

TECHNICAL STATEMENT
K213FH BROOMFIELD, CO
MARY MEDICUS
FCC FORM 349
JANUARY 2019

This Technical Statement is in support of a minor modification of Construction Permit, BPFT-20171130ACD, FCC form 349, being filed on behalf of Mary Medicus (“MM”) in regards to its FM translator, K213FH Golden, Colorado, facility ID 147935. K213FH seeks to modify its current operation on channel 213D to its first adjacent channel 214D. It seeks to remain at its existing tower site with the same antenna heights, increase its ERP to 75 watts, and slightly modify its directional antenna system.

MM is proposing to remain at its existing site located at N. 39° 53’ 31”, W. 105° 14’ 19”, NAD 27, with an increased Effective Radiated Power of 75 Watts and replace the current one bay Nicom BKG-77 antenna with a new one bay BEXT TFC2K-D, directional antenna system. These two antennas are nearly identical in size and shape, and mounted at the same level on the tower and continuing to utilize the same transmission line. Hence no change in the operating impedance of the tower for KKCL(AM) Golden, CO is expected. The antenna will be mounted at the 45 meter level on a 46 meter overall tower, with a Center of Radiation at 1930 meters Above Mean Sea Level. A new community of license is being proposed to better reflect the new coverage.

Figure 1 shows a detailed channel interference study conducted from the proposed site for K213FH. It shows that the proposed operation of K213FH on channel 214D will not cause any prohibited outgoing interference to any licensed or proposed FM services, with the exception of KCFR-FM Denver, Colorado operating on channel 211C1, facility

ID 53777 and KLDV(FM) Morrison, Colorado on channel 216C0, facility ID 12354 .

The proposed operation of K213FH on 214D is located within the protected 60 dB μ contour of 2nd adjacent station KLDV and 3rd adjacent channel KCFR-FM.

Figure 2 shows the predicted 90.3 dB μ contour of KCFR-FM at the K213FH transmitter site. Thus, the predicted interference contour towards KCFR-FM would be 130.3 dB μ .

Figure 3 shows the predicted 81.7 dB μ contour of KLDV at the K213FH transmitter site. Thus, the predicted interference contour towards KLDV would be 121.7 dB μ . Since this is the greater interference contour than that of KCFR-FM, only the 121.7 dB μ contour was studied further.

Figure 4 documents that there is no population within the proposed predicted 121.7 dB μ interference contour for K213FH on channel 214D. This contour only extends 50 meters from the antenna.

Figure 5 shows the vertical radiation pattern for the proposed BEXT TFC2K-D antenna. It documents that the 121.7 dB μ will not reach the ground at any point.

The licensee, Mary Medicus, 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 4 acre square remote mountain area with private access. The transmitter building is uninhabited and does not have indoor plumbing.

Figure 6 shows the proposed directional antenna pattern for use by K213FH on channel 214D.

Figure 7 is a table of the maximum allowed Effective Radiated Power limits for the pertinent 12 average terrain radials for “non-fill-in” translators. It documents that the new proposed operation of K213FH will be in compliance with the maximum ERP limits allowed for a non-fill-in translator.

Figure 8 is a consent letter from KXDP-LP Denver, Colorado, facility ID 67552, TV channel 6, to allow the operation on channel 213D with up to 99 watts ERP. Thus, since channel 214 is one channel further removed from the KXDP-LP operation, it would be in greater compliance. KXDP-LP previously gave it permission to the channel 214D operation by K213FH.

K213FH is proposing to rebroadcast non-commercial FM station KRKY-FM Douglas, WY, facility ID 176144. Since KRKY-FM is not receivable at the K213FH transmitter site, K213FH is proposing to rebroadcast the off air signal of K206DB Cedar Cove, Colorado, facility ID 6511 which rebroadcasts KRKY-FM. Figure 9 is a Longley-Rice coverage map of K206DB which shows the predicted signal level at the K213FH transmitter site is approximately 51 dB μ , or an adequate signal level for satisfactory rebroadcasting on K213FH.

It was concluded that the new proposed operation of K213FH Golden, Colorado on channel 214D 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 INTERFERENCE STUDY

K213FH BROOMFIELD, CO, CH. 214

REFERENCE
39 53 31.0 N.
105 14 19.0 W.

CH# 214D - 90.7 MHz, Pwr= 0.075 kW DA, HAAT= 0.0 M, COR= 1930 M
Average Protected F(50-50)= 5.24 km
Standard Directional

