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

In the Matter of the Applications of MARYLAND PUBLIC BROADCASTING COMMISSION For Fixed Point-to-Point Microwave Licenses in the Microwave Industrial/Business Radio Pool	)	File Nos. 0002114893-0002114895, 0002116657-0002116666

MEMORANDUM OPINION AND ORDER

Adopted: February 21, 2006 **Released: February 21, 2006**

By the Deputy Chief, Broadband Division, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. In this *Memorandum Opinion and Order*, we address the Maryland Public Broadcasting Commission's (MPBC) request for waivers[1] of Sections 101.109(c), 101.147(l)(7), and 101.603(a)(7) of the Commission's Rules[2] with respect to MPBC's applications for fixed point-to-point microwave licenses in the Microwave Industrial/Business Pool in Maryland. For the reasons stated below, we grant MPBC's request.

II. BACKGROUND

2. MPBC is the licensee of six UHF television broadcast stations in the State of Maryland.[3] MPBC has, since its inception, relied upon a commercial common carrier system to deliver television programming to its television transmitters across the state.[4] The carrier was eventually bought out by Worldcom, and ultimately discontinued service as a result of that company's bankruptcy.[5] MPBC states that it is currently using a "makeshift" system to deliver programming to its authorized satellite broadcast stations across the state, but, in the long run, this is neither technically advisable nor economically feasible.[6] MPBC has therefore initiated a program to design and build a statewide microwave system to

[1] *See* Engineering Statement accompanying Application for License in the Microwave Industrial/Business Pool by Maryland Public Broadcasting Commission (filed Apr. 5, 2005) (Engineering Statement). *See also* Public Notice, Wireless Telecommunications Bureau Site-by-Site Accepted for Filing, Report No. 2119 (rel. Apr. 13, 2005).

[2] 47 C.F.R. §§ 101.109(c), 101.147(l)(7), 101.603(a)(7).

[3] Engineering Statement at 1.

[4] *Id.*

[5] *Id.*

[6] *Id.*

carry both MPBC's current analog and digital programming, and critical statewide services.[7] The system consists of 21 paths serving 14 sites across the state.[8] Four proposed terminating paths – Dayton to Route I-270, Dayton to Crownsville, Vienna to Salisbury, and Thayerville to Eagle Rock[9] -- will be carrying both TV programming for their respective station TV transmitters and data for various Maryland state agencies. Section 101.603(a)(7) of the Commission's Rules[10] prohibits microwave links to be used as the final RF link in the chain of distribution of program material in connection with broadcasting. Accordingly, MPBC seeks a waiver of this rule with respect to these paths. MPBC also seeks a waiver of Sections 101.109(c) and 101.147(l)(7) of the Commission's Rules,[11] which limits the maximum allowed bandwidth in the upper 6 GHz band to 10 MHz. With regard to proposed paths between Crownsville and Matapeake – one in each direction,[12] MPBC seeks a waiver so that it may use 30 MHz bandwidth on those paths.

3. Waiver of Section 101.603(a)(7). Because four terminating paths – Dayton to Route I-270, Dayton to Crownsville, Vienna to Salisbury, and Thayerville to Eagle Rock -- will be carrying television programming for their respective television station transmitters, MPBC requests a waiver of Section 101.603(a)(7) of the Commission's Rules,[13] which would otherwise prohibit such program carriage on terminating paths. MPBC submits an Engineering Statement from the firm of Lieberman & Walisko in support of MPBC's requested waiver. During the course of preparing engineering studies, MPBC learned that various other state agencies were planning a statewide microwave network to serve the needs of Maryland.[14] MPBC further states that, during ensuing meetings, MPBC and the relevant state agencies determined that the State of Maryland could benefit significantly if the needs of the various state agencies were incorporated into one microwave system.[15] Most importantly, combining the various state agencies into a single microwave system would hasten by almost two years the expansion of coverage for critical state services, including the Maryland Institute for Medical Emergency Services Systems and the Maryland Emergency Management Agency, the state agencies responsible for emergency 911 calls.[16] MPBC states that it plans to utilize buried fiber optic cable as much as possible in order to reduce the demand for microwave frequencies.[17] The use of the fiber optic cable will extend from the I-270 Southbound Truck Stop, which is also the transmitter site for WFPT, to a relay site called Keysers Ridge.[18] MPBC states that, when completed, the system will provide high speed 145 megabit bi-directional data paths from one end of Maryland to the other, and will also allow MPBC to deliver its digital programming – not only entertainment but also expanded educational programming – to five UHF

[7] *Id.* at 1-2.

