

60 dBu Service Contours Shown - Change Area

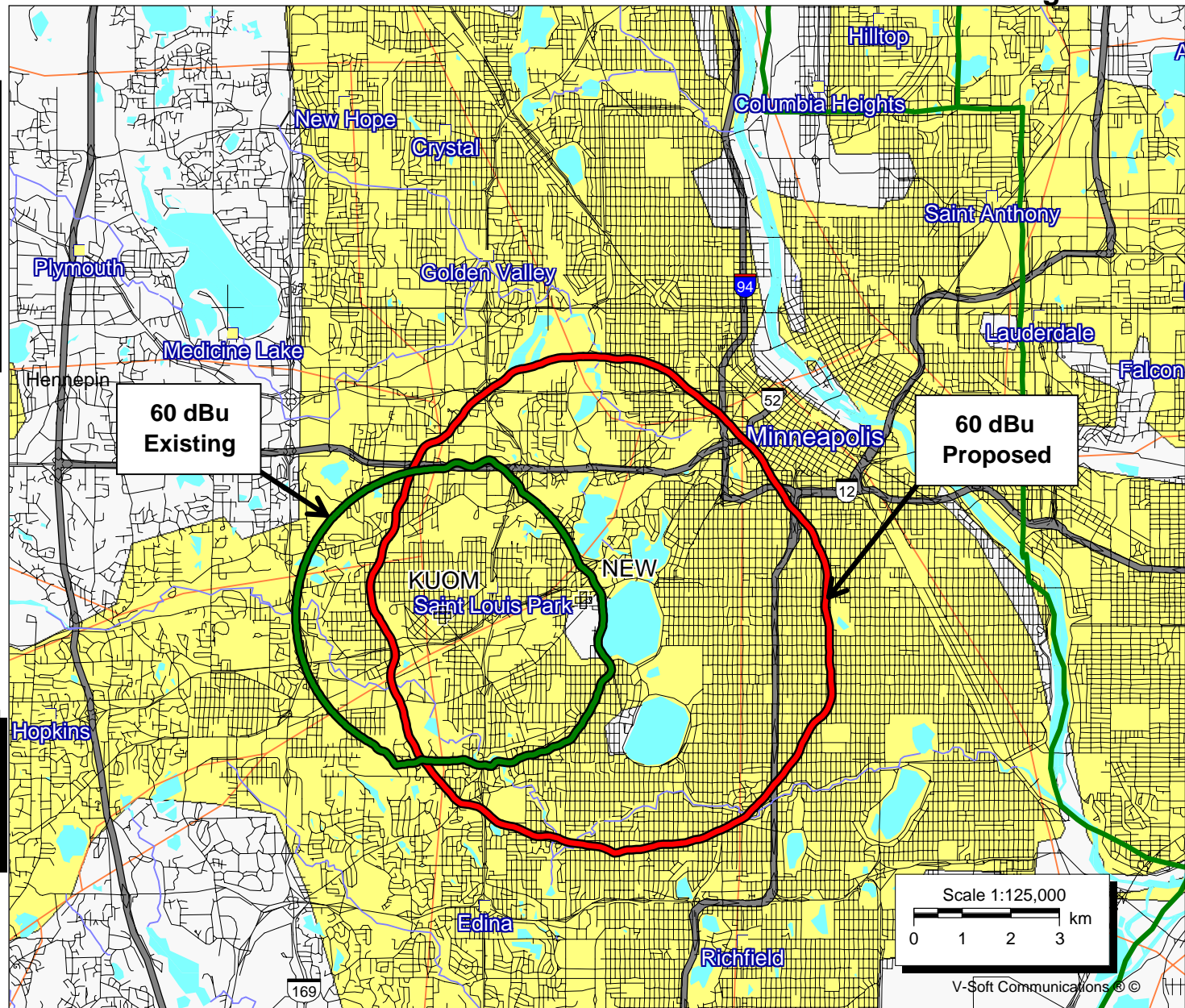
KUOM

BMLED20020814AAT
Latitude: 44-56-36 N
Longitude: 093-21-39 W
ERP: 0.008 kW
Channel: 293
Frequency: 106.5 MHz
AMSL Height: 297.0 m
Elevation: 280.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

NEW

Latitude: 44-56-46 N
Longitude: 093-19-27 W
ERP: 0.008 kW
Channel: 293
Frequency: 106.5 MHz
AMSL Height: 345.0 m
Elevation: 274 m
Horiz. Pattern: Omni
Vert. Pattern: No

