

Alan W. Jurison
4716 Woodbridge Drive
Manlius, NY 13104
February 19, 2000

Magalie Roman Salas
Office of the Secretary, TW-A306
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

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FEB 22 2000

FCC MAIL ROOM

Re: **Petition for Reconsideration**

Creation of a Low Power Radio Service
MM Docket No. 99-25

RM-9208

RM-9242

Dear Ms. Salas:

I have enclosed an original and ten copies of my formal Petition for Reconsideration in response to the Commission's *Report and Order* in the above captioned proceedings.

Please contact the undersigned if any questions should arise.

Respectfully Submitted,



Alan W. Jurison

Enclosures

No. of Copies rec'd DKD
List A B C D E

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

In the Matter of)
)
)
Creation of a Low)
Power Radio Service)
)
)

MM Docket No. 99-25

RM-9208

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February 19, 2000

PETITION FOR RECONSIDERATION

Pursuant to Section 1.429 of the Commission's rules and regulations, I, Alan W. Jurison am filing this Petition for Reconsideration ("Petition") in response to the Report and Order ("Order") released January 27, 2000 by the Commission, proposing Low Power FM ("LPFM") services on the FM Broadcast Band. For the record, I filed formal comments in this matter on July 19, 1999 ("Comments").

I. Personal Background

I, Alan W. Jurison, have been involved in the technical aspect of the broadcast industry for five and a half years. I have prepared or helped prepare engineering applications before the Commission for the purposes of updating and upgrading, of both FM and AM broadcast stations in the Northeast. In addition to the preparation of applications, I have physically installed, upgraded and/or maintained broadcast facilities and related systems.

Currently I am a Chief Operator of six broadcast stations in Central New York State and involved in the technical aspects of eight stations in the state of Maine. I am also a member of the Society of Broadcast Engineers (SBE) and Coordinator for the Emergency Alert System ("EAS") for Cortland County, New York. Additionally, I am involved in EAS operations within the Central New York State, and have had input to both the state and national plans. I have held an Amateur Radio License for eight years, and have been a member of the American Radio Relay League (ARRL) for seven years.

II. Nature of Petition

In my comprehensive sixteen-page filing with the Commission, I asserted my opinion that the Commission should not initiate any new service classes on the FM broadcast band at this time. Additionally, my comments included many suggestions to the Commission should it decide to implement LPFM services.

The Commission, through its Order, decided to authorize a series of 100-watt ("LP100") and 10-watt ("LP10") low-power FM broadcast stations. While I oppose the creation of LPFM services, I do accept that because of intense pressure LPFM will most likely become a reality. In my opinion, the Commission did a relatively good job bridging the gap between both supporters and adversaries of LPFM.

This Petition seeks not to reverse the Commission's decision, but to point out and hopefully correct potential oversights before LPFM service is initiated. I have spent a considerable amount of time analyzing the Commission's proposals and have found issues that need to be addressed before implementation of this service. Once issues in this Petition are resolved LPFM could, in my opinion, co-exist with existing FM services.

III. Protection of Grandfathered Stations

Background. In the Order, the Commission outlines that approximately 20 "grandfathered superpowered" stations operating in the reserved band would receive protection to "distance separations for the class of station that most closely approximates its facilities."¹ The Commission outlines the 23 specific stations and their "LPFM Protection Class" in Appendix B of the Order.

In my Comments, I proposed to the Commission that LPFM stations should protect "grandfathered superpowered" stations, both commercial and non-commercial, to their actual protected contours.² These stations, through relaxation of technical rules, have already been subjected to interference in their actual 54 or 60 dBu contours. My comments requested that the Commission craft rules to protect the grandfathered stations. Doing such accomplishes several things. When the actual protected contours are ignored, it creates interference in areas that have enjoyed service for many years. Conversely, interference occurs to the station that does not have to respect the actual interfering and protected contours. This occurs and has reduced coverage and increased interference for all stations involved.

Discussion. The Commission, in its Order, did not resolve how it came to the decision to protect grandfathered superpowered stations on the reserved band and did not address my comments, which requested protection to all grandfathered superpowered stations. I feel the Commission is being extremely unfair in its decision to protect only non-commercial stations. My rough analysis indicates that there are some 162 commercial grandfathered superpowered stations.³

¹ See Report and Order at ¶ 70.