[8] *See* Engineering Statement Figure 1.

[9] File Nos. 0002116663 [Dayton paths], 0002114894 [Vienna to Salisbury path], and 002116657 [Thayerville to Eagle Rock path].

[10] 47 C.F.R. § 101.603(a)(7).

[11] 47 C.F.R. §§ 101.109(c) and 101.147(l)(7).

[12] File Nos. 0002114893 [Matapeake to Crownsville path] and 0002116664 [Crownsville to Matapeake path].

[13] 47 C.F.R. § 101.603(a)(7).

[14] Engineering Statement at 1-2.

[15] *Id.* at 2.

[16] *Id.* The other state agencies that will share in this system are the Maryland State Highway Department, the Maryland Department of Natural Resources, the Maryland State Police, the Maryland Department of Health and Mental Hygiene, and the Maryland Mass Transit Administration. *Id.* at 4.

[17] *Id.* at 2.

[18] *Id.* at 3 and Figure 1.

television transmitters from MPBC's main studio and to a sixth UHF television station in Owings Mills, Maryland.[19] MPBC also has designed the system with capacity to enable MPBC's mobile electronic news gathering truck to transmit live back to the Owings Mills master control via any of the five UHF broadcast sites.[20] MPBC states that a microwave link between the State House in Annapolis and the WMPT transmitter site in Crownsville will provide important emergency communications links from the State Capitol to other state agencies.[21]

4. Waiver of Sections 101.109(c) and 101.147(l)(7). MPBC requests 30 MHz of bandwidth in the instant application. MPBC will use 10 MHz for the path between Crownsville and Matapeake, and the other state agencies will use the remaining 20 MHz.[22] MPBC further states that during the design of the system, attempts were made to employ frequencies in the 11 GHz band, which include 30 and 40 MHz bandwidth channels,[23] but that in all but two cases,[24] the distances between sites were so long as to render service unreliable in any frequency band other than 6 GHz.[25] MPBC submits analyses of five paths to demonstrate that the use of 11 GHz would create unacceptable reliability values.[26] MPBC also submits a statement from the frequency coordinator, Douglas Erbeck, Principal Engineer, Microwave and Satellite Services for Comsearch, who states that path reliability would not meet industry standards were 11 GHz channels to be used.[27] With reference to the paths between Crownsville and Matapeake, MPBC conducted a search of the 6 GHz band and determined that only frequencies at 6695.00 and 6855.00 MHz were available.[28] Because these frequencies permit a bandwidth of only 10 MHz, MPBC requests waivers of Sections 101.109(c) and 101.147(l)(7) of the Commission's Rules[29] in order to use 30 MHz bandwidth on these two frequencies.[30] MPBC notes that Mr. Erbeck's statement confirms that no other frequencies are available.[31] MPBC submits a showing, pursuant to Section 101.103(d) of the Commission's Rules,[32] that the frequencies requested have been properly coordinated and that there are no unresolved interference objections.[33]

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[19] *Id.* at 3.

[20] *Id.* at 3 and Figure 1.

[21] *Id.* at 3-4. MPBC notes overall cost savings as well. *But cf.* n. 45, *infra*.

[22] *Id.* at 4.

[23] *See* 47 C.F.R. §§ 101.109(c), 101.147(o)(6) and (7).

[24] These are the hop between the Hagerstown State Highway Administration site and the Clear Springs transmitter site (WWPB) [File Nos. 0002116659 and 0002116660] and the hop between the State House and the Crownsville transmitter site (WMPT) [File Nos. 0002114895 and 0002116664]. *Id.*

[25] Engineering Statement at 4-5. MPBC states that the attempted use of 18,000 or 23,000 MHz would only have exacerbated the reliability factor and was not considered. Engineering Statement at 7.

