

TECHNICAL STATEMENT
K266CB LARAMIE, WYOMING
MITCHELL A BERANEK
FCC FORM 349
MAY 2015

This Technical Statement is in support of FCC form 349 filed by Mitchell A Beranek for a minor change in the licensed facility of K266CB, facility ID 158251. It is proposing to modify its current directional antenna system, one step channel change from 266D to 267D and relocate to an existing tower site on Buckhorn Mountain.

Figure 1 shows a channel interference study conducted from the proposed site for K266CB. It shows that the proposed operation of K266CB on channel 267D, will not cause any prohibited outgoing interference to any licensed or proposed FM services, with the exception of KOLZ(FM) Cheyenne, Wyoming, facility ID 30225, on channel 264C1. The proposed operation of K266CB on 267D is located within the protected 60 dB μ contour of 3rd adjacent station KOLZ.

Figure 2 shows the coverage area for the worse case 100 dB μ interference contour F(50-10) and shows that there is no population in the area of interference. The applicant, Mitchell A Beranek, 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 1 acre wooded area, with private access. The transmitter building is uninhabited and does not have indoor plumbing.

Figure 3 is the directional antenna data for the proposed antenna.

Figure 4 shows that the current operation of K266CB will 60 dB μ overlap with the proposed operation of K266CB on channel 267D.

Figure 5 is a tabulation of the distances to the pertinent contours use in this this study for the proposed operation of K266CB on channel 267D

Figure 6 shows that the proposed “fill-in” operation for K266CB will be in compliance with fill-in rules since while the “MERP’s” will be exceeded on many of the pertinent 12 radials, the 60 dB μ of the new translator will not extend the current 60 dB μ contour of the primary station to be rebroadcast, KRKA Severance, Colorado, Facility ID 164151.

It was concluded that the new proposed operation of K266CB Laramie, Wyoming on channel 267D 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 INTERFERENE STUDY