² See Comments of Alan W. Jurison (July 19, 1999) at 14.

³ See Exhibit I.

I feel that grandfathered superpowered stations fill a void much like proponents of LPFM stations envision. These stations serve the public interest by providing coverage to areas that have few, if any local signals. They have been proven to be very important in times of public need and provide emergency service to significantly larger areas than other stations. Additionally, where these stations exist, they are very useful in maintaining strong monitoring links for the Emergency Alert System across wide areas.

From the point of view of an LPFM operator, a LPFM station will receive extremely large amounts of interference if permitted in the shadow of one of these superpowered stations. A simple analysis clearly indicates that the interference received by the LPFM station will be intolerable.⁴ The Commission would be misleading LPFM applicants by granting a license in such a situation. Furthermore, implementing such a restriction on LPFM operators would not significantly reduce the amount of available LPFM allotments.⁵

Not protecting grandfathered superpowered stations from LPFM stations and vice versa is simply bad engineering practice, as shown in Exhibit 2. The Commission will be leading inexperienced LPFM applicants blindly into the shadows of a superpowered station, causing harm to both stations and the public they cannot serve effectively. Without extending this protection to commercial stations, the Commission is setting a very bad precedent. The Commission is unfairly penalizing stations because they are commercial and the policy, in effect, indicates that it somehow values non-commercial over commercial service.

Request. Accordingly, to be fair, equitable and spectrally wise, I petition for the Commission to extend this protection to *all* existing grandfathered superpowered stations regardless of commercial or non-commercial nature. This requirement would protect the service areas of both grandfathered superpowered stations and LPFM stations, helping provide service to their respective communities. If the Commission feels that LPFM stations will fill a void, it should at least respect the existing voids that grandfathered superpowered stations serve.

IV. Protection From Interference

Background. The Commission desires to provide a “stable and enduring” LPFM service.⁶ Throughout the Order, it emphasized that this stability would not jeopardize existing FM stations. The Commission indicates that LPFM stations must “protect radio reception within the service areas of existing full-service stations, as well as the existing services of FM translator and booster stations.”⁷ The Commission defines the service

⁴ See Exhibit 2.

⁵ A total of 185 “superpowered” stations represent only 2.4% of the currently 7800 full-powered FM stations.

⁶ See Report and Order at ¶ 62.

⁷ *Ibid.*

area for FM translators and Class A, C, C1, C2 and C3 stations as the 60 dBu contour, B1 stations as the 57 dBu contour, and Class B as 54 dBu contour. These respective contours are defined as protected service contour ("Service Contour") of a station.

However, through the Order the Commission added subsection (c) to Section 73.209 of the rules indicating that all stations "are not protected from interference which may be created by the grant of a new LPFM station or authority to modify an existing LPFM station, except in instances where the FM station would receive predicted interference from an LPFM station within the FM station's 3.16 mV/m (70 dBu) contour."⁸ It correspondingly adds Section 73.514 to apply this rule to non-commercial stations.

Discussion. With all due respect, this is a *very dangerous* precedent being set by the Commission. The rule, when looked at without the context of the Commission's Report and Order, is deplorable. In fact, I was extremely shocked upon coming across this rule. The Commission, for the first time on record, is indicating that service beyond the 70 dBu is somehow not important, expendable, and can be interfered with.

While the Commission states in the Report and Order that the service areas (54, 57, or 60 dBu contours) are to be protected, when turning to the proposed rules, it indicates that interference will only be considered within the city-grade (70 dBu) contour. The Report and Order, when compared to the new rules, is somewhat misleading.

The Order left me with the impression that the only accepted interference from LPFM stations inside the service contour of a full-powered station would be if the full-powered station modified its facilities in a way that would cause interference within its service contour. In fact, the Commission outlines the impression from the Order in the addition of Section 73.809(a).

This confusion needs to be resolved. The newly added Section 73.209(c) does not protect existing stations that receive interference after an LPFM station initially signs on the air. For example, if a LPFM station caused interference inside the service contour of a full-powered station at the commencement of program tests, it should be required, like every other broadcaster in virtually every other service, to either correct the interference at its expense or cease operation.

