

TECHNICAL STATEMENT
K251BT MANITOU SPRINGS, COLORADO
MOUNTAIN COMMUNITY TRANSLATORS, LLC
FCC FORM 349
FEBRUARY 2016

This Technical Statement is made in support of a minor change application for FM translator station Construction Permit, K251BT at Breckenridge, Colorado, facility ID 142168. K251BT seeks to relocate its current authorization by less than 250 miles and become a fill-in translator for KXRE(AM) Manitou Springs, Colorado, facility ID 54258. This proposed normally major change move is in response to the Commissions AM Revitalization Order DA-1491 released 12/23/2015. The following will show that the new proposed operation of K251BT will meet all of the Commissions technical requirements for an FM translator station.

The proposed operation of K251BT specifies a maximum Effective Radiated Power of 0.099 kilowatts. It will operate with a non-directional antenna with an “off the shelf” type antenna, or a Nicom BKG-77 with circular polarization. The antenna will be mounted on an existing tower at the KXRE(AM) tower site, with an over height of 50 meters above the ground. The antenna will be mounted with a Center of Radiation of 49 meters above the ground, and 2057 meters Above Mean Sea Level. The coordinates of this tower are located at N 38° 51’ 43”, W 104° 55’ 32”, NAD 27.

Figure 1 is a detailed interference study conducted on channel 271D with these new proposed facilities. It shows that the new operation of K251BT will not cause any interference to any existing or proposed FM stations on any of the pertinent same channel

or adjacent channels to channel 271, with the exception of 3rd adjacent channel station KBIQ Manitou Springs, Colorado operating on channel 274C, facility ID 73073.

The proposed operation of K251BT on 271D is located within the protected 60 dB μ contour of 3rd adjacent channel of KBIQ. Figure 2 shows the predicted F(50-50) field strength of KBIQ at the proposed K251BT transmitter site is 99.6 dB μ . Therefore, the respective predicted interfering contour F(50-10) generated by the proposed K251BT on channel 271D is an additional 40 dB μ or 139.6 dB μ utilized.

Figure 3 shows the coverage area for the 139.6 dB μ interference contour F(50-10) and shows that there is no population in the area of interference. The applicant, Mountain Community Translators, LLC, 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 with private access. The transmitter building is uninhabited and does not have indoor plumbing. Should any unforeseen actual interference be caused, the licensee will immediately cease broadcasting with K251BT until such interference can be eliminated.

The proposed operation of K251BT Manitou Springs will be considered a "Fill-In" operation for KXRE(AM) Manitou Springs, Colorado. KXRE(AM) operates with 0.5 kilowatts daytime with a non-direction antenna system on 1490 kHz. Figure 4 shows that the proposed 60 dB μ contour for the proposed K251BT will not extend beyond the daytime 2.0 mV/m contour of KXRE. It will also not extend beyond a 25 miles radius from the KXRE tower site. Since this is a "Fill-In" translator, the maximum ERP will not exceed the maximum permissible ERP of 250 watts in any azimuth.

It was found that the new proposed operation of K251BT Manitou Springs, Colorado on channel 271D, will satisfy all of the required commission rules and regulations for an FM translator station.

FIGURE 1 - DETAILED CHANNEL INTERFERENCE STUDY

K251BT MANITOU SPRINGS, CO, CH. 271D

REFERENCE
38 51 43.0 N.
104 55 32.0 W.

CH# 271D - 102.1 MHz, Pwr= 0.099 kW, HAAT= 0.0 M, COR= 2057 M
Average Protected F(50-50)= 5.62 km
Omni-directional

