

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

Contour-to-Contour Channel Study - CH 278

Laramie Plains Antenna TV Association, Inc.

REFERENCE
41 18 36.0 N.
105 27 17.0 W.

CH# 278D - 103.5 MHz, Pwr= 0.25 kW, HAAT= 295.5 M, COR= 2700 M
Average Protected F(50-50)= 22.39 km
Omni-directional

DISPLAY DATES
DATA 04-03-16
SEARCH 04-03-16

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)
275C1 Laramie	KARS-FM	LIC	_C_	202.8 22.7	52.20 BLH20051031ABO	40 52 37.0 105 41 44.0	100.000 248	10.5 2999	74.1 The Fort Collins/lafayette	-23.0***
280D Laramie	K280BM	LIC	_CN	185.1 5.1	8.06 BLFT19840723MU	41 14 16.0 105 27 48.0	0.080 393	0.6 2661	9.9 Laramie Plains Antenna Tv	-3.0
277C2 Warren Afb	KRAN	LIC	ZCX	105.0 285.5	63.51 BLH20090624AEP	41 09 34.0 104 43 19.0	37.000 78	40.7 1912	24.8 Freisland Broadcasting Cor	6.3
280C1 Severance	KRKA	LIC	NCX	172.1 352.2	77.72 BMLED20130916AAT	40 37 03.0 105 19 40.0	16.500 372	6.6 2560	66.3 Educational Media Foundati	10.3
225C2 Warren Afb	KYWY	LIC	_CX	140.9 321.0	33.46 BLH20070131ABW	41 04 35.0 105 12 10.0	33.000 185	0.2 2404	4.6 Citicasters Licenses, Inc.	14.5R 19.0M
275D Fort Collins	KARS-FM1	LIC	DC_	148.3 328.5	49.83 BLFTB20070718AEG	40 55 41.0 105 08 36.0	17.000 140	0.8 2100	7.5 The Fort Collins/lafayette	39.9
278C0 Denver	KRFK	LIC	DCX	173.9 354.1	176.29 BLH20070927AIC	39 43 59.0 105 14 10.0	100.000 346	173.6 2256	69.5 Citicasters Licenses, Inc.	53.4
281D Cheyenne	K281BW	LIC	DC_	105.0 285.5	63.51 BLFT20141208ACE	41 09 34.0 104 43 19.0	0.120 1886	0.6 1886	5.2 Mountain Community Transla	57.0
281C2 Guernsey	KANT	LIC	_CX	16.7 197.0	120.35 BLH20080304AAR	42 20 46.6 105 02 03.9	36.000 172	6.0 1675	52.3 Peak Radio Llc	66.6
279C Casper	KQLT	LIC	_CY	336.4 155.8	174.29 BLH19980114KB	42 44 37.0 106 18 31.0	100.000 567	95.0 2525	62.9 Mt. Rushmore Broadcasting,	72.2
277C3 Yampa	1713698	APP	NCX	229.1 48.1	170.57 BNPH20151013AGJ	40 17 42.1 106 58 28.8	8.500 170	76.0 2536	51.3 Educational Media Foundati	77.1
277C3 Yampa	1713857	RSV-A	___	229.1 48.1	174.51	40 16 20.0 107 00 37.0	25.000 100	80.0 2496	53.2 Educational Media Foundati	77.4

Terrain database is GLOBE 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. Call signs with strikeout need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
Incoming contour overlap is ignored.
"***"affixed to 'IN' or 'OUT' values = site inside restricted contour.

<*** Protected using U/D - Please see attached exhibit

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.

