

TECHNICAL STATEMENT
NEW FM TRANSLATOR
PUEBLO, COLORADO, CH. 249D
MOUNTAIN RADIO GROUP, INC.
FORM 349
APRIL 2018

This “Long Form” 349 application is being filed for a New FM translator at Pueblo, Colorado, Channel 249D, on behalf of Mountain Radio Group, Inc. in response to DA 18-256. Mountain filed a “Short Form” application, BNPFT-20180125AAM, facility ID 202634.

The new proposed FM translator will be located on an existing 59 meter un-registered tower. The site is located at N38°-22’-22”, W104°-33-39, NAD 27. A directional, two bay, half wave spaced, antenna, with circular polarization, will be mounted at the 55 meter level on the tower which is 1680 meters Above Mean Sea Level. The Effective Radiated Power will be 0.25 Kilowatts (250 watts). The New Translator will be a “Fill-In” translator for KQSC(AM) Colorado Springs, Colorado, facility ID 33731.

Figure 1 is the details of a channel interference study conducted with the proposed facilities. As can be seen, there will be no prohibited overlap with any other pertinent same or adjacent channel stations, with the exception of second adjacent channel KKFM(FM) Colorado Springs, Colorado, facility ID 11237 on channel 251C, and second adjacent channel K247BP Pueblo, Colorado, facility ID 139160 on channel 247D. However, Figure 2 shows the predicted worse case 100 dB μ interference contour will not cover any population. The applicant, Mountain Radio Group, Inc., respectfully requests a waiver of C.F.R. 74.1204(d) of the Commission's rules based on the fact that there is no population within the area of predicted interference. There are no homes nearby the proposed existing tower site, which is a privately owned 5 acre open area, with private access. The transmitter building is normally mostly uninhabited.

Figure 3 shows a polar plot of the directional antenna that will be used and other data.

Figure 4 is a Fill-In map showing the proposed 60 dB μ contour for the New FM translator, and the currently licensed 2 MV/M daytime contour of KQSC(AM).

It was determined that the New FM translator on channel 249D (97.7 Mhz) at Pueblo, Colorado will meet all of the current Commission rules and regulations for a new FM translator.

FIGURE 1 - DETAILED CHANNEL INTERFERENCE STUDY

NEW FM TRANSLATOR, PUEBLO, CO, CH. 249D

REFERENCE
38 22 22.0 N.
104 33 39.0 W.

CH# 249D - 97.7 MHz, Pwr= 0.25 kW DA, HAAT= 0.0 M, COR= 1680 M
Average Protected F(50-50)= 7.09 km
Standard Directional