DISPLAY DATES
DATA 01-26-19
SEARCH 01-27-19

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*
211C1 Denver	KCFR-FM *	LIC _CX CO	179.2 359.2	17.67 BLED20180405ABS	39 43 58.0 105 14 08.0	52.000 238	9.9 2275	74.6 Public Broadcasting Of Col	-3.3	-57.5*
06 -- Denver	KXDP-LP	CP D_N CO	297.4 117.3	5.18 BDFCDVL-20141003AC	39 54 48.0 105 17 32.9	3.000 -999	1.8 2536	54.8	56.6R	-51.4M **
06N-- Denver	KXDP-LP	LI D_N CO	297.4 117.3	5.18 BLTVL-20100716ABT	39 54 48.0 105 17 32.9	3.000 -999	1.8 2536	54.8	56.6R	-51.4M **
216C0 Morri son	KLDV *	LIC _CX CO	175.6 355.7	32.50 BMLED20160830ABQ	39 36 00.0 105 12 35.0	100.000 356	11.4 2448	79.0 Educational Media Foundati	7.5	-47.1*
213D Gol den	K213FH	LIC DC_ CO	0.0 0.0	0.00 BLFT20170209AAL	39 53 31.0 105 14 19.0	0.015	1930	---Reference--- Mary Medicus		
214A Longmont	KGUD	CP DCX CO	21.9 202.0	41.69 BPED20180619AAN	40 14 24.0 105 03 19.0	0.900 83	55.2 1619	16.3 Longmont Community Radio	-21.1*	1.3
213C0 Col orado Springs	KTLE	LIC _VX CO	165.6 345.8	131.40 BLED20040225AAB	38 44 43.0 104 51 39.0	20.000 673	123.6 2923	84.0 Educational Communications	-4.6	27.8
213D Gol den	K213FH	CP DC_ CO	18.0 198.0	14.01 BPFT20171130ACD	40 00 43.0 105 11 16.0	0.180	1645	---Reference--- Mary Medicus		
213D Li ttle ton	K213EG	LIC DE_ CO	179.2 359.2	18.04 BLFT20060602AAN	39 43 46.0 105 14 08.0	0.003 213	3.0 2241	1.7 Educational Communications	5.3	1.4
214A Longmont	KGUD	LIC _CN CO	21.9 202.0	41.69 BLED19821018AU	40 14 24.0 105 03 19.0	0.100 82	32.2 1613	9.5 Longmont Community Radio	1.8	8.1
214A Breckenri dge	KMPB	CP _CX CO	237.2 56.7	80.75 BPED20171114AAM	39 29 47.0 106 01 43.0	3.750 -94	57.8 3227	14.0 Community Radio For Northe	17.7	34.2
214A Estes Park	KENC	LIC DEX CO	335.4 155.2	57.29 BMLED20130109AGF	40 21 38.0 105 31 12.0	0.200 13	23.8 2730	6.8 Community Radio For Northe	25.0	23.4
214A Breckenri dge	KMPB	LIC _CX CO	237.2 56.6	80.82 BLED20130930BUD	39 29 44.0 106 01 44.0	0.600 -76	30.1 3246	8.9 Community Radio For Northe	45.5	43.0
213C3 Fort Coll ins	KCSU-FM	LIC _CN CO	5.1 185.1	78.93 BLED19850124LR	40 36 00.0 105 09 21.0	10.000 -108	26.8 1613	18.1 Board Of Governors Of The	43.7	48.8
215D Fort Coll ins	K215FM	LIC DC_ CO	2.7 182.7	72.74 BLFT20170705AAI	40 32 47.0 105 11 53.0	0.150	5.4 2190	2.7 Public Broadcasting Of Col	59.0	49.8
215C0 Chugwater	KLWV	LIC _CX WY	353.5 173.4	158.60 BLED20040621ABR	41 18 39.0 105 27 12.0	100.000 361	89.0 2765	59.4 Educational Media Foundati	61.0	85.7
215D Di lli on	K215BZ	LIC _VN CO	246.7 66.2	77.43 BLFT19970121TD	39 36 50.0 106 04 02.0	0.082 -285	7.6 2864	5.4 Educational Media Foundati	64.6	64.7
217D Fri sco	K217FS	LIC _C_ CO	237.2 56.7	80.75 BLFT20081208AFL	39 29 47.0 106 01 43.0	0.023 -54	0.3 3227	3.9 Educational Communications	75.2	70.6
215A Mi nturn	KVNC	LIC _CX CO	253.9 73.1	108.19 BLED20130927ATU	39 36 58.0 106 26 58.0	0.100 -211	8.0 2726	5.6 Community Radio For Northe	95.0	95.1
215A Leadvi lle	KTOL	LIC _C_ CO	231.6 50.9	116.78 BLED20080606AAR	39 14 05.0 106 17 59.0	0.450 -207	11.7 3083	8.3 Educational Communications	99.7	101.1
212D Vai l , Etc.	K212FY	LIC DV_ CO	253.9 73.1	108.17 BLFT20100312AAT	39 36 58.0 106 26 57.0	0.250 -222	1.0 2731	6.7 Educational Media Foundati	101.9	100.7
211D Mani tou Springs	K211AW	LIC _HN CO	165.8 346.0	117.71 BLFT19850225TD	38 51 50.0 104 54 15.0	0.086 -694	0.7 1984	5.4 The Colorado College	104.4	111.7
217C3 Gypsum	KLRY	LIC _CX CO	265.1 84.1	138.19 BLED20051109AAM	39 46 30.0 106 50 45.0	0.110 859	0.7 3361	28.1 Educational Media Foundati	132.3	108.3
213A Brush	KBEI	LIC _CX CO	72.1 253.1	142.62 BLED20120221ABO	40 16 30.0 103 38 33.0	1.000 56	21.5 1370	14.5 Educational Communications	109.5	112.8
211C2 Hayden	KHCO	LIC _VX CO	296.3 115.3	143.06 BLED20091125AGK	40 27 04.0 106 45 06.0	1.800 522	2.4 3140	31.1 Educational Media Foundati	135.0	111.0