K266CB LARAMIE, WY, CH. 267D CH# 267D - 101.3 MHz, Pwr= 0.25 kW DA, HAAT= 423.4 M, COR= 2587 M Average Protected F(50-50)= 26.53 km Standard Directional										
DISPLAY DATES DATA 05-22-15 SEARCH 05-25-15										
CH CITY	CALL	TYPE ANT STATE	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
268C Strasburg	KJHM	LIC NCX CO	123.4 304.3	138.74 BMLH20141014ACF	39 55 22.0 103 58 18.0	97.000 625	138.4 2109	93.3 Max Radio Of Denver Lic	-26.2	5.1
266C Denver	KOSI	LIC DC_ CO	175.4 355.5	98.92 BLH20020118AAJ	39 43 45.0 105 14 06.0	100.000 495	109.0 2262	65.7 Entercom License, Lic	-23.1*	5.2
266D Laramie	K266CB	LIC DC_ WY	11.5 191.6	52.01 BLFT20150417ABD	41 04 34.0 105 12 15.0	0.250	35.7 2432	18.8 Mitchell A. Beranek	-12.4	-18.6
267C0 Bridgeport	KOZY-FM	LIC _C_ NE	42.2 223.2	185.13 BLH20010827AAD	41 50 23.0 103 49 36.0	100.000 339	165.2 1630	66.3 Legacy Communications, Lic	-13.3	22.5
264C1 Cheyenne	KOLZ	LIC NC_ WY	37.3 217.6	60.42 BLH20080625AAB	41 02 55.0 104 53 28.0	100.000 202	9.0 2103	67.0 Citicasters Licenses, Inc.	18.2	-7.7*
269D Loveland	K269EQ	LIC _C_ CO	138.0 318.1	18.49 BLFT20110103AAQ	40 29 37.0 105 10 53.0	0.010 338	0.2 2085	3.2 Mountain Community Transla	0.4	10.3
213C3 Fort Collins	KCSU-FM	LIC _CN CO	97.5 277.6	14.67 BLED19850124LR	40 35 60.0 105 09 21.0	10.000 -108	46.6 1613	131.8 Board Of Governors Of The	11.5R	3.2M
268D Cheyenne	K268BX	LIC _C_ WY	37.3 217.6	72.67 BLFT20130514ACH	41 08 09.0 104 48 07.0	0.250 5	10.1 1879	7.1 Brahmin Broadcasting Corpo	29.1	14.0
214A Estes Park	KENC	LIC DEX CO	209.7 29.6	32.83 BMLD20130109AGF	40 21 38.0 105 31 12.0	0.200 13	46.6 2730	131.8 Community Radio For Northe	9.5R	23.3M
268D Commerce City	KJHM-FM1	LIC DC_ CO	159.6 339.9	111.54 BLFTB20050802ABY	39 40 31.0 104 52 22.0	20.000 84	62.4 1766	38.0 Max Radio Of Denver Lic	31.9	47.0
270C2 Burns	KIGN	LIC _CN WY	44.7 225.1	78.53 BMLH19950920KD	41 07 01.0 104 40 07.0	50.000 150	4.9 1963	43.7 Townsquare Media Cheyenne	39.3	33.7
214A Longmont	KGUD	LIC _CN CO	151.1 331.3	47.84 BLED19821018AU	40 14 24.0 105 03 19.0	0.100 82	46.6 1613	131.8 Longmont Community Radio	9.5R	38.3M
214A Longmont	KGUD	CP DCX CO	151.1 331.3	47.84 BPED20141216AAD	40 14 24.0 105 03 19.0	1.000 82	46.6 1613	131.8 Longmont Community Radio	9.5R	38.3M
269D Boulder	K269AE	LIC ?HN CO	172.5 352.5	73.54 BLFT221	39 57 38.0 105 12 52.0	0.103 -58	0.7 1747	12.4 Wilks License Company-denv	58.6	60.6
268D Commerce City	KJHM-FM6	CP DV_ CO	152.5 332.8	100.91 BNPFTB20130815AAL	39 48 39.0 104 46 52.0	8.000 11	5.8 1635	4.1 Max Radio Of Denver Lic	75.6	66.7
264D Granby	K264BO	CP _C_ CO	216.8 36.4	80.12 BNPFT20130328AKT	40 02 20.0 105 53 30.0	0.028 95	0.4 2795	7.0 Educational Communications	71.8	69.2
268D Golden	K268CK	LIC DC_ CO	175.4 355.5	98.88 BLFT20131101AJL	39 43 46.0 105 14 08.0	0.002	10.9 2251	6.7 Mary Medicus	74.0	76.3
270D Granby	K270AL	LIC DC_ CO	219.0 38.6	82.36 BLFT20120118AES	40 02 24.0 105 56 11.0	0.250 -165	0.5 2530	5.4 Alwaymountaintime, Lic	74.1	74.3
270C3 Centennial	KXWA	LIC NC_ CO	170.0 350.2	138.86 BLH20071207AAY	39 23 07.0 105 02 52.0	9.500 163	5.5 2226	58.4 Way Media, Inc.	117.9	80.2
268D Greenwood Village	KJHM-FM5	CP DV_ CO	151.7 332.1	112.18 BNPFTB20130430ACU	39 43 35.0 104 42 23.0	6.500 64	7.8 1762	6.2 Max Radio Of Denver Lic	84.5	80.6
268D Denver	KJHM-FM3	CP DV_ CO	159.5 339.8	103.95 BNPFTB20130430ACQ	39 44 24.0 104 54 05.0	0.750 8	3.8 1644	2.5 Max Radio Of Denver Lic	82.3	80.8
268D Glendale	KJHM-FM4	CP DV_ CO	161.8 342.0	105.94 BNPFTB20130430ACS	39 42 38.0 104 56 25.0	0.100 29	2.4 1675	1.2 Max Radio Of Denver Lic	86.2	83.9
269C1 Eagle	KSKE-FM	LIC ZC_ CO	232.5 51.5	158.85 BLH20050915ADE	39 44 18.0 106 47 58.0	12.000 667	6.5 3171	70.1 Alwaymountaintime, Lic	146.2	87.8
269D Evergreen	K269CL	LIC DHN CO	178.3 358.3	110.40 BLFT19950811TB	39 37 24.0 105 17 24.0	0.035 354	0.0 2646	4.0 Citicasters Licenses, Inc.	96.8	99.3
264D Dillon	K264AG	LIC _C_ CO	209.4 28.9	125.48 BLFT20060314AAU	39 37 51.0 106 02 47.0	0.240 -356	1.1 2790	7.0 Mountain Community Transla	115.7	118.3