DISPLAY DATES
DATA 02-04-16
SEARCH 02-04-16

CH CITY	CALL	TYPE STATE	ANT AZI ---	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
274C	KBIQ	LIC _C_	156.6 336.6	14.11 BMLH20030423AAT	38 44 43.0 104 51 39.0	72.000 695	13.7 2946	94.7 Bison Media, Inc.	-11.5	-81.3*
270C3	KXWA	LIC NC_	349.8 169.7	59.05 BLH20071207AAY	39 23 07.0 105 02 52.0	9.500 163	62.1 2226	19.8 Way Media, Inc.	-6.0*	10.4
269A	KXCL	LIC _CX	131.7 311.8	23.76 BMLED20130813AAE	38 43 11.0 104 43 16.0	2.100 -9	1.6 1803	12.1 Calvary Chapel Aurora	7.9	10.9
272D	K283AS	APP DC_	44.3 224.4	28.67 BPFT20160129AWB	39 02 47.0 104 41 38.0	0.040	9.6 2397	6.9 Conundrum Communications I	10.7	10.7
272C1	KSPK-FM	LIC _CX	176.2 356.2	137.32 BMLH20030103ABF	37 37 39.0 104 49 17.0	100.000 131	96.9 2085	65.5 Mainstreet Broadcasting Co	31.0	64.0
271A	KSMT	LIC ZCX	306.9 126.2	118.48 BLH20070504ABR	39 29 44.0 106 01 44.0	6.000 -64	68.3 3250	15.8 Alwaysmountaintime, Llc	44.5	84.2
272A	KVOQ-FM	LIC DCX	344.7 164.5	100.35 BMLED20150105ABD	39 43 59.0 105 14 10.0	1.000 238	49.3 2256	27.5 Public Broadcasting Of Col	48.0	57.5
268C	KJHM	LIC NCX	34.5 215.1	143.60 BMLH20141014ACF	39 55 22.0 103 58 18.0	97.000 625	13.6 2109	91.8 Max Radio Of Denver Llc	121.2	51.1
268D	KJHM-FM1	LIC DC_	2.9 182.9	90.40 BLFTB20050802ABY	39 40 31.0 104 52 22.0	20.000 84	1.9 1766	18.3 Max Radio Of Denver Llc	82.9	69.7
271A	KGRE-FM	LIC _HX	343.2 162.8	174.03 BLH20070117AAE	40 21 38.0 105 31 12.0	6.000 25	93.3 2739	29.7 United States Cp, Llc	77.7	117.5
268D	KJHM-FM5	CP DV_	11.0 191.2	97.81 BNPFTB20130430ACU	39 43 35.0 104 42 23.0	6.500 64	0.8 1762	6.8 Max Radio Of Denver Llc	90.5	82.1
269D	K269CL	LIC DHN	339.8 159.5	90.19 BLFT19950811TB	39 37 24.0 105 17 24.0	0.035 354	0.0 2646	1.4 Citi casters Li censes, Inc.	84.6	87.9
268D	KJHM-FM4	CP DV_	359.2 179.2	94.22 BNPFTB20130430ACS	39 42 38.0 104 56 25.0	0.100 29	0.0 1675	1.6 Max Radio Of Denver Llc	88.6	90.9
268D	KJHM-FM3	CP DV_	1.2 181.2	97.50 BNPFTB20130430ACQ	39 44 24.0 104 54 05.0	0.750 8	0.1 1644	1.6 Max Radio Of Denver Llc	91.8	92.1
268D	K268CK	LIC DC_	344.6 164.4	99.95 BLFT20131101AJL	39 43 46.0 105 14 08.0	0.002	0.0 2251	1.6 Mary Medi cus	94.3	97.6
268D	KJHM-FM6	CP DV_	6.7 186.8	106.07 BNPFTB20130815AAL	39 48 39.0 104 46 52.0	8.000 11	0.2 1635	2.9 Max Radio Of Denver Llc	99.8	97.1
273D	DK273BC	LIC _V_	249.5 68.8	106.58 BLFT20070730ACI	38 31 16.0 106 04 15.0	0.010 -357	0.2 2281	3.2 Horizon Christian Fellowsh	100.7	101.5
271L1	KZLJ-LP	LIC ____	129.0 309.8	155.06 BLL20150619AAY	37 58 38.0 103 33 05.0	0.100 7	1285	121.9 Djmh Incorporated		103.3
272D	KVOQ-FM2	LIC DC_	348.7 168.5	124.42 BLFTB20150325AAR	39 57 37.0 105 12 46.0	0.040	2.9 1763	2.1 Public Broadcasti ng Of Col	116.0	113.6
271D	KGRE-FM2	LIC DC_	353.2 173.0	182.48 BLFTB20070404AAP	40 29 37.0 105 10 53.0	0.065	60.7 2090	18.0 Uni ted States Cp, Llc	116.2	145.8
269D	K269AE	LIC ?HN	348.6 168.4	124.48 BLFT221	39 57 38.0 105 12 52.0	0.103 -58	0.7 1747	5.7 Kse Radi o Ventures, Llc	118.2	117.5
274D	K274BW	LIC DC_	350.1 169.9	129.65 BLFT20090623ACK	40 00 43.0 105 11 16.0	0.250 -16	0.9 1673	6.4 Communi ty Radi o For North	123.1	122.3
269C1	KSKE-FM	LIC ZC_	301.7 120.6	188.66 BLH20050915ADE	39 44 18.0 106 47 58.0	12.000 667	4.3 3171	65.3 Al waysmountai ntime, Llc	178.7	122.6
274D	K274AG	LIC _CN	310.7 130.0	129.16 BLFT19950814TD	39 36 50.0 106 04 02.0	0.095 -345	0.7 2866	5.6 Al waysmountai ntime, Llc	122.9	122.9
273C2	KQSE	LIC _C_	301.7 120.6	188.66 BLH20110506AAP	39 44 18.0 106 47 58.0	1.350 660	2.5 3161	53.1 Al waysmountai ntime, Llc	180.5	133.1