[26] Engineering Statement at 5 and Exhibits 2-6. The 11 GHz paths in question show 99.987129% to 99.998858% reliability.

[27] *Id.* at 5 and Exhibit 7.

[28] *Id.* at 6.

[29] 47 C.F.R. §§ 101.109(c), 101.147(l)(7).

[30] Engineering Statement at 6-7.

[31] Engineering Statement at 6 and Exhibit 7.

[32] 47 C.F.R. § 101.103(d).

[33] Engineering Statement at 7 and Exhibit 8.

III. DISCUSSION

5. Pursuant to Section 1.925 of the Commission's Rules, we may grant a waiver if it is shown that either: (1) the underlying purpose of the rule would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (2) in view of unique or unusual factual circumstances of the instant case, application of the rule would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.[34] Based on the record before us, we conclude that MPBC has made the requisite showing that grant of the requested waivers would be in the public interest.

6. MPBC argues that strict application of the rules in question would be contrary to the public interest, as it would add nearly two years to the time that these services would be available.[35] MPBC contends that no reasonable alternative exists which would allow the State of Maryland to serve all of its support agencies with timely, compatible implementation of microwave interconnected services.[36]

7. The Part 101 rules were simplified and streamlined to "encourage more efficient use of the microwave spectrum by permitting more intensive use of microwave equipment,"[37] and to "lead to economies of scale in microwave equipment production and lower equipment prices to licensees."[38] MPBC has shown that its proposed design would advance by nearly two years the provision of 911 and other emergency services to the State of Maryland. We further find that MPBC has established that no reasonable alternative exists to its use of frequencies in the 6 GHz band. The engineering analyses of the paths submitted by MPBC demonstrate that path reliability in the 11 GHz band does not meet industry standards.[39] At the same time, MPBC has demonstrated that in the 6 GHz band, only the frequencies at 6695.00 MHz and 6855.00 MHz are available to MPBC.[40] We conclude, in view of the foregoing, that, pursuant to Section 1.925(b)(3)(ii) of the Commission's Rules,[41] that grant of the waivers would be in the public interest. Accordingly, we believe that MPBC should be granted a waiver of Sections 101.109(c), 101.147(l)(7), and 101.603(a)(7)[42] of the Commission's Rules.[43]

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[34] 47 C.F.R. § 1.925(b)(3).

[35] Engineering Statement at 8.

[36] *Id.* at 8-9.

[37] *Report and Order*, WT Docket No. 94-148, CC Docket No. 93-2, and RM-7861, 11 FCC Rcd 13449, 13452 (1996).

[38] *Id.* at 13453. The simplified and streamlined rules also reduced regulatory burdens, benefiting both the public and the Commission. *Id.* at 13452.

[39] *See* n. 26, *supra*. The typical objective for a high capacity microwave system, particularly one carrying public safety traffic, is 99.999%.

[40] *See* Engineering Statement at 6.

[41] 47 C.F.R. § 1.925(b)(3)(ii).

[42] 47 C.F.R. §§ 101.109(c), 101.147(l)(7), 101.603(a)(7).

[43] *See, e.g.,* Transmissions Holdings, Inc., *Order*, 14 FCC Rcd 3769 (WTB 1999). In granting this waiver, we do not rely upon MPBC's arguments regarding cost savings. MPBC has not demonstrated that it is impossible for the State of Maryland to meet the higher costs that the State of Maryland would incur absent grant of the requested waivers. *See* Mississippi Authority for Educational Television, *Memorandum Opinion and Order*, 14 FCC Rcd 7172, 7175 (WTB PSPWD 1999).

III. CONCLUSION AND ORDERING CLAUSES

8. Accordingly IT IS ORDERED that pursuant to Sections 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Section 1.925 of the Commission's Rules, 47 C.F.R. § 1.925, the waiver requests filed by Maryland Public Broadcasting Commission on April 5, 2005 ARE GRANTED.

9. IT IS FURTHER ORDERED that the licensing staff of the Broadband Division SHALL PROCESS MPBC's pending applications, File Nos. 0002114893-0002114895 and 0002116657-0002116666, in accordance with this *Memorandum Opinion and Order* and the applicable Commission Rules.

10. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

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