

TECHNICAL STATEMENT
K242CI CASPER, WY
MINOR CHANGE APPLICATION
MOUNTAIN COMMUNITY TRANSLATORS, LLC
JUNE 2022

This application is being filed by Mountain Community Translators, LLC (“MCT”) for its FM translator station K242CI Casper, Wyoming, facility ID 148047. MCT seeks to change its channel of operation from 242D to 258D to eliminate substantial 2nd adjacent channel interference from KRNK(FM) Casper, WY, facility ID 7360, channel 244C2 and K240EW Casper, WY, facility ID 200635 on channel 240D. Both KRNK and K240EW transmit from the same multi user communications tower site on Casper Mountain and are located inside of the current 60 dBμ primary contour of K242CI. Figure 1 attached documents the detailed channel interference study which shows the current interference issues from KRNK(FM) and K240EW.

K242CI seeks to relocate to channel 258D where there will be free of any overlap from any same channel or pertinent adjacent stations. Figure 2 is a detailed channel interference study conducted for the proposed operation of K242CI on channel 258D.

While 2nd adjacent channel interference is routinely permitted by the Commission in regards to FM translators, K242CI is a “non-fill-in” translator and thus limited to 10 watts Effective Radiated Power (“ERP”) at its relatively high transmitter location. With only 10 watts, it does suffer from incoming interference from the much higher ERP from KRNK(FM). K242CI operating on channel 258D will allow for better coverage devoid of incoming interference from other stations.

K242CI is proposing to remain at its current tower site, but move its antenna up on the supporting tower by 12 meters, or an antenna height of 30 meters above ground and 2488 meters Above Mean Sea Level.

FIGURE 1 - CURRENT CHANNEL 242 INTERFERENCE STUDY

K242CI CASPER, WY, CH. 242D

REFERENCE CH# 242D - 96.3 MHz, Pwr= 0.01 kW, HAAT= 542.0 M, COR= 2490 M
 42 44 26.80 N. Average Protected F(50-50)= 12.98 km
 106 18 24.00 W. Omni-directional

