

TECHNICAL STATEMENT
K276FK PINECLIFFE, COLORADO
MOUNTAIN COMMUNITY TRANSLATORS, LLC
FCC FORM 349
AUGUST 2010

This Technical Statement is made in support of a minor change application for FM translator station, K276FK licensed to Pinecliffe, Colorado. K276FK seeks to modify its current directional antenna system and relocate to an existing tower site on Lookout Mountain. The following will show that the new proposed operation of K276FK will meet all of the Commissions technical requirements for an FM translator station.

The new proposed operation of K276FK specifies a maximum Effective Radiated Power of 250 watts. It will operate with a directional antenna with an “off the shelf” type antenna, or a Nicom Model BKG-77/2L, circular polarized, directional 2 bay half wavelength spaced antenna system. The antenna will be mounted on an existing tower with an over height of 13 meters above the ground. The antenna will be mounted with a Center of Radiation of 9 meters above the ground, and 2254 meters Above Mean Sea Level. The coordinates of this tower are located at N 39° 43’ 45”, W 105° 14’ 08”.

Figure 1 is a detailed interference study conducted on channel 276D with these new proposed facilities. It shows that the new operation of K276FK will not cause any interference to any existing or proposed FM stations on any of the pertinent same channel or adjacent channels to channel 276, with the exception of KRFX Denver, Colorado operating on channel 278C0, facility ID 29731. The proposed operation of K276FK on 276D is located within the protected 60 dB μ contour of 3rd adjacent channel of KRFX.

Figure 2 shows the predicted F(50-50) field strength of KRFX at the proposed K276FK transmitter site is 133.8 dB μ . Therefore, the respective predicted interfering contour F(50-10) generated by the proposed K276FK on channel 276D is an additional 40 dB μ or 173.8 dB μ . The KRFX transmitter site is located just 0.4 kilometers from the proposed site for K276FK.

Figure 3 shows the coverage area for the 173.8 interference contour F(50-10) and shows that there is no population in the area of interference. The proposed 173.8 dB μ contour will only extend 0.2 kilometers from the antenna system, thus with a COR at 9 meters above the ground, the interference contour will not reach the ground at any point.

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 3/4 acre square wooded area, 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 K276FK until such interference can be eliminated.

Figure 4 is a detailed study conducted against a first adjacent channel KLBO Limon, Colorado on channel 276C1, facility ID 79249. The 40 dB μ Interference contour being proposed by K276FK will not overlap with the protected 60 dB μ of the licensed KAVD.

Figure 5 shows that the proposed operation of K276FK will 60 dB μ overlap with the currently licensed operation of K276FK as required.

Figure 6 is the directional antenna data for the proposed Nicom BKG-1 antenna system proposed to be used.

Figure 7 is a tabulation of the distances to the pertinent contours used for interference calculations for K276FK.

Figure 8 shows the proposed 60 db μ of K276FK will be completely contained inside of the current 60 db μ predicted coverage contour of the station being rebroadcast, KLDV Morrison, Colorado on channel 216C0, facility ID 12354. The proposed operation of K276FK will be considered a “fill-in” translator for KLDV, thus some of the maximum allowable ERP limits on some of the pertinent radials will be exceeded. However, the maximum ERP on any radial will not exceed 250 watts, thus this proposal is compliance with MERP’s rules, or with 74.1235(a).

It was found that the new proposed operation of K276FK Pinecliffe, Colorado on channel 276D, will satisfy all of the required commission rules and regulations for an FM translator station.