V
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100 dBu Existing and New Overlap Areas

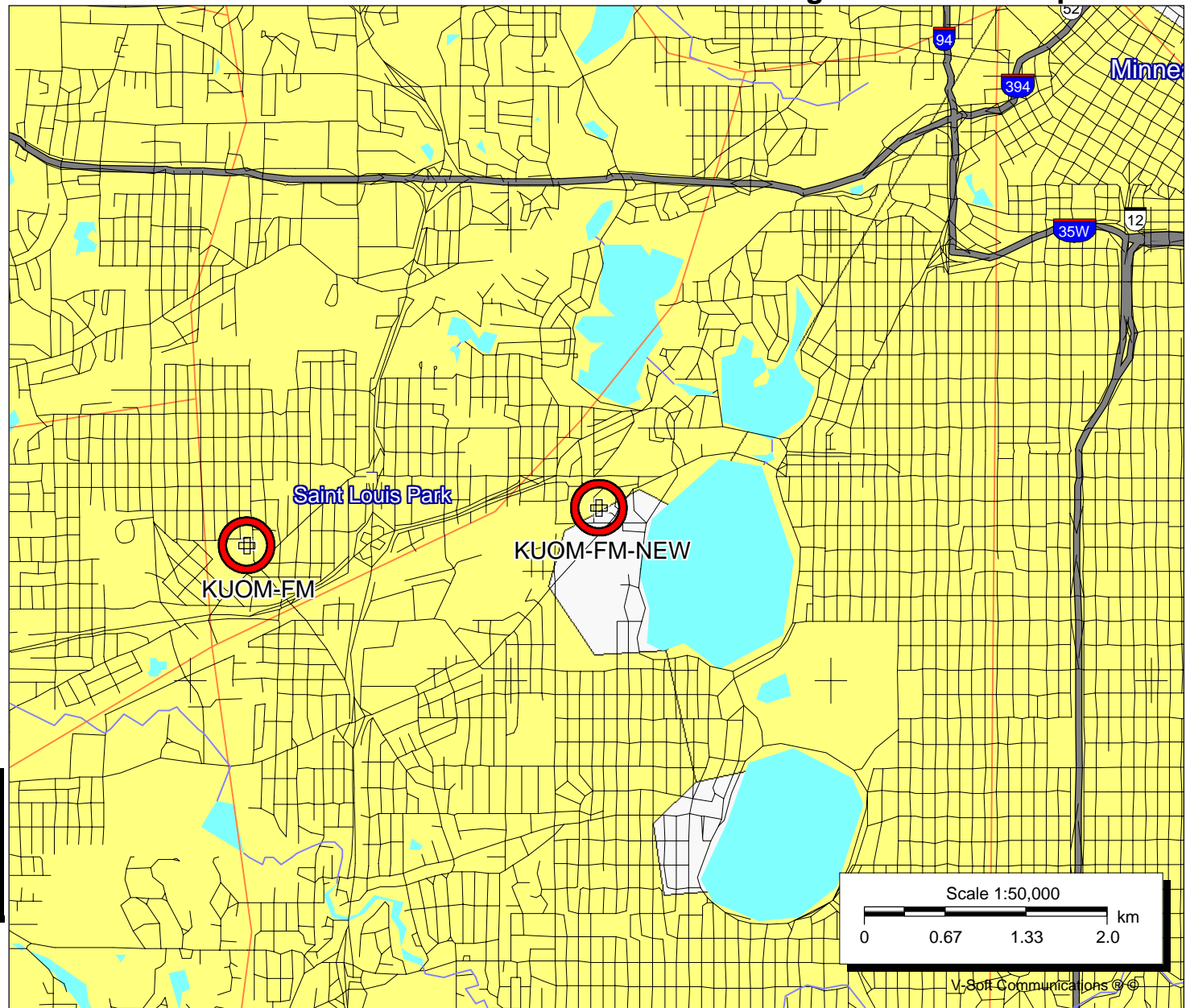
KUOM-FM - NEW

Latitude: 44-56-46 N
Longitude: 093-19-27 W
ERP: 0.008 kW
Channel: 293
Frequency: 106.5 MHz
AMSL Height: 345.0 m
Elevation: 274 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC

KUOM-FM

BLED20030313AGW
Latitude: 44-56-36 N
Longitude: 093-21-39 W
ERP: 0.008 kW
Channel: 293
Frequency: 106.5 MHz
AMSL Height: 297.0 m
Elevation: 280.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