DISPLAY DATES
 DATA 06-15-22
 SEARCH 06-17-22

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*
242D Casper	K242CI	LIC_VN WY	0.0 269.7	0.00 BLFT20160412ACZ	42 44 26.80 106 18 24.00	0.010	2466	---Reference--- Mountain Community Transla		
242C Lusk	AL00087	ALO____ WY	89.0 270.2	151.98	42 44 59.90 104 27 01.80	100.000 600	194.9 2162	89.9	-56.3*	14.2
244C2 Casper	KRNC	LIC_NCN WY	351.3 171.3	0.31 BLH20110804ABG	42 44 36.90 106 18 26.10	2.700 554	2.8 2524	33.5	-18.3*	-33.4*
240D Casper	K240EW	LIC_CN WY	327.1 147.1	0.37 BLFT20190607AAI	42 44 37.00 106 18 33.00	0.250	1.1 2536	20.2	-16.5*	-20.1*
242A Lusk	AL1856	VAC____ WY	89.2 270.4	146.16	42 44 42.88 104 31 17.84	6.000 100	80.9 1701	23.3	51.9	79.0
241C1 Worland	KKLX	LIC_CN WY	320.1 139.0	192.80 BLH20120221ABM	44 03 33.40 107 51 15.00	63.000 176	76.0 1491	49.4	101.1	117.4
243C1 Buffalo	KLGT	LIC_CN WY	347.6 167.2	208.90 BLH20120106AAJ	44 34 31.80 106 52 23.90	100.000 101	86.6 1697	56.0	106.9	122.7
243C Rock Springs	KQSW	LIC_CN WY	238.8 57.0	274.29 BMLH19990826KB	41 25 53.80 109 07 03.40	100.000 494	130.7 2658	87.4	131.0	166.7
242A Dubois	DKDBU	VAC____ WY	289.2 106.9	284.46	43 31 59.83 109 37 52.56	6.000 100	125.9 2542	51.8	143.6	178.1
243D Buffalo	KLGT-FM1	LIC_CN WY	349.5 169.2	181.63 BLFTB20110216ACA	44 20 49.90 106 43 27.20	0.360	11.1 1541	7.8	154.8	146.1
241C1 Greeley	KSME	LIC_CN CO	153.2 334.2	255.43 BLH20010411AAR	40 40 49.90 104 56 33.90	100.000 224	92.2 1819	62.1	153.0	182.6
242A Hot Springs	KZMX-FM	APP_HN SD	70.4 252.3	244.70 0000192988	43 26 33.90 103 27 28.70	1.400 135	40.0 1283	11.0	190.0	174.5
242A Hot Springs	KZMX-FM	CP_HN SD	70.4 252.3	244.70 0000187043	43 26 33.90 103 27 28.70	1.400 135	40.0 1283	11.0	190.0	174.5
240C Belle Fourche	KZZI	LIC_CN SD	47.6 229.3	266.33 BLH20000112ABG	44 19 34.90 103 50 07.70	100.000 545	11.3 2262	78.1	239.5	185.4
244C Lead	KRCF	CP_CN SD	47.6 229.3	266.33 BNPH20120509AFG	44 19 34.90 103 50 07.70	100.000 501	10.6 2215	74.6	240.2	188.8
243C Evergreen	KXPK	LIC_CN CO	168.3 348.9	347.27 BLH20170718AAB	39 40 32.90 105 29 08.90	100.000 526	136.4 3272	91.9	201.7	243.6
242C1 Billings	KRZN	LIC_CN MT	333.8 152.3	376.77 BLH19981117KA	45 45 36.80 108 27 11.50	100.000 212	158.1 1264	60.9	202.8	257.0
245C2 Steamboat Springs	KBCR-FM	LIC_NCN CO	188.4 8.1	256.96 BLH20181210ABQ	40 27 04.90 106 45 06.10	3.000 533	3.0 3150	35.3	242.8	209.9
240C3 Hayden	KIDN-FM	LIC_CN CO	198.8 18.1	259.96 BLH20180612AAW	40 31 15.90 107 17 48.20	6.000 198	3.4 2252	36.1	244.5	222.4
244A Hot Springs	KZMX-FM	LIC_HN SD	70.4 252.3	244.70 BMLH19901010KC	43 26 33.90 103 27 28.70	1.400 135	1.6 1283	11.0	228.4	224.9
245A Nunn	KYAP	LIC_NCN CO	151.2 332.1	247.60 BLH20160217AAB	40 46 50.90 104 53 16.90	4.300 115	1.6 1777	14.4	235.5	229.0
240A Bayard	NEW	CP_CN NE	112.7 294.7	268.80 0000159090	41 46 10.90 103 19 22.70	0.250 -4	1.1 1184	7.1	254.9	261.5
239C0 Denver	KDHT	LIC_DCN CO	164.7 345.4	345.86 BLH20071003ACN	39 43 59.00 105 14 12.00	100.000 346	6.6 2256	53.2	330.6	272.8
243D Boulder	KXPK-FM1	LIC_DCN CO	163.2 343.9	322.05 BLFTB19950119TD	39 57 37.90 105 12 45.90	0.500 -52	26.4 1753	17.3	286.8	291.9
245C1 Jackson	KMTN	LIC_CN WY	284.0 101.0	370.76 BLH19850617KC	43 27 41.70 110 45 12.70	50.000 323	2.7 2473	26.5	353.3	327.1

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
242D Casper	K242CI	LIC _01 WY		9.0 0.0	0.00	42 44 26.80 106 18 24.00	50.000 150		2490	---Reference---	06-15-22	06-17-22

Terrain database is GLOBE 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.

