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

In the Matter of	)	
	)	
Promoting Diversification of Ownership in the Broadcasting Services	)	MB Docket No 07-294
	)	
2006 Quadrennial Regulatory Review – Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996	)	MB Docket No. 06-121
	)	
2002 Biennial Regulatory Review – Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996	)	MB Docket No. 02-277
	)	
Cross-Ownership of Broadcast Stations and Newspapers	)	MM Docket No. 01-235
	)	
Rules and Policies Concerning Multiple Ownership of Radio Broadcast Stations in Local Markets	)	MM Docket No. 01-317
	)	
Definition of Radio Markets	)	MM Docket No. 00-244
	)	
Ways to Further Section 257 Mandate and To Build on Earlier Studies	)	MB Docket No. 04-228

To: Office of the Secretary
Attention: The Commission

REPLY COMMENTS

BROADCAST MAXIMIZATION COMMITTEE

John J. Mullaney
Mark Lipp
Paul H. Reynolds
Bert Goldman
Joseph Davis, P.E.
Clarence Beverage
Laura Mizrahi
Lee Reynolds
Alex Welsh

SUMMARY

The Broadcast Maximization Committee ("BMC") offered a comprehensive proposal for the use of Channels 5 and 6 in Comments to the Commission's solicitation of such plans. BMC proposed to (1) relocate the LPFM service to a portion of this spectrum space; (2) expand the NCE service into the adjacent portion of this band; and (3) provide for the conversion and migration of all AM stations into the remaining portion of the band over an extended period of time and with digital transmissions only. In addition, BMC's plan may also offer frequencies for many existing grandfathered short spaced stations to achieve their intended coverage. BMC has undertaken a daunting and ambitious task but believes it is achievable. The benefits flowing to many diverse interests are enormous. LPFM stations will be able to operate free from interference to their limited signals, obtain major improvements, avoid fighting with FM translators over spectrum, resolve the 2nd and 3rd adjacent interference questions and allow the inclusion of many more new entrants and diverse applicants to this service. NCE stations will benefit from the expansion of its service and the location of this available space adjacent to the reserved portion of the FM band in order to provide local and specialized programming to diverse and underserved groups.

The greatest benefit will be conferred to the AM service. AM stations have long suffered economically from their inferior quality, unequal day and night service areas, interference from numerous man-made RF noise sources, constant detuning, mounting repair and maintenance costs, declines in value and uncertainty about the effectiveness of the digital mode of operation, among other things. The AM service is badly in need of modernization. Many small businesses, minority owners and new entrants operate AM

stations and offer local and news/talk programming. BMC has developed a plan to convert and provide for the migration over an extended period of time for all AM stations to operate in the Ch. 5/6 band in the digital mode.

The commenters did not have the opportunity to actually review BMC's proposal when they filed. Nevertheless most commenters support the use of Channels 5 and 6 for FM broadcasting in one form or another. Some suggest the use of this space for either LPFM or NCE use. No other commenters offer a comprehensive plan on the scale of BMC's proposal. It is expected that there will be support for the proposal in Reply Comments from many different segments of the broadcast industry. The only objections came from Channel 5 and 6 TV licensees and their representatives stating that any such proposals must await the completion of the DTV transition and that there may not be available channels for these stations. BMC agrees that these are legitimate concerns and has no expectation that its plan will be considered prior to Feb. 2009. In addition, BMC was able to identify alternate channels for every Channel 5 and 6 full service television station.

BMC recognizes that there will be policy determinations, priorities to be set, and international negotiations before its proposal can be implemented. However, BMC believes this reallocation of spectrum is achievable and will offer enormous benefits to many services. The Commission is urged to give serious consideration to BMC's proposal.

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To: Office of the Secretary
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REPLY COMMENTS

1. The Broadcast Maximization Committee ("BMC") offered a comprehensive proposal for the use of VHF TV Channels 5 and 6 for FM broadcasting in Comments to the *Third Further Notice of Proposed Rule Making* in the above referenced

proceedings.[1] Specifically, BMC suggested that Channels 5 and 6 (76-88 MHz) be used as follows:

1) relocate the low power FM ("LPFM") service to a portion of this band;

2) expand the noncommercial educational ("NCE") service into this band; and

3) reallocate all AM stations to the remaining available space in this spectrum over an expanded period of time with digital transmissions only.[2] .

