

**REC NETWORKS – MM DOCKET 99-25**  
**ADDITIONAL COMMENTS**

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**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington DC**

In the matter of:	)	
	)	MM Docket 99-25
Establishment of a Low Power Radio	)	
Service	)	RM-9208
	)	RM-9242

**SUMMARY**

In this filing, REC Networks (“REC”) will present some additional information in regards to interference and protection of other stations. With this, we propose some changes to the structure of the Low Power Radio Service (“LPRS”) as stated in our previous comments.

In this Amendment, we will present:

- Clarification to our previous comments in the matter of protection to stations in Canada and Mexico.
- Establish LPFM stations using the existing international agreements between the United States, Canada and Mexico through the introduction of two new classes of LPRS stations that will be used in the border areas.
- Revision of the chart used in our previous comments to determine a translator’s “sub-class”.
- Modify our originally proposed TV Channel 6 interference guidelines.
- A plan to introduce fixed 10 watt LPRS operations on Channels 198, 199 and 200 in the border areas and provide additional protections to foreign TV Channel 6 stations.
- Address LPFM interference to foreign stations other than Mexico and Canada.
- Address the inquiries from the Commission regarding assigning the TV Channel 6 spectrum for sound broadcasting.
- Submit a new “SuperCoordinator” report, which shows that over 96% of the U.S. population would have access to an LPFM station.

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
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In the matter of:	)	
	)	MM Docket 99-25
Establishment of a Low Power Radio	)	
Service	)	RM-9208
	)	RM-9242

**ADDITIONAL COMMENTS OF REC NETWORKS**

**I. INTRODUCTION**

1. REC Networks (“REC”), a group of people interested in the establishment of a Low Power Radio Service for individuals, communities, local churches and schools submits the following revisions to our timely filed comments.
2. REC has done additional research in distance spacing requirements for Low Power FM (“LPFM”) stations and will present it’s discovery in this pleading.
3. REC will also use this pleading to clarify some issues addressed on our previous comments.

## **II. TRANSLATOR SUB-CLASSES**

4. In our previous comments, we proposed translator “sub-classes”. The three sub-classes were based on the translator’s 60 dBu service contour. In our comments, we had established a matrix for determining the sub-class based on the translator’s antenna height and output power. We had just recently discovered that the translator power limits shown in §74.1235 of the Commission’s Rules. We have noticed that our Sub-Class “A” was the same parameters and service contours used in §74.1235 (b) (1) for translators located east of the Mississippi River. We also noticed that our Sub-Class “B” uses the same parameters and service contours used in §74.1235 (b) (2) for translators located west of the Mississippi River. Sub-Class “C” has a service contour that exceeds those allowed in the west. Technically, Sub-Class “C” translators would exceed the legal limit. For all intents and purposes, we will consider a Sub-Class “C” translator as a facility operating 250 watts with a maximum antenna height of 230 meters height above average terrain (“HAAT”).

### **III. ADDITIONAL CHANNEL 6 PROTECTIONS**

5. In our previous comments, we considered full power NTSC stations on TV Channel 6 as Class C radio stations operating on 87.7 (Channel 199) and LPTV stations on TV Channel 6 as Class A radio stations operating on Channel 199.
  
6. In our comments, we only addressed Channel 6 protections in respect to 10 watt (Class D2) stations and we offered co-channel and first adjacent channel protection. In our revision, we will extend second adjacent channel protection to TV Channel 6 from LPFM stations operating over 101 watts on Channel 201 (88.1 MHz).
  
7. We will also extend full co, first, second, third and IF channel protection to foreign TV Channel 6 stations. This would be consistent with the protections we are offering to foreign FM stations
  
8. With these additional protections in place, we feel that that the United States can better negotiate with the other administrations for 10 watt LPFM stations that can be placed within 320km of the Mexican and Canadian borders while offering full protection to TV Channel 6 and 88 MHz FM stations.