FIGURE 2 - DETAILED CHANNEL INTERFERENCE STUDY, CH. 258

K242CI CASPER, WY, CH. 242D

REFERENCE
42 44 26.80 N.
106 18 24.00 W.CH# 258D - 99.5 MHZ, Pwr= 0.01 kW, HAAT= 540.0 M, COR= 2488 M
Average Protected F(50-50)= 12.96 km
Omni-directionalDISPLAY DATES
DATA 06-15-22
SEARCH 06-17-22

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*
257A Douglas	KKTS-FM	LIC _CN WY		91.0 271.5	63.62 BMLH20141028AAZ	42 43 41.80 105 31 47.90	2.350 162	37.9 1780	12.5 Douglas Broadcasting, Inc	15.4	16.8
261C1 Glendo	KKTY-FM	LIC _CN WY		87.5 268.2	88.77 BLH20090424ABG	42 46 12.80 105 13 22.90	100.000 139	7.7 1677	61.3 Douglas Broadcasting, Inc.	67.6	26.8
261C1 Glendo	KKTY-FM	CP _CN WY		87.5 268.2	88.48 0000124168	42 46 13.30 105 13 35.50	80.000 139	7.4 1681	59.8 Douglas Broadcasting, Inc.	67.7	28.1
259C3 Medicine Bow	DKHAN	VAC ____ WY		165.4 345.6	102.04	41 51 05.88 105 59 44.03	25.000 100	64.2 2176	42.0 From CDBS	29.2	48.9
257C1 Saratoga	KTGA	LIC NCN WY		213.3 32.7	140.67 BLH20080130AKR	41 40 45.80 107 14 10.10	18.000 324	92.5 2500	62.8 Toga Radio LLC	35.5	59.0
258C1 Keystone	KRKI	LIC _HN SD		58.0 239.8	240.68 BLH20121004ABW	43 51 23.90 103 45 51.70	100.000 224	167.2 2119	68.1 Bad Lands Broadcasting Com	58.3	117.0
255C1 Manville	AU6229552	VAC ____N WY		87.7 268.8	138.32 RM	42 46 44.88 104 37 03.86	100.000 299	10.1 1907	71.8 From CDBS	114.8	65.9
255C1 Manville	AL05792	ALO ____ WY		87.7 268.8	138.32	42 46 44.90 104 37 03.80	100.000 299	10.1 1907	71.8 From CDBS	114.8	65.9
256C Lost Cabin	KWYW	LIC _CN WY		300.1 118.9	157.75 BLH20010730AAA	43 26 17.80 107 59 39.30	51.000 578	11.1 2499	85.6 Radio Central, LLC	131.4	71.2
256C Lost Cabin	KWYW	STA _CN WY		300.1 118.9	157.75 0000191099	43 26 17.80 107 59 39.30	51.000 578	11.1 2499	85.6 Radio Central, LLC	131.4	71.2
258C2 Mitchell	KETT	CP _CN NE		115.3 297.0	227.69 0000156631	41 50 22.80 103 49 37.00	13.000 293	128.5 1584	53.9 Vss Catholic Communication	86.5	127.8
259C Meeteetse	AL12890	ALO ____ WY		308.1 126.4	260.51	44 09 25.80 108 52 17.50	100.000 600	137.7 2449	92.8 From CDBS	107.3	142.9
259C Meeteetse	AU9810902	VAC ____ WY		308.1 126.4	260.51 RMrf5119	44 09 25.84 108 52 17.47	100.000 600	137.7 2449	92.8 From CDBS	107.3	142.9
259C Rock Springs	KSIT	LIC _CN WY		238.9 57.0	274.21 BLH20050907ABB	41 25 59.80 109 07 04.40	100.000 493	130.3 2660	87.2 Big Thicket Broadcasting C	131.3	166.8
260C1 Gillette	KGCC	LIC NCN WY		21.8 202.4	186.19 BLH20120111AAE	44 17 32.90 105 26 12.00	51.000 114	4.3 1508	40.6 Keyhole Broadcasting, LLC	166.1	145.0
257C3 Mitchell	KETT	LIC _CN NE		115.3 297.0	227.69 0000120317	41 50 22.80 103 49 37.00	2.650 258	56.1 1543	37.6 Vss Catholic Communication	158.9	170.5
256C3 Rozet	DKLSX	VAC ____ WY		27.1 207.8	192.58	44 16 40.94 105 12 21.96	25.000 100	2.3 1446	22.7 From CDBS	174.5	162.6
257C1 Marbleton	NEW	APP NCN WY		265.3 82.5	332.49 0000159186	42 25 26.00 110 20 03.00	100.000 2618	131.0 2668	87.6 Wind River Broadcasting, I	188.3	228.9
257C1 Marbleton	AU9810924	VAC ____ WY		263.3 80.6	333.01 RM11365	42 19 27.78 110 19 14.59	100.000 299	131.3 2644	88.2 From CDBS	188.7	227.9
257C1 Marbleton	AL12920	ALO ____ WY		263.3 80.6	333.01	42 19 27.80 110 19 14.60	100.000 299	131.3 2644	88.2 From CDBS	188.7	227.9
256C1 Windsor	KUAD-FM	LIC _CN CO		151.6 332.6	264.00 BLH20031223ACH	40 38 30.90 104 49 04.90	100.000 255	7.3 1816	59.8 Townsquare Media Of Fort C	246.3	203.7
260C3 Laporte	KKPL	LIC _CN CO		154.1 334.8	223.34 0000168064	40 55 40.50 105 08 35.70	12.000 146	1.9 2129	19.0 Townsquare Media Of Ft. Co	211.3	204.1
255C2 Steamboat Springs	KCOQ	LIC NCN CO		188.3 8.0	256.52 BLH20181210ABR	40 27 15.90 106 44 36.10	2.100 543	2.7 3186	31.6 Radio Partners LLC	242.7	213.8
258C Denver	KQMT	LIC DCN CO		164.7 345.4	346.32 BLH20150622AFQ	39 43 43.90 105 14 09.90	100.000 513	116.1 2280	43.2 Audacy License, LLC	221.7	256.4
258D Rapid City	KRKI-FM1	LIC _CN SD		57.6 239.7	289.65 BLFTB20070904AAW	44 05 33.00 103 14 54.70	0.550 1176	29.3 1176	8.7 Bad Lands Broadcasting Com	245.1	225.8

