74.1204 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.

As demonstrated by the channel study, the instant application complies with Section 74.1204 of the Commission's rules.

KRMF Ogden Booster
Proposed Antenna Site Overlap Study

REFERENCE CH# 291D - 106.1 MHz, Pwr= 0.5 kW, HAAT=0.0 M, COR= 1596 M DISPLAY DATES
41 20 32 N Average Protected F(50-50)= 8.5 km DATA 01-25-05
112 00 30 W Ave. F(50-10) 40 dBu= 28.5 54 dBu= 12.0 80 dBu= 2.7 100 dBu= 1.6 SEARCH 02-01-05

CH	CALL	TYPE	AZI.	DIST	LAT.	Pwr(kW)	COR(M)	PRO(km)	*IN*	*OUT*
CITY		STATE	<--	FILE #	LNG.	HAAT(M)	INT(km)	LICENSEE	(Overlap in km)	
291D	KRMF-4^	APP DC	0.0	0.00	41 20 32	0.000	1596	0.0	-1.61*	-3.14
Ogden		UT	180.0	BNPFTB20040331AU	112 00 30	277	0.0	Rocky Mountain Radio Netwo		
291D	KRMF-4^	APP DC	0.0	0.00	41 20 32	0.000	1596	0.0	-1.61*	-3.14
Ogden		UT	180.0	BNPFTB20040331AU	112 00 30	277	0.0	Rocky Mountain Radio Netwo		
291C	KRMF	RSV	120.3	98.72	40 53 28	100.000	3330	106.3	-132.17	-28.22*
Evanston		WY	300.3		110 59 44	1020	224.7	Rocky Mountain Radio Netwo		
291C	KRMF	RSV	121.3	99.89	40 52 16	100.000	2000	31.0	-37.12	47.90
Evanston		WY	301.3		110 59 43	-339	130.7	Rocky Mountain Radio Netwo		
291C	KRMF^	LIC HX	121.3	99.89	40 52 16	100.000	3283	104.4	-126.95	-25.51*
Evanston		WY	301.3	BLH20040324AGC	110 59 43	944	220.5	Rocky Mountain Radio Netwo		
291C	KRMF	RSV	121.3	99.89	40 52 16	100.000	3330	105.6	-129.55	-26.71*
Evanston		WY	301.3		110 59 43	991	223.1	Rocky Mountain Radio Netwo		
291C	KRMF	RSV	121.3	99.89	40 52 16	100.000	3330	105.6	-129.55	-26.71*
Evanston		WY	301.3		110 59 43	991	223.1	Rocky Mountain Radio Netwo		
293C	KOSYFM^	LIC CX	192.1	77.54	40 39 34	100.000	2263	100.6	39.51	-24.13*
Spanish Fork		UT	12.1	BLH20021125AAT	112 12 05	827	16.6	Citicasters Licenses, L.p.		
289C	KXRV^	LIC CX	192.1	77.54	40 39 34	100.000	2263	100.6	39.51	-24.13*
Centerville		UT	12.1	BLH20021125AAS	112 12 05	827	16.6	Citicasters Licenses, L.p.		
291D	KRMF-1^	APP DC	168.1	57.59	40 50 05	0.000	1828	0.0	32.89	-15.08
Bountiful		UT	348.1	BNPFTB20040331AR	111 52 03	511	0.0	Rocky Mountain Radio Netwo		
291D	KRMFF2^	CP DC	170.5	60.20	40 48 27	0.000	1835	0.0	35.37	-12.77
Salt Lake City		UT	350.5	BNPFTB20040331AS	111 53 26	521	0.0	Rocky Mountain Radio Netwo		
238C1	KYFOFM	LIC CN	241.7	21.69	41 14 59	100.000	1509	66.4	22.0R	-0.3M
Ogden		UT	61.7	BLED19981125KD	112 14 11	229	78.9	Bible Broadcasting Network		
291L1	KLGU-L^	LIC	18.2	46.10	41 44 11	0.100	1431	5.6	25.92	36.28
Logan		UT	198.2	BLL20030522ADB	111 50 06	26	18.6	City Of Logan		
291C0	KKMV.C	CP ZCX	310.4	172.42	42 20 06	1.041	2550	50.7	46.93	110.33
Rupert		ID	130.4	BPH20040311ABT	113 36 15	770	123.1	Tri-market Radio Broadcast		
291C0	AL291	RSV	310.4	182.80	42 23 40	100.000	337	31.0	49.74	140.47
Rupert		ID	130.4		113 42 05	-1834	130.7			
291D	KRMFF3^	CP DC	165.1	119.75	40 18 00	0.000	1641	0.0	95.11	47.20
Provo		UT	345.1	BNPFTB20040331AS	111 38 38	-624	0.0	Rocky Mountain Radio Netwo		
288D	K288AT	LIC DHN	140.5	70.04	40 51 18	0.000	2847	0.0	62.21	68.70
Coalville		UT	320.5	BLFT105	111 28 44	788	0.0	Summit County Tv Associati		
288D	K288BU	LIC DHN	66.6	80.34	41 37 31	0.002	2363	6.3	78.53	73.95
Randolph-woodruff		UT	246.6	BLFT19830202MJ	111 07 23	303	0.1	Rich County		

ERP and HAAT are on direct line to and from reference station.
"*"Affixed to 'IN' or 'Out' values = site inside protected contour.
^ = Power and antenna height 'Max classed' as per Sec 73.215 protection requirements

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”.