2. In its Comments, BMC stated that it was initially concerned with the problems it anticipated from the proposed elimination of 2nd and 3rd adjacent channel spacings between full service FM and the LPFM service as well as the announcement that a new LPFM window filing period would follow. BMC is concerned with the difficulties presented with the Commission's sharing of the FM band arrangement and thought that the solicitation of comments for the FM use of Channels 5 and 6 offered an excellent opportunity to look for solutions. Not only would the spectrum between 76 and 88 MHz provide the needed space for the LPFM service but there would be enough room to expand the NCE reserved band in response to the large demand for stations expressed in the October 2007 filing window and the entire AM band could possibly be accommodated in this space with some effort. BMC undertook that effort and provided studies to demonstrate that it was possible to offer solutions. The benefits will be enormous for new entrants, diverse interests, and those desiring to provide local programming. Above all, the public benefits. BMC has no stake in the outcome and is

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[1] *See Report and Order and Third Further Notice of Proposed Rule Making,* FCC 07-217, rel. March 5, 2008, 23 FCC Rcd 5922 (2008).

[2] Although not specifically mentioned in the original proposal, many existing grandfathered short spaced FM stations could also relocate to this band.

not insisting on any particular proposal to accomplish these benefits. BMC offered its plan to demonstrate to the Commission that it is possible to efficiently use the 76-88 MHz space in a way that offers the maximum public benefit.

3. Several parties filed comments recognizing the enormous benefits flowing from these proposals for LPFM, NCE and AM and grandfathered short spaced stations. These parties appreciate that the proposal will enhance the Commission's localism, diversity and digital radio initiatives as well as having environmental benefits. Moreover, commenters agree that the proposal is designed to increase participation in the broadcast industry by new entrants and small businesses. BMC offers its reply comments with the precautionary qualification that most commenters did not actually review BMC's proposal prior to its actual filing With that in mind, BMC will attempt to respond to those that have commented thus far on the use of Channels 5 and 6 for FM broadcasting.

SUPPORTING COMMENTS

4. The Diversity and Competition Supporters ("DCS") were generally aware of the BMC proposal due to the previous filing by Mullaney Engineering, Inc. in MM Docket No. 87-268.[3] DCS described the proposal as being "the greatest proposal on the table anywhere to save radio."[4] DCS also states that the proposal "has the greatest potential to deliver economic power to minority owned media."[5] DCS acknowledges that the proposal must await the completion of the DTV transition but the "Commission

[3] Although the Commission rejected the proposal as having been filed too late to be considered in that proceeding, proposals for the use of Channels 5 and 6 were solicited the next day in the instant proceedings.

[4] DCS Comments at 24.

[5] *Id* at 23-24.

should begin thinking through a number of issues that may result from the AM/FM migration."[6] DCS closes its comments by stating that "[a]pproval and implementation of the [BMC] Plan should be the Commission's highest priority initiative to promote diversity."[7]

5. National Public Radio, Inc. ("NPR") strongly supports the reallocation of Channels 5 and 6 for FM broadcasting and specifically the adjacent spectrum to the NCE band for additional NCE use just as BMC has proposed under its plan. NPR notes the "voracious" demand for new radio stations and modification of existing facilities especially those that were restricted by the presence of nearby Channel 6 stations. NPR believes that the proposed use of Channels 5 and 6 will provide "opportunities for minorities and under-represented groups to construct or otherwise own radio stations."[8]

6. The Native Public Media and The National Federation of Community Broadcasters ("NPM/NFCB") state that they fully support the proposal to reallocate Channels 5 and 6 for FM broadcasting and "agree that it will create a 'staggering expansion of the existing FM band,' which could serve to enhance ownership diversity and new entry into the non-commercial broadcasting sector."[9] Common Frequency, Inc. supports the use of Channels 5 and 6 to expand noncommercial educational radio on a digital basis. It also suggests that Ch. 200 (87.9 MHz) could be opened up for NCE application upon the completion of the DTV transition and that Class D stations should also be able to migrate to this newly available spectrum. Charles Keiler also strongly

[6] *Id* at 25

[7] *Id* at 27.

[8] NPR Comments at 4.

[9] NPM/NFCB Comments at 10.

supports "the expansion of the FM radio spectrum by reallocating DTV Channels 5 and 6 for FM radio broadcast."[10] Keiler notes that in addition to commercial and noncommercial educational use, translators and LPFM services would also benefit. Keiler concludes that the expansion "could allow better representation of minorities, small communities and localities with more local originated programming."[11]

7. The Comments of Educational Media Foundation, *et al.* ("EMF") also propose the use of Channel 5 and 6 for FM broadcasting and in particular urge the exclusive use of the upper two channels for the LPFM service. The main motivation for the proposal is to avoid further conflicts with current and future translator operations. EMF's proposal concerns itself with the authorization of new LPFM stations. BMC would like to take this opportunity to clarify its own proposal and state that BMC is also primarily concerned with new, as opposed to existing, LPFM stations. In particular, BMC, and presumably, EMF anticipate that once the FCC announces a new filing window for new LPFM stations, the number of applications will be in the thousands.[12] In that regard, EMF has already filed a letter requesting that the Commission defer action on MM Docket 99-25 until this proceeding is resolved. BMC supports that idea and intends to file a similar letter in the LPFM proceeding.