FIGURE 1, DETAILED CHANNEL STUDY K276FK PINECLIFFE, COLORADO, CHANNEL 276D CH# 276D - 103.1 MHz, Pwr= 0.25 kW DA, HAAT= 226.6 M, COR= 2254 M Average Protected F(50-50)= 19.7 km Standard Directional												
REFERENCE			DISPLAY DATES									
39 43 45.0 N.			DATA 08-31-10									
105 14 08.0 W.			SEARCH 08-31-10									
CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR (kW)	INT (km)	PRO (km)	*IN*	*OUT*	
CITY		STATE		<--	FILE #	LNG	HAAT (M)	COR (M)	LICENSEE	(Overlap	in km)	
276D	K273BX *	CP	DV_	254.3	22.1	39 40 31.0	0.250	91.9	31.4	-87.0*<	-32.5*<	*
Pinecliffe		CO		74.2	BFFT20100506AGH	105 29 02.0		3244	Mountain Community Transla			
278C0	KRFX **	LIC	DCX	353.7	0.4	39 43 59.0	100.000	6.2	52.8	-30.1*<	-53.4*<	**
Denver		CO		173.7	BLH20070927AIC	105 14 10.0	346	2256	Citicasters Licenses, Inc.			
276C1	KLBO	LIC	NC_	101.4	140.3	39 28 12.0	100.000	160.6	63.6	-43.5*<	3.3	
Limon		CO		282.4	BLH20001129AAZ	103 38 14.0	135	1791	Coloradio, Inc.			
274D	K274BW	LIC	DC_	7.4	31.7	40 00 43.0	0.250	1.1	6.9	3.8	23.7	
Berthoud		CO		187.4	BLFT20090623ACK	105 11 16.0		1673	Community Radio For		North	
275C1	KARS-FM	LIC	_C_	343.2	133.3	40 52 37.0	100.000	102.9	78.0	6.2	21.7	
Laramie		WY		162.9	BLH20051031ABO	105 41 44.0	248	2999	The Fort Collins/lafayette			
275C1	KARS-FM	CP	_CY	343.2	133.3	40 52 37.0	72.000	98.3	74.6	10.9	24.8	
Laramie		WY		162.9	BPHT20090122ABT	105 41 44.0	248	2999	The Fort Collins/lafayette			
274C	KBIQ	LIC	_C_	163.4	113.9	38 44 43.0	72.000	15.8	97.6	82.8	15.8	
Manitou Springs		CO		343.7	BMLH20030423AAT	104 51 39.0	695	2946	Bison Media, Inc.			
273D	K273BX	LIC	DV_	300.0	31.3	39 52 09.0	0.010	0.2	5.2	24.1	25.1	
Pinecliffe		CO		119.8	BLFT20100412AAM	105 33 09.0		3343	Mountain Community Transla			
275D	KARS-FM1	LIC	DC_	3.3	133.4	40 55 41.0	17.000	78.9	53.8	27.7	38.2	
Fort Collins		CO		183.4	BLFTB20070718AEG	105 08 36.0		2100	The Fort Collins/lafayette			
223C1	KWOF	LIC	DEN	34.8	49.8	40 05 47.0	57.000	4.6	1.6	22.0R	27.8M	
Broomfield		CO		215.0	BLH20010501AAA	104 54 04.0	377	1895	Wilks License Company-denv			
275D	KARS-FM1	CP	DC_	3.3	133.4	40 55 41.0	11.300	73.7	50.0	33.0	42.0	
Fort Collins		CO		183.4	BPFTB20090122ABX	105 08 36.0		2100	The Fort Collins/lafayette			
276C3	AL3178	RSV	___	248.3	148.4	39 13 33.0	25.000	99.8	22.7	37.3	102.6	
Aspen		CO		67.3	RM9890	106 50 00.0	100	2991				
277D	650325	APP	DC_	3.1	85.0	40 29 36.0	0.020	7.3	9.9	51.0	37.4	
Fort Collins		CO		183.1	BNPFT20030317JQN	105 10 52.0		2075	Regent Broadcasting Of Ft.			
276D	K215CB	APP	DC_	163.5	114.0	38 44 40.0	0.010	51.4	16.8	45.5	45.4	
Manitou Springs		CO		343.7	BPFT20100728ADN	104 51 41.0		2910	Way-fm Media Group, Inc.			
276D	649776	APP	_V_	260.1	72.5	39 36 50.0	0.010	10.2	3.2	50.0	46.0	
Silverthorne		CO		79.5	BNPFT20030317IIP	106 04 02.0		2853	Randy M Hudson			
273C2	KTRR	LIC	NCX	19.2	107.4	40 38 31.0	17.000	5.7	52.8	74.7	53.5	
Loveland		CO		199.4	BLH20051107AEI	104 49 03.0	234	1793	Regent Broadcasting Of For			
274D	K274AG	LIC	_CN	260.1	72.5	39 36 50.0	0.095	0.7	5.6	64.8	65.8	
Dillon		CO		79.5	BLFT19950814TD	106 04 02.0	-345	2866	Nrc Broadcasting Mountain			
279D	K279BH	LIC	DV_	249.3	72.9	39 29 44.0	0.250	0.5	2.9	65.7	69.0	
Vail		CO		68.8	BLFT20090723AEK	106 01 44.0		3221	Skandia, Llc			
277D	641630	APP	DV_	264.6	104.4	39 38 05.0	0.100	22.9	15.3	68.9	79.0	
Vail		CO		83.8	BNPFT20030314CKI	106 26 47.0		2958	Cimarron Communications Co			
223D	631417	APP	_C_	155.8	81.6	39 03 31.0	0.140	4.6	1.6	10.0R	71.6M	
Pinecrest		CO		336.1	BNPFT20030310BEU	104 50 54.1		2103	Way-fm Media Group, Inc.			
277D	634201	APP	_C_	262.2	97.3	39 36 16.9	0.010	12.8	9.3	72.0	78.1	
Vail		CO		81.4	BNPFT20030317DAV	106 21 30.6		3425	Radio Assist Ministry, Inc			
276D	649786	APP	_V_	263.5	104.9	39 36 58.0	0.010	10.2	3.2	82.2	78.3	
Avon		CO		82.7	BNPFT20030317IIU	106 26 59.0		2725	Randy M Hudson			
276A	KSPN-FM	LIC	_C_	248.3	148.4	39 13 33.0	3.000	53.3	13.2	83.8	112.1	
Aspen		CO		67.3	BMLH20010913AAJ	106 50 00.0	-26	2876	Nrc Broadcasting Mountain			
273C2	KQSE	LIC	_C_	270.9	134.1	39 44 18.0	0.480	1.5	44.9	125.5	88.0	
Gypsum		CO		89.9	BLH20080222ABW	106 47 58.0	660	3161	Wildcat Communications, L.			
277C2	KRAN	LIC	ZCX	15.1	164.7	41 09 34.0	37.000	46.5	31.8	90.1	92.8	
Warren Afb		WY		195.5	BLH20090624AEP	104 43 19.0	78	1912	Freisland Broadcasting Cor			