9. In this revision, we will eliminate our proposed 300km protection to DTV stations on Channels 198, 199 and 200. With the upcoming implementation of DTV, we have found no evidence that additional protection should be given to a DTV station vs. a NTSC station. If anything, we feel that the band edges of a DTV signal are less vulnerable to interference as the NTSC signal is therefore we are proposing that DTV stations be afforded “first adjacent channel” protection on Channel 199 (87.7) instead of the co-channel protection that NTSC stations are afforded.

#### **IV. LPFM AND THE DAB “CHANNEL 6” PROPOSAL**

10. In the digital audio broadcasting (“DAB”) proceeding, the Commission questions whether 6 megahertz of spectrum between 82 and 88 MHz should be reallocated from the DTV core spectrum to DAB. REC feels that the public interest would be better served by initially making the Channel 6 spectrum available for new LPFM entrants. These new entrants should be given the option of operating in the analog mode. REC recommends that the new channels be identified as Channels 171 through 200. We are proposing power restrictions on several channels as well as designating additional “reserved band” channels in the event the Commission goes forward with a commercial LPFM service. As proposed before, Channels 198, 199 and 200 should be made available immediately after implementation of the LPFM Service in areas where interference to Channel 6 is not an issue since no new radio receiver needs to be purchased for this service. Channels 171 through 197 can start being implemented in areas where Channel 6 interference is not an issue at a later date as a digital standard is determined and manufacturers make radio equipment available to pick up this

band for marketing in the United States. Channels 171 through 197 would be available nationwide when all NTSC Channel 6 stations sunset their operations.

## **V. PROTECTION TO CANADA AND MEXICO**

11. In order to implement the LPFM service as proposed by both the FCC and REC, new international agreements would have to be reached as well as new international classes established.
  
12. In the case of Canada. REC feels that we can use the recently reached agreement regarding the use of translators in the border area for LPFM. Currently, an international Class A1 station (not to be confused with REC's proposed domestic A1) has a 60 dBu service area of 14.2km. REC is proposing the establishment of a new LPFM domestic class A4. This new class will have a 600 watt limit with a maximum antenna height of 60m HAAT. The A4 is a primary class of service and will have a 60 dBu service contour of 12.4 km. A4 will be available in areas within 320km of Canada and outside the 100km contours of the top-100 media markets as originally proposed by REC. A4 replaces the domestic-A1 (LP-1000) in the Canadian Border Area. Class A4, as well as A2 would be reported to Canada as international Class A1.

13. In the case of Mexico. REC proposes that LPFM stations in the Mexican border areas use the existing agreement shown in §74.1235 (d) of the Commission's Rules. Under these rules, no A1 (LP-1000) stations would be available within 320km of the Mexican border. A2 (LP-250) and A3/D1 (LP-100) would not be available within 125km of the border. For the areas within 125km of the border, we introduce a new primary Class A5 which will have a 50w maximum ERP with a maximum antenna height of 30m HAAT. The new A5 will have a 60dBu service area of 4.7km and will meet the requirements of §74.1235 (d) (2).
14. 10 watt secondary D2 ("Microradio") stations will be available in all locations regardless of border restrictions as all D2 stations meet the parameters of all international agreements.

## **VI. ESTABLISHMENT OF LPFM ZONES**

15. In our previous comments, we have established "Media Markets", which are 100km contours around the top-100 television markets. These media markets dictated which classes of LPFM stations would be available in those areas. Under our revised plans, we keep the Media Markets.
16. With many of the border related changes we have proposed in this pleading, we have found it necessary to propose that "LPFM Zones" be established throughout the United States and these zones will determine which classes of LPFM stations are available.

17. *Zone LP-1.* This zone covers most of the United States in land mass. The areas of Zone LP-1 are those that are at least 320km from both the Canadian and Mexican borders and located outside the top-100 Media Markets. A1 (LP-1000), A2 (LP-250), D1 (LP-100 secondary) and D2 (Microradio) stations are available in Zone LP-1.
  