Why would we grant LPFM stations the right to interfere with full-power stations? If a full-powered station starts transmission or modifies its transmission system, it is responsible to either correct the problem or cease operation. LPFM needs to have the same responsibility. Such a responsibility protects the public interest.

The fact that the Commission is, in effect, discounting and degrading service to the public between the service and city-grade contours is astonishing, and is against the very principles of the creation of the Commission. I feel that the Commission is not in the position to jeopardize existing service to the public such a haphazard manor.

⁸ See Report and Order, Appendix A, at 83.

Although I find it hard to digest, I understand the Commission's rationale in accepting interference for minor modification of the existing stations. I find that rationale an acceptable compromise in initiating LPFM service. However, interference within the protected service contour (54, 57, or 60 dBu) upon the initiation or equipment change of an LPFM station is not acceptable.

Request. I request, through this petition, that the Commission delete Sections 73.209(c) and 73.514. These are dangerous precedents that do not protect existing stations to the extent that the Commission has in the past. These rules are spectrally irresponsible and detrimental to the public. The new Section 73.809(a) sufficiently protects LPFM stations to the "stable and enduring" status the Commission desires, and offers a compromise that can be accepted by both proponents and adversaries of LPFM.

V. Conclusions

The Commission's Report and Order offered, at face value, a compromise between both sides of the LPFM issue. I find many of the policies outlined in the Order to be mutually acceptable. However, the Commission has overlooked issues regarding LPFM interference to existing stations, as well as separation standards to "grandfathered superpowered" stations.

Without correcting these issues, the LPFM initiative becomes very costly to the existing radio service the public now enjoys. The Commission should not subject the FM band to any more interference. The survival of broadcasting relies heavily on interference-free service. Without the above precautions, LPFM services will disserve the public and cause people to find other sources of entertainment outside of radio broadcasting. The Commission should realize the effects of interference firsthand, as the AM broadcast band is a product of many poor decisions in the past.

Please do not cause disservice to existing broadcasters, future LPFM operators and the public by ignoring the issues in this petition. I urge the commission to correct the issues discussed above before commencement of LPFM services.

