TECHNICAL STATEMENT
K280EQ COLORADO SPRINGS, COLORADO
CEDAR COVE BROADCASTING, INC.
FCC FORM 349
APRIL 2017

This Technical Statement is made in support of a minor modification of Construction Permit, BPFT-20161031AEG, for FM translator station, K280EQ at Colorado Springs, Colorado, facility ID 151241. K280EQ seeks to relocate its current authorization and remain a proposed fill-in translator for KFCS(AM) Colorado Springs, Colorado, facility ID 51816. The following will show that the new proposed operation of K280EQ will meet all of the Commissions technical requirements for an FM translator station.

The proposed operation of K280EQ specifies a maximum Effective Radiated Power of 0.095 kilowatts. It will operate with a directional antenna with an "off the shelf" type antenna, or a Scala Log-V, vertical polarized yagi type antenna. The antenna will be mounted on an existing tower with an overall height of 9 meters above the ground. The antenna will be mounted with a Center of Radiation of 9 meters above the ground, and 2170 meters Above Mean Sea Level. The coordinates of this tower are located at N 38° 48' 37", W 104° 52' 54".

Figure 1 is a detailed interference study conducted on channel 282D with these new proposed facilities. It shows that the new operation of K280EQ will not cause any interference to any existing or proposed FM stations on any of the pertinent same channel or adjacent channels to channel 282, with the exception of 2nd adjacent channel station KRXP, Pueblo West, Colorado operating on channel 280C2, facility ID 53845.

The proposed operation of K280EQ on 282D is located within the protected 60 dBμ contour of 2nd adjacent channel of KRXP on channel 280C2. Figure 2 shows the predicted F(50-50) field strength of KRXP at the proposed K280EQ transmitter site is 90.8 dBμ. Therefore, the respective predicted interfering contour F(50-10) generated by the proposed K280EQ on channel 282D is an additional 40 dBμ or 130.8 dBμ.

Figure 3 shows the coverage area for the 130.8 dBμ interference contour F(50-10) and shows that there is no population in the area of interference. The 130.8 dBμ interference contour would only extend 19.7 meters. The applicant, Cedar Cove Broadcasting, Inc., 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. The site is a privately owned 0.5 acre facility. The transmitter building is un-occupied and has no indoor plumbing. Should any unforeseen actual interference be caused, the licensee will immediately cease broadcasting with K280EQ until such interference can be eliminated.

Figure 4 shows the present and proposed 60 dBμ contours.

Figure 5 is the directional antenna data for the proposed BKG-1 antenna system.

The proposed operation of K280EQ Colorado Springs will be considered a “Fill-In” operation for Class D AM, KFCS(AM) Colorado Springs, Colorado. KFCS(AM) operates with 10 kilowatt daytime with a non-direction antenna system on 1580 kHz. Figure 6 shows that the proposed 60 dBμ contour for the proposed K280EQ will extend beyond the daytime 2.0 mV/m contour of KFCS. 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 K280EQ Colorado Springs, Colorado on channel 282D, will satisfy all of the required commission rules and regulations for an FM translator station.

FIGURE 1 - DETAILED CHANNEL INTERFERENCE STUDY
K280EQ COLORADO SPRINGS, COLORADO, CH 282D

REFERENCE CH# 282D - 104.3 MHz, Pwr= 0.095 kW DA, HAAT= 0.0 M, COR= 2179 M DISPLAY DATES
38 48 37.0 N. Average Protected F(50-50)= 5.56 km DATA 04-25-17
104 52 54.0 W. Standard Directional SEARCH 04-25-17