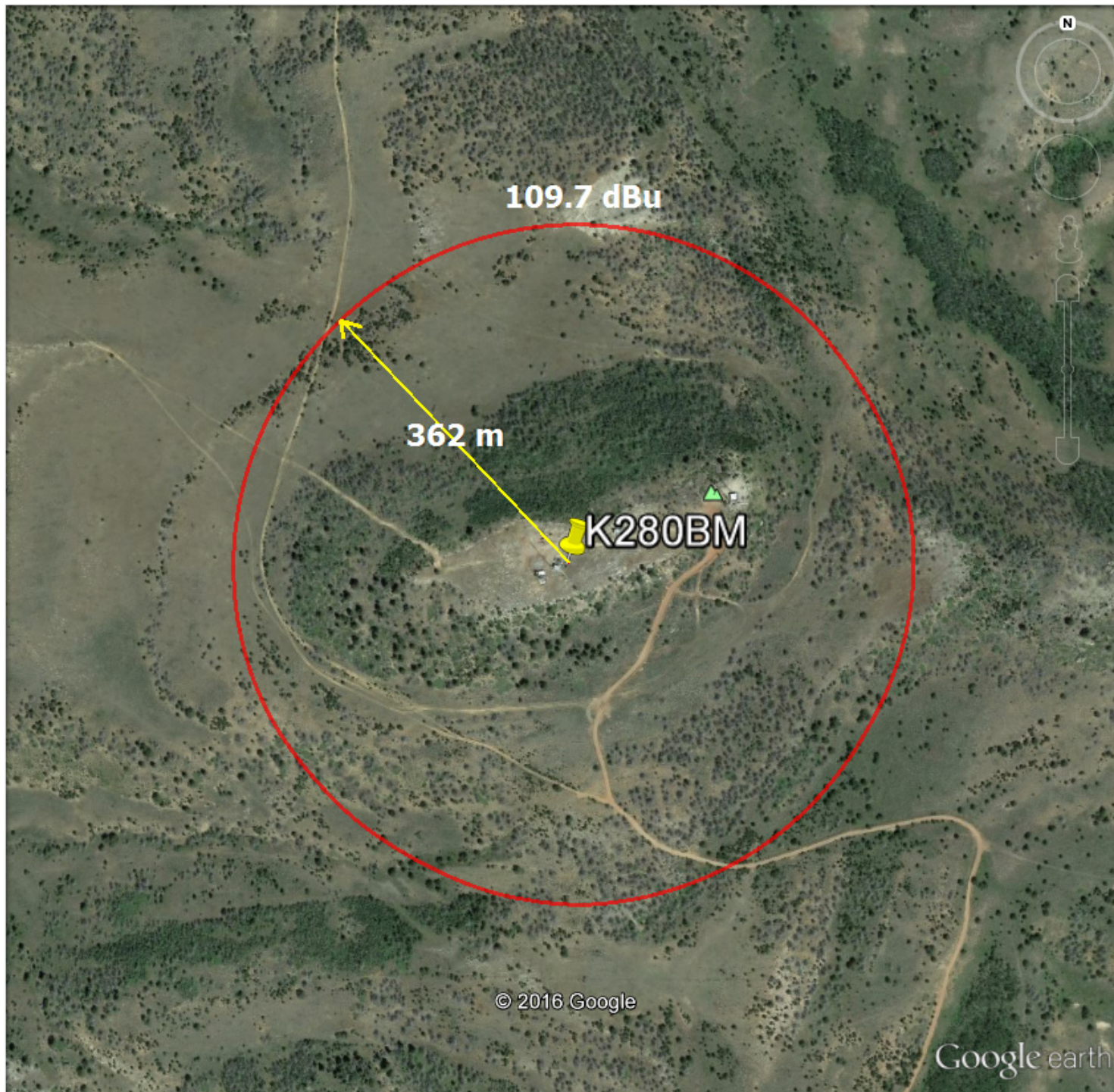
Listed antenna heights and power are the specific antenna heights and power from the FCC database.

