminating the rule.

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<sup>34</sup> Comments of Clear Channel Communications, Inc., RM-11560 (Oct. 8, 2009), at 2.

<sup>35</sup> See Randy J. Stine, *Engineers Seek to Ditch AM “Ratchet Rule,”* Radio World (Oct. 9, 2009) available at <http://www.radioworld.com/article/engineers-seek-to-ditch-am-ratchet-clause/2036>.

## **E. Simplified Implementation of Modulation Dependent Carrier Level Control Technologies Should Be Permitted**

The Notice seeks comment on a proposal to facilitate wider implementation of Modulation Dependent Carrier Level (MDCL) control technologies. Notice at ¶ 32. MDCL is an automated transmitter control technology that varies a transmitter's power levels as a function of the modulation level. MDCL allows AM stations to reduce electrical power consumption without reducing audio signal quality or coverage of their authorized service areas. *Id.* With the use of MDCL, AM stations may be able to reduce their power bills by as much as 40 percent.<sup>36</sup>

Since September 2011, the Commission has permitted the use of MDCL either by a waiver of Section 73.1560(a) of the rules, or an experimental authorization under Section 73.1510 of the rules.<sup>37</sup> In the Notice, the Commission proposes to amend the rules to permit AM stations to use MDCL technology without prior Commission authority.<sup>38</sup>

NAB supports this approach. The Notice states that, to date, 46 AM stations have received permission to use MDCL control technologies. These stations have experienced substantial electrical power cost savings and reported no appreciable impact on signal quality or service area coverage. *Id.* at ¶¶ 34-35. Removing regulatory burdens on the deployment of MDCL, as proposed in the Notice, will allow more

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<sup>36</sup> Harry Cole, *Media Bureau Green Lights MDCL Technology for AM Stations*, CommLawBlog (Sep. 25, 2011), available at <http://www.commlawblog.com/2011/09/articles/broadcast/media-bureau-green-lights-mdcl-technology-for-am-stations/print.html>.

<sup>37</sup> *Media Bureau to Permit Use of Energy-Saving Transmitter Technology by AM Stations*, Public Notice, 26 FCC Rcd 12910 (MB 2011) (*MDCL Public Notice*).

<sup>38</sup> Stations would still be required to notify the Commission within ten days after commencing MDCL operations through the Consolidated Database System (CDBS). Notice at ¶ 35.

stations to reap the benefits of MDCL, and provide another tool for AM stations to improve their operational efficiency.

We also see no problems with the conditions proposed in the Notice on use of MDCL. The Commission intends to require that an AM station's transmitter must be able to achieve its full licensed power at some audio input level, or when MDCL is disabled. This will allow stations to distinguish between MDCL operations, which retain service coverage, and normal reductions in power levels, which do not preserve coverage. Notice at ¶ 35. Such data will also help stations determine the relative efficiency of MDCL technology, while retaining the ability to ascertain their regular service coverage.

Given the recent successful experience of a sizeable number of AM stations with MDCL technology, and subject to the reasonable conditions on use of MDCL proposed in the Notice, NAB supports the proposed simplification of the process for commencing MDCL operations. The savings on utility costs will offer stations an opportunity to reinvest in locally-oriented content and other programming that will retain and attract listeners.

### **III. The Commission Should Carefully Consider Certain Other Proposals Concerning AM Radio Broadcasting**

The proposals set forth in the Notice are not intended to be an exhaustive list of all possible methods for revitalizing AM radio service. Notice at ¶ 45. In this section, NAB discusses other issues relevant to the quality of AM service.

**All Digital AM Radio Service.** NAB Labs is an initiative of the National Association of Broadcasters which provides a platform for innovation, a venue for forging partnerships and testing new technology, and educational events to create

awareness about over-the-air radio and television technology initiatives. NAB Labs is engaged in a comprehensive test program designed to develop a performance record for all-digital AM operations.<sup>39</sup> Deployment of all-digital AM radio service would require a change to the Commission's rules, and this test program is intended to support future consideration of such a change.

In November and December 2012, a project team consisting of NAB Labs, CBS Radio and iBiquity conducted a preliminary field test of all-digital AM service using WBCN (1660 kHz), Charlotte, NC. During this test, the WBCN transmitter was calibrated for all-digital transmission and then daytime and nighttime digital coverage measurements were made for both indoor and outdoor reception. More recently, NAB Labs conducted all-digital AM testing on WBT (1110 kHz), also in Charlotte, and WNCT (1070 kHz), in Greenville, North Carolina.

NAB and the entire broadcasting industry appreciate the Commission's support for all-digital AM testing. The Commission has promptly reviewed and approved requests for Experimental Authority for these stations to interrupt their regular programming to participate in these tests. Commission staff has also offered informal, invaluable support and technical advice.

To date, all-digital AM testing has been a valuable endeavor. NAB Labs intends to continue to work on implementing an ongoing test program. We look forward to coordinating with Commission staff on next steps toward a possible all-digital AM radio service, should industry support such a transition.

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<sup>39</sup> See *All-Digital AM IBOC, Overview*, NAB Labs, available at <http://www.nablab.org/projects/project.asp?id=3157>.

**Enforcement of Environmental Interference.** As noted in the record, the noise floor for AM radio service has sharply increased in recent years.<sup>40</sup> AM radio signals are hindered by a variety of unintentional radiators, such as broadband internet over power lines (BPL), which is a major source of interference. Such power lines are designed to transport very low frequency alternating current (A.C.) electrical power. However, at higher RF frequencies, these power lines can function like a large antenna that radiates BPL signals, rather than contain them. Accordingly, BPL radiation causes harmful direct interference to AM radio signals.<sup>41</sup>

New high-tension power lines contribute to a disruptive noise floor, as do switching power supplies, compact fluorescent lights, and devices like thermostats. BWWG Comments at 3-4. Computers and other devices that employ microprocessors, which are connected to the infrastructure within homes and businesses, also radiate electromagnetic interference.<sup>42</sup> These are only a few of the sources that have degraded the AM radio broadcasting environment.

NAB supports increased Commission enforcement against such unintentional radiation. The Commission should carefully review the Part 15 rules and other policies, and where appropriate, inject more specificity into the rules to clarify that all such devices fall within the Commission's purview and more rigorously enforce violations of these rules. Although the radiation from light bulbs and computers is relatively low, the cumulative effect of such radiation, especially within close quarters like homes and businesses, can significantly impair AM radio signal quality.

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<sup>40</sup> See, e.g., Comments of the Broadcast Warning Working Group (BWWG), MB Docket No. 13-249, (filed Jan. 2, 2014), at 2-3.

<sup>41</sup> See, e.g., Comments of Burt I. Weiner, MB Docket No. 13-249, (filed Jan. 7, 2014), at 2.

<sup>42</sup> Crawford Comments at 2.

#### IV. Conclusion

For the reasons described above, NAB respectfully requests that the Commission modify its rules pertaining to AM radio service to effectuate certain technical and policy changes intended to enhance AM signal quality and help ensure the continued viability of AM radio broadcasting.

Respectfully submitted,

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