CH CITY	CALL	TYPE	ANT STATE	AZI <--	DI ST FILE #	LAT LNG	PWR(KW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	Page # 2 *IN* (Overlap	*OUT* in km)
213C2	KVOV	LIC	DCX	254.6	190.26	39 25 08.0	0.450	73.0	49.2	112.0	133.3
Carbondale		CO		73.2	BLED20040913AAA	107 22 10.0	775	3227	Public Broadcasting Of Col		
06N--	K06BI <	LI	DHN	165.8	117.71	38 51 49.9	0.001	3.7	0.2	3.9R	113.9M
Manitou Springs		CO		346.0	BLTTV-1446	104 54 15.0	-999	2012			
214A	KDRE	LIC	_VX	66.0	204.05	40 36 56.0	1.600	78.5	27.0	114.5	142.0
Sterling		CO		247.4	BLED20051006AAI	103 02 02.0	154	1447	Educational Media Foundati		
212C2	KWYC	LIC	_CX	24.1	161.65	41 13 01.0	20.500	4.1	39.7	149.3	121.8
Cheyenne		WY		204.6	BLED20100511ABH	104 26 53.0	130	1848	Calvary Chapel Of Twin Fal		
217C2	KTPF	LIC	_C_	202.7	173.74	38 26 48.0	0.390	1.4	49.4	163.5	123.6
Salida		CO		22.2	BLED20070817ACM	106 00 36.0	900	3567	Educational Communications		
215C3	KRWA	LIC	_CX	174.5	217.19	37 56 40.0	10.000	78.3	51.9	127.1	148.0
Rye		CO		354.6	BLED20110307ABR	104 59 56.0	35	2577	Way Medi a, Inc.		
217C3	KLZV	LIC	_CX	79.6	169.25	40 08 56.0	6.000	3.1	33.1	154.1	135.3
Brush		CO		260.9	BLED20070927AI N	103 17 04.0	129	1526	Educational Media Foundati		
211A	KUWL	LIC	_CX	353.5	158.52	41 18 36.0	0.110	0.7	10.1	149.1	143.4
Laramie		WY		173.3	BLED20080303AI Z	105 27 17.0	295	2699	Uni versi ty Of Wyomi ng		
212A	KBUT	LIC	_CX	234.1	185.44	38 54 07.0	1.000	1.6	10.2	178.6	174.7
Crested Butte		CO		53.0	BLED20140917ACR	106 58 21.0	-208	2969	Crested Butte Mountain Edu		
214C3	KUWV	LIC	_CX	18.0	285.79	42 20 02.8	14.000	100.6	33.9	177.3	224.1
Lingle		WY		198.7	BLED20110316AAQ	104 09 56.2	96	1510	Uni versi ty Of Wyomi ng		
215A	KRJX	LIC	_CX	260.6	235.19	39 30 58.0	0.600	46.8	30.8	183.1	196.4
Ri fle		CO		78.9	BLED20180409AAE	107 56 15.0	-112	2047	Educational Communi cations		
215A	KVNF	LIC	_CX	242.3	237.32	38 52 28.0	2.600	42.9	24.0	190.5	196.0
Paonia		CO		60.7	BLED20050826AAJ	107 39 40.0	-22	2120	North Fork Valley Public R		
216A	KWSB-FM	LIC	_CN	223.9	209.50	38 31 22.0	0.135	0.8	6.1	202.1	195.9
Gunni son		CO		42.8	BLED19850430LR	106 54 28.0	91	2627	Western State College Of C		
216C	KTNE-FM	LIC	_CY	39.6	284.05	41 50 24.0	100.000	12.3	84.8	262.2	199.0
Al li ance		NE		221.0	BLED19900515KB	103 03 18.0	404	1669	Nebraska Educational Telec		
214A	KCSE	LIC	NCX	131.3	307.84	38 02 10.0	4.000	86.4	29.7	207.8	232.7
Lamar		CO		312.9	BLED20140929AI N	102 35 58.0	113	1259	Kanza Soci ety, Inc.		
214A	KTDL	LIC	_CX	168.1	328.70	36 59 33.0	0.450	85.6	30.2	230.6	264.8
Tri ni dad		CO		348.6	BLED20071115AAB	104 28 24.0	296	2610	Educational Communi cations		
212A	KGCD	LIC	_VX	85.0	258.03	40 03 13.0	0.430	1.5	11.9	244.3	245.2
Wray		CO		267.0	BLED20110408ACX	102 13 32.0	77	1211	The Praise Network, Inc.		
217C2	KMSA	CP	_CX	254.2	315.28	39 03 59.0	5.000	4.5	65.4	305.5	249.0
Grand Junction		CO		71.9	BPED20170508AAA	108 44 41.0	398	2188	Col orado Mesa Uni versi ty		
215A	KASF	LIC	_C_	191.8	274.29	37 28 20.0	1.100	14.5	10.4	249.4	256.5
Al amosa		CO		11.4	BLED20010419AAA	105 52 39.0	27	2316	Adams State College		
214A	KLMQ	LIC	_HX	229.1	317.32	37 59 29.0	0.100	60.0	18.8	252.2	278.4
Pl acerville		CO		47.4	BLED20170927ABP	107 58 21.0	456	3365	Educational Media Foundati		
217C2	KMSA	LIC	_CX	254.2	315.56	39 03 56.0	3.100	3.6	60.9	306.7	253.9
Grand Junction		CO		71.9	BLED20130305ABT	108 44 52.0	407	2204	Col orado Mesa Uni versi ty		
212C2	KLFV	LIC	_CX	254.2	315.46	39 03 57.0	3.000	3.6	60.4	306.6	254.3
Grand Junction		CO		71.9	BMLED20151215ABZ	108 44 48.0	399	2196	Educational Media Foundati		
212C	KCSP-FM	LIC	_CX	344.6	328.69	42 44 24.0	100.000	9.1	67.7	310.9	260.8
Casper		WY		163.9	BLED20140923ABP	106 18 23.0	593	2554	Western Inspi rational Broa		
211C1	KZNK	LIC	_CX	101.0	340.97	39 14 31.0	90.000	9.4	69.0	318.6	271.3
Brewster		KS		283.5	BLED20101027AAH	101 21 38.0	305	1343	Kanza Soci ety, Inc.		
217A	KASV	LIC	_HN	191.3	297.03	37 15 59.0	2.500	1.7	16.8	284.8	279.6
Sanford		CO		10.9	BLED20180118AAS	105 53 47.0	7	2339	Top 0' Texas Educational B		
211C1	KCEI	LIC	DCN	191.6	343.41	36 51 34.0	2.050	3.0	58.3	330.0	284.5
Red River		NM		11.1	BLED20160819AAP	106 01 02.0	739	3335	Cul tural Energy		
217C3	KUWC	LIC	_C_	343.9	329.98	42 44 26.0	0.530	1.6	24.3	319.7	298.0
Casper		WY		163.2	BLED20000707ACY	106 21 34.0	544	2482	Uni versi ty Of Wyomi ng		
217C2	KSUT	LIC	_CX	213.7	358.75	37 11 03.0	2.000	2.6	32.2	348.4	320.5
Ignaci o		CO		32.3	BLED20100713AGQ	107 29 06.0	497	2713	Kute, Inc.		