DISPLAY DATES
DATA 04-17-18
SEARCH 04-17-18

CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
251C Colorado Springs	KKFM	LIC _CN CO	327.6 147.4	48.80 BLH19940321KC	38 44 36.0 104 51 44.0	71.000 698	16.3 2949	104.3 Radio License Holding Cbc,	18.2	-56.6*
249D Pueblo	1777091	APP _C_ CO	0.0 0.0	0.00 BNPFT20180125AAM	38 22 22.0 104 33 39.0	0.100	0.00 1680	0.00 Mountain Radio Group, Inc.	64.5R	-64.5M
247D Pueblo	K247BP	LIC _C_ CO	126.5 306.5	0.03 BLFT20150415ABB	38 22 21.4 104 33 38.0	0.250	1.1 1702	15.4 Educational Communications	-14.0*	-15.9*
249C2 Strasburg	KSJL	CP _CX CO	14.7 195.0	132.44 BPED20140304ADG	39 31 32.0 104 10 02.0	50.000 150	115.0 1854	26.5 Radio 74 Internationale	4.8	56.0
248D Woodland Park	K248AS	LIC _C_ CO	333.5 153.3	63.78 BLFT20120927AGP	38 53 10.0 104 53 24.0	0.250 -105	37.8 2215	24.7 Educational Communications	11.4	16.9
249C3 Strasburg	KSJL	LIC NH_ CO	11.6 191.8	151.10 BLED20120315AEJ	39 42 19.0 104 12 17.0	25.000 16	99.8 1621	22.7 Radio 74 Internationale	38.4	88.8
248C3 Poncha Springs	KWUZ	LIC NCX CO	274.5 93.6	127.51 BLH20170831BCE	38 27 11.0 106 01 02.0	0.250 834	65.6 3575	44.1 Three Eagles Communication	46.2	59.7
247C Boulder	KBCO	LIC DEY CO	340.0 159.6	182.34 BMLH19960506KA	39 54 48.0 105 17 32.0	100.000 469	13.2 2583	91.1 Citicasters Licenses, Inc.	154.4	89.6
248A Poncha Springs	KWUZ	LIC ZCX CO	274.5 93.6	127.51 BLH20080109AGB	38 27 11.0 106 01 02.0	0.029 892	11.7 3575	6.3 Three Eagles Communication	100.1	96.9
252D Jansen	K252FI	LIC _C_ CO	178.1 358.2	126.10 BLFT20160510ABN	37 14 14.0 104 30 52.0	0.016 241	0.3 2179	11.5 Educational Communications	108.1	113.5
249C2 Avon	KZYR	LIC NC_ CO	311.3 130.1	215.18 BLH20010913AAK	39 38 05.0 106 26 47.0	15.000 134	88.9 3028	20.1 Rocky Mountain Radio Group	112.0	116.6
246C3 La Jara	KZBR	LIC _CX CO	231.1 50.2	176.26 BLH20080416AAD	37 22 05.0 106 06 44.0	25.000 55	4.8 2458	45.0 Wolf Creek Broadcasting, L	153.0	130.2
246C1 Stratton	DKGGY	VAC ____ CO	58.4 239.7	202.85	39 18 34.0 102 33 17.0	100.000 299	9.4 1620	68.8 Kona Coast Radio, LIc	182.2	133.3
250C1 Cheyenne	KXBG	LIC _CX WY	349.2 168.8	285.29 BLH20180214AAD	40 53 41.7 105 11 49.4	100.000 293	121.6 2248	81.9 Citicasters Licenses, Inc.	149.2	181.1
252C3 Gunnison	KEJJ	RSV-A __N CO	275.4 93.9	205.55	38 31 22.0 106 54 28.0	25.000 100	5.7 2638	51.3 John Harvey Rees	184.2	152.8
248C2 Sterling	KSRX	LIC _CX CO	27.2 208.1	261.01 BMLH20100204ADR	40 27 15.1 103 09 06.1	38.000 171	77.9 1492	52.5 Media Logic LIc	171.6	194.0
252A Gunnison	KEJJ	LIC _CN CO	275.4 93.9	205.55 BLH19811216AQ	38 31 22.0 106 54 28.0	3.000 91	2.8 2627	32.5 John Harvey Rees	187.0	171.7
250C1 Colby	KWGB	LIC _C_ KS	65.5 247.4	283.84 BLH19981216KD	39 23 24.0 101 33 35.0	100.000 216	93.4 1296	62.9 Melia Communications Inc	179.0	204.3
248C1 Clayton	KLMX-FM	LIC _H_ NM	150.1 331.0	246.05 BLH20131223ACG	36 26 39.0 103 11 24.0	52.000 110	46.0 1629	26.7 Jimmy N. Mccollum	184.6	188.5
246A Crested Butte	KAYV	LIC _CX CO	286.5 105.0	218.08 BLH20111205AGJ	38 54 10.0 106 58 22.0	0.300 -211	1.2 2967	7.4 Arkansas Valley Broadcasti	201.7	200.8
252C1 Otis	KATR-FM	LIC NC_ CO	30.5 211.5	265.45 BLH19991115AAT	40 25 13.0 102 58 10.0	100.000 169	7.3 1500	59.9 Media Logic, LIc	246.9	204.7
247A Lake City	NEW	CP _CX CO	261.0 79.3	245.46 BNPH20151013AIR	37 59 43.4 107 19 16.9	1.022 242	2.0 3605	30.8 Munera, Campo E	226.9	212.3
249C2 Orchard Mesa	KNOZ	LIC NCX CO	283.3 100.7	372.02 BLH20120127AIR	39 04 00.0 108 44 45.0	5.000 446	144.2 2239	63.3 Varecha, Paul	212.5	258.8
250C Cortez	KISZ-FM	LIC _CN CO	251.5 69.3	335.10 BLH19780921AG	37 21 48.0 108 09 00.0	100.000 399	59.1 3104	31.0 Winton Road Broadcasting C	259.2	246.4
247C Santa Fe	KKSS	LIC _CY NM	211.8 30.6	336.61 BLH19850926KA	35 46 50.0 106 31 35.0	100.000 572	11.0 3057	76.8 Agm Nevada, LIc	306.8	257.5