18. *Zone LP-2.* This zone covers areas that are within the second-50 (51-100) Media Markets but are not in the top-50 Media Markets. Zone LP-2 also covers areas that are located between 125 and 320km of the Mexican border and outside a top-50 Media Market. A2 (LP-250), D1 (LP-100 secondary) and D2 (Microradio) stations are available in Zone LP-2.
  
19. *Zone LP-3.* This zone covers areas within 100km of a Top-50 Media Market except areas within 125km of the Mexican border. A3 (LP-100 primary) and D2 (Microradio) stations are available in Zone LP-3.
  
20. *Zone LP-4.* This zone covers areas within 320km of the Canadian border but are outside the Top-100 Media Markets. A2 (LP-250), A4 (600 watt), D1 (LP-100 secondary) and D2 (Microradio) stations are available in Zone LP-4.
  
21. *Zone LP-5.* This zone covers all areas within 125km of the Mexican border regardless of Media Market. A5 (50 watt) and D2 (Microradio) stations are available in Zone LP-5.

## **VII. PROTECTION TO COUNTRIES OTHER THAN CANADA AND MEXICO**

22. Even though not written in rules, we need to be aware of stations operating in the British Virgin Islands, which are not covered by any formal agreement. The current FCC Engineering Database shows 12 stations, which have interference contours covering portions of the U.S. Virgin Islands and Puerto Rico. We must provide full co, first, second, third and IF protections to these stations.

## **VIII. THE REVISED SUPERCOORDINATOR REPORT**

23. In earlier comments, REC conducted a study to determine how many communities could get LPFM stations under our proposal in the 88-108 MHz band. We have found that over 60% of the U.S. population would have access to an LPFM station. If we add additional spectrum between 82-88 MHz for LPFM, over 96% of the population would have access to LPFM. Appendices F & G are summary reports which show the number of stations available by state and Appendix H is the full report. Our findings show that we can place at least 61,372 LPFM stations on 26 MHz of spectrum. Our original report was able to place 40,932 stations. Even though these numbers may be extreme, it does show that the band is not as crowded as some of stated in previous comments.

## **IX. CONCLUSION**

24. These proposed amendments to our original LPFM comments will allow for a speedy implementation of LPFM in all many of the country, address potential concerns of foreign administrations to our implementation of LPFM and set the pace for nationwide implementation of LPFM.

Respectfully Submitted,

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## APPENDIX A – UPDATED TRANSLATOR SUB-CLASS MATRIX

		Subclass A		Subclass B		Subclass C	
If HAAT is		power must be		power must be		power must be	
between	and	between	and	between	and	between	and
0	32	0	250	n/a	n/a	n/a	n/a
33	39	0	170	171	250	n/a	n/a
40	47	0	120	121	250	n/a	n/a
48	57	0	80	81	250	n/a	n/a
58	68	0	55	56	250	n/a	n/a
69	82	0	38	39	250	n/a	n/a
83	96	0	27	28	250	n/a	n/a
97	107	0	19	20	250	n/a	n/a
108	115	0	19	20	205	206	250
116	118	0	13	14	205	206	250
119	130	0	13	14	170	171	250
131	140	0	13	14	140	141	250
141	144	0	10	11	140	141	250
145	157	0	10	11	115	116	250
158	173	0	10	11	92	93	250
174	192	0	10	11	75	76	250
193	212	0	10	11	62	63	250
213	235	0	10	11	50	51	250
236	260	0	10	11	41	42	250
261	285	0	10	11	34	35	250
286	310	0	10	11	28	29	250
311	345	0	10	11	23	30	250
346	380	0	10	11	19	20	250
381	425	0	10	11	15	16	250
426	480	0	10	11	12	13	250
481	540	0	10	11	11	12	250
541	above	n/a	n/a	0	10	11	250

**APPENDIX B – PROTECTION TO TV CHANNEL 6 BY LPFM STATIONS**

*Domestic protections will not apply in the event that DAB is allocated to 82-87MHz. In that event, operations on 87.5-87.9 would be subject to the same protections of 88-108 MHz.*

**DOMESTIC NTSC & DTV (Except LPTV, Translators and Boosters)**

LPFM Class	Ch. 198 – 87.5	Ch. 199 – 87.7	Ch. 200 – 87.9	Ch. 201 – 88.1	Ch 253-98.5
A1 (LP1000)	---	---	---	95	26
A2 (LP-250)	---	---	---	93	26
A4 (600W)	---	---	---	93	26
D2 (Microradio)	139 NTSC 139 DTV	200 NTSC 139 DTV	139 NTSC 139 DTV	---	---

Classes A3, A5 and D1 are not required to provide second adjacent channel protection.