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University of Minnesota

REFERENCE		CH# 293A - 106.5 MHz, Pwr= 0.008 kW, HAAT=77.1 M, COR= 345 M								DISPLAY DATES	
44 56 46 N		Average Protected F(50-50)= 4.82 km								DATA 11-11-03	
93 19 27 W		Ave. F(50-10) 40 dBu= 15.3 54 dBu= 6.8 80 dBu= 1.6 100 dBu= .2								SEARCH 11-11-03	
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)	
293D	KDXL	LIC CX		263.9	2.91	44 56 36	0.008	297	3.3	-11.81*	-13.50*
St. Louis Park		MN		83.9	BMLED20020814AAT	93 21 39	37	13.1	Independent School District		
293D	KUOMFM	LIC CX		263.9	2.91	44 56 36	0.008	297	3.3	-11.81*	-13.50*
St. Louis Park		MN		83.9	BLED20030313AGW	93 21 39	37	13.1	Regents Of The University		
293D	AP293	APP C		182.4	35.13	44 37 49	0.040	415	9.3	-1.12	9.85
Prior Lake		MN		2.4	BNPFT20030708AAF	93 20 34	130	15.9	Refuge Media Group		
296C2	WFMP	LIC NCX		48.3	19.49	45 03 45	22.000	454	48.4	9.60	-29.11*
Coon Rapids		MN		228.3	BLH20020628ABW	93 08 21	181	0.2	Wfmp-fm, Lic		
293C1	KFMCFM	LIC CN		212.6	173.13	43 37 45	100.000	478	56.3	16.14	101.48
Fairmont		MN		32.6	BLH19850225LM	94 29 00	134	15.4	Woodward Broadcasting, Inc		
292A	WEVRFM	LIC NCN		96.6	53.57	44 53 19	6.000	393	30.7	1.34	15.76
River Falls		WI		276.6	BLH19981112KK	92 39 02	120	7.1	Hanten Broadcasting Compan		
294D	K294AM	LIC CN		107.4	20.26	44 53 29	0.170	360	12.1	-2.96	0.72
West St. Paul		MN		287.4	BLFT19960116TB	93 04 46	107	7.4	Fresh Air, Incorporated		
Translator for KFAI, Minneapolis, MN											
292D	AP292	APP V		189.4	27.63	44 42 03	0.025	305	4.9	15.83	15.83
Prior Lake		MN		9.4	BNPFT20030708AAF	93 22 53	46	6.9	Refuge Media Group		
292D	AP292	APP V		189.4	27.63	44 42 03	0.010	305	3.9	17.20	16.85
Prior Lake		MN		9.4	BNPFT20030311AGP	93 22 53	46	6.9	Refuge Media Group		
291C3	KLCI	LIC C		318.9	43.31	45 14 20	9.100	453	39.7	35.00	3.36
Elk River		MN		138.9	BLH20010710AAW	93 41 14	170	0.2	Milestone Radio Lic		
296C2	ALLO	VAC		59.3	69.29	45 15 40	50.000	456	52.9	58.60	16.15
New Richmond		WI		239.3		92 33 52	156	0.2			
jgri zzle 7/31/00: reserved for WIXK, one-step application bph-20000421aba											
293D	AP293	APP C		151.2	105.10	44 06 59	0.062	526	12.0	59.70	75.26
Kasson		MN		331.2	BNPFT20030317IKV	92 41 22	172	17.8	Radio Assist Ministry Inc.		
294C2	WATQ	LIC CN		77.5	128.23	45 11 04	35.000	510	51.3	47.37	69.99
Chetek		WI		257.5	BLH19970602KI	91 43 52	169	6.9	Capstar Tx Limited Partner		
293D	AP293	APP C		15.0	110.05	45 54 07	0.250	367	11.2	66.95	82.72
Hinkley		MN		195.0	BNPFT20030312ARN	92 57 25	74	16.2	1400 Inc.		
240A	WLKXFM	LIC CN		26.9	43.47	45 17 40	3.000	367	23.5	10.0R	33.5M
Forest Lake		MN		206.9	BLH19781006AB	93 04 22	94	4.8	Lakes Broadcasting Co., In		
293D	AP293	APP C		16.1	119.32	45 58 36	0.027	371	6.6	92.30	96.59
Hinkley		MN		196.1	BNPFT20030827ANM	92 53 47	79	16.1	1400 Inc.		
293A	KLFN	LIC CX		289.0	150.46	45 22 14	6.000	483	28.6	59.27	108.82
Sunburg		MN		109.0	BLH20021108AA0	95 08 28	102	13.1	Lakeland Broadcasting Co.		
290C3	KWNG	LIC NCN		125.4	78.08	44 32 14	12.000	381	37.0	68.96	40.84
Red Wing		MN		305.4	BLH19930217KA	92 31 21	128	0.2	Sorenson Broadcasting Corp		

