

TECHNICAL STATEMENT
K297AK LOVELAND, COLORADO
MOUNTAIN COMMUNITY TRANSLATORS, LLC
FCC FORM 349
DECEMBER 2014

This Technical Statement is filed in support of a minor change to the licensed facilities for K297AK Loveland, Colorado, facility ID # 140272.

K297AK seeks to change transmitter sites, the type antenna, and increase its effective radiated power from 0.01 kilowatts to 0.250 kilowatts. A directional antenna is proposed. The new proposed operation will be a "fill-in" for KXBG Cheyenne, WY, facility ID 7693.

Figure 1 shows a channel interference study on channel 297D. It shows the station that needs to be studied further for potential interference: KPAW Fort Collins, Colorado on channel 300C1, facility ID 68976.

The proposed operation of K297AK is located within the protected 60 dBu contours of third adjacent channel KPAW Fort Collins on channel 300C1. Therefore, the respective worst case predicted interfering contour generated by the proposed K297AK is 100 dBu, F50,10. This interfering contour extends less than 220 meters from the transmitter site for K297AK.

The applicant, Mountain Community Translators, LLC, respectfully requests a waiver of C.F.R. 74.1204(d) of the commission rules based on there is no population within the area of predicted interference area. Figure 2 shows the proposed 100 dbu interference contour and that there is no population located within this contour. The road to the site is a private gated lane. The transmitter building is owned and is un-habited and

does not have indoor plumbing. There are no residential homes nearby this transmitter site.

Figure 3 shows the proposed 60 dB μ contour for K297AK with the existing 60 dB μ of KXBG(FM) Cheyenne, WY, facility ID 7693. K297AK will operate as a “fill-in” translator for KXBG. Thus, some of the MERP’s will be exceeded on some of the 12 pertinent terrain radials. However, the ERP will not exceed the maximum of 0.25 KW (250 watts) on any radial.

Figure 4 shows the present 60 dB μ contour and the proposed 60 dB μ contour. It demonstrates compliance with the overlap requirements for a translator minor change application.

Figure 5 is a polar plot and antenna data for the proposed directional antenna for K297AK. It is Scala model CA5-CP/RM, one bay yagi, circular polarized, directional antenna system. Its center of radiation will be located 20 meter above the ground at the existing tower site on Horsetooth Mountain.

FIGURE 1 - DETAILED CHANNEL INTERFERENCE STUDY

K297AK LOVELAND, CO, CH. 297D

REFERENCE
40 32 47.0 N.
105 11 53.0 W.

CH# 297D - 107.3 MHz, Pwr= 0.25 kW DA, HAAT= 374.9 M, COR= 2193 M
Average Protected F(50-50)= 25.09 km
Standard Directional