**DOMESTIC LPTV, TRANSLATORS AND BOOSTERS (Including digital)**

LPFM Class	Ch. 198 – 87.5	Ch. 199 – 87.7	Ch. 200 – 87.9	Ch. 201 – 88.1	Ch.253-98.5
A1 (LP1000)	---	---	---	31	7
A2 (LP-250)	---	---	---	30	7
A4 (600W)	---	---	---	30	7
D2 (Microradio)	46 NTSC 46 DTV	89 NTSC 46 DTV	46 NTSC 46 DTV	---	---

Classes A3, A5 and D1 are not required to provide second adjacent channel protection.

**PROTECTION TO CHANNEL 6 IN CANADA**

Class	198-87.5	199-87.7	200-87.9	201-88.1	202-88.3	253-98.5
A1*	---	---	---	102	99	26
A2	---	---	---	100	98	26
A3/D1	---	---	---	99	98	26
A4	---	---	---	101	98	26
D2	139 NTSC 139 DTV	200 NTSC 139 DTV	139 NTSC 139 DTV	98	97	24

\*A1 is not available near Canada under REC’s proposal. Mileage is shown for information only.

**PROTECTION TO CHANNEL 6 IN MEXICO**

Class	198-87.5	199-87.7	200-87.9	201-88.1	202-88.3	253-98.5
A1*	---	---	---	95	95	26
A2	---	---	---	93	93	26
A3/D1	---	---	---	93	93	26
A5	---	---	---	93	93	26
D2	139 NTSC 139 DTV	200 NTSC 139 DTV	139 NTSC 139 DTV	92	92	24

\*A1 is not available near Mexico under REC’s proposal. Mileage is shown for information only.

**APPENDIX C – REVISED DISTANCE SEPARATION TABLES**

**CLASS A1 (LP-1000)**

1kW ERP, Maximum 60m HAAT, No minimum specified, Primary status  
Available in Zone LP-1.

**DOMESTIC**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>IF</b>
C	212	151	95	26
C1	187	120	75	19
B	152	93	68	12
C2	152	93	55	12
B1	128	75	47	9
C3	128	75	42	9
A	101	58	31	7
Translator C	76	44	---	---
A1	65	36	---	---
Translator B	65	35	---	---
A4	64	34	---	---
A2	59	30	---	---
Translator A	59	29	---	---
A3/D1	57	27	---	---
A5	56	26	---	---
D	54	25	---	---
D2	53	23	---	---

**CANADA**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	212	151	102	99	26
C1	187	120	91	89	19
B	152	93	70	68	12
B1	145	84	56	54	9
A	101	60	44	41	7
A1 (INTL)	70	40	24	21	4

**MEXICO**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	212	151	94	94	26
C1	187	120	75	75	19
B	152	93	68	68	12
B1	145	84	47	47	9
AA	101	58	31	31	7
A	91	51	27	27	6

**NOTE:** UNDER THE REC CONUTERPROPOSAL, CLASS A1 LPFM STATIONS WOULD NOT BE AVAILABLE IN THE CANADIAN AND MEXICAN BORDER AREAS. FOREIGN STATION PROTECTIONS ARE SHOWN FOR INFORMATION ONLY.

**CLASS A2 (REC/Amherst 250 watt “transitional”)**

250W ERP, Maximum 40m HAAT, No minimum specified, Primary status  
 Available in Zones LP-1, LP-2 and LP-4.