CH CALL / CITY	TYPE ANT / STATE	AZI <--	DIST / FILE #	LAT / LNG	PWR(kW) / HAAT(M)	INT(km) / COR(M)	PRO(km) / LICENSEE	*IN* (Overlap in km)	*OUT*
282C1 KKFN Longmont	LIC NC_ CO	346.2 166.0	101.30 BLH19991214ABH	39 41 45.0 105 09 54.0	100.000 206	177.2 2081	74.4 Bonneville International C	-83.7*	0.3
280C2 KRXP Pueblo West	LIC NCX CO	166.4 346.5	7.39 BLH20070326AGF	38 44 44.0 104 51 42.0	1.750 657	2.8 2912	58.0 Colorado Springs Radio Bro	1.7	-50.6*
283C3 KSTY Canon City	LIC _CX CO	207.6 27.4	62.02 BLH20071003ABD	38 18 54.0 105 12 40.0	8.600 14	88.0 2138	57.7 Royal Gorge Broadcasting,	-26.7*	2.7
284D K280EQ Colorado Springs	CP DC_ CO	84.0 264.1	9.26 BPFT20161031AEG	38 49 08.0 104 46 32.0	0.025	0.0 1886	1.6 Cedar Cove Broadcasting, I	-8.6*	6.0
284A KKCS Calhan	LIC NCX CO	66.7 247.1	53.59 BMLH20131204AJQ	38 59 57.0 104 18 47.0	1.550 198	2.3 2192	28.9 United States Cp, Llc	33.3	23.7
285C3 KRYE Rye	LIC _CX CO	186.1 6.0	96.65 BLH20080307ADA	37 56 40.0 104 59 56.0	25.000 55	7.9 2597	67.4 United States Cp, Llc	85.2	28.8
281C3 KBVC Buena Vista	LIC NCN CO	266.8 86.0	114.66 BLH19961127KB	38 44 45.0 106 11 55.0	0.600 362	71.2 3335	47.8 Three Eagles Communication	41.9	65.0
285D K285EE Canon City	LIC DHN CO	208.6 28.4	49.06 BLFT19910131TA	38 25 20.0 105 09 05.0	0.030 -93	0.1 1689	1.7 Radio License Holding Cbc,	47.4	46.5
285C1 KRYE Olney Springs	CP NCX CO	133.9 314.5	120.35 BPH20130429AEO	38 03 20.0 103 53 31.0	100.000 81	5.3 1418	48.2 United States Cp, Llc	102.4	72.1
285C1 KRYE Olney Springs	RSV-A ___ CO	123.7 304.6	154.53	38 01 54.0 103 24 53.0	100.000 299	10.0 1557	72.0 United States Cp, Llc	130.4	82.3
284D K284CI Denver	LIC DC_ CO	343.5 163.3	106.48 BLFT20160421AAK	39 43 45.0 105 14 08.0	0.140	0.7 2259	17.5 Mountain Community Transla	98.2	86.3

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.

* No actual interference will be caused to KRXP(FM) since the proposed 130.8 dBu interference contour will cover any population. See the Technical Statement for more details.