8. As for existing LPFM stations, BMC understands and is sympathetic to the concern that there will be an expense involved in the relocation of any existing LPFM

[10] Keiler comments at 2.

[11] *Id* at 4.

[12] In MM Docket No. 99-25, the Commission received over 17,000 comments, most of which were filed by individuals/groups asking for the opportunity to file an application for a new LPFM station. Once the freeze on filing applications for new LPFM stations is lifted, a significant number of these interested parties can be expected to file applications. The Commission has stated that following the adoption of new rules in MM Docket No. 99-25, it intends to open a filing window for new LPFM stations.

stations to the Channel 5/6 spectrum. Thus, BMC wishes to clarify that there is no reason to displace existing LPFM stations that do not cause interference to any other stations entitled to protection. As LPFM stations become the cause of interference problems, the cost of such displacement to the Channel 5/6 spectrum could be borne by the station seeking to displace the existing LPFM stations. BMC does not intend to become further entangled into the details how this might work because it is premature at this early stage. There may be a gradual migration period with or without simulcasting or there may be no need for most existing stations to relocate at all. But suffice it to say that BMC is primarily focused on applications for new LPFM stations and has no desire to unnecessarily relocate existing LPFM stations. Nevertheless, BMC believes that many existing LPFM stations will prefer to relocate to this space where they will not be worried about displacement, especially if FM stations are able to achieve a 10 dB increase in digital power, where they could achieve much larger coverage areas and avoid constant battle over spectrum with full service stations as modifications occur.

9 The Reply Comments of Messer and Kobb focus on the use of the 26 MHz band rather than 76-88 MHz band (Channels 5 and 6) for LPFM and digital radio use. As indicated in the attached Engineering Statement, there are good reasons why the 26 MHz band is available. This spectrum has been subject to interference during periods of active skywave propagation (sunspot activity). This problem has hampered citizens band communications in the adjacent spectrum (27 MHz) and amateur radio (28-30 MHz) for years and is well known to those users. The proposed use of this band for LPFM and digital radio is unreliable and requires rather large, expensive, and complicated antenna systems (3 times the physical size of one at 90 MHz, for example). Furthermore, the

band has only 20 usable channels which is not nearly enough for BMC's plan which proposes the use of 117 channels.

10. Finally, Birach Broadcasting Corporation ("Birach") specifically references BMC's proposal in its Reply Comments and states that it strongly supports the concept of migrating AM stations to this VHF band. Birach notes that BMC's proposal offers "AM broadcast stations the opportunity to provide listeners with a superior signal and superior audio, equivalent or superior to that presently provided by FM broadcast stations. Furthermore, the proposal is environmentally friendly." [13]

OPPOSING COMMENTS

11. The opponents are primarily existing TV stations or their representatives who are opposed to any change to the current use of Channels 5 and 6 before the DTV transition is completed. ABC, Inc states that it has researched the availability of other channels for DTV operation and Channel 6 is the only one that works for WPVI-DT. ABC believes there are at least 20 other stations in this situation as well. In addition, the National Association of Broadcasters ("NAB") points to the problems of international coordination, protection of Class A, low power TV and TV translators that use these channels. The Association of Maximum Service Telecasters, Inc. ("MSTV") filed Comments expressing the same concerns. Withers Broadcasting Company of West Virginia ("WRC") states that it is operating on analog Channel 5 and digital Channel 6 and plans to operate on Channel 5 post transition. WRC asks who will pay for its expenses if ordered to change channels. WRC leaves open the possibility of allowing the mixed use of Channels 5 and 6 as long as it can continue to operate on Channel 5 after

[13] Birach Reply Comments at 2.

the transition is completed. Finally, Venture Technologies Group, LLC expresses concern for Class A and low power TV stations who may need to keep open these channels for future digital availability.