Respectfully Submitted,



Alan W. Jurison

4716 Woodbridge Drive
Manlius, NY 13104-2208

February 19, 2000

Exhibit 1

Commercial Band Grandfathered Superpowered Stations As of 1/27/2000

ST	City of Lic.	HERP	HAAT	FREQ	CALL	CLS	Owner
CA	Los Angeles	42.	887	92.3	KKBT	B	KKBT License Corporation
IN	Bloomington	37.	332	92.3	WTTS	B	Sarkes Tarzian Inc.
NM	Albuquerque	22.0	1268	92.3	KRST	C	Citadel License, Inc.
ME	Augusta	50.	152	92.3	WMMEFM	B	Pilot Communications, LLC.
NY	Rochester	50.	152	92.5	WBEEFM	B	Entercom Rochester, Inc.
OH	Alliance	50.	152	92.5	WZKL	B	D. A. Peterson, Inc.
NY	Buffalo	91.	177	92.9	WBUF	B	Pyramid Communications-WBUF Licens
PA	Pittsburgh	47.	271	92.9	WLTJ	B	WPNT, Inc.
NY	Syracuse	97.	201	93.1	WNTQ	B	Pilot Communications, LLC.
CA	Los Angeles	28.5	1066	93.1	KCBSFM	B	CBS, Inc.
CA	San Luis Obisp	23.0	472	93.3	KZOZ	B	American General Media of Texas, I
MI	Grand Rapids	320.	238	93.7	WBCT	B	Radio Associates of Michigan, Inc.
IL	Mount Vernon	50.	168	94.1	WMIXFM	B	Withers Broadcasting Company of Il
CA	San Diego	100.	188	94.1	KJQY	B	San Diego Lotus Corp.
CA	Berkeley	59.	405	94.1	KPFA	B	Pacifica Foundation
NY	Buffalo	105.	216	94.5	WNEDFM	B	Western New York Public Broadcasti
NY	Syracuse	100.	198	94.5	WYYY	B	Newcity Communications of Syracuse
VA	Richmond	200.	107	94.5	WRVQ	B	Clear Channel Holdings, Inc.
PA	Pittsburgh	50.	247	94.5	WWSWFM	B	Shamrock Broadcasting, Inc.
IN	Indianapolis	58.	245	94.7	WFBQ	B	Capstar in Limited Partnership
CA	Los Angeles	52.	863	94.7	KTWVFM	B	Group W Broadcasting, Inc.
WI	Baraboo	37.	396	94.9	WOLXFM	B	Woodward Communications, Inc.
CA	San Francisco	30.0	369	94.9	KYLD	B	Shamrock Broadcasting, Inc.
NH	Mt. Washington	48.	1141	94.9	WHOM	C	Fuller-Jeffrey Radio of New Englan
OH	Medina	16.0	268	94.9	WQMX	B	Gordon-Thomas Comm, Inc.
VA	Virginia Beach	50.	152	94.9	WPTE	B	Sunshine Wireless Company of VA.,
MD	Baltimore	50.	152	95.1	WRBS	B	Peter & John Radio Fellowship, Inc
WV	Parkersburg	50.	152	95.1	WXIL	B	PBBC, Inc.
IL	Decatur	50.	152	95.1	WDZQ	B	Mumbles, Inc.
PA	Johnstown	57.	323	95.5	WKYE	B	Winston Radio Corporation
CA	Los Angeles	61.	954	95.5	KLOS	B	American Broadcasting Companies, I
MI	Detroit	100.	131	95.5	WKQI	B	Broadcasting Partners of Detroit,
PA	Philadelphia	50.	153	95.7	WEJM	B	Greater Philadelphia Radio, Inc.
NY	Olean	43.	226	95.7	WPIG	B	Arrow Communications of New York,
VA	Norfolk	40.	268	95.7	WVKL	B	Tuscaloosa Broadcasting License, I
CA	Sacramento	50.	145	96.1	KYMX	B	WGN of California, Inc.
PA	Red Lion	50.	152	96.1	WSOX	B	Red Lion Broadcasting Co., Inc.
PA	Easton	50.	152	96.1	WCTO	B	Lehigh Valley, L.P.
CA	Los Angeles	54.	146	96.3	KFSG	B	International Church of the Foursq
PA	Montrose	57.	140	96.5	WPELFM	B	The Montrose Broadcasting Corp.
CA	Bakersfield	50.	152	96.5	KKXXFM	B	Hemisphere Broadcasting LLC
IN	Lafayette	50.	152	96.5	WAZYFM	B	Artistic Media Partners, L.P.
WV	Williamson	50.	152	96.5	WXCC	B	Harvit Broadcasting Corporation
CA	San Francisco	24.	480	96.5	KOITFM	B	Bonneville Holding Company
PA	Braddock	45.	162	96.9	WRRK	B	WHYW Associates, Ltd.
PA	Lancaster	50.	152	96.9	WLANFM	B	Peoples Broadcasting Company
CA	Monterey	18.0	747	96.9	KWAV	B	Buckley Broadcasting Corp. of Mont
CA	Sacramento	50.	152	96.9	KSEG	B	ECI License Company, L.P.
IL	Moline	50.	152	96.9	WXLP	B	Connoisseur Communications of Quad
IL	Mattoon	50.	152	96.9	WLBHFM	B	Mattoon Broadcasting Company
OH	Ashtabula	50.	152	97.1	WREOFM	B	Radio Enterprises of Ohio, Inc.
UT	Salt Lake City	30.0	1113	97.1	KISNFM	C	KISN-FM License L.P.

