

EXHIBIT E-1  
TECHNICAL STATEMENT  
K238BG MASONVILLE, COLORADO 235D  
MITCHELL A. BERANEK  
FCC FORM 349  
JUNE 2009

This Technical Statement is in support of FCC form 349 filed by Mitchell A. Beranek for a minor change in the licensed facility of K235BG, facility ID #155948. It proposes to change to channel 235D from channel 238D, at an existing tower site located at N. 40°-29'-38", W. 105°-10'-53", NAD 27 with an Effective Radiated Power of 65 Watts while utilizing a Nicom, model BKG1/P, one bay vertical polarized antenna. The antenna will be mounted at the 11 meter level on a 12 meter overall tower, with a Center of Radiation at 2081 meters Above Mean Sea Level.

Figure 1 shows a channel spacing study conducted from the proposed site for K238BG on channel 235D. The pertinent records that require more study, are 1<sup>st</sup> adjacent station KRKS-FM Lafayette, Colorado on channel 234C, 1<sup>st</sup> adjacent station KCGY Laramie, Wyoming on 236C, 2<sup>nd</sup> adjacent translator K237CY Fort Collins, Colorado on channel 237D, 3<sup>rd</sup> adjacent station KMAX-FM Wellington, Colorado on channel 232C3, and a 1<sup>st</sup> adjacent application, application ID #631855, for an FM translator in Windsor, Colorado on 236D.

Figure 2 and figure 3 are predicted coverage maps showing the 54 dB $\mu$  interference contour (F50,10) of the proposed operation of K238BG on channel 235D and the 60 dB $\mu$  protected contour (F50,50) of KRKS-FM Lafayette, Colorado on 234C. As can be seen, there is no prohibited overlap between these two contours.

Figure 4 is a predicted coverage map showing the 54 dB $\mu$  interference contour (F50,10) of the proposed operation of K238BG on channel 235D and the 60 dB $\mu$  protected contour (F50,50) of 1<sup>st</sup> adjacent station KCGY Laramie, Wyoming on 236C. As can be seen, there is no prohibited overlap between these two contours.

The proposed operation of K238BG on channel 235D is located within the protected 60 dB $\mu$  contour of 2<sup>nd</sup> adjacent translator K237CY Fort Collins, Colorado on channel 237D. The predicted (F50,50) field strength of KSME at the proposed K238BG transmitter site is 93.3 dB $\mu$ . Therefore, the respective predicted interfering contour (F50,10) generated by the proposed 235D is an additional 40 dB $\mu$  at 133.3 dB $\mu$ . Figure 5 shows the coverage area for the 133.3 dB $\mu$  interference contour (F50,10) 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 tower site and the transmitter building is uninhabited.

The proposed operation of K238BG on channel 235D is located within the protected 60 dB $\mu$  contour of 3<sup>rd</sup> adjacent station KMAX-FM Wellington, Colorado on channel 232C3. The predicted (F50,50) field strength of KSME at the proposed K238BG transmitter site is 61.3 dB $\mu$ . Therefore, the respective predicted interfering contour (F50,10) generated by the proposed 235D is an additional 40 dB $\mu$  at 101.3 dB $\mu$ . Figure 6 shows the coverage area for the 101.3 dB $\mu$  interference contour (F50,10) and shows that there is no population in the area of interference. Once again, 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 tower site and the transmitter building is uninhabited.

Figure 7 is a predicted coverage map showing the 54 dB $\mu$  interference contours (F50,10) and the 60 dB $\mu$  protected contours (F50,50) of both the proposed operation of K238BG on channel 235D and of the 1<sup>st</sup> adjacent application, application ID #631855, for an FM translator in Windsor, Colorado on 236D. As can be seen, there is no prohibited overlap between the interference contour of one facility with the protected contour of the other respective facility.

Figure 8 shows the overlap between the 60 dB $\mu$  contours of the proposed facility, in red, and the current licensed facility, in blue, for K238BG seeking to be modified by this application.

The proposed operation of K238BG on channel 235D will operate as a fill-in translator for KUNC Greeley CO on channel 218C1. Figure 9 shows that the 60 dB $\mu$  contour of the proposed facility, in red, is entirely within the 60 dB $\mu$  contour of KUNC, in blue.

Figure 10 shows the antenna polar plot of the proposed directional antenna.

It was concluded that the new proposed operation of K238BG Masonville, Colorado on channel 235D will not cause any harmful interference to any existing stations, and will be in full compliance with the commission's rules.

Exhibit E-1, Fig 1, Channel Study  
 K238BG Masonville, Colorado 235D  
 Average Protected F(50-50)= 17.06 km  
 Standard Directional

REFERENCE  
 40 29 38.0 N.  
 105 10 53.0 W.