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258D Casper	K242CI	LIC _01 WY		9.0 0.0	0.00	42 44 26.80 106 18 24.00	50.000 150		---Reference--- 06-15-22		06-17-22
259L1 Craig	KCIG-LP	LIC _CN CO		203.1 22.2	268.95 BLL20020909AAP	40 30 25.80 107 33 12.20	0.100 -60		248.7 Colorado, State of,	247.6 Teleco	
261A Dotsero	DKKVC	VAC ____ CO		190.6 10.1	349.03	39 38 58.95 107 03 32.18	6.000 100	4.2 2438	47.3 333.4 From CDBS		296.9
261C1 Fleming	KRFD	CP _CN CO		131.8 313.9	361.26 0000167885	40 31 57.00 103 07 23.80	70.000 150	7.6 1436	61.3 341.5 Northeast Colorado Broadca		299.7
261C2 Fleming	KRFD	LIC _CN CO		130.3 312.5	363.07 BLH20121115AAW	40 34 57.00 103 01 57.70	50.000 150	7.2 1460	59.5 343.6 Northeast Colorado Broadca		303.3
256C3 Glenwood Springs	KMTS	LIC _CN CO		194.0 13.3	366.75 BMLH20170313ABE	39 31 56.90 107 20 32.20	10.000 -69	1.8 2295	18.1 353.3 Colorado West Broadcasting		339.3

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