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.



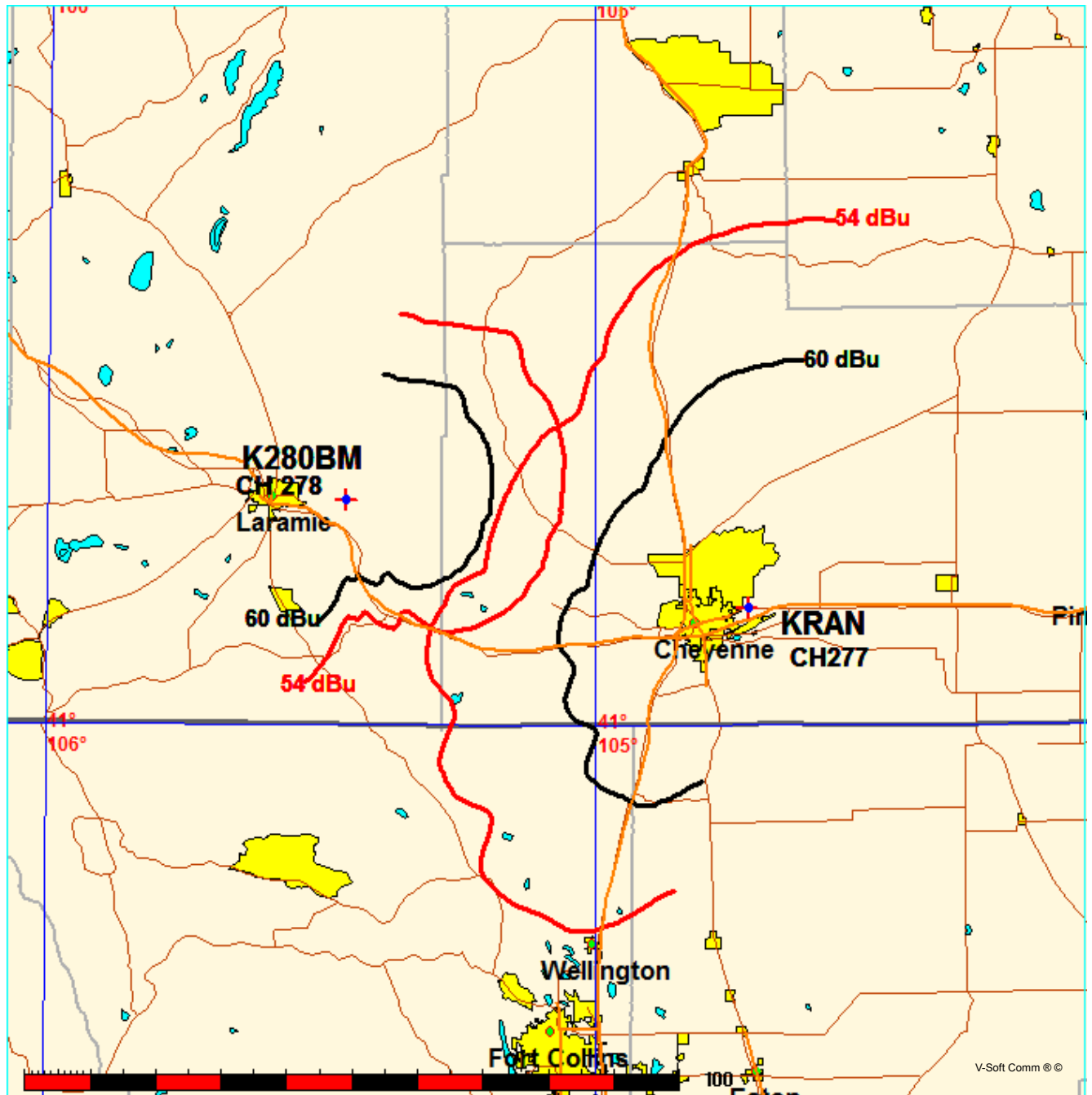
KARS-FM Signal
at K208BM Site
= 69.7 dBu
U/D = 100 dB
K280BM 109.7 dBu
radius = 362 m.