CH# 235D - 94.9 MHz, Pwr= 0.065 kw, HAAT= 335.4 M, COR= 2081 M

DISPLAY DATES  
 DATA 06-10-09  
 SEARCH 06-10-09

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*
238D Masonville	K238BG	LIC CO	_C_	318.1 138.0	18.5 BLFT20090603AFW	40 37 03.0 105 19 40.0	0.003 0.003	0.1 2549	8.4 Mitchell A. Beranek	13.9	9.6
234C Lafayette	KRKS-FM	LIC CO	DCN	197.4 17.3	49.1 BMLH19981009KC	40 04 19.0 105 21 14.0	100.000 300	55.3 2442	36.1 Salem Media Of Colorado, I	-17.1*	0.2
236C Laramie	KCGY	LIC WY	_CN	346.0 165.8	93.4 BLH19831107AS	41 18 34.0 105 27 11.0	100.000 326	86.5 2726	57.0 Gap Broadcasting Laramie L	-11.8	11.0
237D Ft. Collins	K237CY	LIC CO	DC_	159.4 339.4	0.1 BLFT20061016ADT	40 29 36.0 105 10 52.0	0.010	0.0 2078	2.0 Educational Communications	-6.7*	-2.0*
232C3 Wellington	KMAX-FM	LIC CO	_CX	3.8 183.8	48.3 BLH20021101AAV	40 55 41.0 105 08 36.0	8.700 168	4.9 2131	51.0 Regent Broadcasting Of Ft.	25.4	-3.2*
236D Windsor	631585	APP CO	DE_	107.0 287.3	39.9 BNPFT20030312AXC	40 23 19.0 104 43 56.0	0.050	6.3 1528	4.5 Educational Communications	12.7	7.7
237D Mead	631530	APP CO	DE_	159.4 339.5	30.1 BNPFT20030312ACS	40 14 24.0 105 03 23.0	0.100	0.1 1637	3.7 Educational Communications	23.2	26.3
233D Greeley	652147	APP CO	_C_	107.7 288.0	39.6 BNPFT20030317MSW	40 23 05.0 104 44 12.0	0.060	0.5 1508	4.9 Kevin J. Youngers	23.3	34.3
237D Evans	631339	APP CO	_C_	104.0 284.3	42.3 BNPFT20030313BFO	40 24 04.0 104 41 54.0	0.250	1.1 1507	8.1 Educational Media Foundati	24.7	33.7
234D Cheyenne	K234AH	CP WY	_C_	11.0 191.1	68.7 BPFT20090121AGT	41 06 02.0 105 01 29.0	0.092	12.9 2107	9.2 Mountain Community Transla	33.9	28.3
234D Cheyenne	K234AH	LIC WY	DC_	14.5 194.7	75.1 BMLFT20061107AAJ	41 08 55.0 104 57 22.0	0.169	4.8 2019	3.4 Mountain Community Transla	49.8	36.9
236C Colorado Springs	KATC-FM	LIC CO	_C_	171.9 352.1	196.1 BLH20060622ABT	38 44 43.0 104 51 39.0	72.000 695	146.3 2946	100.8 Citadel Broadcasting Compa	40.6	83.7
238A Hillsdale	KYOY	APP WY	NCX	39.1 219.5	97.9 BPH20090326ACV	41 10 30.0 104 26 41.0	4.000 30	1.6 1743	14.2 Kimball Radio, Llc	75.4	83.1
237D Golden	631519	APP CO	DE_	191.1 10.9	82.4 BNPFT20030312AGV	39 45 57.0 105 21 59.0	0.011	0.0 2509	0.2 Educational Communications	75.6	82.0
237D Denver	630298	APP CO	_C_	159.6 339.8	86.2 BNPFT20030317AZZ	39 45 59.0 104 49 48.0	0.001	0.1 1643	2.6 Horizon Christian Fellowsh	79.3	83.3
238A Hillsdale	KYOY	RSV WY	___	37.2 217.7	105.9	41 15 00.0 104 25 00.0	6.000 100	2.5 1809	25.4 Kimball Radio, Llc	82.5	79.9
238D Laramie	647805	APP WY	_C_	346.0 165.8	93.6 BNPFT20030317LDA	41 18 39.1 105 27 12.1	0.010	0.2 2771	7.9 Radio Assist Ministry, Inc	84.0	85.2
238D Laramie	648663	APP WY	_C_	338.6 158.4	95.7 BNPFT20030317ILT	41 17 42.0 105 35 56.0	0.250	1.1 2215	7.1 Educational Media Foundati	85.8	88.0
238C3 Pine Bluffs	AU7955923	VAC WY	___	59.6 240.4	114.2 RM10098	41 00 23.0 104 00 34.0	25.000 100	4.0 1717	38.2 Kkdd-fm Broadcasters, Et A	89.3	113.6
238C3 Pine Bluffs	R13048	DEL WY	___	59.6 240.4	114.2	41 00 23.0 104 00 34.0	25.000 100	4.0 1717	38.2 Kimball Radio, Llc	89.3	113.6
232C Colorado Springs	KILO	LIC CO	_C_	171.9 352.1	196.0 BLH20070426AAL	38 44 44.0 104 51 42.0	79.000 670	15.9 2922	101.1 Colorado Springs Radio Bro	173.0	94.7
235C3 Bairoil	NEW	CP WY	_CX	316.9 135.4	260.4 BNPH20070430AAI	42 10 55.0 107 20 27.0	25.000 100	125.6 2228	48.9 Independence Media Holding	123.4	196.7
233C3 Merino	KRGQ	CP CO	_CX	87.9 269.3	174.5 BMPH20081204ADA	40 31 57.0 103 07 22.0	15.000 124	4.7 1431	45.5 Northeast Colorado Broadca	150.8	128.5

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 = 2, 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.

Exhibit E-1, Fig 2, K238BG vs KRKS-FM  
K238BG Masonville, Colorado 235D

FMCommander Single Allocation Study - 06-09-2009 - NGDC 30 SEC  
K238BG's Overlaps (In= -17.11 km, Out= 0.19 km)

K238BG CH 235 D DA  
Lat= 40 29 38.0, Lng= 105 10 53.0  
0.065 kW 335.4 M HAAT, 2081 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

KRKS-FM CH 234 C DA BMLH19981009KC  
Lat= 40 04 19.0, Lng= 105 21 14.0  
100.0 kW 300 M HAAT, 2442 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