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CH CI TY	CALL	TYPE STATE	ANT	AZI <--	DI ST FI LE #	LAT LNG	PWR(kW) HAAT (M)	INT(km) COR (M)	PRO(km) LI CENSEE	*IN* (Overl ap	*OUT* in km)
264C Puebl o	KGFT	LIC ZCY CO		169.0 349.3	211.66 BMLH20010216AAB	38 44 43.0 104 51 39.0	78.000 676	8.4 2930	85.7 Bi son Medi a, Inc	187.3	125.4
214A Breckenri dge	KMPB	LIC _CX CO		205.8 25.3	138.16 BLED20130930BUD	39 29 44.0 106 01 44.0	0.600 -76	46.6 3246	131.8 Communi ty Radi o For Northe	9.5R	128.7M
269A Wheatl and	KZEW	LIC _CN WY		11.2 191.5	161.80 BLH19850723KC	42 02 44.0 104 56 47.0	3.000 38	1.6 1503	13.2 Smi th Broadcasti ng, Incorp	129.5	147.5

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. Call signs with strikeout need not be protected.
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 KOLZ Cheyenne, WY on channel 264C1
since the proposed 100 dbu contour will not cover any population. See the
Technical Statement for more details.

FIGURE 2 - PREDICTED 100 DBU INTERFERENCE CONTOUR
K266CB LARAMIE, WY, CH. 267D

Coverage Study - NGDC 30 SEC
05-25-2015

K266CB CH266 D , 0.25 kW, 423.4M HAAT, 2587.0M COR AMSL
Interference Contour = 100 dBu. Population = 0