FIGURE 2 - KRXP 90.8 DBU PREDICTED CONTOUR
K280EQ COLORADO SPRINGS, COLORADO, CH 282D

Coverage Study - NGDC 30 SEC
04-25-2017

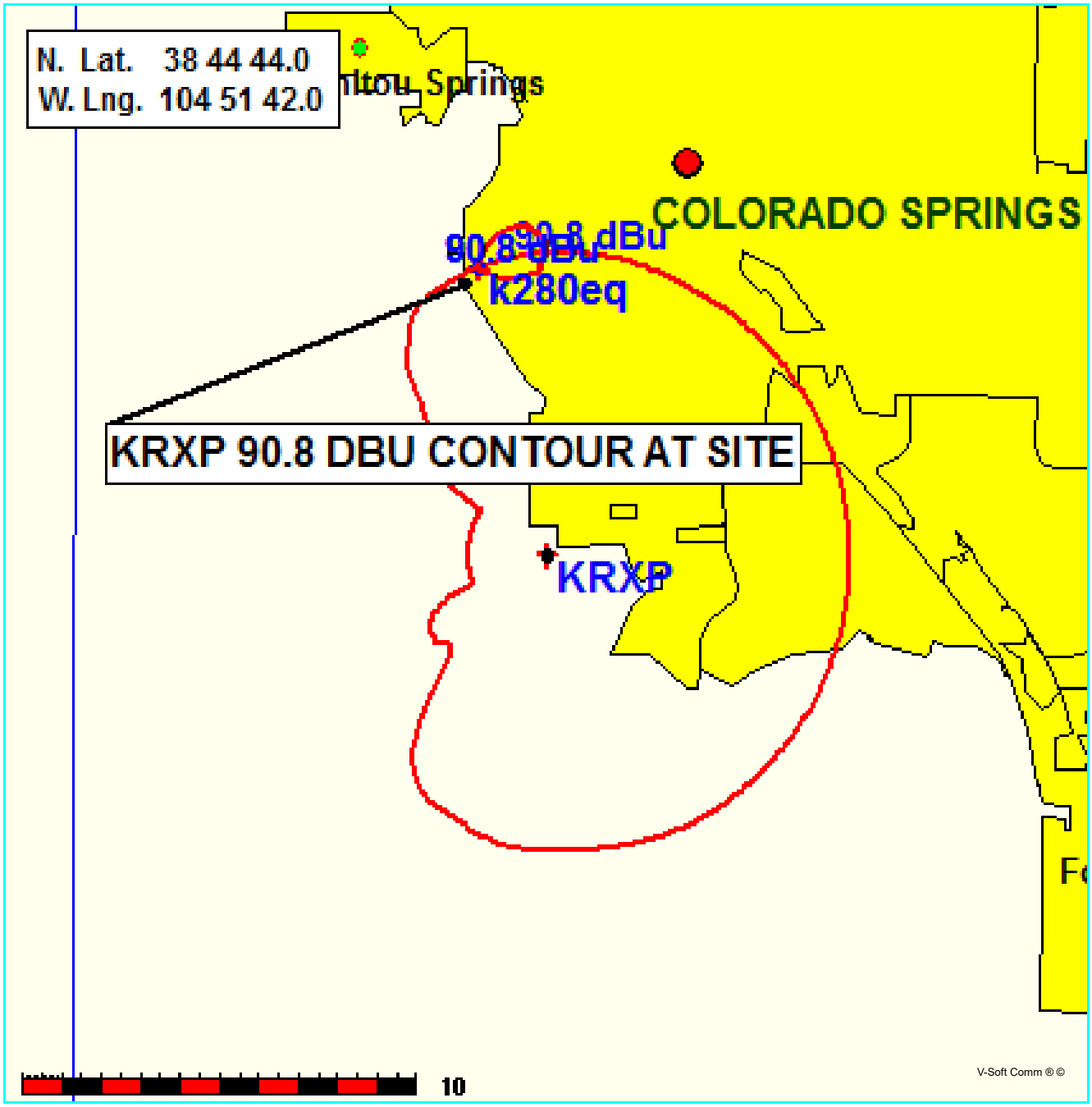


FIGURE 3 - PREDICTED 130.8 DBU INTERFERENCE CONTOUR
K280EQ COLORADO SPRINGS, COLORADO, CH 282D

Coverage Study - NGDC 30 SEC
04-25-2017

k280eq CH282 D , 0.095 kW, 0.0M HAAT, 2179.0M AMSL
Interference Contour = 130.8 dBu. Population = 0