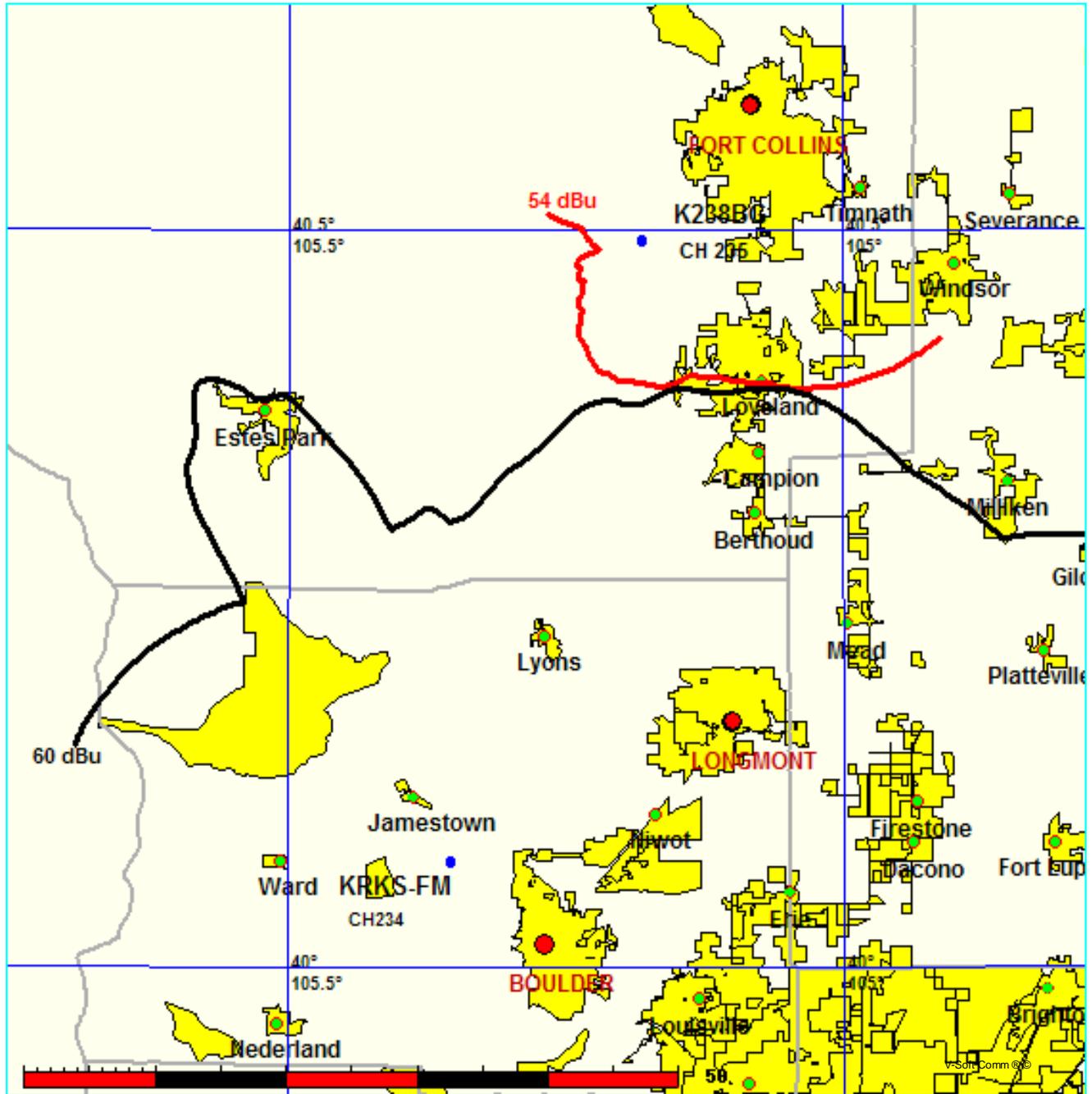


Exhibit E-1, Fig 3, K238BG vs KRKS-FM magnified  
K238BG Masonville, Colorado 235D

FMCommander Single Allocation Study - 06-09-2009 - NGDC 30 SEC  
K238BG's Overlaps (In= -17.11 km, Out= 0.19 km)

K238BG CH 235 D DA  
Lat= 40 29 38.0, Lng= 105 10 53.0  
0.065 kW 335.4 M HAAT, 2081 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

KRKS-FM CH 234 C DA BMLH19981009KC  
Lat= 40 04 19.0, Lng= 105 21 14.0  
100.0 kW 300 M HAAT, 2442 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