ST	City of Lic.	HERP	HAAT	FREQ	CALL	CLS	Owner
NY	Ithaca	26.0	268	97.3	WYXL	B	Eagle Broadcasting Company
IA	Des Moines	115.	137	97.3	KHKI	C1	Community Pacific Broadcasting Com
MA	New Bedford	50.	152	97.3	WJFDFM	B	WJFD-FM, Inc.
CA	San Francisco	82.	309	97.3	KLLC	B	CBS Inc.
VA	Newport News	74.	120	97.3	WGHFM	B	Susquehanna Radio Corp.
CA	Riverside	72.0	557	97.5	KSSE	B	EMI Los Angeles Radio, Inc.
CA	Santa Barbara	16.0	890	97.5	KMGQ	B	F & M Broadcasting, Inc.
VI	Charlotte Amal	50.	475	97.9	WGODFM	B	Three Angels Corporation
OK	Poteau	100.	610	97.9	KZBB	C	Gulfstar Communications Arkansas L
OH	Columbus	175.	171	97.9	WNCI	B	Nationwide Communications, Inc.
PA	Altoona	30.0	287	98.1	WFGY	B	Forever of Pa, LLC
OH	Defiance	50.	152	98.1	WDFM	B	Wolfe Communications, Inc.
CA	San Francisco	100.	293	98.1	KISQ	B	Shamrock Broadcasting Inc.
VA	Richmond	50.	256	98.1	WTVRFM	B	Roy H. Park Broadcasting of Virgin
CA	Sacramento	50.	151	98.5	KRXQ	B	ECI License Company, L.P.
OH	Cleveland	16.0	293	98.5	WNCX	B	ARS Acquisition II, Inc.
CA	Cathedral City	50.	152	98.5	KWXYFM	B	Glen Barnett, Inc.
IL	Chicago	15.5	357	98.7	WFMT	B	Window to the World Communications
CA	Los Angeles	75.	360	98.7	KYSR	B	KXEZ, Inc.
IL	Rock Island	39.	274	98.9	WHTS	B	Segue Communications, Inc.
VA	Roanoke	150.	607	99.1	WSLQ	C	Mel Wheeler, Inc.
IL	Danville	50.	152	99.1	WIAI	B	I.A.I Broadcasting, Inc.
PA	Ebensburg	50.	152	99.1	WQKK	B	Tele-Media Broadcasting Co. of Joh
OH	Dayton	50.	325	99.1	WHKO	B	WHIO, Inc.
WV	Beckley	34.	320	99.5	WJLSFM	B	Personality Stations, Inc.
IL	Quincy	27.0	229	99.5	WCOY	B	Tele-Media Broadcasting of Quincy
OH	Cleveland	50.	152	99.5	WGARFM	B	Nationwide Communications, Inc.
NY	Buffalo	110.	195	99.5	WDCX	B	Kimtron, Inc.
DE	Wilmington	50.	152	99.5	WJBRFM	B	CRB Broadcasting of Delaware, Inc.
TN	Memphis	290.	277	99.7	WMCFM	C	ELCOM of Memphis, Inc.
OH	Toledo	50.	152	99.9	WKKO	B	Cumulus Licensing Corp.
NE	Omaha	110.	375	99.9	KGOR	C	American Radio Systems License Cor
CA	San Bernardino	29.5	507	99.9	KOLA	B	KOLA, Inc.
OH	Toledo	50.	152	99.9	WKKO	B	Cumulus Licensing Corp.
UT	Salt Lake City	26.0	1140	100.3	KSFI	C	Simmons Family, Inc.
CA	San Jose	14.5	786	100.3	KBRG	B	American Radio Systems License Cor
TN	Oak Ridge	100.	610	100.3	WOKIFM	C	Oak Ridge FM, Inc.
CA	Los Angeles	5.3	916	100.3	KCMG	B	Chancellor Media
VA	Norfolk	50.	152	100.5	WCMSEFM	B	WCMS Radio Norfolk, Incorporated
WV	Huntington	53.	171	100.5	WKEEFM	B	Adventure Communications, Inc.
OH	Findlay	20.0	134	100.5	WKXAFM	B	Blanchard River Broadcasting Compa
CA	Sacramento	115.	100	100.5	KZZO	B	American Radio Systems License Cor
CA	Ventura	39.	369	100.7	KHAY	B	KVEN Broadcasting Corporation
WI	Racine	50.	152	100.7	WKKVFM	B	Clear Channel Metroplex Lic., Inc.
IN	Terre Haute	50.	152	100.7	WMGI	B	Bright Tower Communications, Inc.
MI	Detroit	27.0	268	101.1	WRIF	B	Greater Michigan Radio, Inc.
CA	Los Angeles	51.	954	101.1	KRTHFM	B	Infinity Broadcasting Corporation
VA	Hampton	50.	152	101.3	WWDEFM	B	Max Radio of Hampton, Inc.
CA	San Francisco	125.	354	101.3	KIOI	B	KIOI License Corp.
IL	East Moline	50.	152	101.3	KUUL	B	Mississippi Valley Broadcasting, I
CA	San Diego	50.	152	101.5	KGBFM	B	KGB, Incorporated
WV	Morgantown	50.	152	101.9	WVAQ	B	West Virginia Radio Corporation
MI	Detroit	48.0	169	101.9	WDETFM	B	Wayne State University
CA	San Francisco	33.	319	102.1	KDFCFM	B	The Brown Organization
NY	Buffalo	110.	408	102.5	WMJQ	B	Keymarket of Buffalo, Inc.
MD	Princess Anne	50.	152	102.5	WOLC	B	Maranatha, Inc.
OH	Zanesville	50.	151	102.5	WHIZFM	B	Southeastern Ohio B/Cting System, I