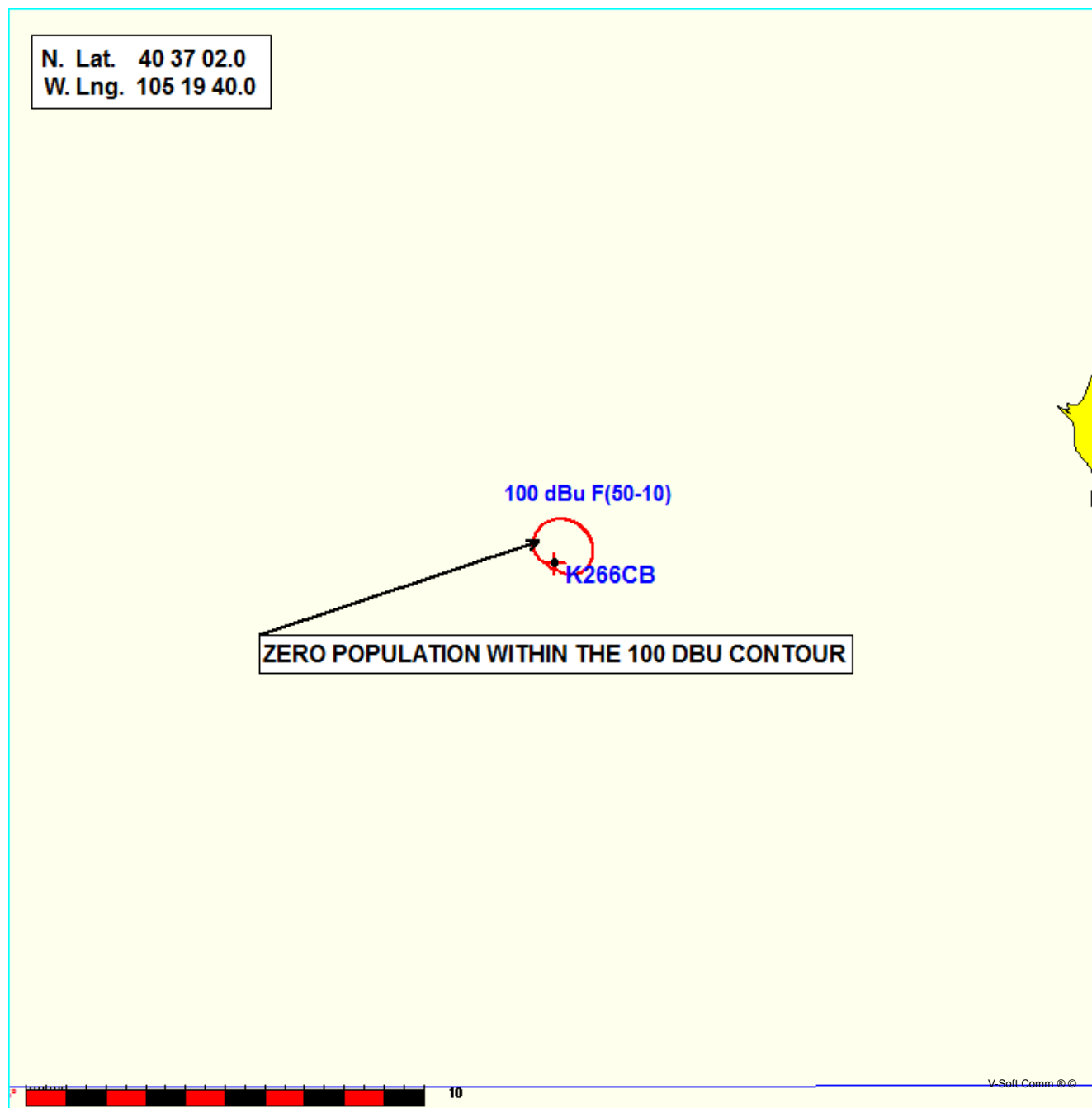


FIGURE 3 - DIRECTIONAL ANTENNA DATA

K266CB

05-25-2015

RMS(V) = .64

NICOM BKG-1 DIPOLE ANTENNA

Graph is Relative Field

ORIENTED AT 30

DEGREES

Azi	Field	dBk	kW
000	0.956	-06.411	0.228
010	0.978	-06.214	0.239
020	0.990	-06.108	0.245
030	1.000	-06.021	0.250
040	0.990	-06.108	0.245
050	0.978	-06.214	0.239
060	0.956	-06.411	0.228
070	0.927	-06.679	0.215
080	0.882	-07.111	0.194
090	0.808	-07.872	0.163
100	0.733	-08.719	0.134
110	0.646	-09.816	0.104
120	0.543	-11.325	0.074
130	0.430	-13.351	0.046
140	0.324	-15.810	0.026
150	0.240	-18.416	0.014
160	0.183	-20.772	0.008
170	0.158	-22.047	0.006
180	0.163	-21.777	0.007
190	0.157	-22.103	0.006
200	0.165	-21.671	0.007
210	0.161	-21.884	0.006
220	0.165	-21.671	0.007
230	0.157	-22.103	0.006
240	0.163	-21.777	0.007
250	0.158	-22.047	0.006
260	0.183	-20.772	0.008
270	0.240	-18.416	0.014
280	0.324	-15.810	0.026
290	0.430	-13.351	0.046
300	0.543	-11.325	0.074
310	0.646	-09.816	0.104
320	0.733	-08.719	0.134
330	0.808	-07.872	0.163
340	0.882	-07.111	0.194
350	0.927	-06.679	0.215