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	Page # *IN* (Overlap in km)	3 *OUT*
211C1 Ignacio	KUTE	LIC DVN CO		219.0 37.4	357.48 BLED19980717KA	37 21 51.0 107 46 56.0	3.000 599	2.2 3029	21.5 Kute, Inc.	348.1	324.2
213A Dulce	KCIE	LIC DEN NM		205.5 24.5	356.50 BLED19901001KA	36 59 00.0 106 58 12.0	0.100 468	19.4 2757	12.6 Jicarilla Apache Tribe	328.6	333.0

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.
« = Station meets FCC minimum distance spacing for its class.
Reference station has protected zone issue: AM tower

* No actual interference will be caused to either KCFR-FM or KLDV(FM) since the worse case 121.7 DBU interference contour will not cover any population. See the Technical Statement for more details.

** A consent letter from the licensee of KXDP-LP has been obtained for this operation. See the Technical Statement for more details.

K213FH

BLFT20170209AAL

Latitude: 39-53-31 N

Longitude: 105-14-19 W

ERP: 0.75 kW

Channel: 214

Frequency: 90.7 MHz

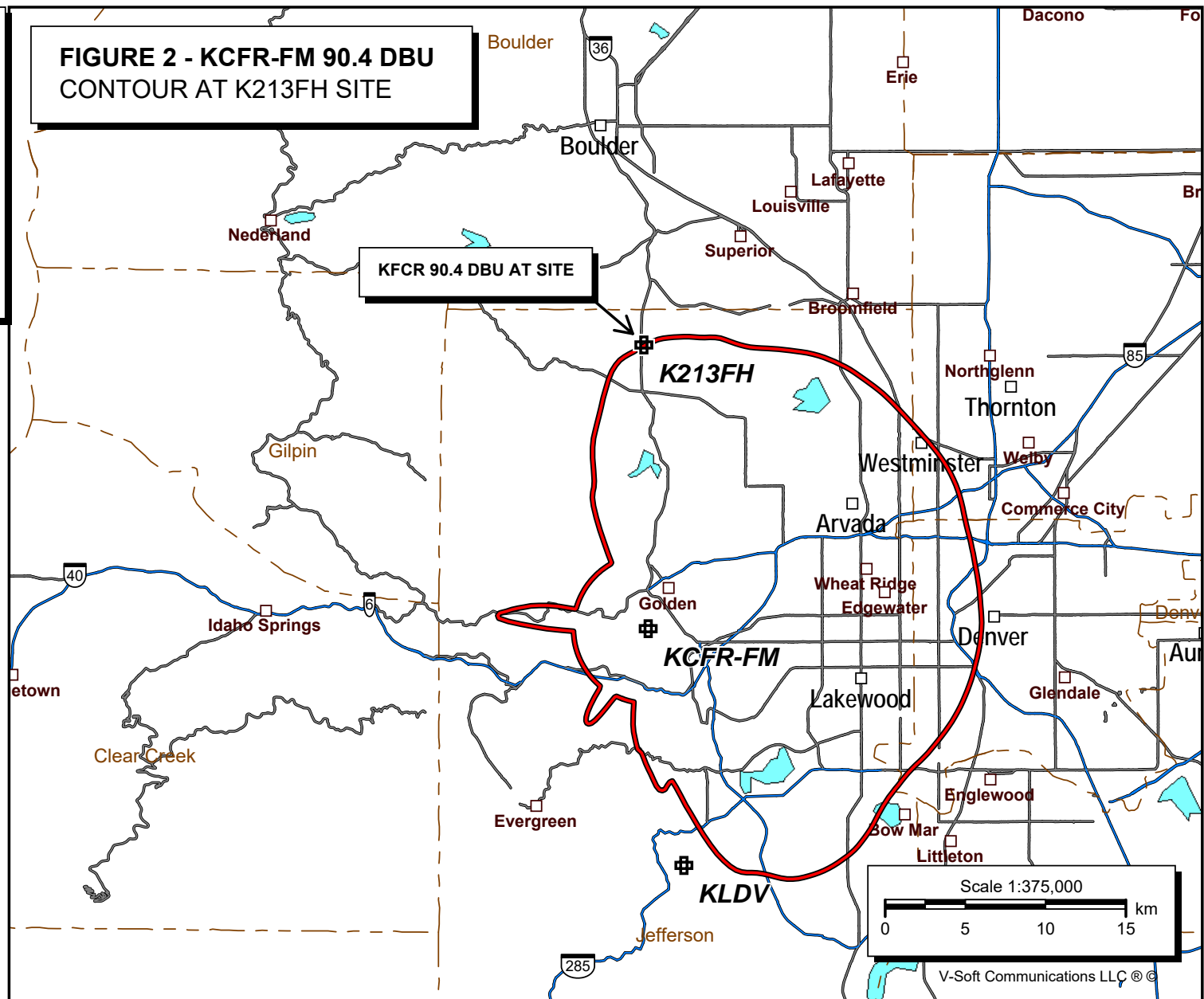
AMSL Height: 1930.0 m

Elevation: 1885.0 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model:

**FIGURE 2 - KCFR-FM 90.4 DBU
CONTOUR AT K213FH SITE****KCFR 90.4 DBU AT SITE**

V-Soft Communications LLC ©

BLFT20170209AAL
Latitude: 39-53-31 N
Longitude: 105-14-19 W
ERP: 0.75 kW
Channel: 214
Frequency: 90.7 MHz
AMSL Height: 1930.0 m
Elevation: 1885.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model:

BMLED20160830ABQ
Latitude: 39-36-00 N
Longitude: 105-12-35 W
ERP: 100.00 kW
Channel: 216
Frequency: 91.1 MHz
AMSL Height: 2448.0 m
Elevation: 2427.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model:

KLDV 81.7 DBU AT SITE

K213FH

KCFR-FM

KLDV

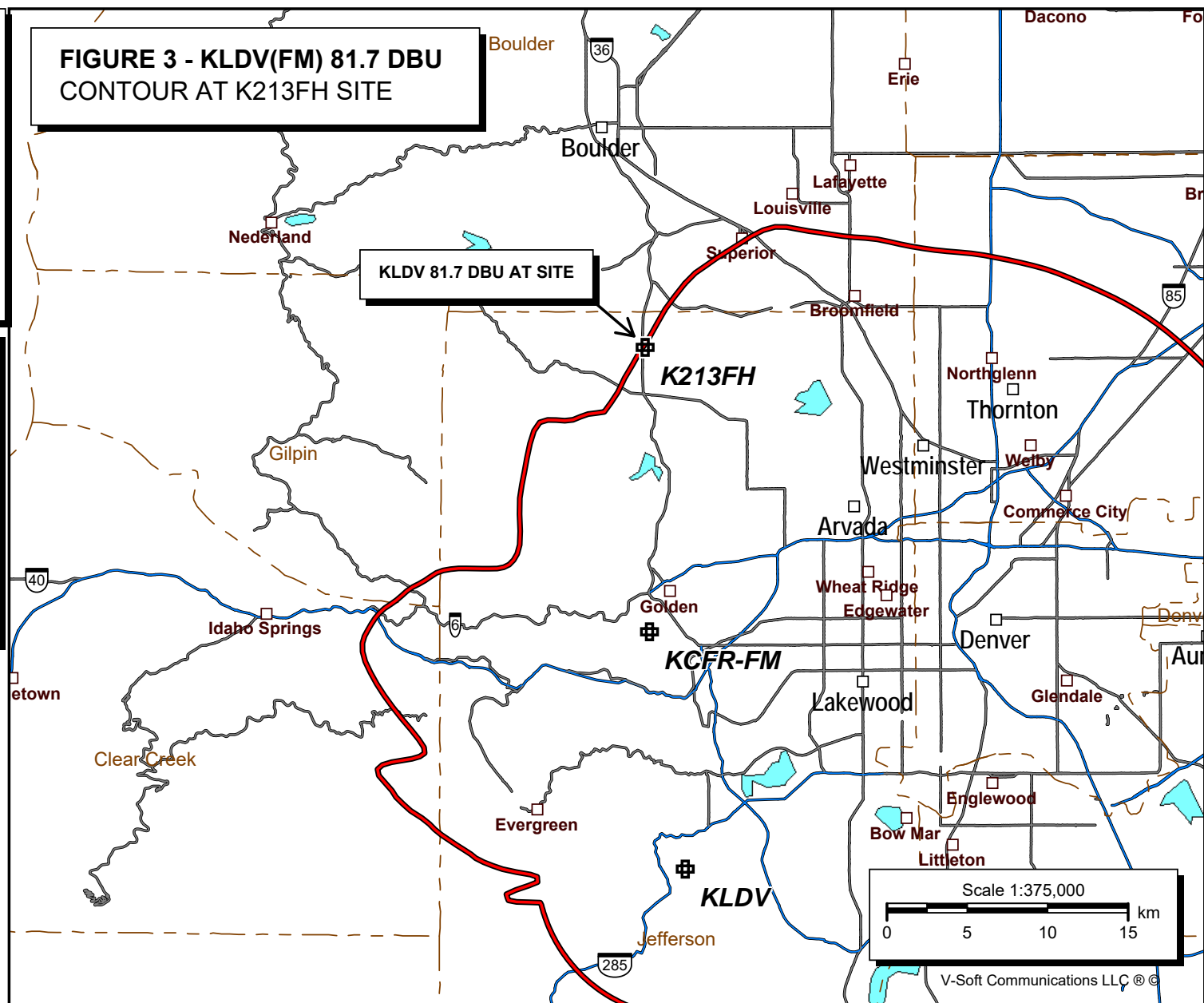


FIGURE 4 - PREDICTED 121.7 DBU INTERFERENCE CONTOUR
K213FH BROOMFIELD, CO, CH. 214

Coverage Study - NGDC 30 SEC
01-27-2019

K213FH CH214 D , 0.075 kW, 0.0m HAAT, 1930.0m COR AMSL
Interference Contour = 121.7 dBu. Population = 0