12. BMC understands the concerns expressed by the TV stations and their representatives and is sympathetic to the expenses that they may occur post transition. But BMC wants to make it clear that it never intended to impact the DTV transition and there is nothing in its proposal that should lead anyone to believe that BMC's plan was to take place prior to February, 2009. BMC fully expects it will take years for the Commission to institute and complete further administrative proceedings to consider the BMC plan and other similar plans that have been proposed. Should the Commission act favorably on any of these plans, BMC expects that it could take additional years to implement any such proposals. The Channel 5 and 6 TV stations have absolutely nothing to worry about pre-transition as far as BMC is concerned. As for post-transition, BMC has spent a considerable amount of time finding available channels for every full service Channel 5 and 6 station. The list was presented in BMC's Comments. Moreover the effects of ambient noise levels on the VHF channels make Channel 5 and 6 less desirable for DTV operation. Nevertheless, without the benefit of Replies from these parties, BMC hopes that the suggested alternate channels have lessened their concerns. There will, of course, be expenses involved in a channel change. But a large number of TV stations have already incurred such costs in the conversion to DTV operations.

13. As for Class A, low power television and TV translator stations affected by the proposed elimination of 76-88 MHz for television use, BMC expects to be able to find alternate channels available for most stations. At this time, BMC pledges to work

with the remaining Channel 5 and 6 licensees who are unable to find alternate channels to accommodate their stations.

14. The reality is that few television stations will be affected. When balanced against the thousands of LPFM, NCE and AM stations and their listeners that could benefit from the use of Channels 5 and 6, the mission of the Commission is clear. The public interest is better served by (1) allowing full service and LPFM stations to operate free of interference and avoid the numerous competitive filings in the next window and whenever a modification occurs resulting in displacement of an existing LPFM station; (2) expanding the NCE service to accommodate the "staggering number of applicants" for this service; and (3) providing the AM service viability, digital operation and a clear signal without the environmental noise influences. In addition, grandfathered short spaced FM stations could be provided better coverage and avoid devastating interference from IBOC operations of other adjacent nearby stations. Importantly, the public interest will be served by the entrance of small businesses and diverse interests with the prospect that local programming will more likely be emphasized.

CONCLUSION

15. The viability of the LPFM service is an important goal in providing local and specialized programming for underserved segments of the population. The Commission is heading in the wrong direction by proposing additional sharing of the FM band which leads to more interference, processing burdens and litigation among the affected stations. Instead the Commission should be looking for a long range solution by allowing the LPFM service to flourish in this newly available spectrum space. There will be more frequencies available for new entrants without the diminished signal caused by

sharing the FM band with full service broadcasters. The FM translator service will benefit by the increased availability of frequencies without having to compete for spectrum space with the LPFM interests. Several commenters have filed in support of using Channels 5 and 6 for this purpose and BMC expects that additional support will be filed in Reply Comments.

16. The Ch. 6 spectrum space is also perfect for an expansion of the reserved portion of the FM band below 87.9 MHz. The evident demand for new NCE stations certainly justifies allocating space for this service. The elimination of Ch. 6 stations will also offer nearby NCE stations an opportunity to expand their service. The NCE service promotes localism, offers programming for diverse interests and specialized formats for underserved listeners. The Commission should seize this opportunity to expand the NCE reserved portion of the band for the benefit of the listening public, of existing NCE stations and the considerable and widespread interest in new NCE service. NPR, among others, has expressed support for the expansion of the NCE band into this space. Additional support is expected in Reply Comments.

17. There should be no doubt that in 2008, the AM service is long overdue for modernization. For many decades the AM service has fallen behind technically and economically to other radio services. AM stations must compete against much more technologically modern media which are far less regulated and in some cases, like satellite radio, are able to achieve regulatory concessions. On the other hand, AM stations are hampered by outdate regulations such as expensive proofs where other options exist. Such regulations are particularly oppressive to small businesses and minority broadcasters who populate the AM service. They would greatly benefit from

FM broadcasting with a highly robust digital signal, the elimination of various man-made RF noise sources and extra towers. The environmental benefits of these improvements alone warrant serious consideration by the Commission. The proliferation of man-made RF noise sources, maintenance and repair costs declining values and uncertain digital operation are just the latest problem affecting the quality and viability of this service. AM stations have so many obstacles to overcome and offering these stations FM translators hardly gives the licensees and the listening public the relief and help it needs. Innovative ideas are needed. AM stations still have much to offer. Most news/talk, foreign language and other local and diverse program formats are found in the AM service. The great majority of minority owned stations are AM facilities. BMC believes it has a viable plan for the wholesale conversion of the AM service into the remaining portion of the Ch.5/6 spectrum. Under this plan, AM stations can solve the current digital problems they are experiencing, especially at night. They can benefit from the additional channel streams like other FM stations and they can avoid the interference problems that will characterize the dual analog/digital operations in the FM band during the indeterminate period of transition to full digital operation. Above all, AM stations can become competitive, financially viable and immediately have some hope for better days.