***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".

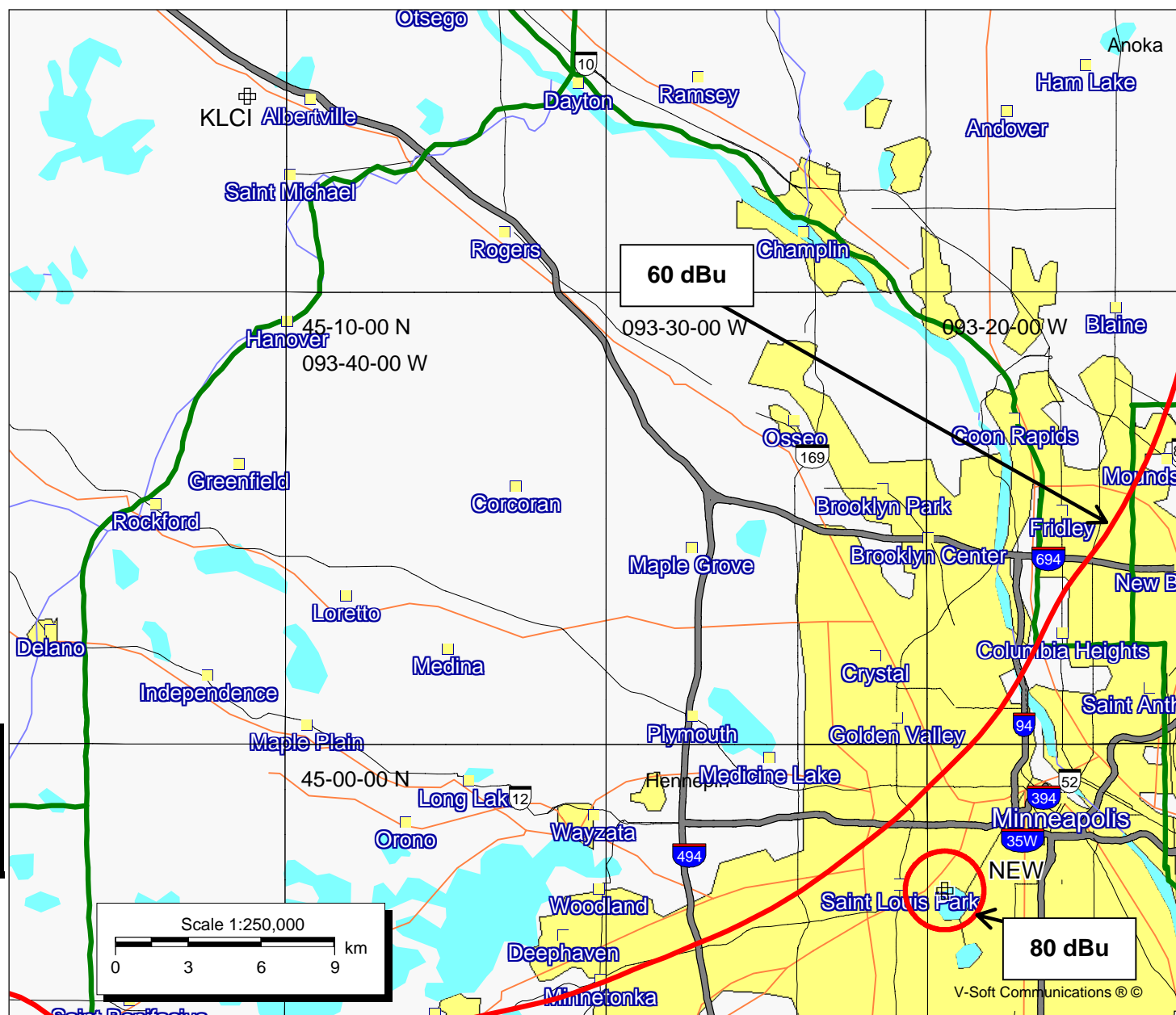
KUOM-FM - NEW

Latitude: 44-56-46 N
Longitude: 093-19-27 W
ERP: 0.008 kW
Channel: 293
Frequency: 106.5 MHz
AMSL Height: 345.0 m
Elevation: 274 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC