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	Page # 2 *IN* (Overlap in km)	*OUT*
251C Las Vegas	KBAC	LIC_CN NM		192.4 11.9	340.65 BLH19891030KE	35 22 20.0 105 22 02.0	100.000 316	8.6 2246	65.5 Hutton Broadcasting, LIc	313.6	273.4
251C0 Meeker	KAYW	CP_CX CO		306.0 123.9	354.56 BPH20161212AAI	40 11 47.0 107 56 04.0	100.000 372	8.9 2637	66.6 Western Slope Communicatio	331.5	284.1
251C0 Meeker	KAYW	LIC_C_ CO		306.0 123.9	354.44 BLH20070802ABI	40 11 45.0 107 56 00.0	100.000 349	8.3 2609	64.1 Western Slope Communicatio	331.9	285.8
247C1 Garden City	KKJQ	LIC_CN KS		99.1 281.7	365.78 BLH19840810DA	37 46 48.0 100 27 36.0	100.000 244	8.8 1075	66.2 Kbuf Partnership	344.5	298.8
251C1 Copeland	KSKZ	LIC_CX KS		99.1 281.7	365.78 BMLH20110621ABP	37 46 48.0 100 27 36.0	100.000 203	7.9 1034	62.4 Kbuf Partnership	345.4	302.6
251D Santa Fe	KBAC-FM1	LIC_DV_ NM		203.3 22.4	323.45 BLFTB20100120ACG	35 41 20.0 105 58 42.0	5.700	0.3 2172	4.3 Hutton Broadcasting, LIc	304.6	314.6
250D Farmington	KISZ-FM1	LIC_CN NM		241.1 58.9	373.38 BLFTB19990331TG	36 41 45.0 108 13 23.0	5.000 180	43.8 1800	28.6 Winton Road Broadcasting C	311.7	314.9
246C1 Terrytown	KCMI	LIC_CX NE		11.1 191.7	377.18 BLH20160525AAB	41 42 08.0 103 41 00.0	100.000 211	7.8 1521	61.9 Christian Media Incorporat	356.5	314.0