ST City of Lic. HERP HAAT FREQ CALL CLS Owner

IN New Castle	50.	152	102.5	WMDHFM	B	WTL Indiana, Inc.
VA Winchester	32.	192	102.5	WUSQFM	B	WUSQ License Limited Partnership
MI Bay City	86.	244	102.5	WIOG	B	Fritz Broadcasting, Inc.
CA Woodland	50.	152	102.5	KSFM	B	Radio Systems of Philadelphia, Inc
PA Pittsburgh	55.	250	102.5	WDVE	B	Chancellor Media Corporation
CA Salinas	18.5	692	102.5	KDONFM	B	Henry Broadcasting Company
MI Mount Clemens	50.	152	102.7	WDMK	B	Allur Detroit, Inc.
CA Fresno	50.	152	102.7	KALZ	B	Americom Las Vegas Limited Partner
CA Los Angeles	8.0	902	102.7	KIISFM	B	Pacific & Southern Co., Inc.
PA Williamsport	53.	387	102.7	WKSB	B	Dame Media, Inc.
OR Cave Junction	100.	602	102.7	KCNA	C	Charles R. Knerr
IL Decatur	54.	137	102.9	WSOYFM	B	WSOY Decatur, Inc.
CA Modesto	50.	152	103.3	KATM	B	Citadel Communications Corporation
NM Albuquerque	20.0	1276	103.3	KTBL	C	Citadel Broadcasting Company
PA Erie	50.	152	103.7	WRTS	B	Burbach Broadcasting Company
CA Hanford	50.	152	103.7	KRZR	B	WHX Corporation
CA San Francisco	7.8	448	103.7	KKSF	B	The Brown Organization
MI Grand Rapids	108.	183	104.1	WVGR	B	The Regents of the Univ. of Michig
PA Allentown	50.	152	104.1	WAEBFM	B	Commodore Media of Pennsylvania, I
CA Modesto	50.	152	104.1	KHKH	B	Citadel Communications Corporation
CA Los Angeles	84.	882	104.3	KBIGFM	B	Bonneville Holding Company
MI Detroit	190.	110	104.3	WOMC	B	Infinity Broadcasting Corporation
NY Utica	100.	151	104.3	WODZFM	B	Forever of NY, LLC
OR The Dalles	100.	610	104.5	KMCQ	C	Mid Columbia Broadcasting, Inc.
OH Wooster	52.	101	104.5	WQKT	B	WWST Corporation
OH Toledo	50.	165	104.7	WIOT	B	Reams Broadcasting Corp.
CA Sacramento	50.0	152	105.1	KNCI	B	EZ Sacramento, Inc.
OH Salem	88.	131	105.1	WQXK	B	Reach Radio, Inc.
RI Providence	50.	152	105.1	WWLI	B	Citadel License, Inc.
CA Los Angeles	18.0	880	105.1	KKGOFM	B	Mount Wilson FM Broadcasters, Inc.
VA Norfolk	50.	152	105.3	WJCD	B	USR of Norfolk FM-2, Inc.
CA San Francisco	15.0	366	105.3	KITS	B	Entertainment Communications, Inc.
WA Edmonds	115.	220	105.3	KCMS	C1	Crista Ministries, Inc.
MI Grand Rapids	265.	247	105.7	WOODFM	B	WOOD Radio Limited Partnership
OH Cleveland	16.	344	105.7	WMJI	B	WMJI License Partnership
ME Bath	50.	152	105.9	WBCI	B	Blount Communications, Inc.
WV Mount Hope	50.	152	105.9	WTNJ	B	West Virginia Broadcasting, Inc.
PA Pittsburgh	72.	131	105.9	WXDX	B	MCL/MCM-Inc.
CA Los Angeles	25.0	925	105.9	KPWR	B	KPWR, Inc.
CA San Francisco	69.	393	106.1	KMEL	B	Evergreen Media Corporation
WV Clarksburg	50.	152	106.5	WFBY	B	West Virginia Radio Corporation of
MI Detroit	61.	155	106.7	WWWW	B	Shamrock Broadcasting, Inc.
CA San Francisco	80.	305	106.9	KEAR	B	Family Stations, Inc.
NC Black Mountain	36.	942	106.9	WMIT	C	Blue Ridge Broadcasting Corp.
IN Marion	50.	152	106.9	WMRI	B	Bomar Broadcasting Company
CA Stockton	8.1	491	107.3	KSTNFM	B	Valley Broadcasters, Inc.
NY Utica	50.	152	107.3	WRCK	B	Radio Corporation
PA Du Bois	50.	152	107.3	WDBA	B	Du Bois Area Broadcasting Co., Inc
CA Los Angeles	29.5	914	107.5	KLVE	B	KLVE-FM License Corp.
UT Orem	43.	869	107.5	KENZ	C	Monarch Broadcasting, Inc.
CA San Clemente	50.	151	107.9	KWVE	B	Calvary Chapel of Costa Mesa, Inc.
WV Huntington	50.	152	107.9	WEMM	B	Mortenson Broadcasting Company of
NY Syracuse	50.	152	107.9	WWHT	B	Cox Syracuse, Inc.