											Page # 2	
CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap	*OUT* in km)	
273D Vail	633930	APP CO	DC_	264.6 83.8	104.4 BNPFT20030313AQS	39 38 05.0 106 26 47.0	0.010	0.2 2963	7.5 Educational	97.2	95.8 Communications	
278D Colorado Springs	629881	APP CO	DE_	163.4 343.7	113.9 BNPFT20030312AJN	38 44 43.0 104 51 39.0	0.010	0.0 2718	2.5 Educational	99.6	110.8 Communications	
277C1 Colorado City	KJQY	CP CO	_CX	164.1 344.5	224.7 BMPH20080626AAB	37 46 52.0 104 32 03.0	100.000 165	96.9 1958	67.6 Pueblo Broadcasting Group	109.7	135.0	
222C2 Hugo	KHIH	CP CO	NHX	116.9 297.8	151.2 BNPH20070502AFN	39 06 20.0 103 40 30.0	26.000 82	4.6 1747	1.6 Kona Coast Radio, Llc.	15.0R	136.2M	
222C3 Salida	KVRH-FM	LIC CO	_CX	205.7 25.2	157.0 BLH20090917ABD	38 27 11.0 106 01 02.0	0.220 895	4.6 3578	1.6 Three Eagles Communication	12.0R	145.0M	
222C2 Hugo	KHIH	APP CO	_CX	115.9 297.0	168.8 BMPH20100128AIG	39 03 15.0 103 28 48.0	40.000 52	4.6 1622	1.6 Kona Coast Radio, Llc.	15.0R	153.8M	
222A Hugo	AU7055920	VAC CO	___	112.9 294.1	165.7 RM10096	39 08 10.0 103 28 10.0	6.000 100	4.6 1686	1.6 Alan Olson	10.0R	155.7M	
275C3 Battlement Mesa	NEW	CP CO	_CX	263.1 81.4	236.8 BNPH20090929AMO	39 26 33.0 107 58 01.0	25.000 -1	65.0 2244	74.6 Cochise Media Licenses, Ll	159.3	156.7	
222A Hillsdale	KYOY	APP WY	ZCX	20.5 201.0	170.7 BPH20100301ADY	41 09 58.0 104 31 16.0	6.000 100	4.6 1846	1.6 Kimball Radio, Llc	10.0R	160.7M	
279C1 Akron	AL8413	VAC CO	___	78.6 260.1	198.0 RM10630	40 03 28.0 102 57 35.0	100.000 299	9.6 1638	0.0 Akron B/c Co.	162.8	197.1	
222A Hillsdale	KYOY	LIC WY	NCX	23.2 203.7	174.2 BLH20090217AAX	41 10 02.0 104 24 53.0	4.000 30	4.6 1731	1.6 Kimball Radio, Llc	10.0R	164.2M	
275C3 De Beque	R13387	DEL CO	___	262.4 80.5	264.2	39 22 36.0 108 16 33.0	25.000 100	84.3 1965	62.2 Cochise Media Licenses, Ll	167.4	192.4	
275C3 De Beque	AL6785	VAC CO	___	262.4 80.5	264.2 RM10736	39 22 36.0 108 16 33.0	25.000 100	84.3 1965	62.2 Garfield-mesa County Line	167.4	192.4	

Terrain database is USGS 03 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.
Reference station has protected zone issue: AM tower

* Translator being modified by this application. Also, this record still indicates this record is a CP.
However, the license application was granted for K273BX Pinecliffe (call sign is now K276FK) on
August 31st,2010, BLFT-20100809CGU. This CP record has the same technical parameters as the newly
licensed K276FK Pinecliffe.

** Interference protection will be provided to KRFX Denver on channel 278C0 since the proposed
interference contour for K276FK will not cover any population. The interference contour will only
go out a distance of 0.2 meters, or will not reach the ground at any point. See the Technical
Statement for detailed information on these calculations.

