

Interference Analysis

Page #2 of this exhibit is a computer generated channel study, showing the contour relationship between the proposed booster and adjacent stations. Page #3 is an explanation of the methods used in preparing the study.

The instant application complies with Section 74.1204, of the Commission's Rules. It should be noted that the attached channel study indicates that first adjacent translator station K292AB Heber City, UT, overlaps with the instant application. The applicant has contacted the Licensee of K292AB and that Licensee has agreed to file a minor modification of licensed facilities thereby eliminating the 1st adjacent prohibited overlap. The licensee of K292AB has requested expedited processing of its application (BMPFT-20040329ALI).

The application complies with Interference requirements towards all other stations.

FM Channel Spacings Study

KOTB Provo Booster Antenna Site Channel Study

REFERENCE 40 18 00 N 111 38 38 W	CH# 291A - 106.1 MHz, Pwr= 0.6 kw, HAAT=255.6 M, COR= 1641 M Average Protected F(50-50)= 25.67 km Ave. F(50-10) 40 dBu= 74.9 54 dBu= 38.8 80 dBu= 8.1 100 dBu= 1.6	DISPLAY DATES DATA 03-24-04 SEARCH 03-29-04
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CH CITY	CALL	TYPE STATE	HAZ AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
291C Evanston	KOTB.C	CP WY	HX 40.6 220.6	83.89 BPH20010306ABO	40 52 16 110 59 43	89.000 721	3330 12.6	95.2 Rocky Mountain Radio Netwo	-122.82	-23.93*
289C Centerville	KCPX	LIC UT	CX 310.5 130.5	61.87 BLH20021125AAS	40 39 34 112 12 05	25.000 990	2803 1.5	89.3 Mercury Broadcasting Compa	30.38	-28.96*
293C Spanish Fork	KOSYFM	LIC UT	CX 310.5 130.5	61.87 BLH20021125AAT	40 39 34 112 12 05	25.000 990	2803 1.5	89.3 Mercury Broadcasting Compa	30.38	-28.96*
291C3 Evanston	KOTB	LIC WY	CN 27.6 207.6	132.41 BLH19970926KD	41 21 11 110 54 28	0.380 550	2635 17.0	34.2 Rocky Mountain Radio Netwo	31.85	81.21
292D Heber City	K292AB	LIC UT	CN 26.2 206.2	32.21 BLFT45	40 33 36 111 28 32	0.218 573	2569 7.6	30.4 Wasatch County Commission	-20.64	-5.74
237D Provo	AP237	APP UT	C 200.4 20.4	8.10 BNPFT20030317BMT	40 13 54 111 40 38	0.250 -325	1420 11.7	7.1 Educational Media Foundati	5.5R	2.6M
291D Nephi	AP291	APP UT	C 189.9 9.9	91.07 BNPFT20030314BWD	39 29 31 111 49 37	0.010 520	2505 37.4	12.7 Brigham Young University	33.49	40.96
237D Orem, North	AP237	APP UT	C 299.8 119.8	28.60 BNPFT20030317MAF	40 25 38 111 56 12	0.018 170	1555 22.4	8.8 Radio Assist Ministry Inc.	5.5R	23.1M
288D Coalville	K288AT	LIC UT	DHN 12.7 192.7	63.19 BLFT105	40 51 18 111 28 44	0.053 713	2847 1.0	24.1 Summit County Tv Associati	56.12	38.14
237D Park City, Etc.	K237AL	LIC UT	HN 13.5 193.5	43.76 BLFT19840307MV	40 40 59 111 31 22	0.016 -441	2276 6.5	3.5 Citadel Broadcasting Compa	5.5R	38.3M
292D Tabiona, Etc.	K292DA	LIC UT	DHN 84.3 264.3	72.98 BLFT19880201TA	40 21 41 110 47 20	0.000 340	3059 4.4	0.0 Ut State Univ.of Agri. & A	69.87	68.60
288D Myton, Etc.	K288AD	LIC UT	DHN 84.2 264.2	72.73 BLFT14	40 21 45 110 47 31	0.000 345	3061 0.2	0.0 Citicasters Licenses, L.p.	69.62	72.52
290D Nephi	AP290	APP UT	C 189.9 9.9	91.07 BNPFT20030314BVU	39 29 31 111 49 37	0.010 520	2505 16.1	12.7 Brigham Young University	60.24	62.23
290D Mills	AP290	APP UT	C 197.7 17.7	96.96 BNPFT20030317CLE	39 28 05 111 59 19	0.140 6	1662 16.9	6.1 Broadcast Towers Inc.	76.57	73.89
291C0 Rupert	KKMV.A	APP ID	ZCX 324.8 144.8	279.32 BPH20040311ABT	42 20 06 113 36 15	2.158 618	2550 44.8	52.7 Tri-market Radio Broadcast	139.11	181.81
292D Price, Etc.	K292AT	LIC UT	CN 149.2 329.2	99.37 BLFT208	39 31 49 111 03 03	0.157 388	2994 5.3	22.8 Carbon County	61.04	71.27
292D South Ogden	K292EO	LIC UT	DHN 346.4 166.4	101.74 BLFT19910410TG	41 11 24 111 55 48	0.000 473	2083 11.9	0.0 First National Broadcastin	93.28	89.80
288D Price	K288AN	LIC UT	CN 149.2 329.2	99.37 BLFT168	39 31 49 111 03 03	0.218 329	2935 0.3	22.8 Carbon County	94.59	76.23

ERP and HAAT are on direct line to and from reference station.
 "*"Affixed to 'IN' or 'Out' values = site inside protected contour.

Spacings Study Key for Use

The computer printout on the preceding page 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, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using spline interpolation from data points identical to those published in Report No. RS 76-01 by Gary C. Kalagian. Critical contour distances are determined 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.

The column listed "* IN *" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of interference. Listed antenna heights are the average heights of eight standard radials as found in the Commission's records unless otherwise noted, in which case the specific antenna heights and the DA power, if applicable, along the straight line azimuths between the reference station and the database station are used and visa versa. The column labeled "* OUT *" shows the distance in kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing overlap interference.

Under the "AZIMUTH" column, the first row of numbers indicate the bearings from True North of the data base stations in relationship with the reference station, while the numbers in the second row indicate the reverse bearings from the database station to the reference station. The columns labeled "INT" and "PRO" hold the distance in kilometers of the appropriate interference contour and the protected contour of a data base station. For I.F. relationships the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum required distance in kilometers, while the letter "M" in the next column follows 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 omni. 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".