ST City of Lic. HERP HAAT FREQ CALL CLS Owner

HERP = Horizontal ERP

HAAT = Horizontal Height Above Average Terrain

Total 162 Stations.

Exhibit 2

Analysis of Interference In Regard to Grandfathered Stations

Co-Channel Interference Analysis Assuming Flat Earth:

Grandfathered Class B Facility	100 kW	200m HAAT	
F(50, 50)	54dBu	76 km	Protected Contour/Service Contour
F(50, 10)	40dBu	162 km	Interfering Contour towards LPFM
Proposed LPFM Station	.1 kW	30m HAAT	
F(50, 50)	60dBu	6 km	Protected Contour/Service Contour
F(50, 10)	34dBu	18 km	Interfering Contour towards Grandfathered

Received Interference Calculations to Grandfathered Station

$$\begin{aligned} & [Grandfathered Protected 54dBu (50,50)] + [LPFM Interfering 34dBu (50,10)] + [20 km Buffer Zone] &= 115 km \\ & \quad 77 km \quad + 18 km \quad + 20 km &= 112 km \\ & \text{Commission's Proposed Class B Spacing in 47 CFR 73.807(a)} &= 112 km \\ & [Predicted Interference Distance] - [Commissions Proposed Separation Distance] = Interference Overlap Distance &= \underline{3 km} \\ & \text{Interference Overlap Distance} &= \underline{3 km} \end{aligned}$$

Received Interference Calculations to LPFM Station

$$\begin{aligned} & [LPFM Protected 60dBu (50,50)] + [Grandfathered Interfering 40dBu (50,10)] &= 168 km \\ & \quad 6 km \quad + \quad 162 km &= 143 km \\ & \text{Commission's Proposed Class B "No Interference Received" Spacing in 47 CFR 73.807(a)} &= 143 km \\ & [Predicted Interference Distance] - [Commissions Proposed Separation Distance] = Interference Overlap Distance &= \underline{25 km} \\ & \text{Interference Overlap Distance} &= \underline{25 km} \end{aligned}$$

Interference to the LPFM station goes beyond 4.2 times the proposed coverage area of 6km!

Discussion

If the Commission continues as planned and disregards protecting LPFM stations and Grandfathered Superpowered stations from each other, it will be leading LPFM operators blindly into the path of extreme interference. This interference will totally encompass the LPFM station's entire service area, including 70 dBu (3.16 mV/m) city grade coverage area, as well as the transmitter site. The station clearly needs to be 25 km further away to avoid receiving interference. Conversely, the LPFM station will be causing interference within the station's protected contour. In this example, a Class B station was used, and it is protected to the 54 dBu contour. Standard rules prohibit interference within the station's protected contour. Interference from the LPFM station will be caused within the protected coverage area. The Commission should not accept this interference to either an LPFM station or a Grandfathered Superpowered Station.

