

1400 Inc. Blue Earth, Minnesota

REFERENCE		CH# 222D - 92.3 MHz, Pwr= 0.099 kW, MAX HAAT=81.0 M, COR= 398 M								DISPLAY DATES	
43 40 01 N		Average Protected F(50-50)= 9.28 km								DATA 08-16-03	
94 07 19 W		Ave. F(50-10) 40 dBu= 30.8 54 dBu= 13.0 80 dBu= 2.9 100 dBu= .7								SEARCH 08-17-03	
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)	
222D	AP222	APP	0.0	0.00	43 40 01	0.250	398	11.3	-47.32*	-39.96*	
Blue Earth		MN	180.0	BNPFT20030312A0Q	94 07 19	76	28.6	1400 Inc.			
220D	K220AQ	LIC	264.4	28.51	43 38 30	0.013	432	5.9	20.10	21.94	
Fairmont		MN	84.4	BLFT19840525MB	94 28 25	89	0.7	Mankato State University			
221C3	KRUE	LIC	54.3	72.76	44 02 46	9.800	515	39.9	5.12	20.78	
Waseca		MN	234.3	BLH20020625AAQ	93 23 03	166	12.1	Main Street Broadcasting,			
224C3	KLGA FM	LIC	185.6	66.85	43 04 05	3.500	493	29.5	55.20	36.60	
Algona		IA	5.6	BLH19951019KB	94 12 08	146	0.7	Wmmp, LIc			
222D	K222AE	LIC	316.0	91.53	44 15 21	0.250	384	10.8	45.83	51.28	
Springfield		MN	136.0	BLFT19950512TC	94 55 10	69	29.4	Prairie Light Christian Ra			
220A	KZOW	LIC	138.8	59.44	43 15 50	0.100	412	5.6	50.25	53.11	
Forest City		IA	318.8	BLED19971014KZ	93 38 20	18	0.7	Wal dorf College			
221D	K221D0	LIC	244.4	64.97	43 24 47	0.076	459	7.5	46.05	45.90	
Estherville		IA	64.4	BLFT19950512TD	94 50 46	62	11.5	Refuge Media Group			
220D	K220AR	LIC	92.2	59.60	43 38 37	0.014	436	4.1	50.90	54.84	
Albert Lea		MN	272.2	BLFT19840525MC	93 23 02	42	0.7	Mankato State University			
222C	KOELFM	LIC	120.3	212.57	42 40 53	100.000	928	92.0	6.13	92.81	
Oelwein		IA	300.3	BLH12345	91 52 52	604	27.8	Cumulus Li censi ng Corp.			
221D	AP221	APP	249.8	82.98	43 24 20	0.092	599	12.1	56.99	59.38	
Spirit Lake		IA	69.8	BNPFT20030317EMP	95 05 01	146	11.5	Radio Assi st Mi ni stry Inc.			
223C	KORSFM	LIC	26.8	173.87	45 03 30	100.000	593	73.8	57.95	87.64	
Golden Valley		MN	206.8	BLH19910814KB	93 07 27	319	12.4	Kqrs, Inc.			
219C1	KNSW	LIC	280.1	147.46	43 53 01	99.000	758	67.4	130.22	79.38	
Worthington-marshall		MN	100.1	BMLED19931019KC	95 55 44	241	0.7	Mi nnesota Publi c Radi o			
221D	AP221	APP	285.3	88.39	43 52 18	0.140	567	13.1	60.36	63.47	
Windom		MN	105.3	BNPFT20030317JCH	95 10 58	140	11.8	Radio Assi st Mi ni stry Inc.			
219C1	KLSEFM	LIC	73.1	149.17	44 02 28	94.000	638	72.7	130.75	75.77	
Rochester		MN	253.1	BLED19980504KG	92 20 25	313	0.7	Mi nnesota Publi c Radi o			
223D	K223AB	LIC	130.2	93.93	43 07 07	0.225	437	11.0	69.68	70.84	
Mason City		IA	310.2	BLFT19931122TL	93 14 22	75	12.1	Great Comm. Commcns. Of N.			
225D	AP225	APP	137.9	94.06	43 02 15	0.250	446	10.9	84.45	82.50	
Mason City		IA	317.9	BNPFT20030317EJS	93 20 46	70	0.7	Radio Assi st Mi ni stry Inc.			

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

HOW TO READ THE FM COMPUTER PRINT-OUT

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, 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".