DISPLAY DATES
DATA 12-02-14
SEARCH 12-04-14

CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
297D Loveland	K297AK	LIC DC_ CO	166.5 346.5	6.02 BLFT20080811ABV	40 29 37.0 105 10 53.0	0.010 349	21.2 2096	6.4 Mountain Community Transla	-26.8*	-41.5*
300C1 Fort Collins	KPAW	LIC NCX CO	0.5 180.5	38.71 BLH20080613AAG	40 53 42.0 105 11 38.0	100.000 220	10.3 2170	73.3 Citicasters Licenses, Inc.	4.2	-35.0**
296C Bennett	KXDE	LIC NCX CO	123.3 304.1	125.25 BMLH20141014ACE	39 55 22.0 103 58 18.0	97.000 624	138.4 2109	93.3 Max Radio Of Denver Llc	-33.0	3.3
298C Lakewood	KQKS	LIC _C_ CO	178.3 358.3	94.48 BLH19991214ABI	39 41 45.0 105 09 54.0	100.000 365	112.1 2081	76.2 Lincoln Financial Media Co	-29.0	0.8
294C0 Denver	KBPI	LIC _CX CO	182.0 2.0	90.39 BLH20080602ADJ	39 43 58.0 105 14 08.0	100.000 408	12.5 2318	85.9 Citicasters Licenses, Inc.	66.6	4.4
296D Cheyenne	K296FZ	LIC _C_ WY	30.3 210.6	79.03 BLFT20090415ADM	41 09 34.0 104 43 19.0	0.250 45	10.1 1882	7.1 Mitchell A. Beranek	37.8	23.7
297D Laramie	K298AE	CP _C_ WY	344.9 164.7	79.00 BPFT20140820ACX	41 13 58.0 105 26 40.0	0.013	31.2 2727	9.0 Cedar Cove Broadcasting, I	28.2	34.4
296D Aurora	KXDE-FM3	LIC DC_ CO	164.0 344.2	100.62 BLFTB20050729DSZ	39 40 31.0 104 52 22.0	20.000 84	60.2 1766	39.9 Max Radio Of Denver Llc	28.6	41.2
295D Buford	K295BY	CP _C_ WY	359.9 179.9	59.07 BNPFT20130320AFD	41 04 42.0 105 11 59.0	0.034 169	0.4 2388	11.6 Mary Medicus	35.1	45.6
297C2 Hayden	KQZR	LIC _C_ CO	269.8 88.4	177.78 BLH20000731ACV	40 31 16.0 107 17 46.0	29.000 198	132.4 2252	51.8 Alwaysmountaintime, Llc	39.9	114.7
298D Laramie	K298AE	LIC DC_ WY	344.9 164.7	79.01 BLFT20010717AAR	41 13 58.0 105 26 42.0	0.040 302	13.0 2724	6.3 Cedar Cove Broadcasting, I	46.6	52.9
243D Boulder	KXPK-FM1	LIC DCN CO	181.1 1.1	65.06 BLFTB19950119TD	39 57 38.0 105 12 44.0	0.500 -52	46.6 1753	131.8 Entravision Holdings, Llc	9.5R	55.6M
296D Commerce City	KXDE-FM5	CP DV_ CO	164.6 344.8	84.70 BMPFTB20140224ACT	39 48 38.5 104 56 06.6	4.000 55	7.5 1663	5.1 Max Radio Of Denver Llc	65.2	58.5
244C2 Laramie	KIMX	LIC NCX WY	346.0 165.8	84.86 BLH20070130AIV	41 17 15.0 105 26 38.0	4.800 313	46.6 2730	131.8 Appaloosa Broadcasting Com	14.5R	70.4M
243C Evergreen	KXPK	LIC _CN CO	194.3 14.1	99.66 BLH19940701KC	39 40 35.0 105 29 09.0	100.000 530	46.6 3281	131.8 Entravision Holdings, Llc	28.5R	71.2M
296D Denver	KXDE-FM4	CP DV_ CO	164.2 344.4	93.03 BNPFTB20130430ABD	39 44 24.0 104 54 05.0	0.750 8	4.6 1644	3.3 Max Radio Of Denver Llc	76.5	71.2
296D Greenwood Village	KXDE-FM7	CP DV_ CO	155.2 335.5	100.22 BNPFTB20130430ACZ	39 43 35.0 104 42 23.0	6.500 64	9.4 1762	6.7 Max Radio Of Denver Llc	78.7	73.3
300D Denver	K300CP	CP DC_ CO	168.6 348.8	90.47 BPFT20141006AAV	39 44 51.0 104 59 21.0	0.250	0.9 1796	15.6 Way Media , Inc.	77.8	73.8
296D Glendale	KXDE-FM6	CP DV_ CO	166.6 346.8	95.37 BNPFTB20130430ACX	39 42 38.0 104 56 25.0	0.100 20	3.3 1675	2.3 Max Radio Of Denver Llc	80.2	74.0
300D Denver	K300CP	LIC DC_ CO	162.3 342.5	121.16 BLFT20140915ACQ	39 30 24.0 104 46 02.0	0.250	1.1 1981	20.1 Way Media , Inc.	108.0	100.6

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.

* Translator being modified by this application.

** No actual interference will be caused to KPAW since the proposed 100dbu contour will not cover any population. See the Technical Statement for more details.

FIGURE 2 - PREDICTED 100 DBU CONTOUR
K297AK LOVELAND, CO, CH. 297D

Coverage Study - NGDC 30 SEC
12-04-2014

KXDE-FM7 CH297 D , 6.5 kW, 64.0M HAAT, 1762.0M COR AMSL
Interference Contour = 100 dBu. Population = 0