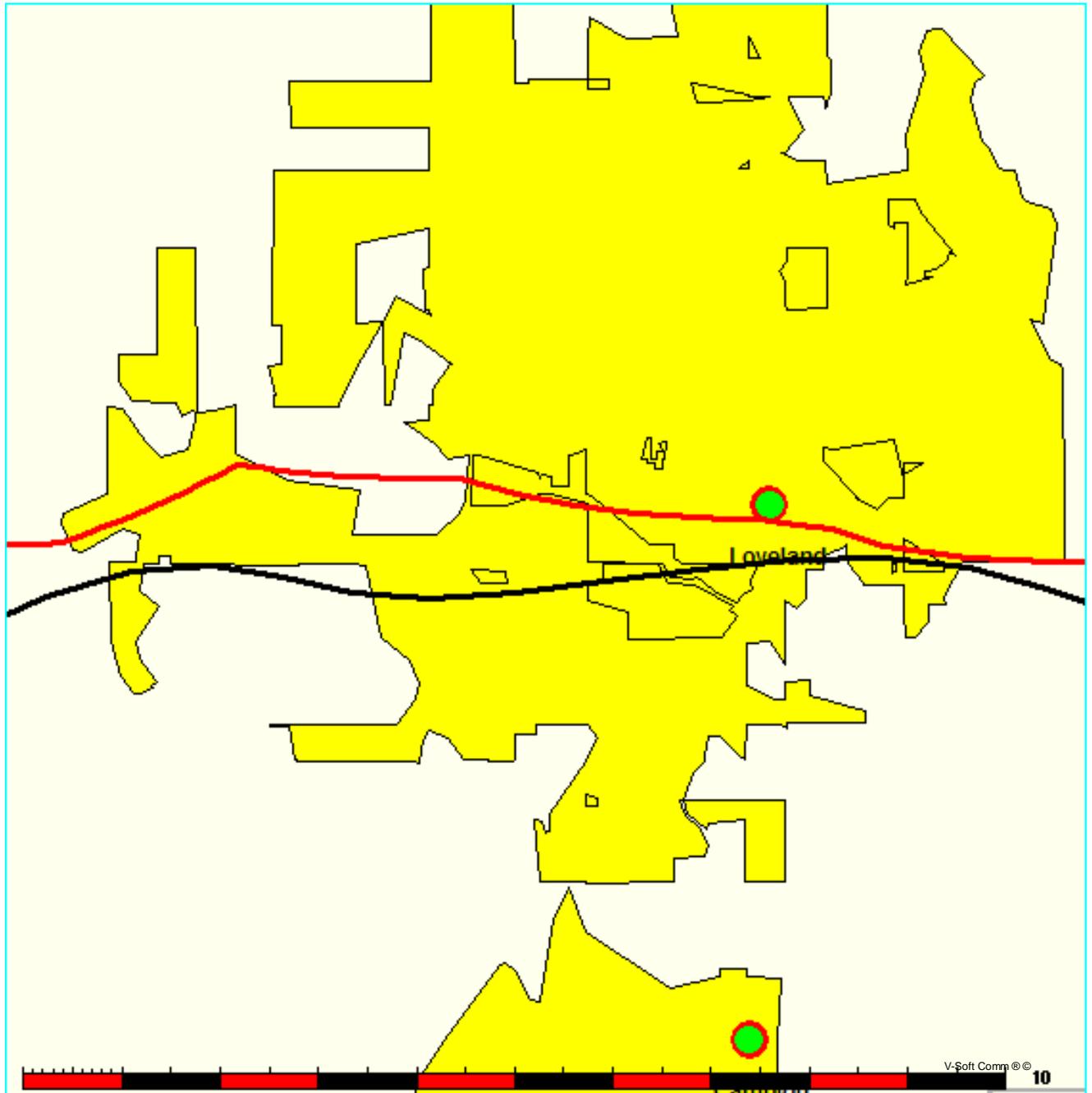


Exhibit E-1, Fig 4, K238BG vs KCGY  
K238BG Masonville, Colorado 235D

FMCommander Single Allocation Study - 06-09-2009 - NGDC 30 SEC  
K238BG's Overlaps (In= -11.85 km, Out= 11.05 km)

K238BG CH 235 D DA  
Lat= 40 29 38.0, Lng= 105 10 53.0  
0.065 kW 335.4 M HAAT, 2081 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

KCGY CH 236 C BLH19831107AS  
Lat= 41 18 34.0, Lng= 105 27 11.0  
100.0 kW 326 M HAAT, 2726 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