K280BM contour-to-contour Channel Analysis - KRAN
Laramie Plains Antenna Tv Association, Inc.

FMCommander Single Allocation Study - 03-31-2016 - GLOBE 30 Sec
K280BM's Overlaps (In= 1.27 km, Out= 6.29 km)

K280BM CH 278 D
Lat= 41 18 36.0, Lng= 105 27 17.0
0.25 kW 295.5 m HAAT, 2700 m COR
Prot.= 60 dBu, Intef.= 54 dBu

KRAN CH 277 C2 73.215 Z BLH20090624AEP
Lat= 41 09 34.0, Lng= 104 43 19.0
37.0 kW 78 m HAAT, 1912 m COR
Prot.= 60 dBu, Intef.= 54 dBu



04-03-2016

Terrain Data: GLOBE 30 Sec

FMOver Analysis

KRAN BLH20090624AEP

K280BM

Channel = 277C2

Max ERP = 37 kW

RCAMSL = 1912 m

N. Lat. 41 09 34.0

W. Lng. 104 43 19.0

Protected

60 dBu

Channel = 278D

Max ERP = 0.25 kW

RCAMSL = 2700 m

N. Lat. 41 18 36.0

W. Lng. 105 27 17.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
226.0	037.0000	0062.4	034.7	138.1	000.2500	0187.5	054.8	40.67	
227.0	037.0000	0059.5	034.0	137.4	000.2500	0190.6	054.2	41.05	
228.0	037.0000	0055.4	032.9	136.2	000.2500	0195.9	053.6	41.51	
229.0	037.0000	0051.2	031.6	134.8	000.2500	0200.8	053.1	41.93	
230.0	037.0000	0047.8	030.5	133.6	000.2500	0204.2	052.6	42.26	
231.0	037.0000	0045.8	029.9	132.8	000.2500	0206.5	052.2	42.54	
232.0	037.0000	0045.0	029.6	132.5	000.2500	0207.6	051.7	42.78	
233.0	037.0000	0045.2	029.7	132.4	000.2500	0207.6	051.2	42.99	
234.0	037.0000	0046.1	030.0	132.7	000.2500	0207.0	050.6	43.18	
235.0	037.0000	0047.5	030.4	133.0	000.2500	0205.9	050.0	43.37	
236.0	037.0000	0048.9	030.9	133.4	000.2500	0204.8	049.4	43.56	
237.0	037.0000	0050.0	031.2	133.7	000.2500	0203.9	048.8	43.76	
238.0	037.0000	0050.7	031.4	133.8	000.2500	0203.6	048.2	43.98	
239.0	037.0000	0050.9	031.5	133.7	000.2500	0203.9	047.7	44.20	
240.0	037.0000	0050.9	031.5	133.5	000.2500	0204.4	047.1	44.44	
241.0	037.0000	0050.8	031.5	133.3	000.2500	0205.1	046.6	44.68	
242.0	037.0000	0050.8	031.5	133.1	000.2500	0205.8	046.1	44.93	
243.0	037.0000	0050.6	031.4	132.8	000.2500	0206.7	045.6	45.18	
244.0	037.0000	0049.9	031.2	132.3	000.2500	0208.2	045.2	45.43	
245.0	037.0000	0048.7	030.8	131.6	000.2500	0210.3	044.8	45.68	
246.0	037.0000	0047.0	030.3	130.7	000.2500	0213.0	044.5	45.93	
247.0	037.0000	0045.2	029.7	129.7	000.2500	0216.2	044.3	46.17	
248.0	037.0000	0043.5	029.2	128.8	000.2500	0220.2	044.1	46.44	
249.0	037.0000	0042.1	028.7	127.9	000.2500	0224.4	043.9	46.72	
250.0	037.0000	0041.1	028.4	127.2	000.2500	0227.9	043.7	46.98	
251.0	037.0000	0040.4	028.2	126.6	000.2500	0230.1	043.4	47.21	
252.0	037.0000	0040.3	028.1	126.2	000.2500	0231.6	043.0	47.43	
253.0	037.0000	0040.5	028.2	125.9	000.2500	0232.6	042.5	47.66	
254.0	037.0000	0040.9	028.3	125.6	000.2500	0233.3	042.1	47.90	
255.0	037.0000	0041.6	028.5	125.4	000.2500	0233.7	041.6	48.15	
256.0	037.0000	0042.2	028.7	125.2	000.2500	0234.2	041.0	48.40	
257.0	037.0000	0043.0	029.0	125.0	000.2500	0234.6	040.5	48.66	
258.0	037.0000	0043.6	029.2	124.8	000.2500	0235.0	040.0	48.92	
259.0	037.0000	0043.9	029.3	124.4	000.2500	0235.7	039.5	49.15	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
260.0	037.0000	0044.2	029.4	123.9	000.2500	0236.5	039.1	49.37