KLCI

BLH20010710AAW
Latitude: 45-14-20 N
Longitude: 093-41-14 W
ERP: 9.10 kW
Channel: 291
Frequency: 106.1 MHz
AMSL Height: 453.0 m
Elevation: 305.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

V
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11-11-2003 30 Sec. Terrain Data

KLCI BLH20010710AAW
Channel = 291C3
Max ERP = 9.1 kW
RCAMSL = 453 M
N. Lat = 45 14 20
W. Lng = 93 41 14

Protected
60 dBu

NEW
Channel = 293A
Max ERP = 0.008 kW
RCAMSL = 347 M
N. Lat = 445646
W. Lng = 931927

Interfering
100 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)
120.0	009.1000	0165.0	039.2	022.4	000.0080	0083.1	014.0	41.9
121.0	009.1000	0164.5	039.1	021.6	000.0080	0083.1	013.3	42.8
122.0	009.1000	0164.6	039.1	021.1	000.0080	0084.0	012.6	43.8
123.0	009.1000	0165.3	039.2	020.8	000.0080	0084.0	012.0	44.9
124.0	009.1000	0166.2	039.3	020.5	000.0080	0084.0	011.3	45.9
125.0	009.1000	0167.3	039.4	020.2	000.0080	0084.6	010.6	47.1
126.0	009.1000	0168.3	039.5	019.8	000.0080	0084.6	009.9	48.4
127.0	009.1000	0169.2	039.6	019.1	000.0080	0085.0	009.2	49.6
128.0	009.1000	0169.9	039.7	018.1	000.0080	0085.3	008.5	51.0
129.0	009.1000	0170.5	039.8	016.7	000.0080	0085.5	007.8	52.3
130.0	009.1000	0170.9	039.8	014.9	000.0080	0086.0	007.2	53.9
131.0	009.1000	0171.0	039.8	012.4	000.0080	0086.1	006.6	55.5
132.0	009.1000	0170.9	039.8	009.1	000.0080	0084.5	006.0	57.1
133.0	009.1000	0170.7	039.8	004.8	000.0080	0084.4	005.4	58.8
134.0	009.1000	0170.4	039.8	359.5	000.0080	0084.3	004.9	60.4
135.0	009.1000	0170.3	039.7	353.1	000.0080	0083.9	004.5	62.0
136.0	009.1000	0170.4	039.8	345.4	000.0080	0081.5	004.1	63.3
137.0	009.1000	0170.6	039.8	336.3	000.0080	0075.7	003.8	64.0
138.0	009.1000	0170.6	039.8	325.8	000.0080	0068.8	003.6	63.9
139.0	009.1000	0170.4	039.7	314.7	000.0080	0069.2	003.6	64.0
140.0	009.1000	0170.0	039.7	304.2	000.0080	0063.7	003.8	62.6
141.0	009.1000	0169.8	039.7	294.8	000.0080	0060.5	004.0	61.0
142.0	009.1000	0169.8	039.7	286.7	000.0080	0060.1	004.4	59.5
143.0	009.1000	0169.8	039.7	280.0	000.0080	0061.1	004.8	58.0
144.0	009.1000	0169.7	039.7	274.7	000.0080	0065.0	005.3	56.8
145.0	009.1000	0169.5	039.7	270.5	000.0080	0063.7	005.9	54.8
146.0	009.1000	0169.3	039.6	267.1	000.0080	0062.3	006.5	52.8
147.0	009.1000	0168.9	039.6	264.5	000.0080	0059.9	007.1	50.9
148.0	009.1000	0168.4	039.6	262.6	000.0080	0058.3	007.8	49.2
149.0	009.1000	0167.9	039.5	261.0	000.0080	0056.7	008.4	47.7
150.0	009.1000	0167.3	039.4	259.8	000.0080	0055.9	009.1	46.4
151.0	009.1000	0166.6	039.4	258.8	000.0080	0055.3	009.8	45.1
152.0	009.1000	0166.0	039.3	258.1	000.0080	0054.8	010.4	43.8
153.0	009.1000	0165.5	039.2	257.4	000.0080	0054.5	011.1	42.7
154.0	009.1000	0165.2	039.2	256.8	000.0080	0054.5	011.8	41.6
155.0	009.1000	0164.7	039.2	256.3	000.0080	0054.3	012.5	40.5
156.0	009.1000	0164.4	039.1	255.9	000.0080	0054.3	013.1	39.5
157.0	009.1000	0164.3	039.1	255.5	000.0080	0054.3	013.8	38.6
158.0	009.1000	0164.3	039.1	255.1	000.0080	0054.3	014.5	37.8
159.0	009.1000	0164.2	039.1	254.9	000.0080	0054.3	015.2	37.3