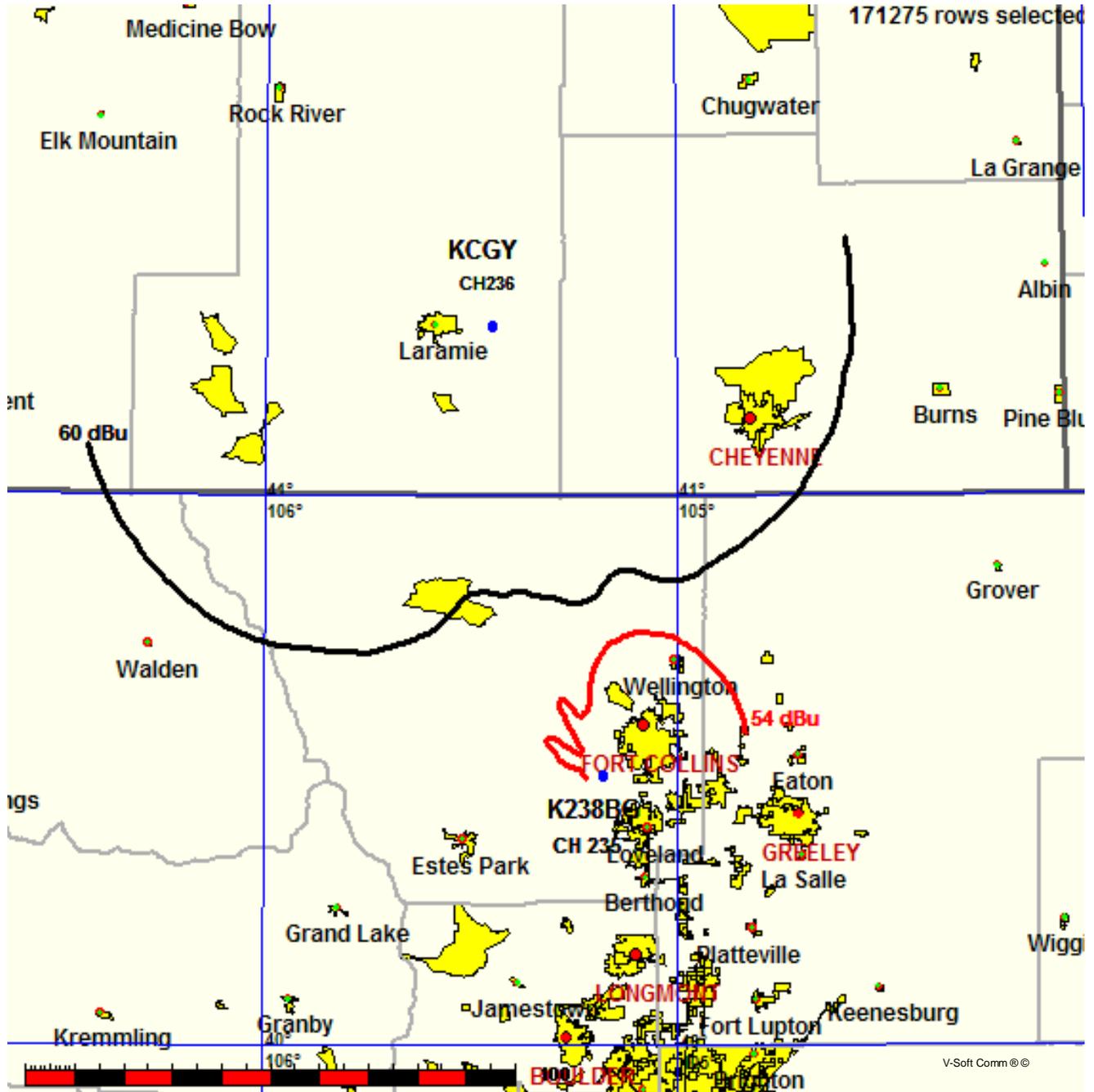


Exhibit E-1, Fig 5, 133.3 dBu F(50,10), 0 population  
K238BG Masonville, Colorado 235D

Coverage Study - NGDC 30 SEC  
06-09-2009

K238BG CH235 D 0.065 kW 2081M COR  
Prot. = 60 dBu. Population =

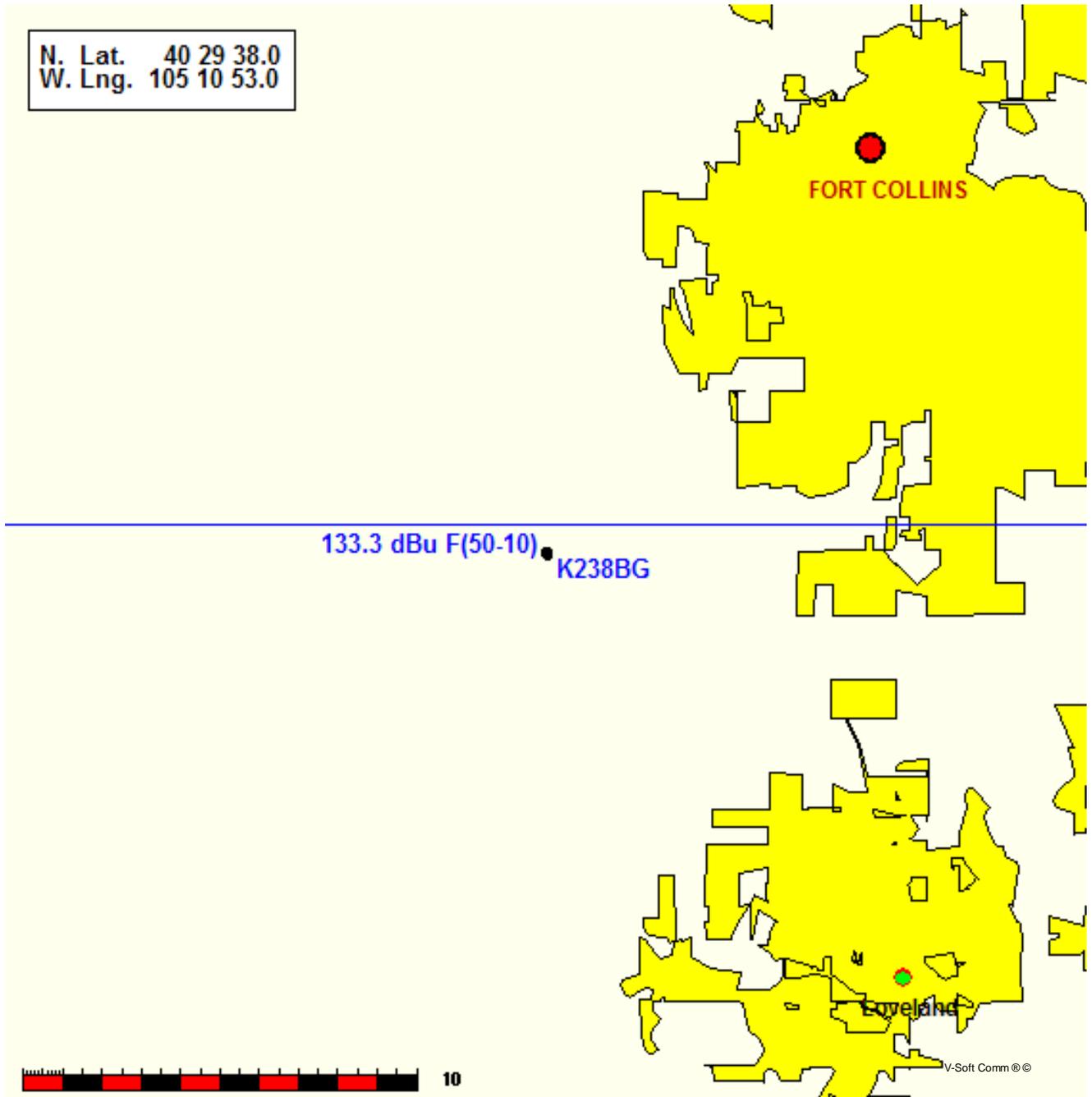


Exhibit E-1, Fig 6, 101.3 dBu F(50,10), 0 population  
K238BG Masonville, Colorado 235D