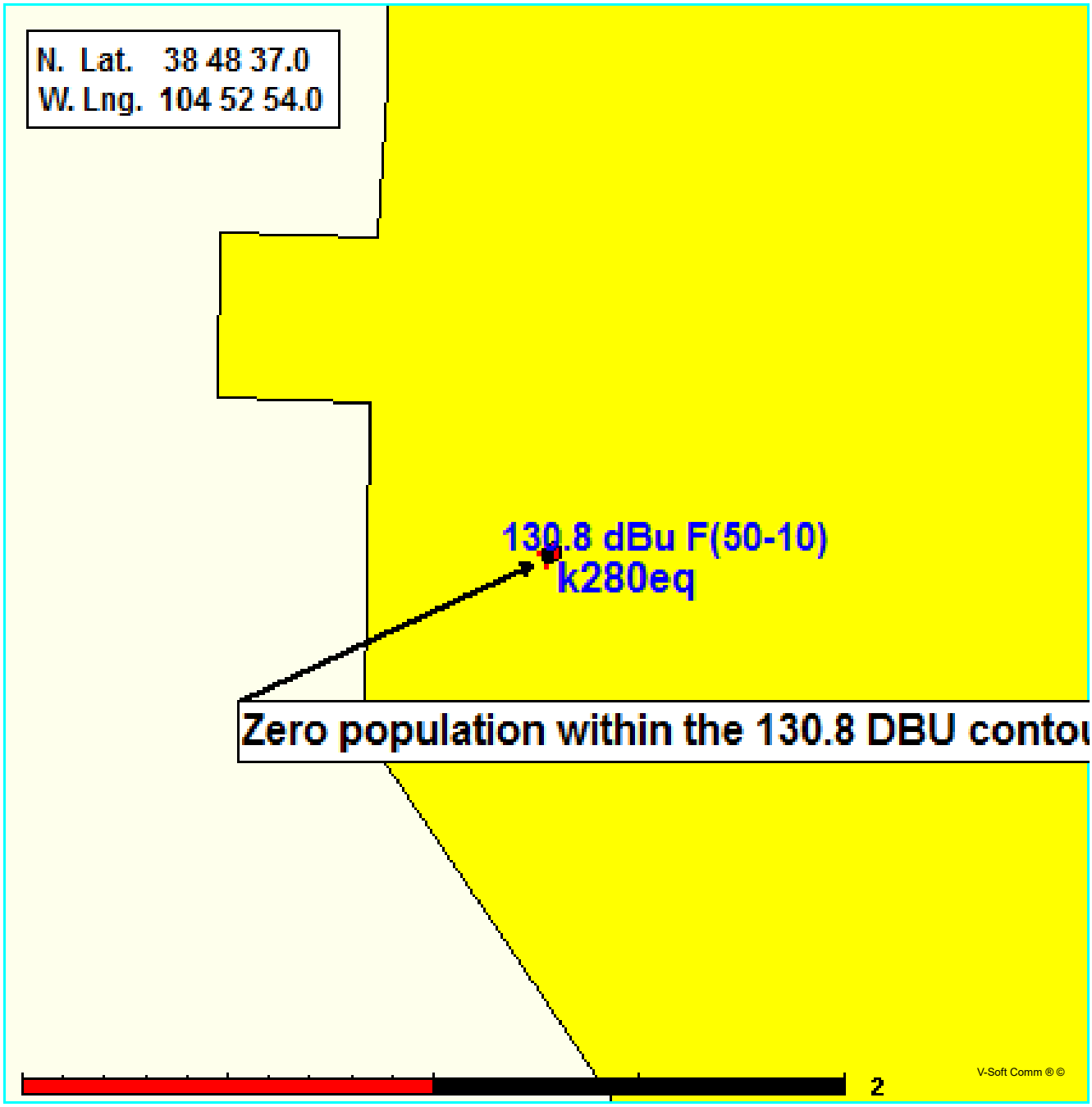


FIGURE 4 - PRESENT AND PROPOSED 60 DBU CONTOURS
K280EQ COLORADO SPRINGS, COLORADO, CH. 282D

