

TECHNICAL STATEMENT  
K281BW CHEYENNE, WYOMING  
MITCHELL A BERANEK  
FCC FORM 349  
OCTOBER 2014

This Technical Statement is in support of FCC form 349 filed by Mitchell A Beranek for a minor change of the Construction Permit of K281BW (BNPFT-20130827AFI), facility ID 157657. It is proposing to increase the Effective Radiated Power from 70 watts to 120 watts. Relocate to an existing 55 meter overall height tower site near Cheyenne, registration number 1008318, and propose a directional antenna system.

Figure 1 shows a channel interference study conducted from the proposed site for K281BW. It shows that the proposed operation of K281BW on channel 281D, will not cause any prohibited outgoing interference to any licensed or proposed FM services.

Figure 2 shows that the proposed K281BW will 60 dB $\mu$  overlap with the current original Construction Permit of K281BW.

It was concluded that the new proposed operation of K281BW Cheyenne, Wyoming on channel 281D will not cause any harmful interference to any existing stations, and will be in full compliance with the commission's rules.

FIGURE 1 - DETAILED CHANNEL INTERFERENCE STUDY

K281BW CHEYENNE, WY, CH 281D

REFERENCE 41 09 34.0 N. 104 43 19.0 W. CH# 281D - 104.1 MHz, Pwr= 0.12 kW DA, HAAT= 48.6 M, COR= 1885 M DISPLAY DATES DATA 10-04-14 SEARCH 10-06-14  
Average Protected F(50-50)= 7.47 km Standard Directional

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT* (in km)
281D	K281BW Cheyenne	CP	_C_	88.3 268.4	6.35 BNPFT20130827AFI	41 09 40.0 104 38 46.0	0.070 70	16.7 1871	5.1 Mitchell A. Beranek	-20.7*	-35.0*
280C1	KRKA Severance	LIC	NCX CO	220.4 40.0	78.88 BMLD20130916AAT	40 37 03.0 105 19 40.0	16.500 372	108.0 2560	72.4 Educational Media Foundati	-32.4*	0.4
281C2	KANT Guernsey	LIC	_CX WY	349.0 168.8	134.47 BLH20080304AAR	42 20 46.6 105 02 03.9	36.000 172	136.2 1675	53.8 Peak Radio Lic	-9.8*	55.5
227D	K227CP Cheyenne	CP	DV_	298.1 118.0	12.95 BNPFT20130826AHJ	41 12 51.0 104 51 31.0	0.205 52	130.7 1960	31.0 Community Translator Netwo	10.0R	3.0M
281C2	KANT Guernsey	CP	_CX WY	349.0 168.8	134.47 BPH20110211ACB	42 20 46.6 105 02 03.9	18.000 172	120.8 1675	47.6 Peak Radio Lic	5.6	61.7
283C2	KYAP Centennial	CP	NCX WY	283.2 102.8	62.03 BPH20130124ACV	41 17 06.0 105 26 41.0	13.500 284	5.5 2702	52.4 White Park Broadcasting, I	51.2	8.9
280D	K280BM Laramie	LIC	_CN WY	278.2 97.7	62.62 BLFT19840723MU	41 14 16.0 105 27 48.0	0.080 393	19.2 2661	12.8 Laramie Plains Antenna Tv	38.2	42.3
282C1	KKFN Longmont	LIC	NC_	193.1 12.8	166.98 BLH19991214ABH	39 41 45.0 105 09 54.0	100.000 206	117.4 2081	78.8 Lincoln Financial Media Co	44.4	82.0
283D	K283CF Masonville	LIC	DV_	207.7 27.4	83.51 BLFT20140805AAW	40 29 37.0 105 10 53.0	0.010 0.1	0.1 2079	6.2 Mary Medicus	78.9	75.4
278C0	KRFX Denver	LIC	DCX CO	195.5 15.2	164.44 BLH20070927AIC	39 43 59.0 105 14 10.0	100.000 346	12.2 2256	83.6 Citicasters Licenses, Inc.	147.0	80.4
227C0	KMOR Gering	LIC	NCX NE	44.3 224.9	106.19 BLH20070827AED	41 50 23.0 103 49 36.0	100.000 311	130.7 1598	31.0 Legacy Communications, LIC	25.0R	81.2M
284C1	KNNG Sterling	LIC	_CN CO	113.7 294.9	155.86 BLH19810402AB	40 34 57.0 103 01 56.0	100.000 198	9.4 1508	69.0 Media Logic Lic	135.8	86.1
283A	KYAP Centennial	LIC	_CX WY	277.8 96.9	119.53 BLH20121126ACD	41 17 49.0 106 08 23.0	0.500 33	1.6 2455	16.3 White Park Broadcasting, I	112.7	102.1
279C1	AL8413 Akron	VAC	___ CO	128.9 310.0	192.67 RM10630	40 03 28.0 102 57 35.0	100.000 299	9.8 1637	70.8 Akron B/c Co.	172.7	121.3
228C3	KZLL Log Lane Village	CP	_CX CO	136.9 317.6	133.95 BPH20120222ABS	40 16 30.0 103 38 33.0	11.000 62	130.7 1376	31.0 Jer Licenses, LIC	12.0R	122.0M
281C3	KFMU-FM Oak Creek	LIC	NCN CO	241.2 59.8	208.49 BLH19940111KC	40 14 10.0 106 52 30.0	1.400 327	79.1 2831	27.1 Alwaysmountaintime, LIC	125.2	154.7
227C1	KTCL Wheat Ridge	LIC	DCX CO	195.5 15.2	164.44 BLH20070621AQR	39 43 59.0 105 14 10.0	71.000 346	130.7 2256	31.0 Citicasters Licenses, Inc.	22.0R	142.4M
279C	KQLT Casper	LIC	_CY WY	323.8 142.8	219.61 BLH19980114KB	42 44 37.0 106 18 31.0	100.000 567	9.4 2525	68.6 Mt. Rushmore Broadcasting,	203.6	142.7
280L1	1627269 Denver	APP	___ CO	184.5 4.4	165.50 BNPL20131112AMB	39 40 31.0 104 52 22.0	0.016 73	1749	149.2 South Denver Community Rad	151.8	
281C1	KNAB-FM Burlington	LIC	_CN CO	134.0 315.6	294.33 BLH19900222KD	39 17 41.0 102 15 37.0	51.000 110	131.5 1367	45.4 Knab, Inc.	152.9	219.2
284C1	KTRS-FM Casper	LIC	_CX WY	323.9 142.8	219.51 BLH20060927ANT	42 44 37.0 106 18 24.0	18.000 554	5.8 2524	52.6 Townsquare Media Casper Li	207.2	157.1
280L1	NEW Alliance	CP	___ NE	55.0 236.3	185.99 BNPL20131114BKC	42 06 12.0 102 52 26.0	0.100 18	1233	167.8 St. Maximilian Kolbe Cath	166.2	
280C2	KRXP Pueblo West	LIC	NCX CO	182.6 2.5	268.63 BLH20070326AGF	38 44 44.0 104 51 42.0	1.750 657	90.8 2912	61.0 Colorado Springs Radio Bro	171.7	200.8
281C3	KBVC Buena Vista	LIC	NCN CO	205.6 24.7	296.37 BLH19961127KB	38 44 45.0 106 11 55.0	0.600 362	116.8 3335	47.1 Three Eagles Communication	174.8	236.1
284C1	KKVM Vail	LIC	_C_	221.3 40.2	223.72 BMLH20031119AII	39 38 05.0 106 26 47.0	100.000 102	3.2 3015	31.0 Vail Radio Partners, LIC	216.5	177.2