261.0	037.0000	0044.1	029.3	123.3	000.2500	0237.9	038.8	49.58
262.0	037.0000	0043.8	029.3	122.7	000.2500	0239.8	038.5	49.78
263.0	037.0000	0043.5	029.2	122.0	000.2500	0242.1	038.2	49.98
264.0	037.0000	0043.1	029.0	121.3	000.2500	0244.7	038.0	50.17
265.0	037.0000	0042.8	028.9	120.6	000.2500	0247.0	037.8	50.35
266.0	037.0000	0042.3	028.8	119.8	000.2500	0248.9	037.6	50.49
267.0	037.0000	0041.9	028.6	119.1	000.2500	0249.9	037.5	50.61
268.0	037.0000	0041.2	028.4	118.3	000.2500	0250.1	037.4	50.65
269.0	037.0000	0040.3	028.1	117.4	000.2500	0250.0	037.4	50.64
270.0	037.0000	0039.4	027.8	116.5	000.2500	0250.1	037.5	50.62
271.0	037.0000	0038.5	027.5	115.6	000.2500	0251.0	037.5	50.63
272.0	037.0000	0038.0	027.4	114.9	000.2500	0252.6	037.4	50.71
273.0	037.0000	0037.8	027.3	114.2	000.2500	0254.3	037.3	50.83
274.0	037.0000	0037.2	027.1	113.4	000.2500	0256.6	037.3	50.90
275.0	037.0000	0036.0	026.7	112.5	000.2500	0259.5	037.5	50.89
276.0	037.0000	0034.0	026.1	111.5	000.2500	0262.3	038.0	50.75
277.0	037.0000	0032.0	025.4	110.7	000.2500	0264.3	038.5	50.58
278.0	037.0000	0029.6	024.8	109.8	000.2500	0265.5	039.1	50.38
279.0	037.0000	0026.5	024.8	109.2	000.2500	0265.8	039.0	50.43
280.0	037.0000	0023.2	024.8	108.6	000.2500	0265.7	038.9	50.46
281.0	037.0000	0019.9	024.8	107.9	000.2500	0265.6	038.9	50.48
282.0	037.0000	0017.1	024.8	107.3	000.2500	0265.4	038.8	50.50
283.0	037.0000	0015.2	024.8	106.7	000.2500	0265.6	038.8	50.52
284.0	037.0000	0013.5	024.8	106.0	000.2500	0265.7	038.7	50.54
285.0	037.0000	0012.2	024.8	105.4	000.2500	0265.6	038.7	50.54
286.0	037.0000	0011.1	024.8	104.7	000.2500	0265.2	038.7	50.53
287.0	037.0000	0010.1	024.8	104.1	000.2500	0264.2	038.7	50.49
288.0	037.0000	0009.3	024.8	103.5	000.2500	0262.9	038.8	50.44
289.0	037.0000	0009.0	024.8	102.8	000.2500	0261.6	038.8	50.38
290.0	037.0000	0009.2	024.8	102.2	000.2500	0261.1	038.8	50.34
291.0	037.0000	0009.8	024.8	101.6	000.2500	0261.6	038.9	50.33
292.0	037.0000	0010.8	024.8	100.9	000.2500	0262.8	039.0	50.33
293.0	037.0000	0011.8	024.8	100.3	000.2500	0264.9	039.1	50.36
294.0	037.0000	0012.8	024.8	099.7	000.2500	0267.9	039.2	50.41
295.0	037.0000	0013.6	024.8	099.1	000.2500	0270.8	039.3	50.46
296.0	037.0000	0014.2	024.8	098.5	000.2500	0273.7	039.4	50.49
297.0	037.0000	0014.4	024.8	097.9	000.2500	0276.5	039.5	50.52
298.0	037.0000	0014.3	024.8	097.3	000.2500	0279.3	039.7	50.55
299.0	037.0000	0013.7	024.8	096.7	000.2500	0281.9	039.8	50.56
300.0	037.0000	0013.0	024.8	096.1	000.2500	0283.9	040.0	50.54
301.0	037.0000	0012.5	024.8	095.6	000.2500	0284.9	040.2	50.49
302.0	037.0000	0012.6	024.8	095.0	000.2500	0285.0	040.4	50.41
303.0	037.0000	0013.5	024.8	094.5	000.2500	0284.8	040.6	50.32
304.0	037.0000	0014.6	024.8	093.9	000.2500	0284.4	040.8	50.21
305.0	037.0000	0015.6	024.8	093.4	000.2500	0283.6	041.0	50.09
306.0	037.0000	0016.4	024.8	092.9	000.2500	0283.2	041.2	49.97
307.0	037.0000	0017.3	024.8	092.4	000.2500	0283.3	041.5	49.87
308.0	037.0000	0018.6	024.8	091.9	000.2500	0283.8	041.7	49.78
309.0	037.0000	0020.0	024.8	091.4	000.2500	0284.3	042.0	49.68
310.0	037.0000	0021.4	024.8	091.0	000.2500	0284.7	042.2	49.58