18. Many FM stations operate with grandfathered short spacing through no fault of their own. As a result, those stations operate with inferior coverage for their class and prohibited contour overlap which is particularly harmful in a digital IBOC environment. Use of this spectrum will enable these stations to achieve interference free service as was originally envisioned with digital quality.

19. BMC has made an effort to find UHF channels for nearly all of the remaining Ch. 5/6 stations. There are some TV stations that would prefer to remain on their current channels. There are station owners who balk at the expense involved in changing channels. However the Commission has presented the public with a once in a lifetime opportunity to confer so many benefits to so many diverse interests. BMC urges the Commission to seriously consider its proposal and institute further proceedings as necessary.

Respectfully submitted,

BROADCAST MAXIMIZATION COMMITTEE

_____/s/_____
John J. Mullaney
Mark Lipp
Paul H. Reynolds
Bert Goldman
Joseph Davis, P.E.
Clarence Beverage
Laura Mizrahi
Lee Reynolds
Alex Welsh

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ENGINEERING STATEMENT

IN SUPPORT OF THE REPLY COMMENTS TO

RADIO BROADCAST EXPANSION IN VHF TV CHANNELS 5 & 6

PREPARED AND SUBMITTED BY

THE BROADCAST MAXIMIZATION COMMITTEE

AUGUST 2008

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ENGINEERING STATEMENT

IN SUPPORT OF THE REPLY COMMENTS TO

RADIO BROADCAST EXPANSION IN VHF TV CHANNELS 5 & 6

PREPARED AND SUBMITTED BY

THE BROADCAST MAXIMIZATION COMMITTEE

AUGUST 2008

Comments

Addressing LPFM Concerns

The concerns of current and hopeful future LPFM station owners regarding the ultimate proposal to be adopted with respect to the Ch 5/6 band are not lost on the BMC, and it is the desire of the Committee to attempt to address some of these concerns, both expressed and anticipated, in these Reply Comments.

1. A number of LPFM proponents, while in favor of the proposal with respect to the reallocation of the Ch. 5/6 TV spectrum, have indicated their opposition to a forced move from the current FM band to the Ch. 5/6 band as conceptualized in the BMC Comments in this proceeding. While this resistance is understandable on one level (specifically, the financial ramifications of a frequency move from an equipment cost standpoint) the BMC strongly believes that the benefits of a move at such time as the Ch. 5/6 band begins to be populated will ultimately far outweigh the associated cost factor. The simple fact is that, at some point in the future, most stations will go digital and LPFMs on the existing FM band will spend the same amount of money at that time for very little digital coverage compared to what is proposed for such stations in the Ch. 5/6 band. Additionally, the coverage gains are substantial over the present LPFM coverage area as the Class A-X service area is slightly greater than that of a current Class A, 6 kW at 100 meters HAAT FM station 60 dBu, F(50,50) contour.

2. Perhaps a way to help mitigate the initial financial burden would be to phase in the LPFM station migration over a period of time, maybe 3 – 5 years, while permitting LPFM stations to simulcast for the first year on both channels during this transition period. Another approach may be, at the option of the FCC, to allow existing LPFMs, or those that fully meet the appropriate protections (including 2nd and 3rd adjacent spacing requirements to full service and FM translator facilities) to remain on the current band under their existing secondary service status.

3. The BMC, in its initial Comments in this proceeding, proposed to afford all LPFM stations an opportunity for use of 100 kHz bandwidth and digital transmission, with a LPFM transmission facility having an ERP of 0.3 kW and a HAAT of 100 meters (new Class A-X) with coverage essentially equivalent to today's 6 kW Class A facilities.

The BMC believes that this proposal, or one similar to it, is a far better solution than to have LPFM stations continue to operate on the 2nd & 3rd adjacent channels of full service facilities, from both service's perspectives. On the LPFM side, their service areas will be significantly enhanced, as well as protected, and no longer subject to interference from the larger, more powerful, full service stations. An early transition to the Ch. 5/6 band will be important for LPFMs, as once the new band is filled, these stations could be precluded from migrating in the future. And, as far as the full service stations go, they will no longer be hamstrung by the recent initiation of new protection requirements to LPFM facilities,

thereby restricting their ability to enhance or improve coverage area and, in some cases, even implement minor required site changes.