FIGURE 2, KRFX 133.8 DBU CONTOUR AT THE PROPOSED SITE
K276FK PINECLIFFE, COLORADO, CHANNEL 276D

Coverage Study - USGS 03 SEC
08-31-2010

KRFX CH278 C0, 100.0 kW, 346.0M HAAT, 2256.0M COR AMSL
Service Contour = 133.8 dBu. Population =

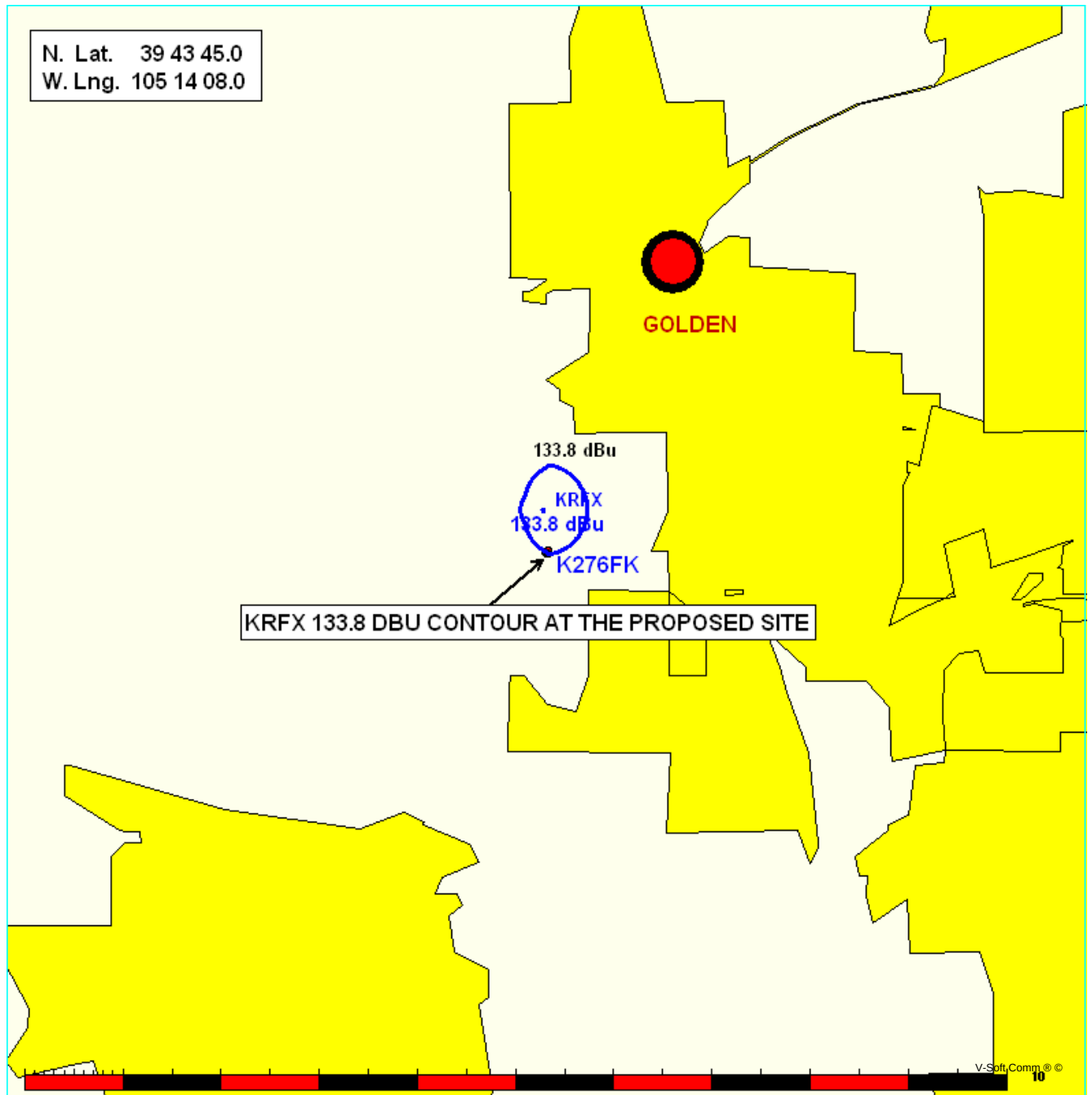


FIGURE 3, PROPOSED 173.8 DBU INTERFERENCE CONTOUR
K276FK PINECLIFFE, COLORADO, CHANNEL 276D

Coverage Study - USGS 03 SEC
08-31-2010

K276FK CH276 D , 0.25 kW, 226.6M HAAT, 2254.0M COR AMSL
Interference Contour = 173.8 dBu. Population = 0