Coverage Study - NGDC 30 SEC  
06-09-2009

K238BG CH235 D 0.065 kW 2081M COR  
Prot. = 60 dBu. Population =

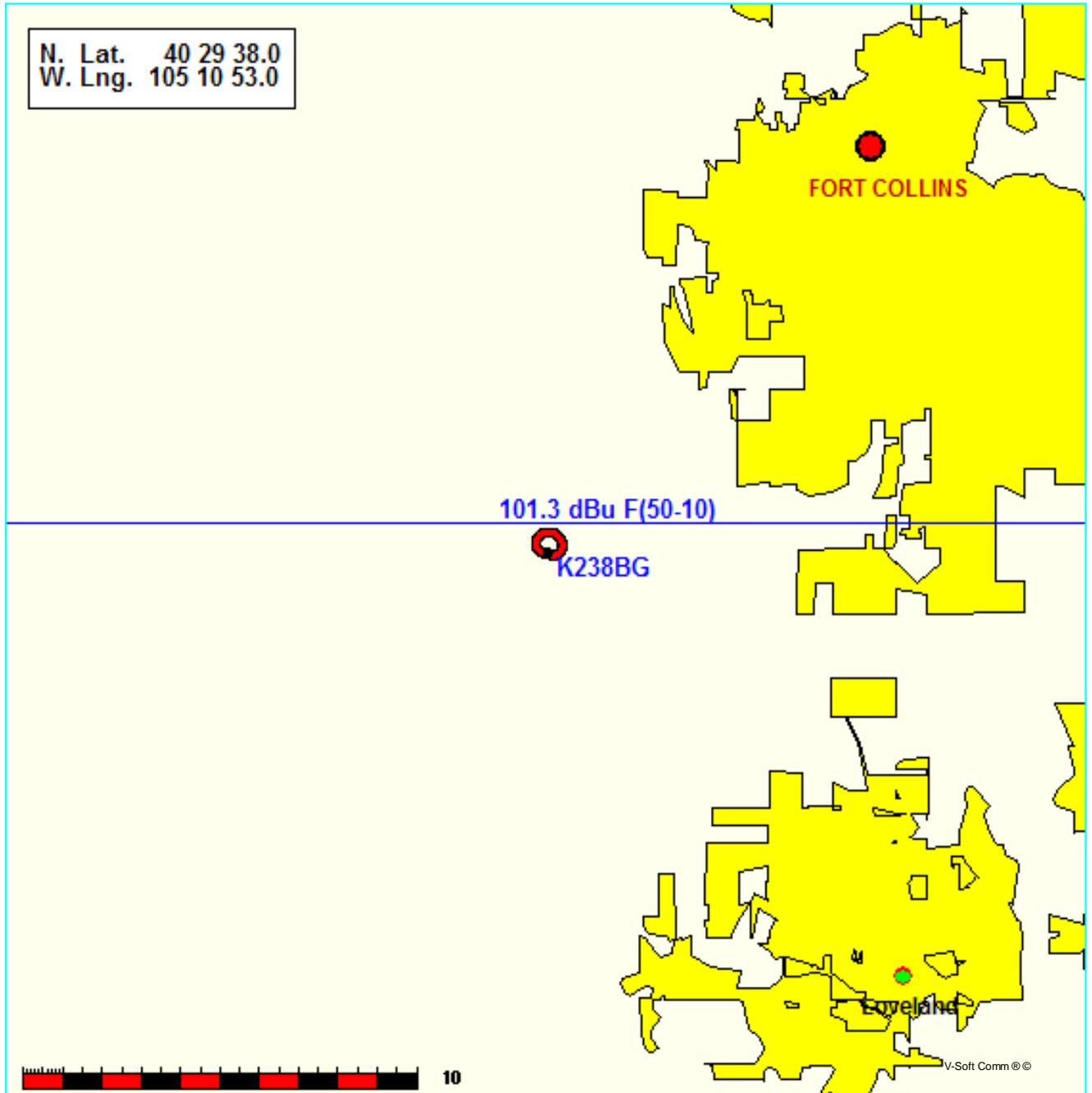


Exhibit E-1, Fig 7, K238BG vs 236D App  
K238BG Masonville, Colorado 235D

FMCommander Single Allocation Study - 06-09-2009 - NGDC 30 SEC  
K238BG's Overlaps (In= 12.73 km, Out= 7.71 km)

K238BG CH 235 D DA  
Lat= 40 29 38.0, Lng= 105 10 53.0  
0.065 kW 335.4 M HAAT, 2081 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

631585 CH 236 D DA BNPFT20030312AXC  
Lat= 40 23 19.0, Lng= 104 43 56.0  
0.05 kW 0 M HAAT, 1528 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

