

Doug Vernier, Telecommunications Consultants
401 Main St., Ste 213, Cedar Falls, IA 50613

K296CL Contour-to-Contour Channel Study
Summit Public Radio and TV, Inc.

REFERENCE CH# 296D - 107.1 MHz, Pwr= 0.01 kW DA, HAAT= 489.3 M, COR= 3828 M DISPLAY DATES
39 27 35.0 N. DATA 06-06-13
105 58 46.0 W. SEARCH 06-06-13
Average Protected F(50-50)= 12.49 km
Standard Directional

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 in km)	*OUT*
296D Breckenridge	K296CL	LIC DC_ CO	0.0 0.0	0.00 BLFT20120227AAJ	39 27 35.0 105 58 46.0	0.010 489	53.8 3828	14.3 Summit Public Radio And Tv	-68.1*	-68.1*
296C Bennett	KDHT-FM	LIC NC_ CO	72.7 254.0	179.31 BMLH20081028ABZ	39 55 22.0 103 58 18.0	97.000 624	199.1 2109	92.6 Max Radio Of Denver Lic	-25.4*	74.2
296C3 Aspen	KPVW	LIC _C_ CO	259.5 78.9	85.67 BMLH20121107AEE	39 18 56.0 106 57 32.0	20.500 110	95.5 2682	21.6 Entravision Holdings, Lic	-16.2*	39.6
296D Greenwood Village	KDHT-7	APP DC_ CO	76.0 256.7	105.04 BNPFTB20130430ACZ	39 40 57.0 104 47 18.0	7.500 1723	69.4 1723	17.4 Max Radio Of Denver Lic	32.3	74.5
294C0 Denver	KBPI	LIC _CX CO	64.3 244.8	70.59 BLH20080602ADJ	39 43 58.0 105 14 08.0	100.000 408	3.2 2318	31.0 Citicasters Licenses, Inc.	60.9	32.9
296D Commerce City	KDHT-5	APP DC_ CO	68.8 249.6	109.77 BNPFTB20130430ACV	39 48 39.0 104 46 52.0	8.000 1636	67.1 1636	13.5 Max Radio Of Denver Lic	38.0	78.6
295D Gypsum	K295BH	LIC DE_ CO	294.1 113.5	76.77 BLFT20060811AYU	39 44 18.0 106 47 58.0	0.010 677	24.7 3155	15.7 Skandia, Lic	40.0	50.7<---
298C Lakewood	KQKS	LIC _C_ CO	69.1 249.6	74.56 BLH19991214ABI	39 41 45.0 105 09 54.0	100.000 365	3.2 2081	31.0 Lincoln Financial Media Co	65.5	43.7
296D Aurora	KDHT-FM3	LIC DC_ CO	75.5 256.2	97.82 BLFTB20050729DSZ	39 40 31.0 104 52 22.0	20.000 1766	32.5 1766	9.1 Max Radio Of Denver Lic	60.3	75.2
297C2 Hayden	KQZR	LIC _C_ CO	316.9 136.0	162.79 BLH20000731ACV	40 31 16.0 107 17 46.0	29.000 198	84.2 2252	57.2 Nrc Broadcasting Mountain	63.7	83.8<---
296D Denver	KDHT-4	APP DC_ CO	68.9 249.6	95.15 BNPFTB20130430ABD	39 45 47.0 104 56 26.0	0.380 1628	20.9 1628	5.5 Max Radio Of Denver Lic	68.6	76.8
296D Glendale	KDHT-6	APP DC_ CO	72.3 252.9	93.30 BNPFTB20130430ACX	39 42 38.0 104 56 25.0	0.100 1675	17.5 1675	5.1 Max Radio Of Denver Lic	70.3	75.8
296D Crested Butte	K296AL	LIC ?HN CO	233.3 52.7	105.93 BLFT138	38 53 09.0 106 57 38.0	0.003 -222	7.4 2900	2.4 Professional Antenna, Towe	95.1	89.0
TRANSLATOR FOR KREX-FM, GRAND JUNCTION, CO.										