The fact of the matter is that, with the further relaxing of interference standards for LPFM stations, interference will occur to not only full service broadcasters, but to LPFMs who will find that their coverage, when they sign on, is dramatically reduced by interference *from* full-power broadcasters to the point of placing LPFM facilities in the unenviable position of being unable to serve the public which they set out to serve. Splatter from digital emissions will create additional real world interference problems for LPFM stations in the existing band due to their relatively low power levels and the current analog transmission, with the net result being an increase in the overall noise on the FM band. Ultimately, the transition to HD may be stifled. It is the consensus of the BMC that its proposal, or a similar one, is required in order to alleviate these ultimate interference concerns.

II. Recommended Filing Freeze on TV Channels 5 and 6

BMC recommends that the Commission immediately adopt a freeze regarding applications and rule making petitions to employ television Channels 5 and 6 pending the outcome of the proposal to reallocate Channels 5 and 6 to radio services. The freeze should apply to full power analog and digital television stations, as well as to analog and digital Low Power Television ("LPTV"), Class A Television, and Television Translator stations. The freeze will help to avoid affecting any additional television facilities beyond those currently authorized on Channels 5 and 6, should the radio expansion service proposal be adopted in some form.

The Commission has previously utilized "freeze" actions to stabilize channels pending allocation proceedings. For example, on August 3, 2004, a channel change and service area expansion freeze[1] was enacted regarding full power and Class A television stations to provide a stable allocation landscape for the development of final digital television channel assignments. That freeze has only recently been lifted in part.[2] One of the Commission's first actions in the digital television proceeding was to place a freeze on the acceptance of construction permit applications for vacant television channels and rule making petitions for changes to the Television Table of Allotments concerning the regions near 30 heavily populated markets.[3]

Even ignoring the proposal to expand radio service, the Commission has not fully addressed the relationship between digital television operations on Channel 6 (82-88 MHz) and the adjacent existing FM radio service (88-108 MHz). In MM Docket 87-268, the Commission has stated that interference protection by FM stations to digital television Channel 6 operations can be achieved by employing the existing protection criteria in §73.525.[4] Those criteria were developed specifically for protection of analog television stations, where the protected TV contour (Grade B) is 47 dBμ F(50,50). The digital TV protected contour for Channel 6 is 28 dBμ, and the undesired to desired protection ratios specified in §73.525 do not consider protected signal levels that low (see §73.599 Figures 1 and 2). Thus it is unclear exactly how new digital TV stations should be protected by FM proposals.

Further, it is also likely that new digital television stations could cause interference to existing FM stations. The digital television emission mask specified in §73.622(h)(1) provides for emissions within 500 kHz of the TV channel band's edge to be only 47 dB reduced from the average transmitted power within the TV channel. This emission could easily impact nearby existing FM stations operating on

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[1]Public Notice *"Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes,"* DA 04-2446, released August 3, 2004.

[2]Public Notice *"Commission Lifts the Freeze On the Filing of Maximization Applications and Petitions for Digital Channel Substitutions, Effective Immediately"* DA 08-1213, released May 30, 2008. Public Notice *"Commission Lifts the Freeze On the Filing of Certain Class A Television Applications Effective August 4, 2008"* DA 08-1644, released July 14, 2008.

[3]Order *"Advanced Television Systems and Their Impact on the Existing Television Broadcast Service"* RM-5811, Mimeo 4074, released July 17, 1987.

[4]Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order, *"Advanced Television Systems and Their Impact on the Existing Television Broadcast Service"* MM Docket 87-268, FCC 98-24, released February 23, 1998, at para. 45.

Channels 201, 202, or 203 (88.1, 88.3, 88.5 MHz). The Commission evidently agrees that some interference could occur, "particularly where the FM station operates significantly below 3 kW".[5] The Commission has not released any criteria for protection of existing FM stations by DTV operations on Channel 6, only stating that such proposals would be considered on a case-by-case basis and should contain an engineering study showing protection to FM stations. Absent a specific procedure for evaluating the potential for interference, such a "case-by-case" process will undoubtedly lead to disputes between FM and DTV stations as to whether interference might occur.

Additionally, Class A, LPTV, and television translator stations may now be authorized for digital operation. These stations, if operated on Channel 6, can also create interference to adjacent band FM stations. In review of some construction permit applications for digital Channel 6, it appears that the Commission is not requiring these stations to provide an engineering exhibit showing interference protection to nearby FM stations.[6]

Even if the radio expansion proposal is not adopted, the filing freeze will provide opportunity to develop suitable interference protection standards between FM stations and digital television operations on Channel 6.