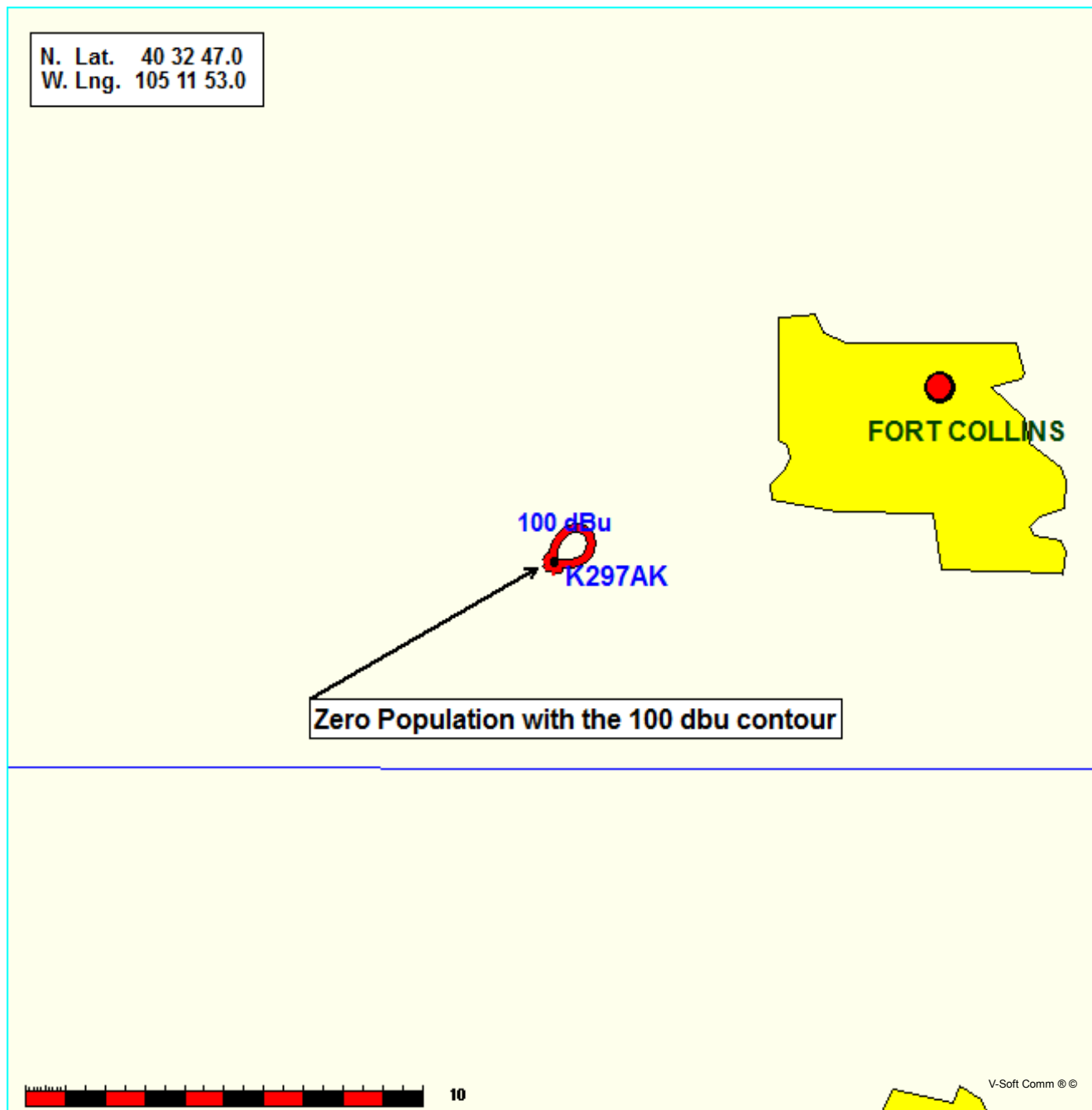


FIGURE 3 - FILL IN MAP WITH KXBG
K297AK LOVELAND, CO, CH. 297D