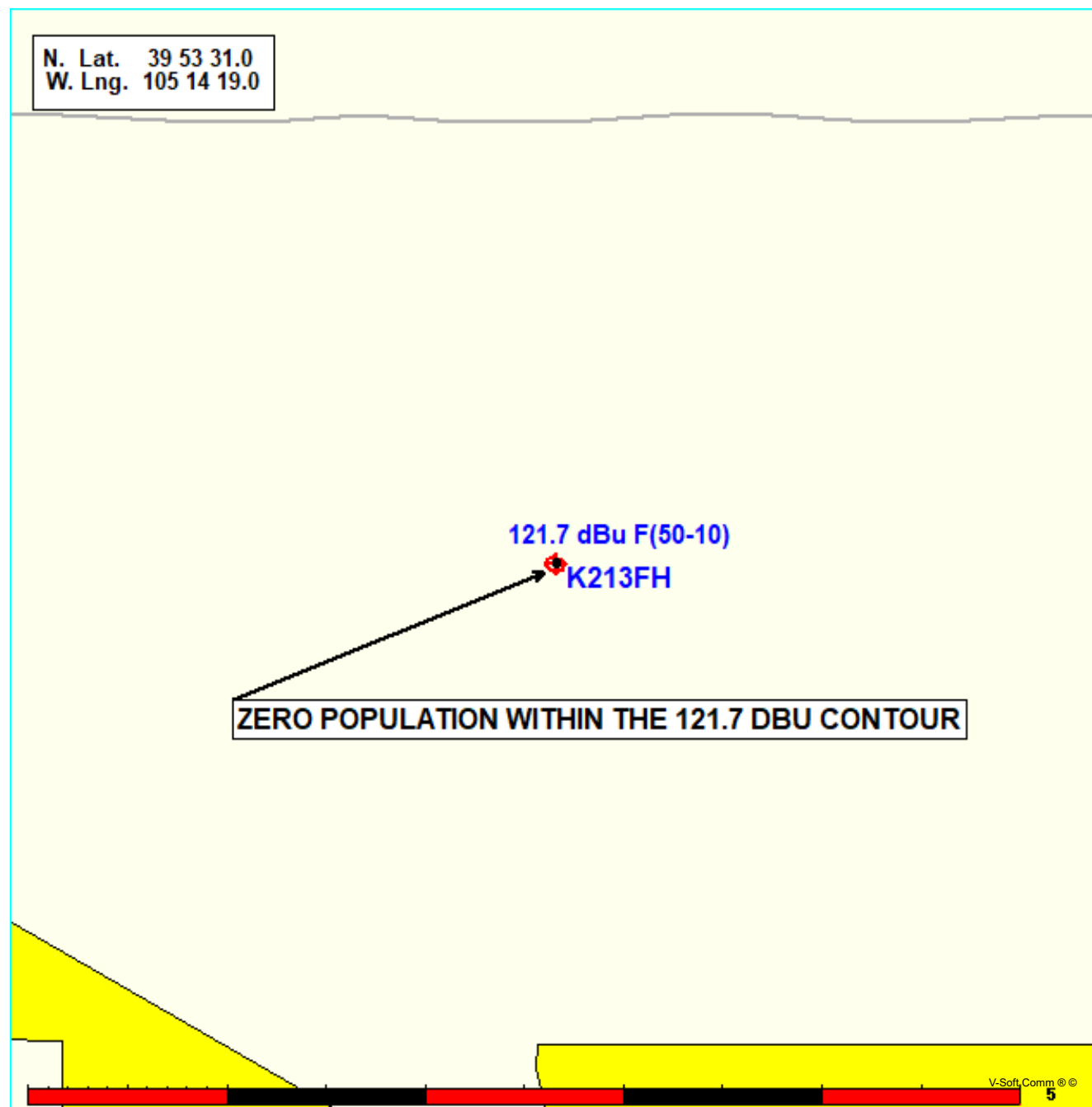


FIGURE 5 - VERTICAL PATTERN INTEFERENCE STUDY - K213FH on CH. 214 and KLDV Ch. 216C0

XField.out

K213FH Broomfield, CO, Showing Protection to KLDV
 Geographic Coordinates: N. 39 5 3 31.0 W. 105 1 4 19.0
 74.1204(d) Study - Using NGDC 30 SEC Terrain Database
 Translator or LPFM Maximum Licensed ERP = 0.075
 Translator or LPFM Antenna Height AG = 45 Meters
 K213FH Antenna Model = TFC2K-D

Protected Station's Contour = 81.73396 dBu
 Translator's or LPFM's full Interference contour 121.73396

Review Azimuth = 0 Degrees True
 Horizontal Relative Field at Review Azimuth = 0.966
 Translator/LPFM ERP on the horizontal at Review Azimuth = 0.075 kW
 Distance between stations = 32.6 km
 Protected Station= KLDV, 100 kW, 2448 M Meters COR AMSL

Depression Angle From Degree(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	0.97	0.0725	048.9014	048.9014	045.000
05.00	0.99	0.97	0.0710	048.4124	048.2282	040.781
10.00	0.979	0.97	0.0695	047.8842	047.1568	036.685
15.00	0.953	0.97	0.0657	046.5786	044.9914	032.945
20.00	0.92	0.97	0.0613	044.9893	042.2761	029.613
25.00	0.877	0.97	0.0557	042.8718	038.8551	026.882
30.00	0.829	0.97	0.0498	040.5490	035.1165	024.725
35.00	0.772	0.97	0.0431	037.7372	030.9125	023.355
40.00	0.715	0.97	0.0370	034.9645	026.7844	022.525
45.00	0.647	0.97	0.0303	031.6245	022.3619	022.638
50.00	0.57	0.97	0.0235	027.8738	017.9169	023.647