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*
281C1 Rapid City	KIQK	LIC_CN SD		20.1 201.1	340.01 BLH19940826KA	44 01 19.0 103 15 33.0	100.000 164	139.8 1292	42.0 Haugo Broadcasting, Inc.	191.0	256.8
228C1 Casper	KWYX	LIC_CX WY		323.8 142.7	219.38 BMLH20100607AFR	42 44 28.0 106 18 31.0	3.800 530	130.7 2497	31.0 Cochise Broadcasting Lic	22.0R	197.4M
284D Dillon	KKVM-FM3	LIC_DV_ CO		213.9 33.0	203.61 BLFTB20090115AFD	39 37 51.0 106 02 47.0	0.175 0.7	0.7 2786	5.5 Vail Radio Partners, Lic	198.8	197.6
278C Baggs	1144256	RSV-A WY	___	268.6 86.3	294.23	41 02 25.0 108 13 50.0	100.000 600	12.5 2659	86.1 Austin Jr, Ted W	276.8	204.6
284A Calhan	KKCS	LIC_NCX CO		171.6 351.9	242.68 BMLED20121019AAH	38 59 57.0 104 18 47.0	1.550 198	2.3 2192	28.9 Educational Media Foundati	233.4	212.0
278C Baggs	1142857	APP_CX WY		268.6 86.3	294.23 BNPH20060224ACG	41 02 25.0 108 13 50.0	100.000 452	10.7 2511	75.5 Austin Jr, Ted W	278.5	213.2
280A Snowmass Village	KSNO-FM	LIC_CN CO		222.0 40.6	282.87 BMLH19960220KC	39 14 51.0 106 55 13.0	6.000 99	50.5 2798	32.9 Cool Radio, Lic	228.7	235.2
282L1 Imperial	NEW	CP NE	___	104.4 286.4	268.73 BNPL20131114BLD	40 31 05.0 101 38 29.0	0.100 16	1015	250.1 St. Polycarp Catholic Radi		248.4
283D Colorado Springs	KSTY-FM1	LIC_C_ CO		182.6 2.5	268.66 BLFTB20050815ABU	38 44 43.0 104 51 39.0	0.003 0.1	0.1 2957	10.2 Royal Gorge Broadcasting L	262.4	258.1
283C3 Canon City	KSTY	LIC_CX CO		187.7 7.4	318.99 BLH20071003ABD	38 18 54.0 105 12 40.0	8.600 14	5.3 2138	57.0 Royal Gorge Broadcasting,	308.0	261.6
228C1 Paxton	KZTL	LIC_CX NE		91.0 273.3	283.66 BLH20071031AAY	41 03 50.0 101 20 16.0	100.000 230	130.7 1199	31.0 Legacy Communications, Lic	22.0R	261.7M
228C3 Aspen	KTND	LIC_C_ CO		223.5 42.1	279.39 BLH20100816ABF	39 18 56.0 106 57 32.0	21.000 109	130.7 2682	31.0 Bs&t Wi reless, Inc.	12.0R	267.4M

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.  
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 protected contour.

\* Translator being modified by this application.

FIGURE 2 - PRESENT AND PROPOSED 60 DBU CONTOURS  
K281BW CHEYENNE, WY, CH 281D

Coverage Study - NGDC 30 SEC  
10-06-2014