Finally, once full power stations vacate their analog operations on Channel 6, it is expected that many FM stations will seek facility modifications where they have currently been restricted by protection of television Channel 6 stations. The Commission's staff has recently dismissed many FM construction permit applications that sought modifications premised upon analog television Channel 6 stations vacating their channels.[7] The proposed Channel 5 and 6 freeze would also serve to allow FM stations opportunity to modify their facilities without conflict with simultaneously filed television proposals at the digital television transition date (February 17, 2009).

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[5]Ibid.

[6]For example, see BMPDVL-20070925AEC (WNYZ-LP New York, NY), BDCCDTL-20061005ABD (KVPX-LP, Las Vegas, NV), and BDFCDVL-20070925AJU (W06AY, Lebanon, KY). The applications underlying these Construction Permits for digital operation on Channel 6 do not include any discussion of protection to nearby FM stations. Many other construction permits for digital Channel 6 facilities have been granted; these were examined at random.

[7]For example, see DA 08-626.

BROADCAST MAXIMIZATION COMMITTEE REPLY COMMENTS CONCERNING

REPLY COMMENTS OF H. DONALD MESSER AND BENNETT Z. KOBB

The Reply comments filed by H. Donald Messer and Bennett Z. Kobb ("Messer/Kobb") have been reviewed and are summarized herein. Messer/Kobb propose "FM-like" service, at low power levels, in the 25.67 MHz to 26.1 MHz band on what is described as approximately 20 usable channels. Messer/Kobb acknowledge the presence of skywave propagation in this frequency band as a source of interference but indicate that the interference can be mitigated at the first hop with custom antennas. The 26 MHz band is described as unused to the extent that many HF receivers do not include provision for listening to this band.

The Broadcast Maximization Committee ("BMC") applauds this creative use of empty spectrum but suggests that the spectrum is empty for a very practical reason. The Messer/Kobb proposed 26 MHz band is just below the Citizens Band ("CB") located in the 26.965 MHz to 27.405 MHz range. This band has been subject to long distance skywave propagation, and attendant interference, during times of active skywave propagation. FCC Rule 95.413(a)(9) was implemented to prohibit CB operators from communicating with other CB operators more than 250 kM away (communications relying on skywave propagation) since this "skip" communication disrupts normal, local, use of the CB frequencies. The 26 MHz band is below the amateur radio 10 meter band located between 28-30 MHz. Even today, at the lowest point of sunspot activity between cycles 23 and 24, amateur radio operators are reporting regular, long distance, skip communications in the 28-30 MHz band[1]. This enhanced propagation of signals may result in interference to regularly received signals at distances of 1200 to 1800 miles from the transmitter site making this band a poor choice for long term, dependable, public broadcast service.

Skywave propagation, also referred to as skip, is any of the modes that rely on reflection of radio waves in the ionosphere which is made up of one or more ionized layers in the upper atmosphere. The F layer is the most important layer in the ionosphere for HF propagation although E and D-layers also play some role. These layers are directly affected by the sun on a daily cycle, the seasons and the 11-year sunspot cycle which determines the utility of these modes. During solar maxima, the entire HF range up to 30 MHz can be used and F layer propagation is observed frequently depending upon daily solar flux values. During solar minima, propagation of higher frequencies is generally worse. Forecasting of skywave modes is of considerable interest to amateur radio operators, commercial marine and aircraft communications, and also to shortwave broadcasters.

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[1] American Radio Relay League, Propagation Forecast Bulletin 35 ARLP035, "Tony Dixon, G4CJC produces a weekly report on the ten meter band,
including calls heard, at http://www.southgatearc.org/bands/10metres/. **Even at the bottom of the cycle, there is still propagation on 10 meters, although it tends to be sporadic-E skip, rather than F layer propagation we see when there are more sunspots**." Emphasis added

The description of skywave propagation above, and the fact that skywave propagation has a significant impact on signal levels in the HF spectrum of which the 26 MHz band is a part, can be seen in the FCC Rules established for international, short wave, broadcasting. FCC Rule Section 73.701 provides definitions for the International Broadcast service operating in the frequency range of 5.9 to 26.1 MHz. This rule section describes terms such as sunspot number, optimum working frequency and zone of reception, all of which require a detailed understanding of ionospheric skywave propagation and how signal levels change by season, time in the sunspot cycle and time of day.