55.00	0.487	0.97	0.0172	023.8003	013.6513	025.504
60.00	0.388	0.97	0.0109	018.9884	009.4942	028.556
65.00	0.292	0.97	0.0062	014.2645	006.0285	032.072
70.00	0.187	0.97	0.0025	009.1299	003.1226	036.421
75.00	0.095	0.97	0.0007	004.6456	001.2024	040.513
80.00	0.045	0.97	0.0001	002.2006	000.3821	042.833
85.00	0.032	0.97	0.0001	001.5502	000.1351	043.456
90.00	0.03	0.97	0.0001	001.4670	000.0000	043.533

X-Field™ By V-Soft Communications®LLC

FIGURE 5 - DIRECTIONAL ANTENNA DATA

K213FH
Broomfield, CO, ch. 214D

01-27-2019 RMS(V) = .785

Graph is Relative Field

Azi	Field	dBk	kW
000	0.305	-21.563	0.007
010	0.250	-23.291	0.005
020	0.215	-24.601	0.003
030	0.250	-23.291	0.005
040	0.305	-21.563	0.007
050	0.350	-20.368	0.009
060	0.440	-18.380	0.015
070	0.515	-17.013	0.020
080	0.595	-15.759	0.027
090	0.685	-14.536	0.035
100	0.770	-13.520	0.044
110	0.845	-12.712	0.054
120	0.900	-12.165	0.061
130	0.955	-11.649	0.068
140	0.990	-11.337	0.074
150	1.000	-11.249	0.075
160	1.000	-11.249	0.075
170	1.000	-11.249	0.075
180	1.000	-11.249	0.075
190	1.000	-11.249	0.075
200	1.000	-11.249	0.075
210	1.000	-11.249	0.075
220	1.000	-11.249	0.075
230	1.000	-11.249	0.075
240	1.000	-11.249	0.075
250	1.000	-11.249	0.075
260	0.990	-11.337	0.074
270	0.955	-11.649	0.068
280	0.900	-12.165	0.061
290	0.845	-12.712	0.054
300	0.770	-13.520	0.044
310	0.685	-14.536	0.035
320	0.595	-15.759	0.027
330	0.515	-17.013	0.020
340	0.440	-18.380	0.015
350	0.350	-20.368	0.009