**DOMESTIC**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>IF</b>
C	206	145	93	26
C1	181	114	74	19
B	146	87	67	12
C2	146	87	54	12
B1	122	69	46	9
C3	122	69	41	9
A	95	52	30	7
Translator C	70	38	---	---
A1	59	30	---	---
Translator B	54	29	---	---
A4	53	27	---	---
A2	36	20	---	---
Translator A	34	19	---	---
A3/D1	33	18	---	---
A5	32	17	---	---
D	31	15	---	---
D2	30	14	---	---

**CANADA**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	206	145	100	97	26
C1	181	114	89	88	19
B	146	87	68	67	12
B1	122	69	54	52	9
A	95	52	42	40	7
A1 (INTL)	53	31	22	20	4

**MEXICO**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	206	145	93	93	26
C1	181	114	74	74	19
B	146	87	67	67	12
B1	122	69	46	46	9
AA	95	52	30	30	7
A	85	45	26	26	6

**CLASS A3 (REC proposed 100w primary service)****CLASS D1 (LP-100, secondary)**

100W ERP, Maximum 30m HAAT, No minimum specified

A3 Available in Zone LP-3.

D1 Available in Zones LP-1, LP-2 and LP-4.

**DOMESTIC**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>IF</b>
C	204	143	---	---
C1	178	111	---	---
B	144	84	---	---
C2	144	84	---	---
B1	120	66	---	---
C3	120	66	---	---
A	93	50	---	---
Translator C	67	36	---	---
A1	57	27	---	---
Translator B	52	26	---	---
A4	50	25	---	---
A2	33	18	---	---
Translator A	31	17	---	---
A3/D1	25	14	---	---
A5	24	13	---	---
D	22	12	---	---
D2	21	10	---	---

**CANADA**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	204	143	99	98	26
C1	178	111	89	88	19
B	144	84	67	66	12
B1	120	66	53	52	9
A	93	50	41	40	7
A1 (INTL)	50	27	21	20	4

**MEXICO**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	204	143	93	93	26
C1	178	111	74	74	19
B	144	84	66	66	12
B1	120	66	46	46	9
AA	93	50	29	29	7
A	82	43	25	25	6

**CLASS A4 (REC proposed Canadian border area solution)**

600W ERP, Maximum 60m HAAT, No minimum specified

Available in Zone LP-4.

**DOMESTIC**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>IF</b>
C	211	149	93	26
C1	185	118	74	19
B	151	91	67	12
C2	151	91	54	12
B1	126	73	46	9
C3	126	73	41	9
A	100	57	30	7
Translator C	74	42	---	---
A1	64	34	---	---
Translator B	58	33	---	---
A4	57	31	---	---
A2	53	27	---	---
Translator A	52	26	---	---
A3/D1	50	25	---	---
A5	49	24	---	---
D	48	22	---	---
D2	46	21	---	---

**CANADA**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	211	149	101	98	26
C1	185	118	91	88	19
B	151	91	70	67	12
B1	126	73	55	52	9
A	100	58	43	40	7
A1 (INTL)	63	38	23	20	4

**NOTE:** CLASS A4 IS ONLY AVAILABLE AT LOCATIONS WITHIN 320KM OF THE CANADIAN BORDER THEREFORE NO MEXICAN PROTECTION CRITERIA IS SPECIFIED.

**CLASS A5 (REC proposed Mexican border area solution)**

50W ERP, Maximum 30m HAAT, No minimum specified

Available in Zone LP-5.

**DOMESTIC**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>IF</b>
C	203	142	---	---
C1	177	110	---	---
B	143	83	---	---
C2	143	83	---	---
B1	119	65	---	---
C3	119	65	---	---
A	92	49	---	---
Translator C	66	35	---	---
A1	56	26	---	---
Translator B	51	25	---	---
A4	49	24	---	---
A2	32	17	---	---
Translator A	30	16	---	---
A3/D1	24	13	---	---
A5	20	12	---	---
D	19	10	---	---
D2	17	9	---	---

**MEXICO**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	203	142	93	93	26
C1	177	110	73	73	19
B	143	83	66	66	12
B1	119	65	46	46	9
AA	92	49	29	29	7
A	81	42	25	25	6

**NOTE:** CLASS A5 IS ONLY AVAILABLE WITHIN 125KM OF THE MEXICAN BORDER THEREFORE NO CANADIAN PROTECTION CRITERIA IS SPECIFIED.