CH CI TY	CALL	TYPE STATE	ANT	AZI <--	DI ST FI LE #	LAT LNG	PWR(kW) HAAT (M)	INT(km) COR (M)	PRO(km) LICENSEE	Page # 2 *IN* (Overlap in km)		*OUT*
273C2	KTRR	LIC NCX		2.6	197.84	40 38 31.0	17.000	5.8	53.3	186.3		143.7
Lovel and		CO		182.7	BLH20051107AEI	104 49 03.0	234	1793	Townsquare Media			Of Ft. Co
272A	KVLE-FM	LIC _CX		259.9	177.19	38 33 53.0	6.000	23.5	15.8	148.1		153.4
Gunnison		CO		78.6	BMLH20141202AAI	106 55 38.0	-140	2418	Pilgrim Communications, Inc			
270C2	KIGN	LIC _CN		4.9	251.33	41 07 01.0	50.000	76.8	50.8	168.5		192.3
Burns		WY		185.1	BMLH19950920KDD	104 40 07.0	150	1963	Townsquare Media			Cheyenne
271C	KTRA-FM	LIC _C_		229.8	346.18	36 48 52.0	100.000	157.1	60.2	183.5		267.0
Farmington		NM		47.9	BMLH20010529ABL	107 53 32.0	303	2129	Capstar Tx, Lic			
269D	KSKE-FM1	LIC DV_		291.4	220.62	39 33 40.0	0.600	1.6	8.7	213.4		204.1
Glenwood Springs		CO		109.9	BLFTB20080529AEJ	107 19 00.0		2216	Alwaymountaintime, Lic			
270C1	KTAO	LIC _CN		192.7	297.31	36 14 48.0	1.200	85.6	57.7	205.0		231.7
Taos		NM		12.2	BLH19990308KDD	105 39 15.0	852	3303	Taos Communication Corpora			
271C2	KBDY	LIC NC_		336.7	336.52	41 38 00.9	0.630	122.0	50.5	208.9		267.3
Hanna		WY		155.7	BLH20090109AHF	106 31 32.1	1050	3409	Toga Radio Lic			
270C2	AL9051	VAC _N		264.8	267.26	38 36 18.0	50.000	45.3	26.5	216.3		214.9
Olath		CO		82.9	RM9438	107 58 54.0	150	1865	Mountain West Broadcasting			
272C0	KPNY	LIC _C_		24.7	366.29	41 50 28.0	100.000	127.8	85.9	230.4		272.3
Alliance		NE		205.9	BLH20131205ACP	103 04 27.0	412	1677	My Bridge Radio			
273C1	KKCI	LIC _C_		77.5	296.90	39 23 24.0	100.000	8.1	63.5	275.9		232.5
Goodland		KS		259.6	BLH20000425AAL	101 33 35.0	216	1296	Melia Communications, Inc			
268C2	KGJX	LIC _C_		275.1	331.89	39 04 00.0	3.150	3.7	59.3	322.6		271.1
Fruita		CO		92.7	BLH20120917AFH	108 44 45.0	418	2215	Kbdx Lic			
273A	KCDC	CP _CX		275.1	331.74	39 04 01.0	0.400	1.4	38.5	324.7		291.9
Loma		CO		92.7	BPH20090205ACK	108 44 39.0	383	2175	Cochise Media Licenses Lic			
273C2	KCDC	LIC _HX		254.8	362.53	37 56 29.0	3.800	3.9	51.0	353.0		309.6
Dove Creek		CO		72.3	BLH20080317AAY	108 54 27.0	319	2402	Cochise Media Licenses Lic			
269A	KZEW	LIC _CN		359.7	353.51	42 02 44.0	3.000	1.6	13.2	346.3		339.6
Wheatland		WY		179.7	BLH19850723KCC	104 56 47.0	38	1503	Smith Broadcasting, Incorp			
268C3	KVSF-FM	LIC ZHX		191.9	371.69	35 34 57.0	25.000	2.3	22.7	362.5		348.4
Pecos		NM		11.4	BLH20020822AAQ	105 46 34.0	-28	2295	Hutton Broadcasting, Lic			
268D	KVSF-FM1	LIC DC_		193.9	371.00	35 36 48.0	0.200	1.0	6.7	363.4		361.3
Santa Fe		NM		13.3	BLFTB20090306AAY	105 54 43.0		2262	Hutton Broadcasting, Lic			

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.
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.
Reference station has protected zone issue: AM tower

* NO ACTUAL INTERFERENCE WILL BE CAUSED TO KBIQ(FM) SINCE THE 139.6 DBU
INTERFERENCE CONTOUR WILL NOT COVER ANY POPULATION. SEE THE TECHNICAL STATEMENT
FOR MORE DETAILS.