BEXT TFC-2K-D
Oriented at 200 Degrees

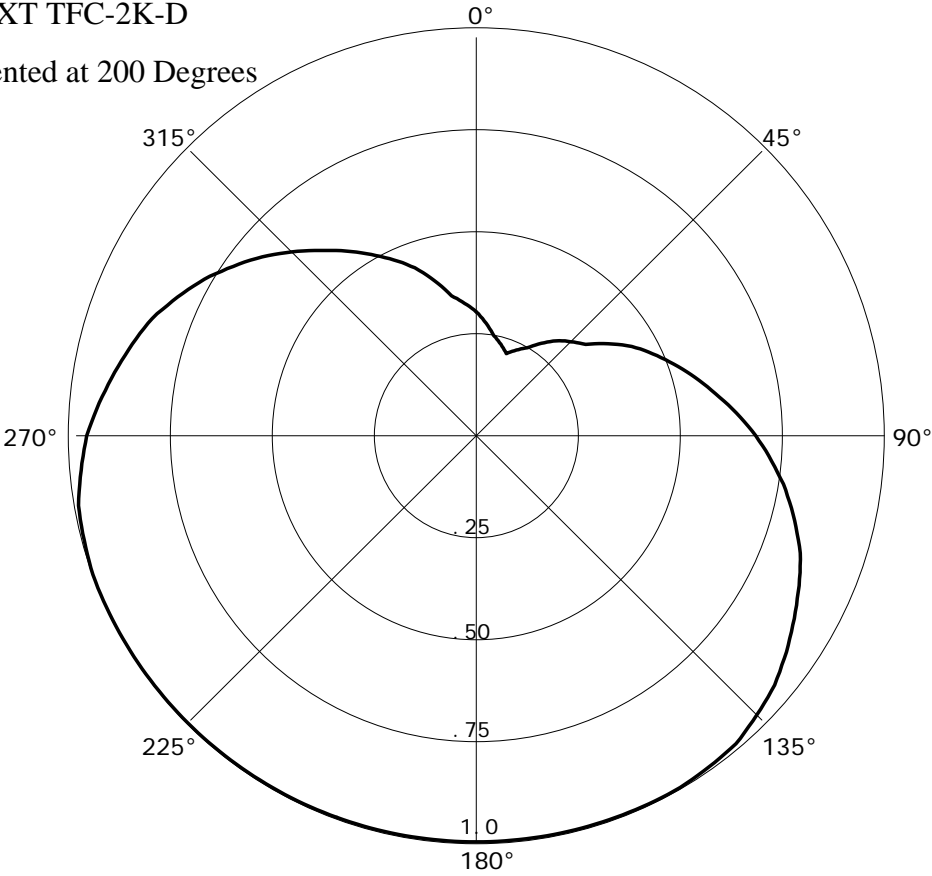


FIGURE 7
 COMPLIANCE WITH 74.1235(b)(2)
 EFFECTIVE RADIATED POWER CALCULATIONS
 K213FH BROOMFIELD, COLORADO, CH. 214D
 JANUARY 2019

The following table will shows compliance with the maximum Effective Radiated Power limitations according to 74.1235(b)(2) for an FM translator station located West of the Mississippi River.

K213FH proposes to use a directional antenna system, which will limit the Maximum ERP on some of the 12 pertinent average terrain radials. The maximum ERP for this antenna will be 0.075 KW (75 watts) at an azimuth of 200 degrees.

<u>Azimuth</u>	<u>COR HAAT</u>	<u>Maximum Power Allowed</u>	<u>Proposed ERP</u>
0	253.0 meters	41.0watts	7.0 watts
30	224.0 meters	50.0 watts	5.0 watts
60	252.7 meters	41.0 watts	15.0 watts
90	237.4 meters	41.0 watts	35.0 watts
120	204.3 meters	62.0 watts	61.0 watts
150	189.8 meters	75.0 watts	75.0 watts
180	75.0 meters	250 watts	75.0 watts
210	(-303.9) meters	250 watts	75.0 watts
240	(-503.9) meters	250 watts	75.0 watts
270	(-644.7) meters	250 watts	68.0 watts
300	(-278.2) meters	250 watts	44.0 watts
330	(-89.4) meters	250 watts	20.0 watts

The proposed operation of K213FH operating with a maximum ERP of 0.075 Kilowatts was found to be in compliance with 74.1235(b)(2).

FIGURE 8 - KXDP-LP CONSENT LETTER

December 27, 2016

Mary Medicus
655 Homestead Street
Lafayette, CO 80026

RE: FM translator station K214FE Golden, Colorado on channel 213D.


Dear Ms. Medicus,

Syncom Media Group, Inc., licensee of KXDP-LP, Channel 6, Denver, Colorado, facility ID 67552, hereby states that it has no objections to the construction and operation of an FM translator, K214FE, facility ID 147935 operated by Mary Medicus ("MM"), on 90.5 mhz (ch. 213) as proposed with up to a maximum 99 watts ERP at a transmitter site located at N39-53-05, W105-14-19.

MM agrees that if interference to Channel 6 should arise as a result of the proposed FM translator, MM will immediately cease operation of the translator until a solution to the interference can be found.

MM will also supply TVI filters at no cost to listeners whose reception of the Channel 6 signal may be adversely affected by the proposed FM translator.

Sincerely,



J. Christopher Blair
President
Syncom Media Group, Inc.
4552 W. 105th Way
Westminster, CO 80031

K206DB

BLFT20170620ABJ

Latitude: 40-29-36 N

Longitude: 105-10-53 W

ERP: 0.012 kW

Channel: 206

Frequency: 89.1 MHz

AMSL Height: 2081.0 m

Elevation: 2069.0 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model: Longley/Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 311.0

Receiver Ht AG: 9.1 m

Receiver Gain: 0 dB

Time Variability: 50.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

FIGURE 9 - LONGLEY-RICE COVERAGE
MAP OF K206DB CEDAR COVE, CO
SHOWING 51 DBU SIGNAL AT K213FH SITE