Protecting this Grandfathered B station as a full Class C station, as I am proposing, would yield ample protection for both the LPFM and Grandfathered station.

This analysis assumes a flat earth, or no difference in terrain between these stations. However, many stations have been constructed to take advantage of higher terrain to improve the quality and quantity of the signal in a given area. The next example will look at a simplified terrain example, revealing interference beyond levels described above.

Co-Channel Interference Analysis Assuming Terrain Advantage for Grandfathered Station:

Grandfathered Class B Facility	100 kW	200m HAAT	Terrain Advantage	
HAAT of 200m with computed terrain radials as follows:				
<u>Heading(°)</u>	<u>HAAT(m)</u>	<u>Heading(°)</u>	<u>HAAT(m)</u>	
0	300	180	100	
45	200	225	200	
90	200	270	200	
135	200	315	200	Total = 1600m/8 radials = 200m HAAT

Assuming the 0° Heading From Grandfathered Station to LPFM (Return Heading would be 180°)

F(50, 50)	54dBu	86 km	Protected Contour/Service Contour towards Heading 0°
F(50, 10)	40dBu	172 km	Interfering Contour towards LPFM at Heading 0°
Proposed LPFM Station	.1 kW	30m HAAT	Flat Earth for LPFM
F(50, 50)	60dBu	6 km	Protected Contour/Service Contour towards Heading 180°
F(50, 10)	34dBu	18 km	Interfering Contour towards Grandfathered at Heading 180°

Received Interference Calculations to Grandfathered Station

<i>[Grandfathered Protected 54dBu (50,50)]</i>	<i>+ [LPFM Interfering 34dBu (50,10)]</i>	<i>+ [20 km Buffer Zone]</i>	
86 km	+ 18 km	+ 20 km	= 124 km
Commission's Proposed Class B Spacing in 47 CFR 73.807(a)			= 112 km
<i>[Predicted Interference Distance] – [Commissions Proposed Separation Distance] = Interference Overlap Distance</i>			= <u>12 km</u>
Interference Overlap Distance			

Received Interference Calculations to LPFM Station

<i>[LPFM Protected 60dBu (50,50)]</i>	<i>+ [Grandfathered Interfering 40dBu (50,10)]</i>	
6 km	+ 172 km	= 178 km
Commission's Proposed Class B "No Interference Received" Spacing in 47 CFR 73.807(a)		= 143 km
<i>[Predicted Interference Distance] – [Commissions Proposed Separation Distance] = Interference Overlap Distance</i>		= <u>35 km</u>
Interference Overlap Distance		

Interference to the LPFM station goes beyond 5.8 times the proposed coverage area of 6km!

Discussion

Interference will encompass the LPFM station's entire service area, including 70 dBu (3.16 mV/m) city grade coverage area, including the transmitter site. The station clearly needs to be 35 km further away to avoid receiving interference. However, in this case, the LPFM station will be causing interference well within the grandfathered station's protected contour. This interference is definitely not acceptable, and must be prevented. The Commission simply cannot accept interference to either an LPFM station or a Grandfathered Superpowered Station.

Protecting this Grandfathered B station as a full Class C station, as I am proposing, would again yield ample protection for both the LPFM and Grandfathered station.

This analysis assumes a basic terrain advantage in the direct azimuth towards each station and that the LPFM station is on flat earth. Many stations have been constructed to take advantage of higher terrain to improve the quality and quantity of the signal in a given area. These real-life terrain studies could cause interference greater than that exhibited in this simple analysis. The LPFM station, too, could use terrain to its advantage increasing interference even more.

Conclusion

The data presented in this exhibit clearly indicate that the proposed protection standards in 47 CFR 73.807(a) are not sufficient enough to protect LPFM and Grandfathered Superpowered stations from each other. Real life examples could often yield more extreme cases than what has been outlined above. The Commission must correct this oversight before LPFM is initiated to prevent unnecessary destructive interference.