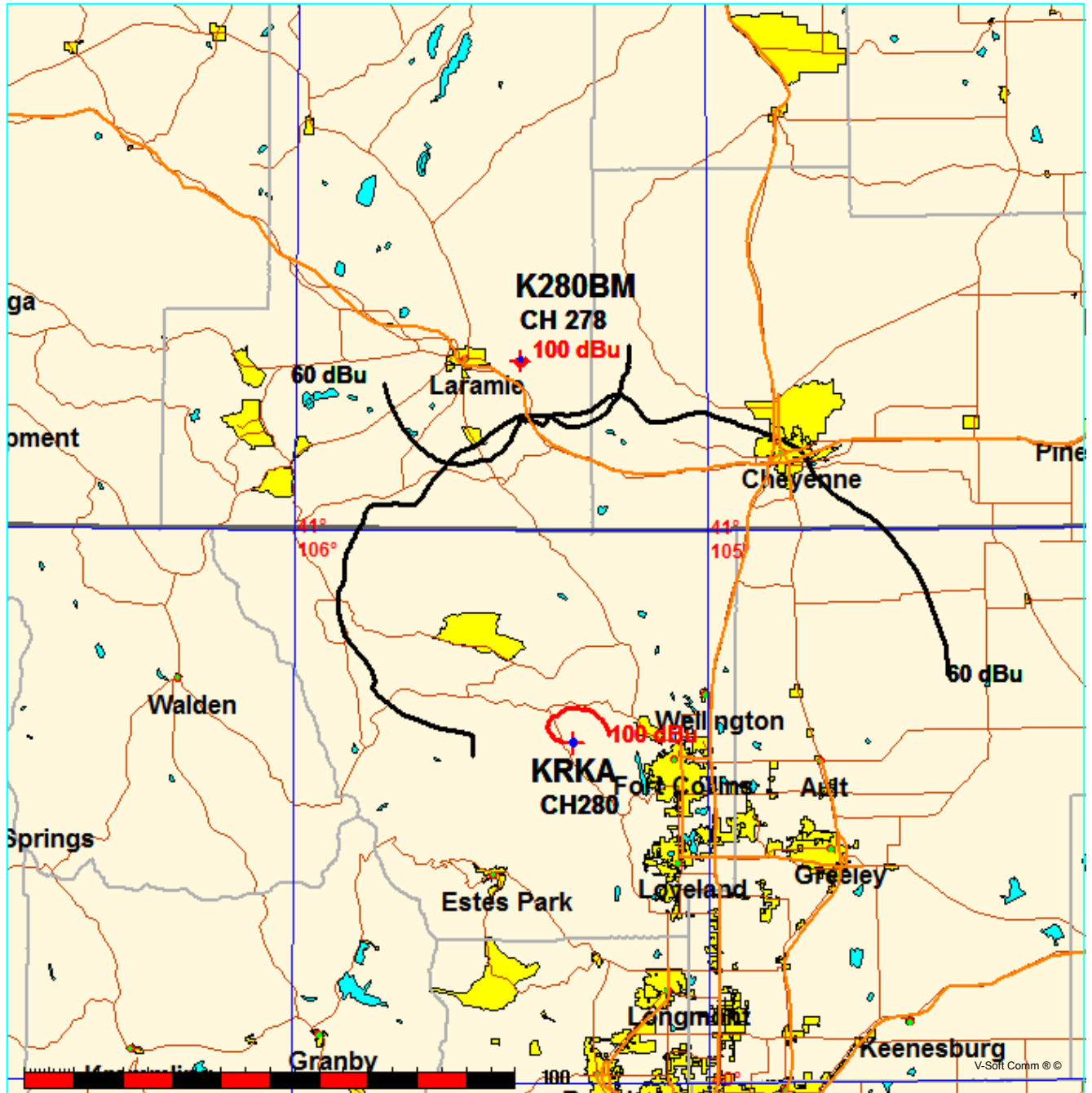
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
311.0	036.4838	0022.5	024.7		090.6	000.2500	0285.1	042.6	49.44
312.0	035.9713	0023.4	024.6		090.2	000.2500	0285.4	042.9	49.31
313.0	035.4623	0024.1	024.6		089.9	000.2500	0285.7	043.2	49.17
314.0	034.9570	0024.9	024.5		089.5	000.2500	0286.0	043.6	49.02
315.0	034.4553	0026.1	024.4		089.2	000.2500	0286.3	043.9	48.88
316.0	033.9573	0027.4	024.3		088.9	000.2500	0286.6	044.3	48.74
317.0	033.4628	0028.5	024.2		088.6	000.2500	0287.3	044.7	48.61
318.0	032.9720	0029.6	024.2		088.3	000.2500	0287.6	045.0	48.46
319.0	032.4849	0030.6	024.3		087.9	000.2500	0287.9	045.3	48.36
320.0	032.0013	0031.4	024.4		087.3	000.2500	0288.2	045.5	48.28
321.0	031.7952	0032.2	024.7		086.8	000.2500	0288.6	045.7	48.20
322.0	031.5897	0033.1	024.9		086.2	000.2500	0289.0	045.9	48.13
323.0	031.3849	0034.3	025.2		085.6	000.2500	0289.4	046.1	48.07
324.0	031.1808	0035.5	025.6		085.0	000.2500	0289.9	046.3	48.00
325.0	030.9773	0036.6	025.9		084.3	000.2500	0290.7	046.5	47.94
326.0	030.7745	0037.6	026.1		083.8	000.2500	0291.9	046.8	47.87
327.0	030.5724	0038.4	026.3		083.3	000.2500	0293.0	047.1	47.77
328.0	030.3709	0039.0	026.5		082.9	000.2500	0294.0	047.5	47.66
329.0	030.1701	0039.5	026.6		082.5	000.2500	0294.9	047.8	47.54
330.0	029.9700	0040.2	026.8		082.1	000.2500	0295.9	048.2	47.44
331.0	029.9700	0041.4	027.1		081.5	000.2500	0297.1	048.5	47.35
332.0	029.9700	0042.9	027.6		080.8	000.2500	0298.1	048.8	47.27
333.0	029.9700	0044.5	028.1		080.1	000.2500	0299.2	049.1	47.18
334.0	029.9700	0045.9	028.5		079.5	000.2500	0300.0	049.5	47.07
335.0	029.9700	0046.9	028.8		079.0	000.2500	0300.5	049.9	46.93
336.0	029.9700	0047.9	029.1		078.5	000.2500	0300.9	050.3	46.77
337.0	029.9700	0049.1	029.5		078.0	000.2500	0301.1	050.7	46.61
338.0	029.9700	0050.4	029.8		077.5	000.2500	0301.5	051.1	46.45
339.0	029.9700	0051.8	030.2		076.9	000.2500	0302.0	051.6	46.28
340.0	029.9700	0053.2	030.6		076.4	000.2500	0302.2	052.1	46.10
341.0	029.9700	0054.4	031.0		076.0	000.2500	0302.3	052.6	45.91
342.0	029.9700	0055.5	031.3		075.6	000.2500	0302.3	053.1	45.71
343.0	029.9700	0056.9	031.6		075.2	000.2500	0302.3	053.6	45.50
344.0	029.9700	0058.3	032.0		074.8	000.2500	0302.4	054.2	45.29
345.0	029.9700	0059.8	032.4		074.4	000.2500	0302.7	054.7	45.08