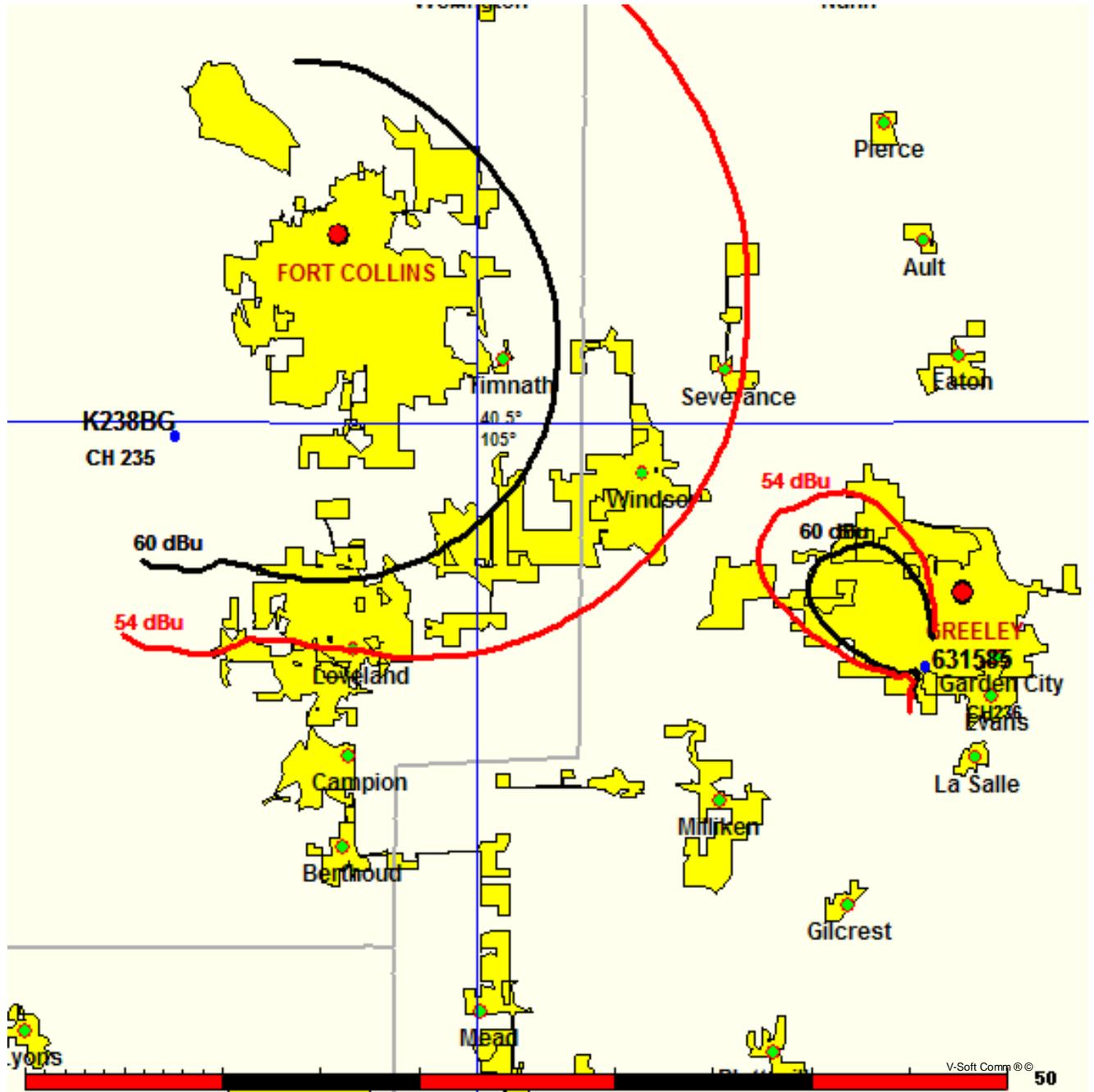


Exhibit E-1, Fig 8, Proposed (red) vs Licensed (blue)  
K238BG Masonville, Colorado 235D

Coverage Study - NGDC 30 SEC  
06-10-2009

K238BG CH238 D 0.003 kW 2549M COR  
Prot. = 60 dBu.