Coverage Study - NGDC 30 SEC
12-04-2014

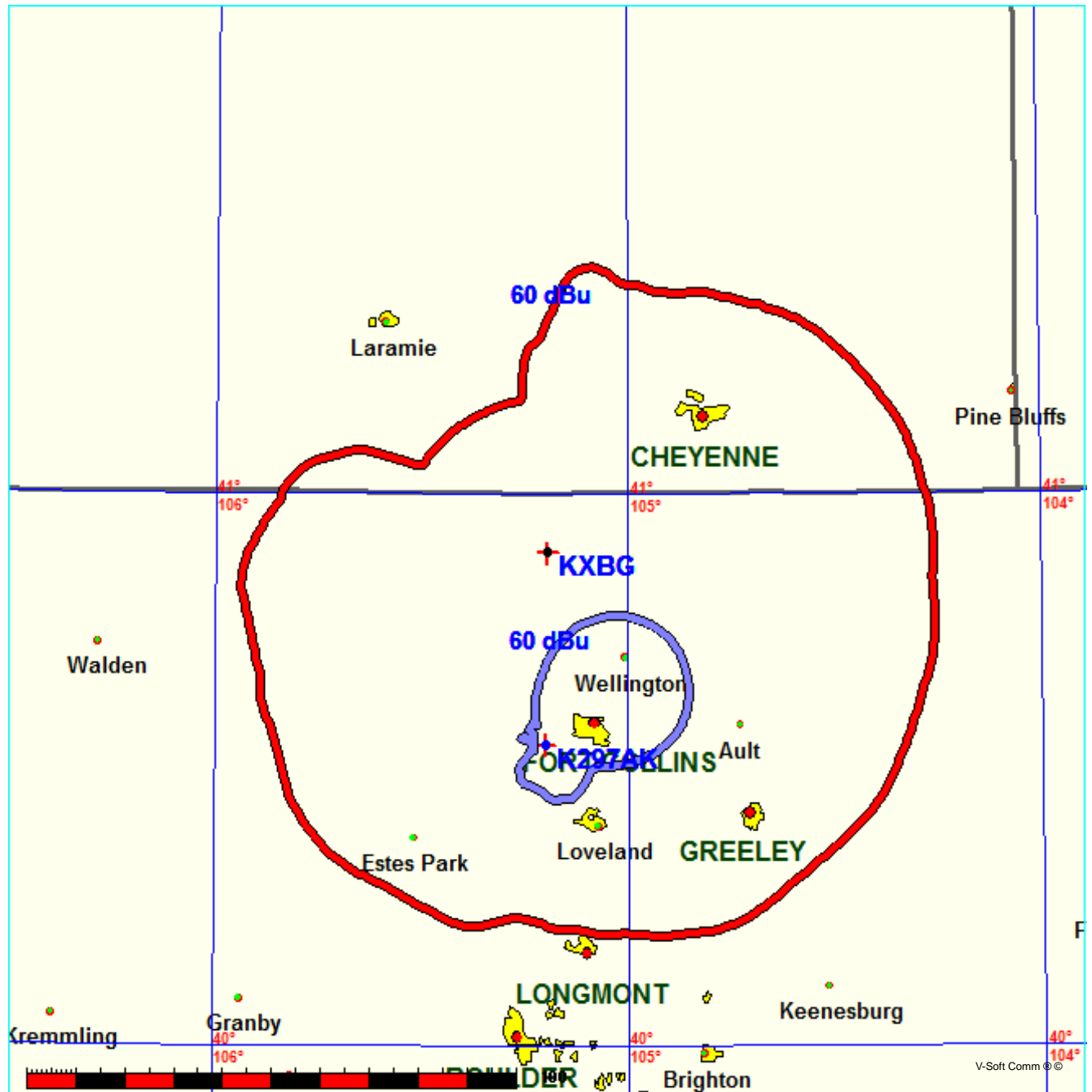
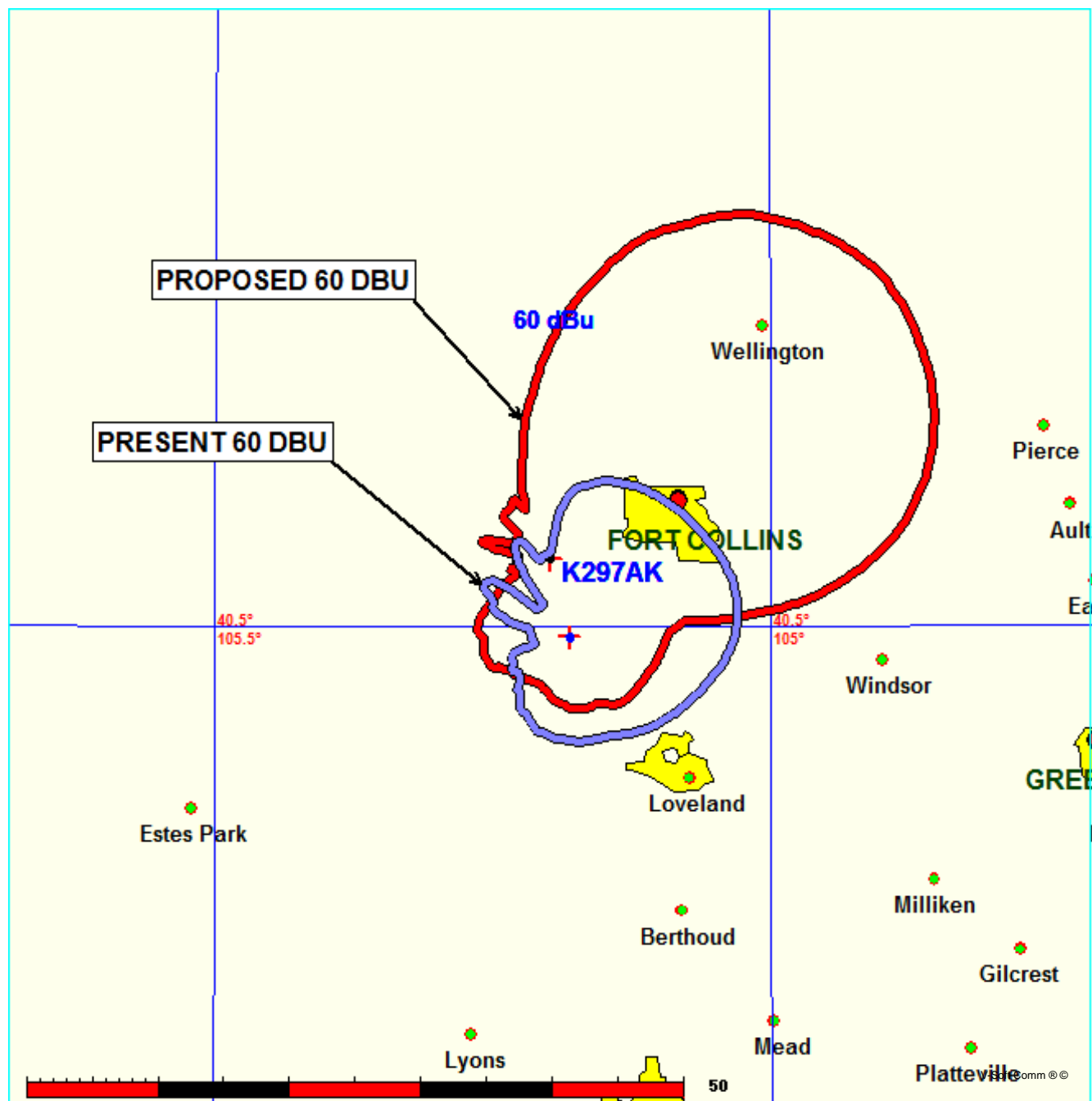