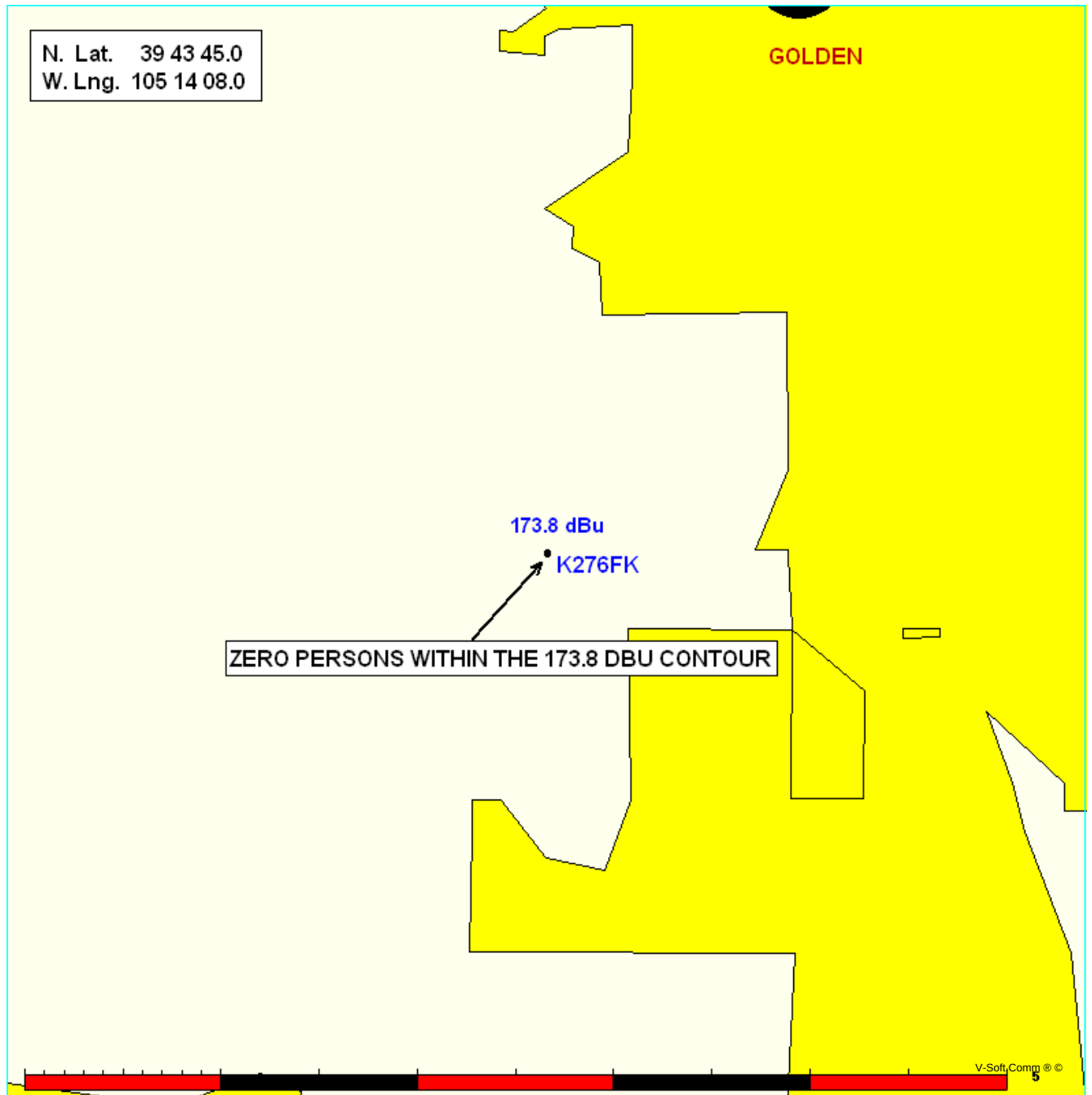


FIGURE 4, DETAILED INTERFERENCE STUDY WITH KLBO LIMON, CO
K276FK PINECLIFFE, COLORADO, CHANNEL 276D

FMCommander Single Allocation Study - 08-31-2010 - USGS 03 SEC
K276FK's Overlaps (In= -43.54 km, Out= 3.3 km)

K276FK CH 276 D DA
Lat= 39 43 45.0, Lng= 105 14 08.0
0.25 kW 226.6 M HAAT, 2254 M COR
Prot.= 60 dBu, Intef.= 40 dBu

KLBO CH 276 C1 73.215 N BLH20001129AAZ
Lat= 39 28 12.0, Lng= 103 38 14.0
100.0 kW 135 M HAAT, 1791.2 M COR
Prot.= 60 dBu, Intef.= 40 dBu