BMC notes that its proposal to create 117 new channels, in the TV Channel 5 and 6 spectrum, for use by LPFM, NCE FM, grandfathered short spaced stations and AM Migration is designed to satisfy broad public interest needs for thousands of broadcast facilities. This level of activity is believed necessary to generate interest and excitement of significant magnitude that receiver manufacturing and purchase will flourish and the ability to receive these signals will be incorporated in not only radio receivers but cell phone, computers and numerous other devices. The Messer/Kobb proposal to implement only 20 channels, in a questionable part of the radio spectrum, requiring relatively large, expensive and complicated antenna systems (an antenna system for 30 MHz is 3 times the physical size of one at 90 MHz for the same gain and electrical characteristics), does not appear to be an attractive solution to either broadcasters or receiver manufacturers.

BMC Reply Comments – Digital Technology Availability

Digital Technology Availability

The BMC has been in communication with both the Digital Radio Mondiale Consortium ("DRM") and iBiquity Digital Corporation ("iBiquity") to assess their ability to provide digital only transmission technology which will fit within the 100 kHz proposed channel width and provide for multiple, CD quality program channels and/or ancillary data transmission.

Although iBiquity has not endorsed or opposed the BMC proposal, iBiquity has authorized BMC to state the BMC proposal is consistent with the design of the HD Radio™ system. If the Commission were to accept the BMC proposal, iBiquity has confirmed it is likely that any conforming changes to the HD Radio system could be provided in a matter of months, not years, should the demand exist. iBiquity is well known to U.S. broadcasters as the inventor and licensor of HD Radio technology. The iBiquity HD system is authorized by the FCC in the United States and, based on iBiquity provided research, is currently in use at over 1,800 radio stations. The iBiquity HD system has been tested, and is involved in ongoing evaluation for purposes of adoption, in more than a dozen countries internationally.

In 2005, the DRM Consortium decided to extend the DRM system under the project name DRM+ to operate in all the broadcasting bands below 120 MHz. This range includes:

- 47 MHz to 68 MHz (Band I) allocated to analogue television broadcasting;
- 65.8 MHz to 74 MHz (OIRT FM band)
- 76 MHz to 90 MHz (Japanese FM band)
- 87.5 MHz to 107.9 MHz (Band II) allocated to FM radio broadcasting.

DRM+ has a narrow bandwidth and is designed to fit in the FM broadcast band plan and a frequency grid of 100 kHz. Its small spectrum needs supports its use in crowded bands. The high commonality with the existing DRM standard allows easy and fast equipment implementation. DRM+ provides bit rates from 35 kbps to 185 kbps and, like DRM, permits up to four services. It is therefore a flexible solution allowing single or small numbers of audio services to be broadcast together. Before standardization as a revision to the existing DRM System specification, ETSI ES 201 980, the Consortium's members will test and verify the design with both laboratory and field based tests. These are currently underway in Germany - the authorities in Hanover/Lower Saxony and Kaiserslautern/Rhineland-Palatinate have provided test licenses.

V. Conclusion

The Broadcast Maximization Committee recognizes the concerns some LPFM broadcasters have regarding the Ch 5/6 band and believes solutions exist to mitigate these concerns. The fact remains that, in the current FM band, interference standards are being increasingly relaxed. Coupled with the inevitable move to digital transmission, LPFMs will find it difficult to remain a viable local service. BMC urges the Commission to consider its proposal as a way to preserve and improve LPFM service.

While BMC's proposal is not the only idea available to LPFM broadcasters, BMC believes it is a more attractive plan. By offering 117 new channels, the proposal also provides expansion opportunities to NCEs, grandfathered short spaced FMs, and AMs without requiring the creation of large, expensive and complicated antenna systems.

Should the Commission adopt all or part of the BMC proposal, new allocation procedures will be required. To alleviate some of the confusion associated with a restructuring of Channels 5 & 6, BMC recommends a freeze on television facility applications and rule making petitions to employ Channels 5 and 6. In addition, BMC believes a freeze is necessary to aid in further evaluation of the interference relationships between new digital television services and existing analog services in the adjacent FM channels.

BMC believes that by providing opportunities to thousands of new and existing broadcasters there will be significant new content and excitement generated in the use of the Ch 5/6 band. This level of activity is vital in generating incentive for receiver manufacturing and consumer interest. BMC notes that its proposal is consistent with two popular digital standard designs already in extensive testing and adoption phases. This adaptability to currently available standards greatly eases a transition to an expanded band. Consumers will be more familiar with the technology and receiver manufacturers will be able to easily adapt their models with minimal expense.

Respectfully submitted,

BROADCAST MAXIMIZATION COMMITTEE