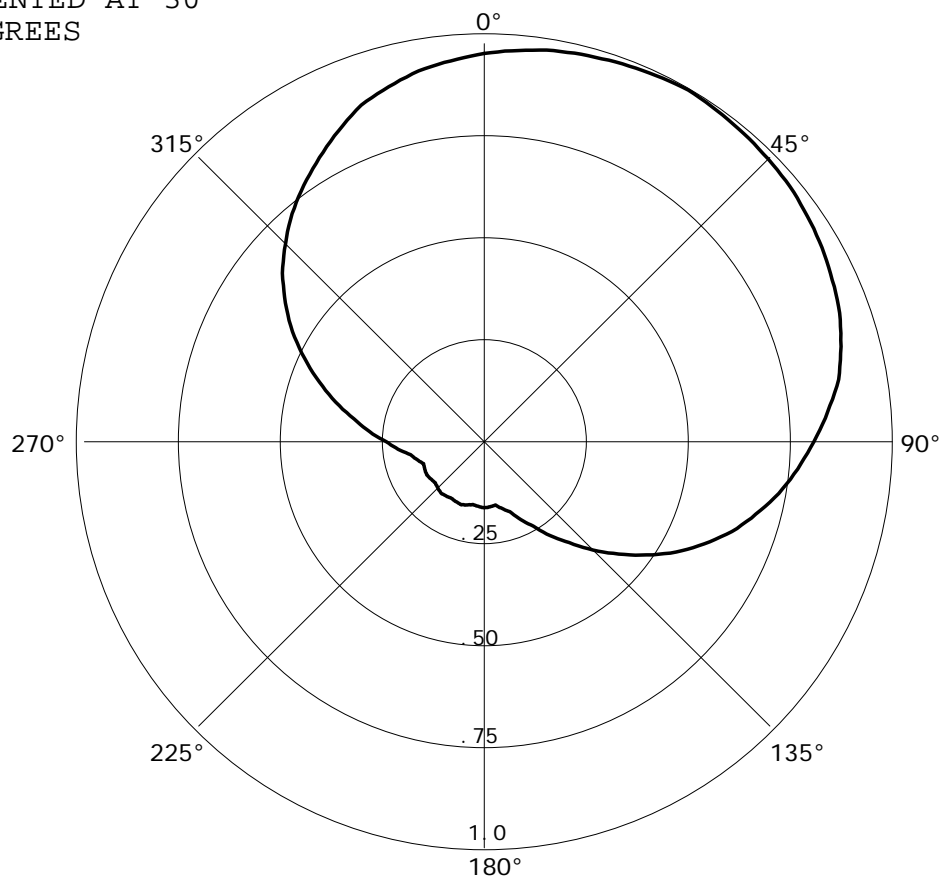
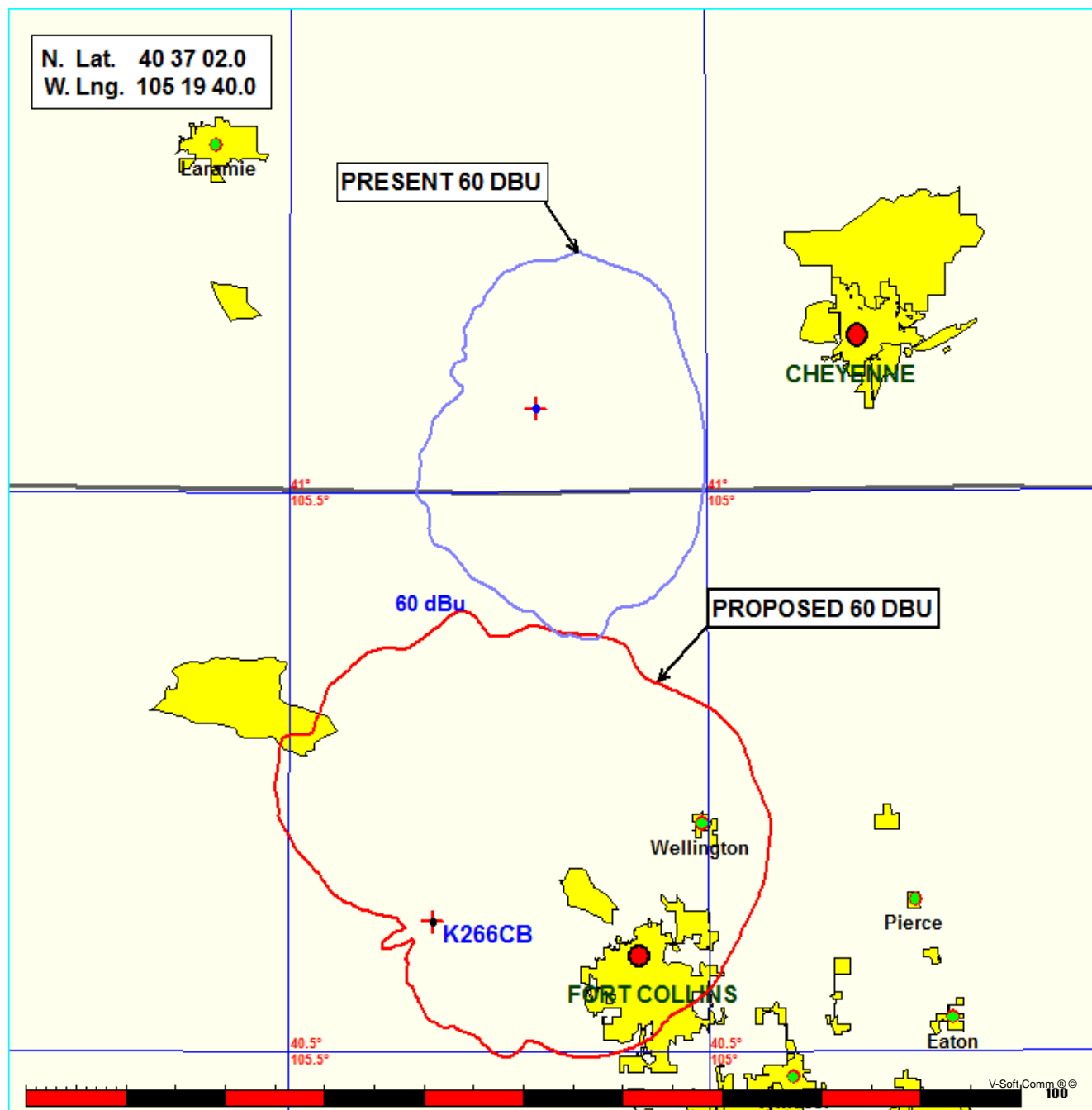