160.0	009.1000	0164.2	039.1	254.6	000.0080	0054.3	015.9	36.7
161.0	009.1000	0164.0	039.1	254.5	000.0080	0054.3	016.5	36.1
162.0	009.1000	0163.6	039.0	254.6	000.0080	0054.3	017.2	35.5
163.0	009.1000	0163.0	039.0	254.7	000.0080	0054.3	017.9	34.9
164.0	009.1000	0162.6	038.9	254.8	000.0080	0054.3	018.6	34.3
165.0	009.1000	0162.3	038.9	254.9	000.0080	0054.3	019.3	33.7
166.0	009.1000	0162.1	038.9	255.0	000.0080	0054.3	019.9	33.2
167.0	009.1000	0162.0	038.9	255.1	000.0080	0054.3	020.6	32.6
168.0	009.1000	0161.9	038.8	255.2	000.0080	0054.3	021.3	32.1
169.0	009.1000	0161.6	038.8	255.4	000.0080	0054.3	022.0	31.5
170.0	009.1000	0161.1	038.8	255.6	000.0080	0054.3	022.6	31.0
171.0	009.1000	0160.7	038.7	255.9	000.0080	0054.3	023.3	30.5
172.0	009.1000	0160.6	038.7	256.1	000.0080	0054.3	024.0	30.0
173.0	009.1000	0160.7	038.7	256.3	000.0080	0054.3	024.7	29.5
174.0	009.1000	0161.0	038.7	256.4	000.0080	0054.3	025.3	29.0
175.0	009.1000	0161.2	038.8	256.5	000.0080	0054.5	026.0	28.6
176.0	009.1000	0161.3	038.8	256.8	000.0080	0054.5	026.7	28.2
177.0	009.1000	0161.3	038.8	257.0	000.0080	0054.5	027.3	27.7
178.0	009.1000	0161.1	038.8	257.3	000.0080	0054.5	028.0	27.3
179.0	009.1000	0161.2	038.8	257.5	000.0080	0054.8	028.7	27.0
180.0	009.1000	0161.8	038.8	257.7	000.0080	0054.8	029.4	26.6