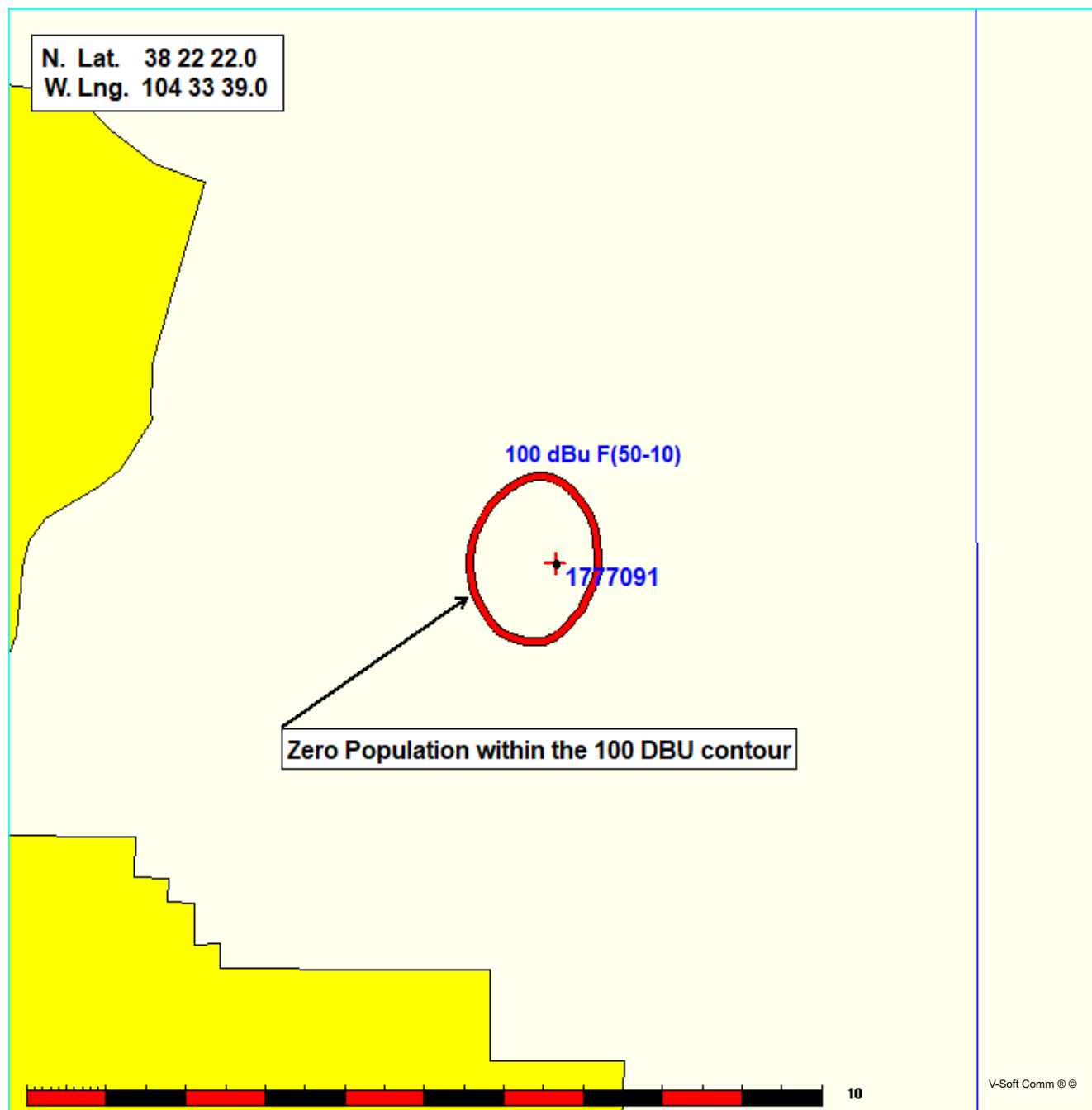
Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"***"affixed to 'IN' or 'OUT' values = site inside restricted contour.

* No actual interference will be caused to either KKFM or K247BP since the worse case 100 DBU interference contour will not cover any population. See the Technical Statement for more details.

FIGURE 2 - PREDICTED 100 DBU INTERFERENCE CONTOUR
NEW FM TRANSLATOR, PUEBLO, CO, CH. 249D

Coverage Study - NGDC 30 SEC
04-17-2018

1777091 CH249 D , 0.25 kW, 0.0m HAAT, 1680.0m COR AMSL
Interference Contour = 100 dBu. Population = 0



EXHBIT 3 - DIRECTIONAL ANTENNA DATA

1777091 Pueblo, CO, CH 249D

04-17-2018

RMS(V)= .811

NICOM BKG-77/2L Directional

Graph is Relative Field

Azi	Field	dBk	kW
000	0.927	-06.679	0.215
010	0.852	-07.412	0.181
020	0.762	-08.382	0.145
030	0.692	-09.218	0.120
040	0.627	-10.075	0.098
050	0.581	-10.737	0.084
060	0.536	-11.437	0.072
070	0.504	-11.972	0.064
080	0.493	-12.164	0.061
090	0.493	-12.164	0.061
100	0.493	-12.164	0.061
110	0.493	-12.164	0.061
120	0.493	-12.164	0.061
130	0.507	-11.920	0.064
140	0.536	-11.437	0.072
150	0.596	-10.516	0.089
160	0.643	-09.856	0.103
170	0.728	-08.778	0.132
180	0.826	-07.681	0.171
190	0.908	-06.859	0.206
200	0.947	-06.494	0.224
210	0.966	-06.321	0.233
220	1.000	-06.021	0.250
230	0.984	-06.161	0.242
240	0.976	-06.232	0.238
250	0.976	-06.232	0.238
260	0.966	-06.321	0.233
270	0.966	-06.321	0.233
280	0.966	-06.321	0.233
290	0.966	-06.321	0.233
300	0.966	-06.321	0.233
310	0.976	-06.232	0.238
320	0.976	-06.232	0.238
330	0.984	-06.161	0.242
340	1.000	-06.021	0.250
350	0.982	-06.178	0.241