FIGURE 3 - PRESENT AND PROPOSED 60 DBU CONTOURS
K266CB LARAMIE, WY, CH. 267D

Coverage Study - NGDC 30 SEC
05-25-2015



Contour.out

N. Lat. = 403702.0 W. Lng. = 1051940.0
 HAAT and Distance to Contour,
 FCC, FM 2-10 Mi, 51 pts Method - NGDC 30 SEC

FIGURE 5 - TABULATION OF DISTANCES TO CONTOURS

Azi.	AV EL	HAAT	dBk	60-F5	54-F1	100-F1
000	2067.0	520.0	-6.41	29.04	45.29	1.06
010	2064.9	522.1	-6.21	29.43	45.93	1.08
020	2015.4	571.6	-6.11	31.24	48.87	1.10
030	1966.0	621.0	-6.02	32.88	51.14	1.11
040	1977.1	609.9	-6.11	32.38	50.48	1.10
050	1901.8	685.2	-6.21	34.38	52.95	1.08
060	1831.6	755.4	-6.41	35.98	54.83	1.06
070	1827.2	759.8	-6.68	35.54	54.25	1.03
080	1837.0	750.0	-7.11	34.37	52.74	0.98
090	1875.9	711.1	-7.87	31.74	49.34	0.90
100	1903.6	683.4	-8.72	29.53	46.09	0.81
110	1966.4	620.6	-9.82	26.48	41.19	0.72
120	1962.8	624.2	-11.32	24.46	37.79	0.60
130	1990.1	596.9	-13.35	21.31	32.22	0.48
140	2125.2	461.8	-15.81	15.77	24.05	0.36
150	1965.4	621.6	-18.42	15.68	24.22	0.27
160	2051.2	535.8	-20.77	12.25	18.96	0.20
170	2140.8	446.2	-22.05	10.62	15.67	0.18
180	2209.3	377.7	-21.78	10.11	14.38	0.18
190	2338.8	248.2	-22.10	8.07	11.50	0.17
200	2424.7	162.3	-21.67	6.71	9.55	0.18
210	2493.3	93.7	-21.88	5.06	7.10	0.18
220	2547.7	39.3	-21.67	3.28	4.62	0.18
230	2572.2	14.8	-22.10	2.81	3.93	0.17
240	2475.4	111.6	-21.78	5.58	7.81	0.18
250	2505.1	81.9	-22.05	4.67	6.57	0.18
260	2649.6	-62.6	-20.77	3.01	4.24	0.20
270	2629.5	-42.5	-18.42	3.45	4.88	0.27
280	2474.7	112.3	-15.81	7.83	11.01	0.36
290	2396.6	190.4	-13.35	11.79	17.28	0.48
300	2281.9	305.1	-11.32	16.79	24.97	0.60
310	2191.0	396.0	-9.82	20.80	31.33	0.72
320	2130.9	456.1	-8.72	23.67	36.61	0.81
330	2185.1	401.9	-7.87	23.36	35.71	0.90
340	2121.6	465.4	-7.11	26.18	40.71	0.98
350	2098.3	488.7	-6.68	27.57	42.94	1.03

Ave EI = 2172.08 M HAAT= 414.92 M AMSL= 2587

FIGURE 6 - FILL IN MAP WITH KRKA
K266CB LARAMIE, WY, CH. 267D

Coverage Study - NGDC 30 SEC
05-26-2015