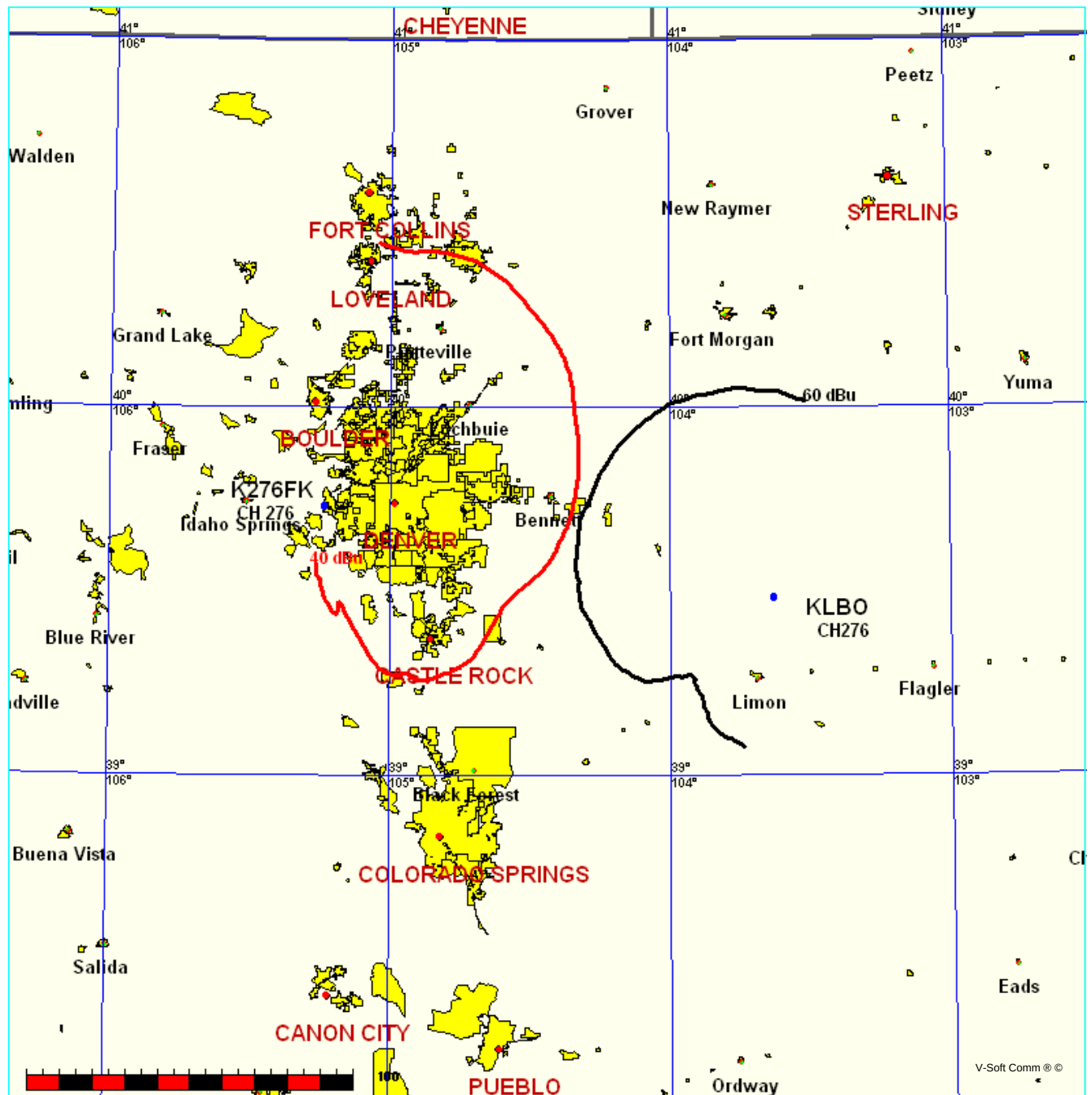


FIGURE 5, 60 DBU OVERLAP WITH CURRENT K276FK
K276FK PINECLIFFE, COLORADO, CHANNEL 276D

Coverage Study - USGS 03 SEC
08-31-2010

K276FK CH276 D , 0.25 kW, 226.6M HAAT, 2254.0M COR AMSL
Service Contour = 60 dBu. Population = 134,825