Coverage Study - NGDC 30 SEC
04-25-2017

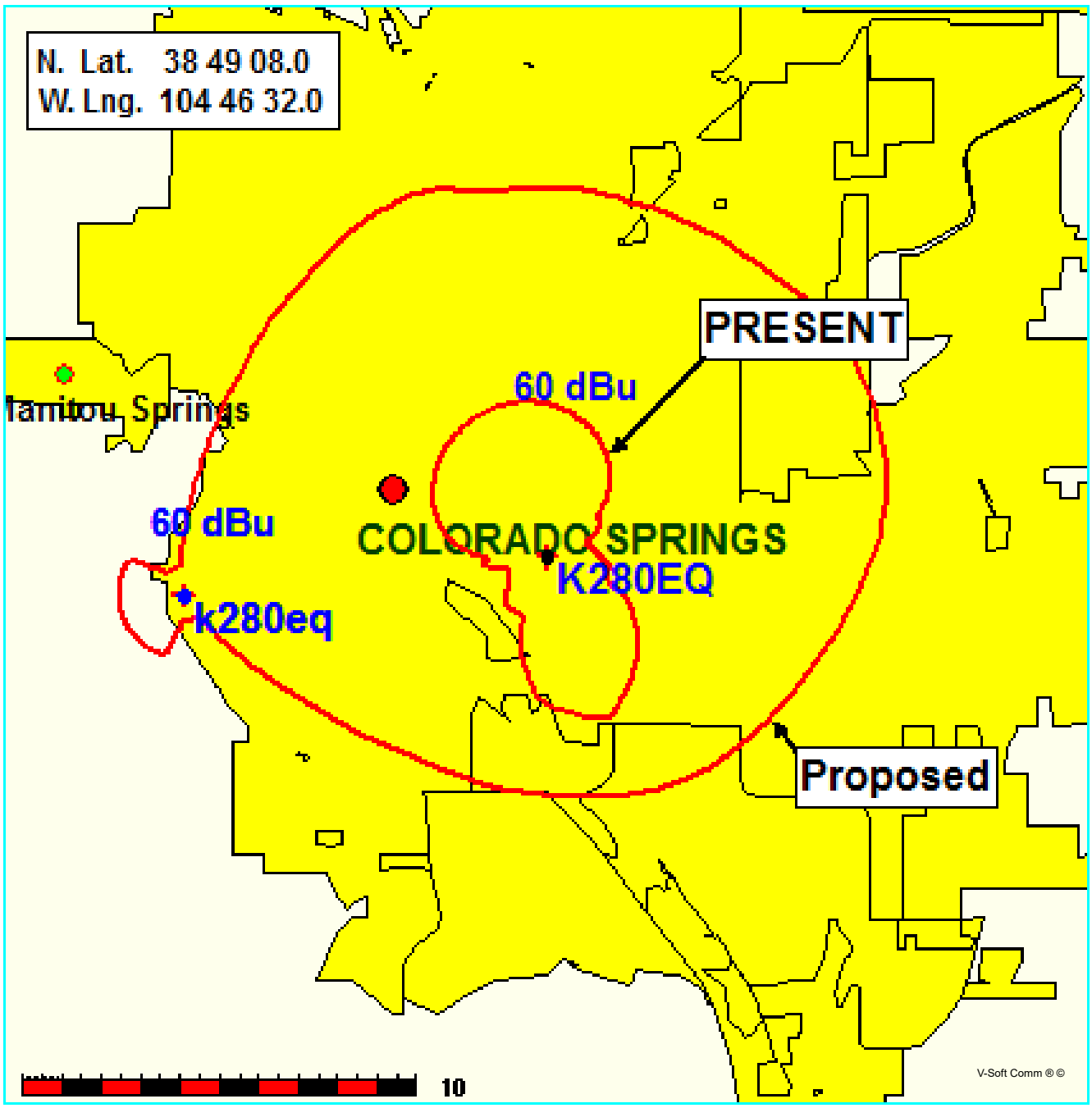
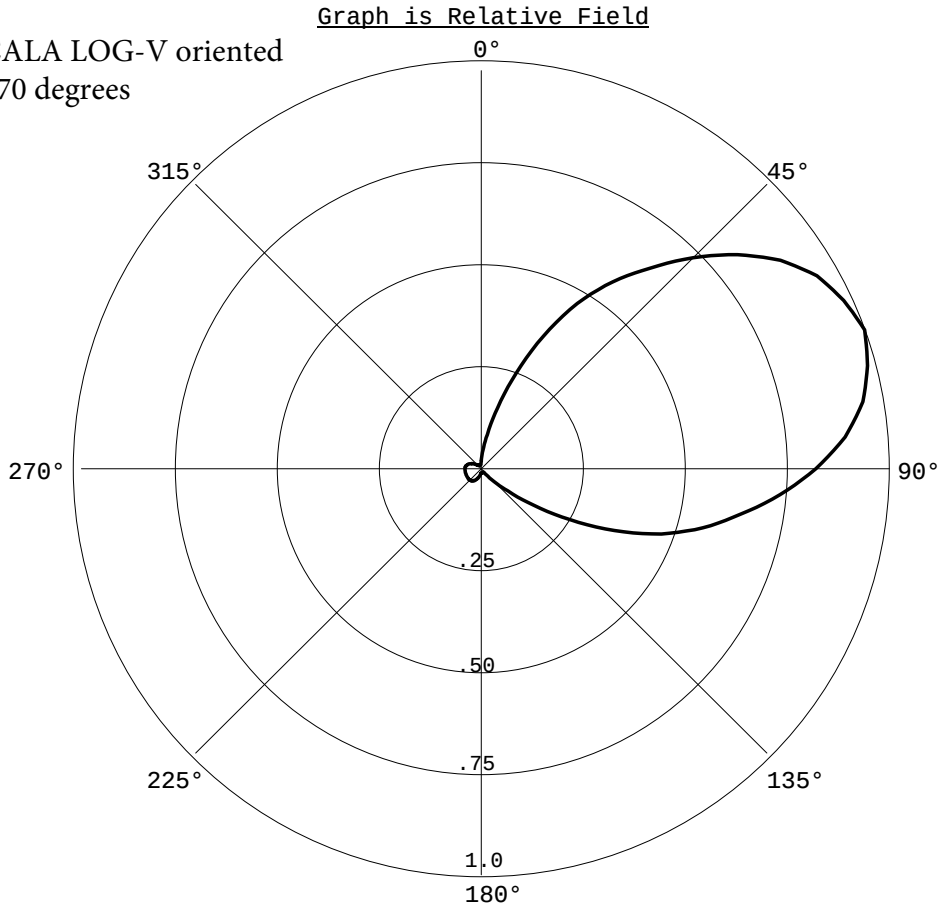