K280BM contour-to-contour Channel Analysis - KRKA
Laramie Plains Antenna Tv Association, Inc.

FMCommander Single Allocation Study - 03-31-2016 - GLOBE 30 Sec
K280BM's Overlaps (In= 52.68 km, Out= 10.31 km)

K280BM CH 278 D
Lat= 41 18 36.0, Lng= 105 27 17.0
0.25 kW 295.5 m HAAT, 2700 m COR
Prot.= 60 dBu, Intef.= 100 dBu

KRKA CH 280 C1 73.215 N BMLED20130916AAT
Lat= 40 37 03.0, Lng= 105 19 40.0
16.5 kW 372 m HAAT, 2560 m COR
Prot.= 60 dBu, Intef.= 100 dBu



04-03-2016

Terrain Data: GLOBE 30 Sec

FMOver Analysis

KRKA BMLED20130916AAT

K280BM

Channel = 280C1

Max ERP = 16.5 kW

RCAMSL = 2560 m

N. Lat. 40 37 03.0

W. Lng. 105 19 40.0

Protected

60 dBu

Channel = 278D

Max ERP = 0.25 kW

RCAMSL = 2700 m

N. Lat. 41 18 36.0

W. Lng. 105 27 17.0

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
292.0	016.5000	0189.1	046.5	208.5	000.2500	0340.9	067.9	41.47	
293.0	016.5000	0210.7	048.2	210.1	000.2500	0352.0	067.3	42.07	
294.0	016.5000	0232.8	050.0	211.6	000.2500	0363.3	066.6	42.66	
295.0	016.5000	0251.1	051.3	212.9	000.2500	0372.4	065.9	43.19	
296.0	016.5000	0265.9	052.3	213.9	000.2500	0379.6	065.2	43.65	
297.0	016.5000	0277.0	053.1	214.7	000.2500	0384.8	064.4	44.07	
298.0	016.5000	0286.8	053.8	215.4	000.2500	0389.2	063.6	44.49	
299.0	016.5000	0297.6	054.6	216.2	000.2500	0394.0	062.7	44.91	
300.0	016.5000	0308.6	055.3	217.0	000.2500	0398.7	061.9	45.34	
301.0	016.5000	0318.7	056.0	217.7	000.2500	0402.7	061.0	45.77	
302.0	016.5000	0325.0	056.4	218.2	000.2500	0405.4	060.0	46.17	
303.0	016.5000	0328.0	056.6	218.5	000.2500	0406.8	059.1	46.57	
304.0	016.5000	0329.0	056.7	218.7	000.2500	0407.6	058.1	46.95	
305.0	016.5000	0333.3	056.9	219.0	000.2500	0409.4	057.1	47.36	
306.0	016.5000	0343.7	057.6	219.8	000.2500	0413.0	056.2	47.81	
307.0	016.5000	0356.7	058.5	220.7	000.2500	0417.2	055.2	48.27	
308.0	016.5000	0367.8	059.2	221.5	000.2500	0420.3	054.3	48.72	
309.0	016.5000	0376.0	059.7	222.1	000.2500	0422.5	053.3	49.16	
310.0	016.5000	0379.0	059.9	222.4	000.2500	0423.3	052.2	49.57	
311.0	016.5000	0383.1	060.1	222.7	000.2500	0424.3	051.2	49.99	
312.0	016.5000	0388.9	060.5	223.1	000.2500	0425.6	050.1	50.42	
313.0	016.5000	0395.9	060.9	223.6	000.2500	0426.9	049.1	50.85	
314.0	016.5000	0400.9	061.2	224.0	000.2500	0427.9	048.0	51.28	
315.0	016.5000	0404.3	061.4	224.2	000.2500	0428.4	047.0	51.70	
316.0	016.5000	0408.7	061.6	224.5	000.2500	0429.1	045.9	52.14	
317.0	016.5000	0418.2	062.2	225.2	000.2500	0430.5	044.8	52.61	
318.0	016.5000	0428.3	062.8	225.9	000.2500	0432.1	043.7	53.10	
319.0	016.5000	0432.5	063.0	226.2	000.2500	0432.7	042.6	53.58	
320.0	016.5000	0424.2	062.5	225.4	000.2500	0431.0	041.5	53.99	
321.0	016.5000	0409.4	061.7	224.0	000.2500	0428.0	040.5	54.34	
322.0	016.5000	0395.4	060.8	222.6	000.2500	0424.2	039.6	54.66	
323.0	016.5000	0382.9	060.1	221.3	000.2500	0419.5	038.7	54.95	
324.0	016.5000	0369.5	059.3	219.8	000.2500	0413.0	037.8	55.16	
325.0	016.5000	0356.3	058.5	218.1	000.2500	0405.0	037.1	55.31	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
326.0	016.5000	0346.7	057.8	216.7	000.2500	0397.1	036.3	55.46
327.0	016.5000	0344.7	057.7	216.0	000.2500	0392.6	035.4	55.76
328.0	016.5000	0349.9	058.0	215.9	000.2500	0392.1	034.3	56.25
329.0	016.5000	0358.9	058.6	216.1	000.2500	0393.6	033.2	56.84