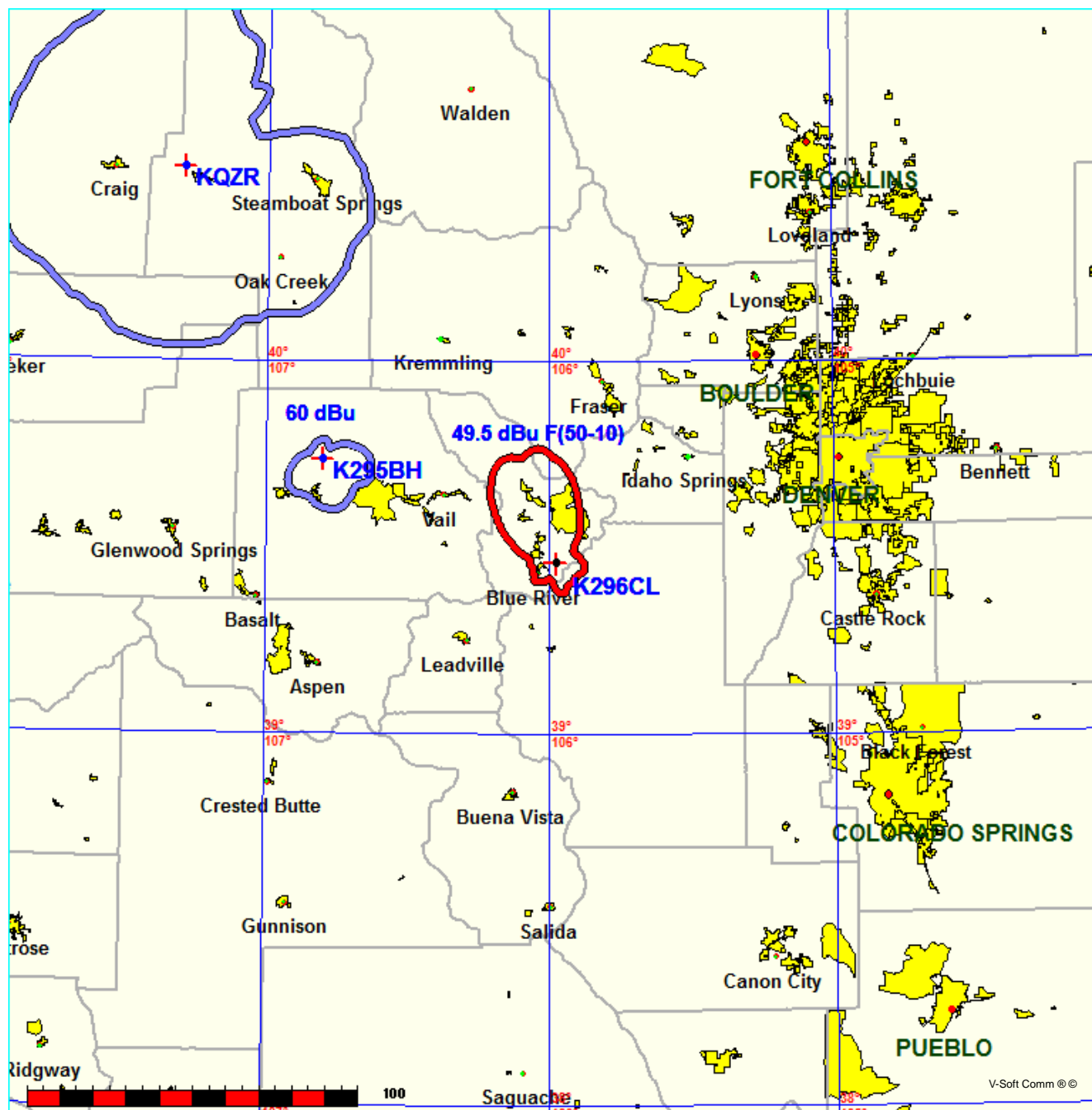
Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding

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 protected contour.

<--- Highlighted stations are first adjacent - they both are unaffected by proposed -10dBc operation

Shows 49.5 F(50-10) of K296CL and 60 dBu of K295BH & KQZR
Summit Public Radio and TV, Inc.

Coverage Study - FCC NGDC 30 Sec
06-06-2013



HOW TO READ THE FM COMPUTER PRINT-OUT

Translator Reference Station

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table. Contour distances are in kilometers and are predicted using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90. The column labeled "* OUT *" shows the greatest distance in kilometers of overlap (or smallest distance of clearance) between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap. Since translators are able to receive interference there is no "In" or incoming column in this report.

Listed antenna heights and power are the specific antenna heights and power from the FCC database.

Under the "AZI" column, the first row of numbers indicate the True North azimuths from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station. Bearings are calculated using spherical trigonometry.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships the minimum spacings the "OUT" columns change its significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column displays the **available clear space** separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N" or left blank.