Protection to K294AM

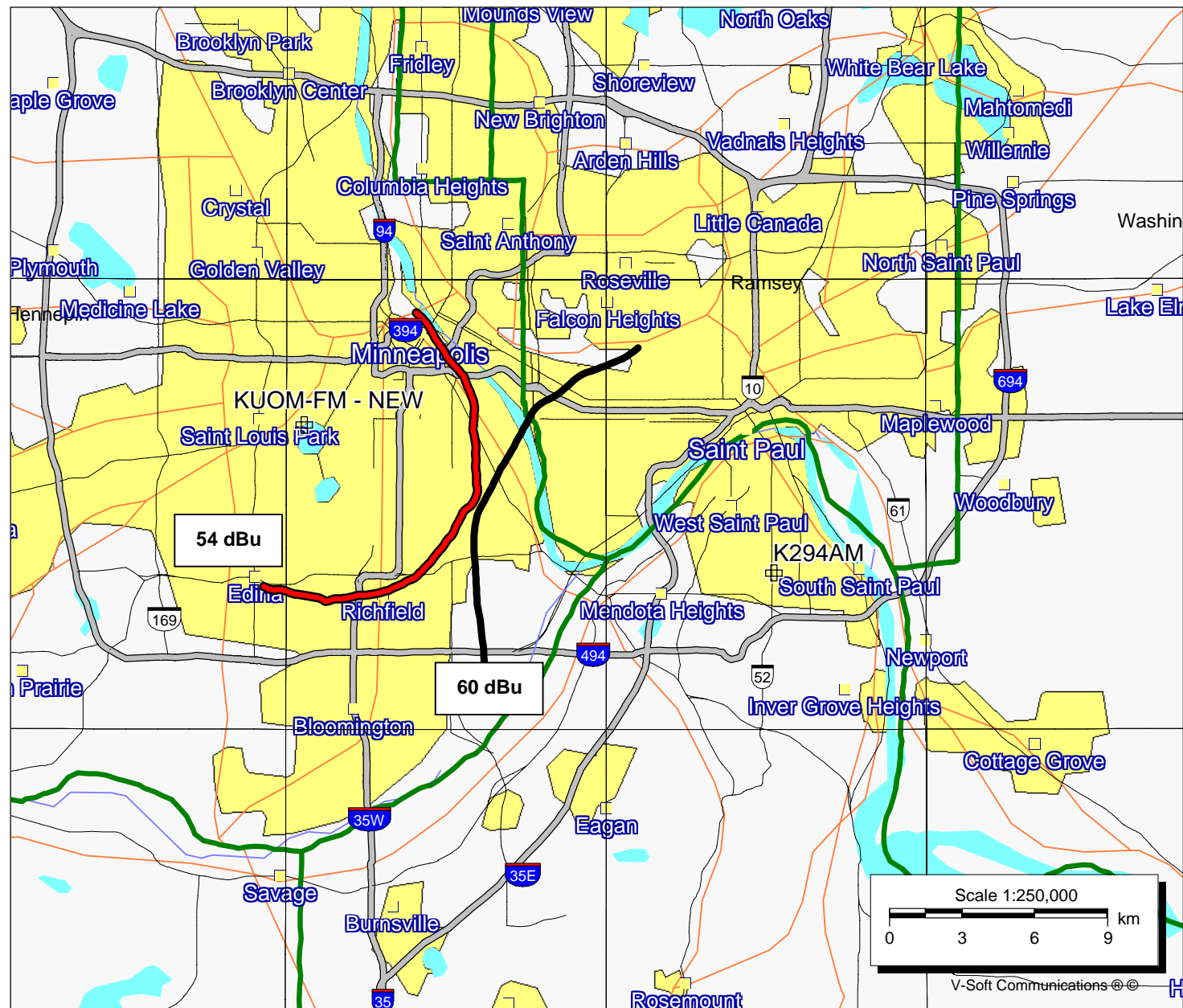
KUOM-FM - NEW

Latitude: 44-56-46 N
Longitude: 093-19-27 W
ERP: 0.008 kW
Channel: 293
Frequency: 106.5 MHz
AMSL Height: 347.0 m
Elevation: 274 m
Horiz. Pattern: Omni
Vert. Pattern: No

K294AM

BLFT19960116TB
Latitude: 44-53-29 N
Longitude: 093-04-46 W
ERP: 0.17 kW
Channel: 294
Frequency: 106.7 MHz
AMSL Height: 360.0 m
Elevation: 307.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC

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11-11-2003 30 Sec. Terrain Data