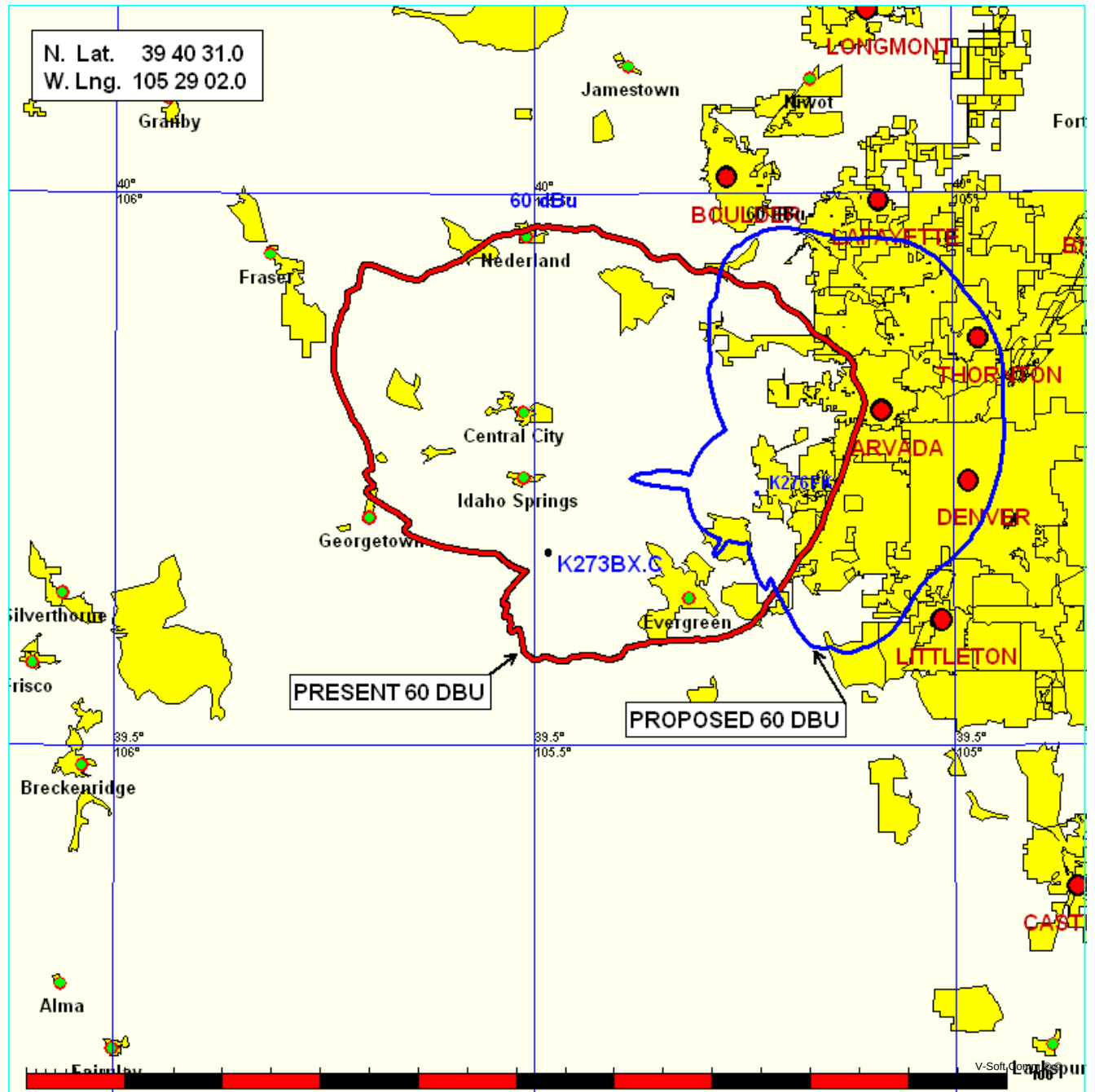


FIGURE 6 DIRECTIONAL ANTENNA DATA

K276FK PINECLIFFE, CO

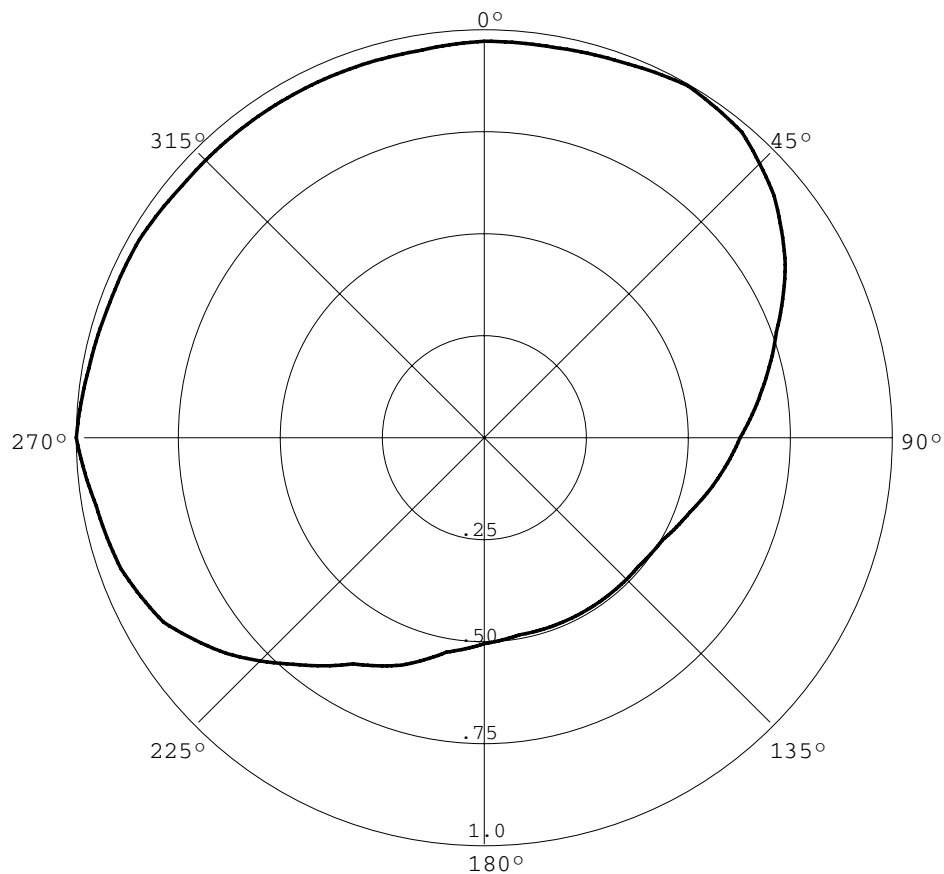
08-31-2010

RMS(V) = .811

NICOM BKG-77/2L DIRECTIONAL ANTENNA SYSTEM

Graph is Relative Field

Azi	Field	dBk	kW
000	0.976	-06.232	0.238
010	0.976	-06.232	0.238
020	0.984	-06.161	0.242
030	1.000	-06.021	0.250
040	0.982	-06.178	0.241
050	0.927	-06.679	0.215
060	0.852	-07.412	0.181
070	0.762	-08.382	0.145
080	0.692	-09.218	0.120
090	0.627	-10.075	0.098
100	0.581	-10.737	0.084
110	0.536	-11.437	0.072
120	0.504	-11.972	0.064
130	0.493	-12.164	0.061
140	0.493	-12.164	0.061
150	0.493	-12.164	0.061
160	0.493	-12.164	0.061
170	0.493	-12.164	0.061
180	0.507	-11.920	0.064
190	0.536	-11.437	0.072
200	0.596	-10.516	0.089
210	0.643	-09.856	0.103
220	0.728	-08.778	0.132
230	0.826	-07.681	0.171
240	0.908	-06.859	0.206
250	0.947	-06.494	0.224
260	0.966	-06.321	0.233
270	1.000	-06.021	0.250
280	0.984	-06.161	0.242
290	0.976	-06.232	0.238
300	0.976	-06.232	0.238
310	0.966	-06.321	0.233
320	0.966	-06.321	0.233
330	0.966	-06.321	0.233
340	0.966	-06.321	0.233
350	0.966	-06.321	0.233



Contour.out

N. Lat. = 394345.0 W. Lng. = 1051408.0
 HAAT and Distance to Contour,
 FCC, FM 2-10 Mi, 51 pts Method - USGS 03 SEC

FIGURE 7, TABULATION OF DISTANCE TO CONTOURS, K276FK

Azi.	AV EL	HAAT	dBk	60-F5	40-F1	173.8-F1
000	1839.6	414.4	-6.23	25.95	78.13	0.00
010	1812.0	442.0	-6.23	26.77	80.59	0.00
020	1804.0	450.0	-6.16	27.12	81.51	0.00
030	1744.7	509.3	-6.02	29.31	86.43	0.00