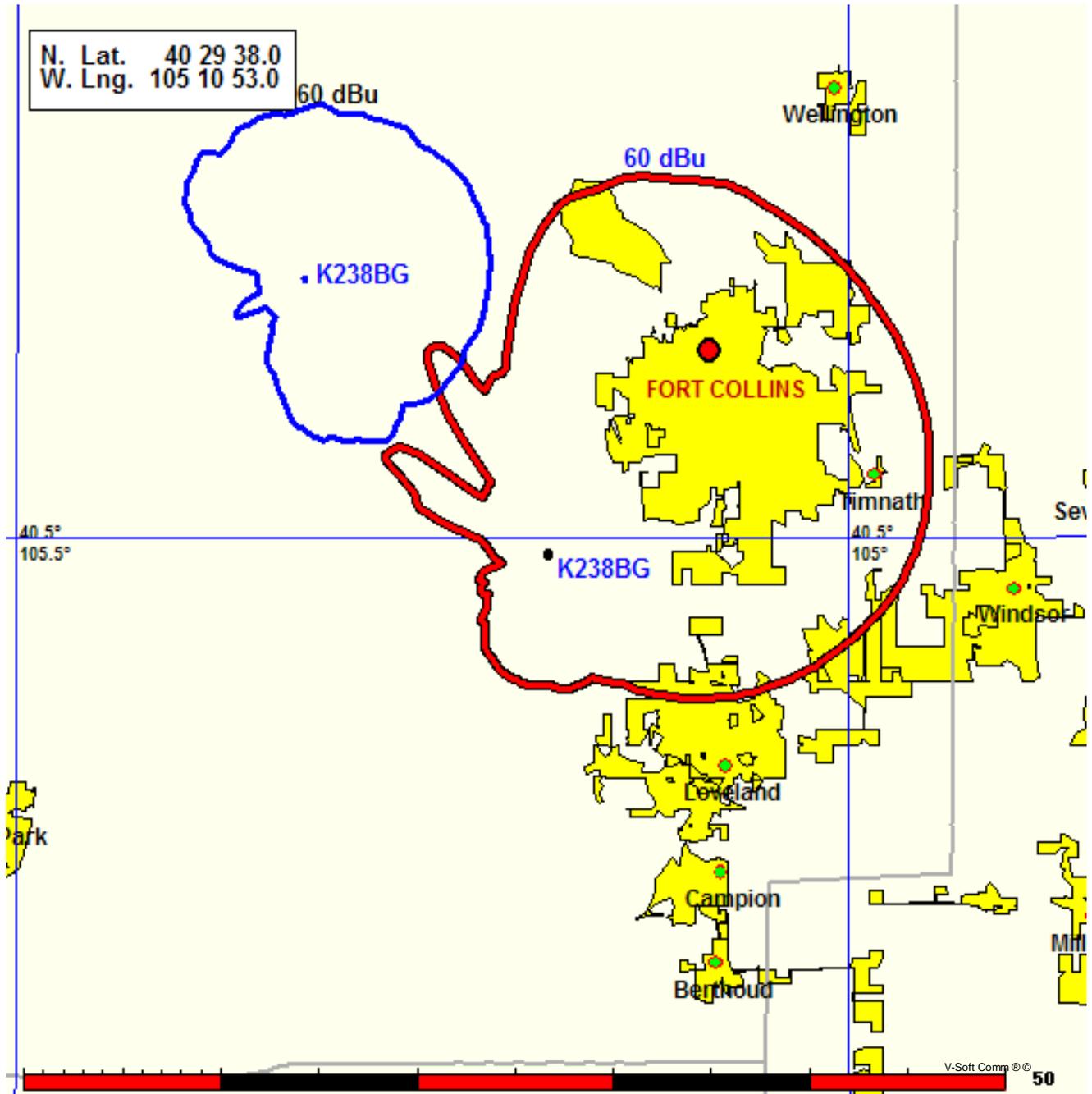
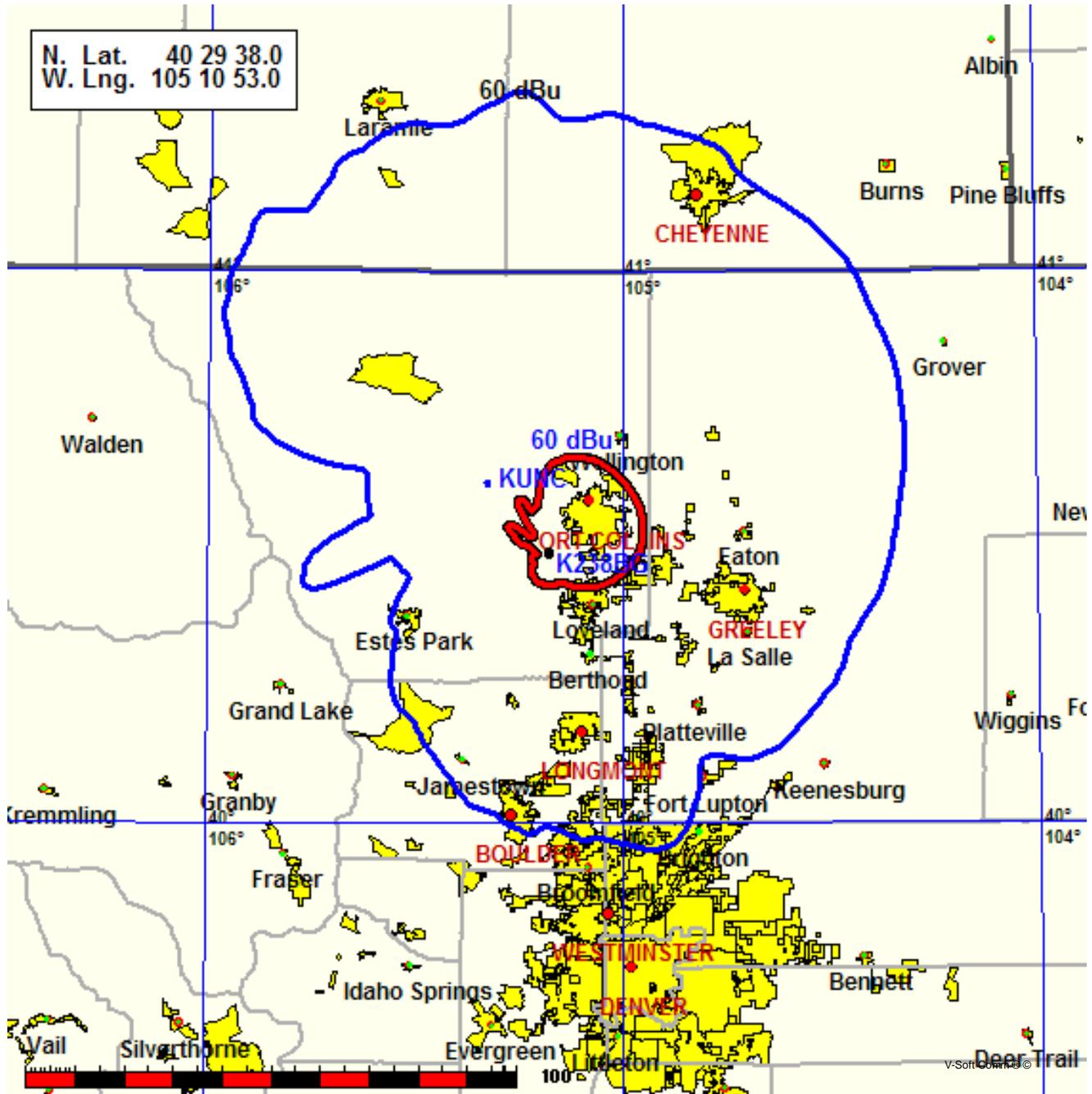


Exhibit E-1, Fig 9, K238BG (red) vs KUNC (blue)  
K238BG Masonville, Colorado 235D

Coverage Study - NGDC 30 SEC  
06-10-2009

KUNC CH218 C1 36.0 kW 2565M COR  
Prot. = 60 dBu.



06-10-2009

RMS(V)= .64

Bearing    Field % Voltage

Graph is Percent Relative Field Voltage

000	=	0.978
010	=	0.990
020	=	1.000
030	=	0.990
040	=	0.978
050	=	0.956
060	=	0.927
070	=	0.882
080	=	0.808
090	=	0.733
100	=	0.646
110	=	0.543
120	=	0.430
130	=	0.324
140	=	0.240
150	=	0.183
160	=	0.158
170	=	0.163
180	=	0.157
190	=	0.165
200	=	0.161
210	=	0.165
220	=	0.157
230	=	0.163
240	=	0.158
250	=	0.183
260	=	0.240
270	=	0.324
280	=	0.430
290	=	0.543
300	=	0.646
310	=	0.733
320	=	0.808
330	=	0.882
340	=	0.927
350	=	0.956