FIGURE 5 - DIRECTIONAL ANTENNA DATA

k280eq 04-25-2017 RMS(V)= .393

Azi	Field	dBk	kW
000	0.020	-44.202	0.000
010	0.085	-31.634	0.001
020	0.250	-22.264	0.006
030	0.470	-16.781	0.021
040	0.645	-14.032	0.040
050	0.820	-11.946	0.064
060	0.950	-10.668	0.086
070	1.000	-10.223	0.095
080	0.950	-10.668	0.086
090	0.820	-11.946	0.064
100	0.645	-14.032	0.040
110	0.470	-16.781	0.021
120	0.250	-22.264	0.006
130	0.085	-31.634	0.001
140	0.020	-44.202	0.000
150	0.010	-50.223	0.000
160	0.010	-50.223	0.000
170	0.010	-50.223	0.000
180	0.010	-50.223	0.000
190	0.015	-46.701	0.000
200	0.025	-42.264	0.000
210	0.034	-39.593	0.000
220	0.038	-38.627	0.000
230	0.040	-38.182	0.000
240	0.040	-38.182	0.000
250	0.040	-38.182	0.000
260	0.040	-38.182	0.000
270	0.040	-38.182	0.000
280	0.038	-38.627	0.000
290	0.034	-39.593	0.000
300	0.025	-42.264	0.000
310	0.015	-46.701	0.000
320	0.010	-50.223	0.000
330	0.010	-50.223	0.000
340	0.010	-50.223	0.000
350	0.010	-50.223	0.000

SCALA LOG-V oriented at 70 degrees



K280EQ
BPFT20170313AAO
Latitude: 38-48-37 N
Longitude: 104-52-54 W
ERP: 0.095 kW
Channel: 282
Frequency: 104.3 MHz
AMSL Height: 2179.0 m
Elevation: 2170.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None