**CLASS D2 (“Microradio”, secondary)**

10W ERP, Maximum 10m HAAT or 1 watt at 30m, No minimum specified

Available in all zones.

**DOMESTIC**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>IF</b>
C	200	139	---	---
C1	174	107	---	---
B	140	80	---	---
C2	140	80	---	---
B1	116	62	---	---
C3	116	62	---	---
A	89	46	---	---
Translator C	64	32	---	---
A1	53	23	---	---
Translator B	48	22	---	---
A4	46	21	---	---
A2	30	14	---	---
Translator A	27	13	---	---
A3/D1	21	10	---	---
A5	17	9	---	---
D	12	7	---	---
D2	8	5	---	---

**CANADA**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	200	139	98	97	24
C1	174	107	88	87	17
B	140	80	66	66	10
B1	116	62	52	51	7
A	89	46	40	39	5
A1 (INTL)	47	22	20	19	2

**MEXICO**

<b>Class</b>	<b>Co-Channel</b>	<b>First Adj.</b>	<b>Second Adj.</b>	<b>Third Adj.</b>	<b>IF</b>
C	200	139	92	92	24
C1	174	107	73	73	17
B	140	80	66	66	10
B1	116	62	45	45	7
AA	89	46	29	29	5
A	78	39	25	25	4

**APPENDIX D – PROPOSED FM CHANNELS IN THE 82-88 MHz BAND**

<b>Channel</b>	<b>MHz</b>	<b>Notes</b>
171	82.1	Limited to 100W (A3, A5, D1 & D2) in order to protect TV Channel 5
172	82.3	
173	82.5	
174	82.7	
175	82.9	
176	83.1	
177	83.3	
178	83.5	
179	83.7	
180	83.9	
181	84.1	
182	84.3	
183	84.5	
184	84.7	
185	84.9	
186	85.1	
187	85.3	
188	85.5	
189	85.7	
190	85.9	
191	86.1	Reserved for non-commercial use.
192	86.3	Reserved for non-commercial use.
193	86.5	Reserved for non-commercial use.
194	86.7	Reserved for non-commercial use.
195	86.9	Reserved for non-commercial use.
196	87.1	Reserved for non-commercial use.
197	87.3	Reserved for non-commercial use. 10W limit.
198	87.5	Reserved for non-commercial use. 10W limit. REC proposes this channel should be made available immediately in areas where NTSC Channel 6 interference is not an issue (more than 139 km away). REC recommends the voluntary allocation of this channel to high schools and community based stations.
199	87.7	Reserved for non-commercial use. 10W limit. REC proposes this channel should be made available immediately in areas where NTSC Channel 6 interference is not an issue (more than 200 km away). REC recommends the voluntary allocation of this channel to high schools and community based stations.
200	87.9	Reserved for non-commercial use. 10W limit. REC proposes this channel should be made available immediately in areas where NTSC Channel 6 interference is not an issue (more than 139 km away). REC recommends the voluntary allocation of this channel to high schools and community based stations. Stations on Channel 200 must also protect stations on Channel 201 (88.1).

Distance spacing proposed in Appendix C also applies to LPFM stations operating on these channels.

**APPENDIX E – LPFM ZONE MAP**

In electronic filing, this document is a separate file.

**APPENDIX F – “SUPERCOORDINATOR 2” SUMMARY OF NON-RESERVED CHANNELS AVAILABLE PER STATE**

In electronic filing, this document is a separate file.

**APPENDIX G – “SUPERCOORDINATOR 2” SUMMARY OF RESERVED CHANNELS AVAILABLE PER STATE**

In electronic filing, this document is a separate file.

**APPENDIX H – “SUPERCOORDINATOR 2” FULL REPORT**

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