FIGURE 2 KBIQ 99.6 DBU AT SITE
K251BT MANITOU SPRINGS, CO, CH 271D

Coverage Study - NGDC 30 SEC
01-24-2016

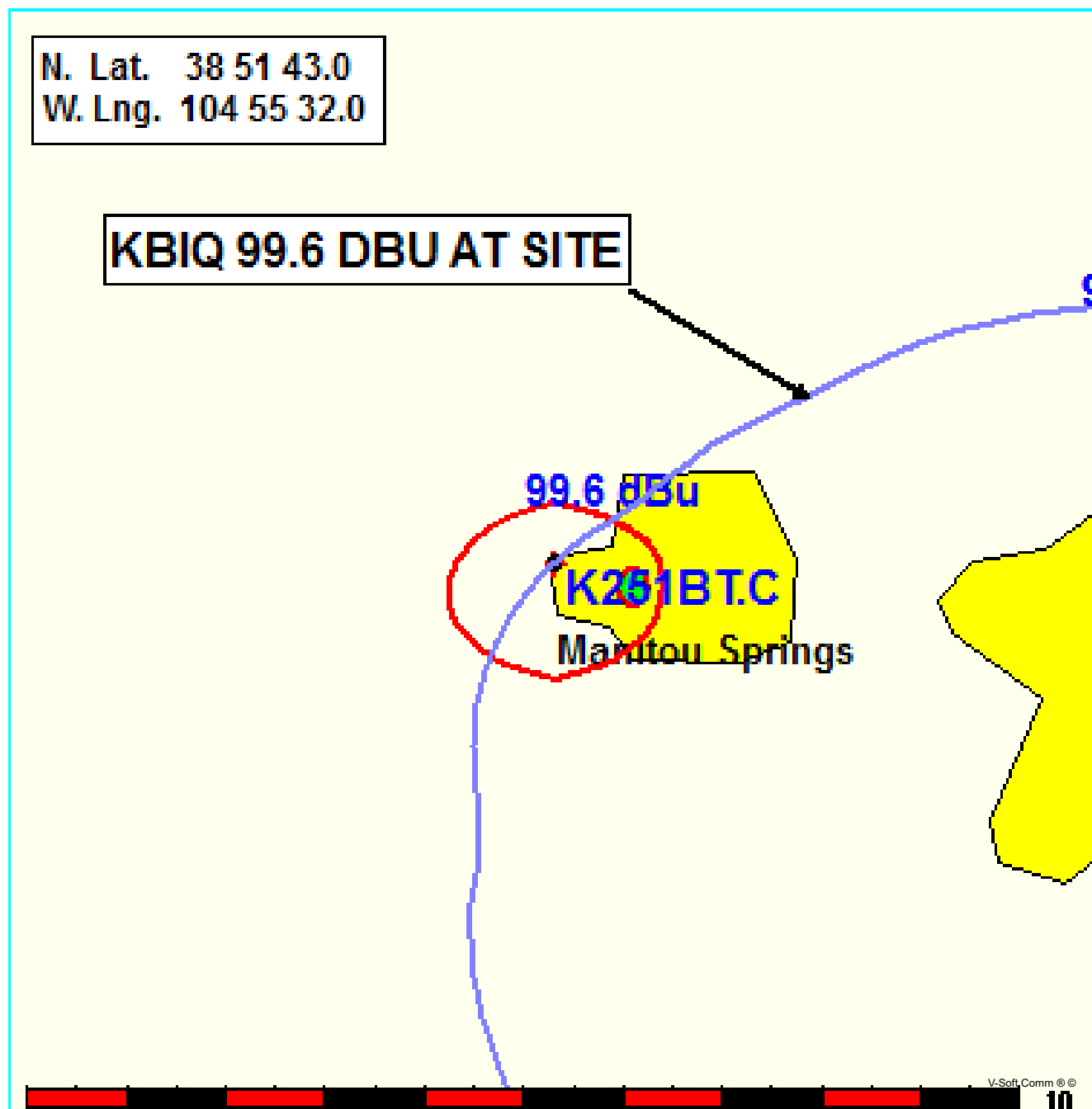
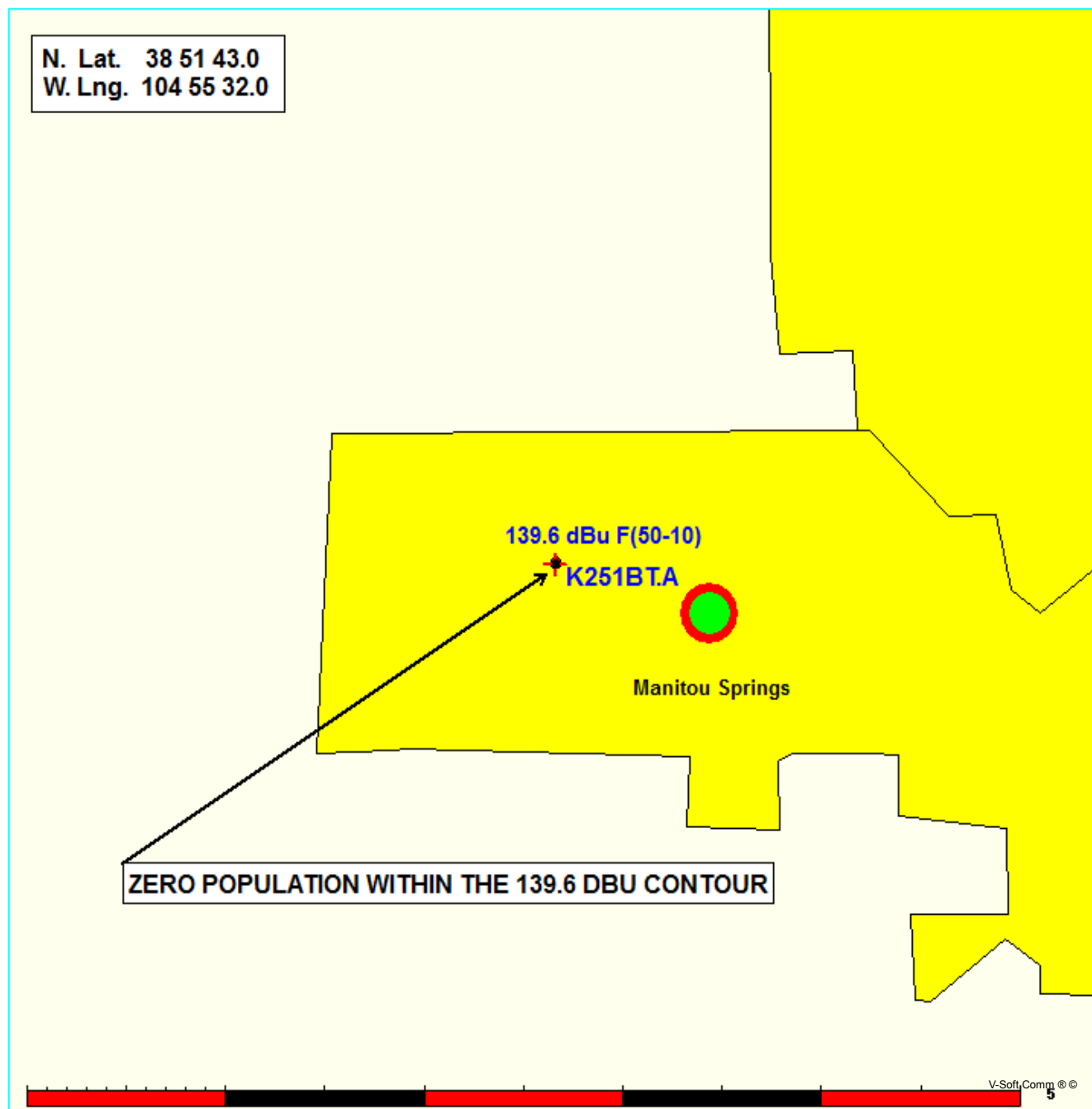


FIGURE 3 - PREDICTED 139.6 DBU INTERFERENCE CONTOUR
K251BT MANITOU SPRINGS, CO, CH. 271D

Coverage Study - NGDC 30 SEC
02-04-2016

K251BT CH271 D , 0.099 kW, 0.0m HAAT, 2057.0m COR AMSL
Interference Contour = 140 dBu. Population = 0



K251BT.A

BPFT20160129ATW

Latitude: 38-51-43 N

Longitude: 104-55-32 W

ERP: 0.099 kW

Channel: 271

Frequency: 102.1 MHz

AMSL Height: 2057.0 m

Elevation: 2008.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model:

**FIGURE 4 FILL-IN MAP
KXRE(AM)**