040	1721.3	532.7	-6.18	29.86	87.50	0.00
050	1712.9	541.1	-6.68	29.30	86.50	0.00
060	1693.6	560.4	-7.41	28.69	85.54	0.00
070	1710.1	543.9	-8.38	26.74	81.50	0.00
080	1709.3	544.7	-9.22	25.55	79.06	0.00
090	1714.1	539.9	-10.08	24.25	76.24	0.00
100	1738.4	515.6	-10.74	22.73	72.64	0.00
110	1777.8	476.2	-11.44	20.79	67.55	0.00
120	1815.9	438.1	-11.97	19.30	63.00	0.00
130	1797.0	457.0	-12.16	19.50	63.88	0.00
140	1792.5	461.5	-12.16	19.60	64.22	0.00
150	1831.4	422.6	-12.16	18.76	61.33	0.00
160	1929.1	324.9	-12.16	16.49	53.83	0.00
170	2155.4	98.6	-12.16	9.06	30.24	0.00
180	2170.0	84.0	-11.92	8.45	28.10	0.00
190	2233.4	20.6	-11.44	5.18	16.85	0.00
200	2292.6	-38.6	-10.52	5.47	17.95	0.00
210	2224.9	29.1	-9.86	5.68	18.75	0.00
220	2242.7	11.3	-8.78	6.04	20.09	0.00
230	2285.9	-31.9	-7.68	6.44	21.50	0.00
240	2386.3	-132.3	-6.86	6.76	22.60	0.00
250	2399.8	-145.8	-6.49	6.90	23.10	0.00
260	2319.9	-65.9	-6.32	6.97	23.34	0.00
270	2272.5	-18.5	-6.02	7.09	23.76	0.00
280	2182.6	71.4	-6.16	10.90	37.04	0.00
290	2265.3	-11.3	-6.23	7.00	23.46	0.00
300	2398.3	-144.3	-6.23	7.00	23.46	0.00
310	2409.6	-155.6	-6.32	6.97	23.34	0.00
320	2349.8	-95.8	-6.32	6.97	23.34	0.00
330	2256.4	-2.4	-6.32	6.97	23.34	0.00
340	2141.2	112.8	-6.32	13.41	45.82	0.00
350	1961.5	292.5	-6.32	21.92	66.50	0.00

Ave El= 2030.33 M HAAT= 223.67 M AMSL= 2254

FIGURE 8, KLDV FILL IN STUDY
K276FK PINECLIFFE, COLORADO, CHANNEL 276D

Coverage Study - USGS 03 SEC
08-31-2010

K276FK CH216 D , 0.25 kW, 226.6M HAAT, 2254.0M COR AMSL
Service Contour = 60 dBu. Population = 2,579,498