K294AM BLFT19960116TB

Channel = 294D

Max ERP = 0.17 kW

RCAMSL = 360 M

N. Lat = 44 53 29

W. Lng = 93 04 46

Protected
60 dBu

NEW

Channel = 293A

Max ERP = 0.008 kW

RCAMSL = 345 M

N. Lat = 445646

W. Lng = 931927

Interfering
54 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)
258.0	000.1700	0110.3	012.3	139.8	000.0080	0099.3	011.3	47.3
259.0	000.1700	0109.8	012.3	139.1	000.0080	0099.0	011.1	47.6
260.0	000.1700	0109.4	012.2	138.5	000.0080	0098.9	011.0	47.8
261.0	000.1700	0109.4	012.2	137.9	000.0080	0098.9	010.8	48.1
262.0	000.1700	0109.5	012.2	137.3	000.0080	0098.6	010.6	48.4
263.0	000.1700	0109.8	012.3	136.7	000.0080	0098.6	010.4	48.7
264.0	000.1700	0109.9	012.3	136.0	000.0080	0098.0	010.3	49.0
265.0	000.1700	0109.7	012.2	135.2	000.0080	0097.5	010.1	49.2
266.0	000.1700	0109.6	012.2	134.4	000.0080	0097.2	009.9	49.5
267.0	000.1700	0109.7	012.2	133.5	000.0080	0097.2	009.8	49.7
268.0	000.1700	0109.7	012.2	132.6	000.0080	0097.0	009.6	50.0
269.0	000.1700	0109.8	012.3	131.7	000.0080	0096.9	009.5	50.3
270.0	000.1700	0109.8	012.3	130.8	000.0080	0096.6	009.3	50.5
271.0	000.1700	0110.2	012.3	129.8	000.0080	0096.3	009.2	50.8
272.0	000.1700	0110.6	012.3	128.8	000.0080	0096.1	009.0	51.0
273.0	000.1700	0111.1	012.3	127.8	000.0080	0096.1	008.9	51.3
274.0	000.1700	0111.6	012.3	126.7	000.0080	0096.4	008.7	51.6
275.0	000.1700	0112.0	012.4	125.6	000.0080	0096.4	008.6	51.9
276.0	000.1700	0112.6	012.4	124.5	000.0080	0095.1	008.5	52.0
277.0	000.1700	0113.1	012.4	123.2	000.0080	0094.5	008.4	52.2
278.0	000.1700	0113.2	012.4	121.9	000.0080	0094.2	008.3	52.4
279.0	000.1700	0113.2	012.4	120.5	000.0080	0093.9	008.2	52.5
280.0	000.1700	0113.1	012.4	119.0	000.0080	0093.8	008.1	52.6
281.0	000.1700	0112.9	012.4	117.5	000.0080	0094.3	008.0	52.8
282.0	000.1700	0112.2	012.4	116.0	000.0080	0097.1	008.0	53.1
283.0	000.1700	0111.3	012.3	114.4	000.0080	0098.4	008.0	53.2
284.0	000.1700	0110.1	012.3	112.8	000.0080	0098.3	008.0	53.2
285.0	000.1700	0108.9	012.2	111.2	000.0080	0097.7	008.1	53.0
286.0	000.1700	0108.0	012.2	109.7	000.0080	0096.5	008.1	52.9
287.0	000.1700	0107.1	012.1	108.2	000.0080	0093.5	008.1	52.5
288.0	000.1700	0106.5	012.1	106.7	000.0080	0092.6	008.2	52.4
289.0	000.1700	0106.0	012.0	105.3	000.0080	0090.3	008.2	52.0
290.0	000.1700	0105.6	012.0	103.8	000.0080	0089.1	008.3	51.9
291.0	000.1700	0105.2	012.0	102.4	000.0080	0088.1	008.3	51.7
292.0	000.1700	0104.6	012.0	101.0	000.0080	0087.2	008.4	51.4
293.0	000.1700	0104.0	011.9	99.6	000.0080	0086.4	008.4	51.2
294.0	000.1700	0103.5	011.9	98.3	000.0080	0085.8	008.5	51.0
295.0	000.1700	0103.1	011.9	97.0	000.0080	0085.5	008.6	50.8
296.0	000.1700	0102.8	011.9	95.8	000.0080	0084.9	008.7	50.6
297.0	000.1700	0102.7	011.9	94.5	000.0080	0084.1	008.8	50.4

298.0	000.1700	0102.6	011.9	093.3	000.0080	0082.4	008.9	50.0
299.0	000.1700	0102.6	011.9	092.1	000.0080	0081.6	008.9	49.8
300.0	000.1700	0102.7	011.9	090.9	000.0080	0081.6	009.0	49.6
301.0	000.1700	0102.8	011.9	089.7	000.0080	0081.8	009.1	49.4
302.0	000.1700	0103.1	011.9	088.6	000.0080	0082.0	009.2	49.3
303.0	000.1700	0103.3	011.9	087.5	000.0080	0082.6	009.3	49.1
304.0	000.1700	0103.4	011.9	086.4	000.0080	0082.9	009.5	48.9
305.0	000.1700	0103.1	011.9	085.5	000.0080	0082.9	009.6	48.7
306.0	000.1700	0102.1	011.8	084.8	000.0080	0083.3	009.8	48.4
307.0	000.1700	0100.6	011.8	084.2	000.0080	0083.5	010.0	48.1
308.0	000.1700	0098.7	011.7	083.8	000.0080	0083.5	010.2	47.7
309.0	000.1700	0097.2	011.6	083.3	000.0080	0083.5	010.4	47.3
310.0	000.1700	0096.0	011.5	082.8	000.0080	0083.5	010.6	47.0
311.0	000.1700	0095.4	011.5	082.3	000.0080	0083.2	010.8	46.7
312.0	000.1700	0094.9	011.4	081.7	000.0080	0083.2	010.9	46.4
313.0	000.1700	0094.6	011.4	081.1	000.0080	0083.0	011.1	46.1
314.0	000.1700	0094.3	011.4	080.5	000.0080	0083.0	011.3	45.9
315.0	000.1700	0093.9	011.4	080.0	000.0080	0082.5	011.4	45.5
316.0	000.1700	0093.1	011.3	079.6	000.0080	0082.5	011.6	45.2
317.0	000.1700	0091.8	011.3	079.4	000.0080	0081.9	011.8	44.8
318.0	000.1700	0090.4	011.2	079.3	000.0080	0081.9	012.0	44.5