FIGURE 4 - PRESENT AND PROPOSED 60 DBU
K297AK LOVELAND, CO, CH. 297D

Coverage Study - NGDC 30 SEC
12-04-2014



K297AK

12-04-2014

RMS(V)= .433

FIGURE 5 Directional antenna Data

Graph is Relative Field

Azi	Field	dBk	kW
000	0.329	-15.677	0.027
010	0.528	-11.568	0.070
020	0.718	-08.898	0.129
030	0.866	-07.270	0.187
040	0.952	-06.448	0.227
050	1.000	-06.021	0.250
060	0.952	-06.448	0.227
070	0.866	-07.270	0.187
080	0.718	-08.898	0.129
090	0.528	-11.568	0.070
100	0.329	-15.677	0.027
110	0.190	-20.446	0.009
120	0.134	-23.479	0.004
130	0.142	-22.975	0.005
140	0.157	-22.103	0.006
150	0.181	-20.867	0.008
160	0.187	-20.584	0.009
170	0.171	-21.361	0.007
180	0.140	-23.098	0.005
190	0.123	-24.222	0.004
200	0.135	-23.414	0.005
210	0.160	-21.938	0.006
220	0.182	-20.819	0.008
230	0.193	-20.309	0.009
240	0.182	-20.819	0.008
250	0.160	-21.938	0.006
260	0.135	-23.414	0.005
270	0.123	-24.222	0.004
280	0.140	-23.098	0.005
290	0.171	-21.361	0.007
300	0.187	-20.584	0.009
310	0.181	-20.867	0.008
320	0.157	-22.103	0.006
330	0.142	-22.975	0.005
340	0.134	-23.479	0.004
350	0.190	-20.446	0.009

SCALA CA5-CP