330.0	016.5000	0368.1	059.2	216.4	000.2500	0395.0	032.0	57.44
331.0	016.5000	0375.8	059.7	216.4	000.2500	0395.0	030.8	58.03
332.0	016.5000	0381.5	060.0	216.1	000.2500	0393.5	029.8	58.58
333.0	016.5000	0386.9	060.3	215.8	000.2500	0391.2	028.7	59.16
334.0	016.5000	0394.0	060.7	215.5	000.2500	0389.7	027.5	59.81
335.0	016.5000	0403.9	061.3	215.5	000.2500	0389.6	026.3	60.60
336.0	016.5000	0414.6	062.0	215.5	000.2500	0389.7	025.1	61.45
337.0	016.5000	0423.0	062.5	215.2	000.2500	0387.8	023.9	62.24
338.0	016.5000	0427.0	062.7	214.2	000.2500	0381.8	022.8	62.85
339.0	016.5000	0427.1	062.7	212.6	000.2500	0370.8	021.9	63.25
340.0	016.5000	0426.6	062.7	210.8	000.2500	0357.2	021.1	63.56
341.0	016.5000	0427.5	062.7	209.0	000.2500	0343.9	020.2	63.90
342.0	016.5000	0431.2	062.9	207.2	000.2500	0331.4	019.3	64.34
343.0	016.5000	0438.3	063.4	205.7	000.2500	0319.0	018.2	64.89
344.0	016.5000	0446.2	063.9	204.1	000.2500	0302.8	017.1	65.38
345.0	016.5000	0454.1	064.4	202.1	000.2500	0284.4	016.0	65.78
346.0	016.5000	0460.5	064.8	199.6	000.2500	0272.2	015.0	66.26
347.0	016.5000	0468.1	065.3	196.9	000.2500	0257.7	014.0	66.81
348.0	016.5000	0474.2	065.7	193.4	000.2500	0220.7	013.1	66.65
349.0	016.5000	0478.7	066.0	189.2	000.2500	0179.2	012.4	65.94
350.0	016.5000	0483.1	066.3	184.4	000.2500	0122.2	011.7	63.33
351.0	016.5000	0484.4	066.4	178.8	000.2500	0089.5	011.4	61.18
352.0	016.5000	0483.3	066.3	173.0	000.2500	0090.6	011.4	61.30
353.0	016.5000	0479.7	066.1	167.3	000.2500	0097.7	011.7	61.48
354.0	016.5000	0478.0	065.9	161.9	000.2500	0112.9	012.0	62.27
355.0	016.5000	0477.1	065.9	156.8	000.2500	0110.3	012.4	61.54
356.0	016.5000	0477.3	065.9	151.8	000.2500	0103.3	012.8	60.42
357.0	016.5000	0480.9	066.1	146.8	000.2500	0143.0	013.1	62.82
358.0	016.5000	0478.2	066.0	143.1	000.2500	0168.2	013.8	63.36
359.0	016.5000	0474.9	065.7	139.9	000.2500	0180.8	014.7	62.95
000.0	016.5000	0477.6	065.9	136.2	000.2500	0196.1	015.3	63.22
001.0	016.5000	0481.4	066.2	132.6	000.2500	0207.3	016.0	63.17
002.0	016.5000	0485.2	066.4	129.3	000.2500	0217.9	016.7	63.01
003.0	016.5000	0491.6	066.9	125.8	000.2500	0232.9	017.4	63.01
004.0	016.5000	0503.3	067.7	121.6	000.2500	0243.7	018.0	62.87
005.0	016.5000	0520.0	068.9	116.8	000.2500	0250.0	018.6	62.58
006.0	016.5000	0535.6	069.9	112.7	000.2500	0259.0	019.4	62.20
007.0	016.5000	0545.8	070.5	110.1	000.2500	0265.2	020.4	61.56
008.0	016.5000	0546.3	070.5	109.3	000.2500	0265.8	021.6	60.64
009.0	016.5000	0540.3	070.2	109.6	000.2500	0265.7	022.9	59.65
010.0	016.5000	0529.8	069.5	110.6	000.2500	0264.4	024.2	58.63
011.0	016.5000	0515.2	068.5	112.2	000.2500	0260.3	025.6	57.53
012.0	016.5000	0499.3	067.4	114.1	000.2500	0254.6	027.0	56.39
013.0	016.5000	0485.3	066.5	115.5	000.2500	0251.3	028.3	55.41
014.0	016.5000	0484.3	066.4	115.2	000.2500	0251.9	029.5	54.73
015.0	016.5000	0488.4	066.7	114.3	000.2500	0254.1	030.6	54.17
016.0	016.5000	0494.4	067.1	113.2	000.2500	0257.3	031.7	53.69

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
017.0	016.5000	0503.1	067.7		111.9	000.2500	0261.4	032.8	53.26
018.0	016.5000	0513.6	068.4		110.5	000.2500	0264.6	033.9	52.80
019.0	016.5000	0527.4	069.3		108.9	000.2500	0265.8	035.1	52.26
020.0	016.5000	0542.5	070.3		107.5	000.2500	0265.5	036.3	51.66
021.0	016.5000	0556.2	071.1		106.4	000.2500	0265.6	037.6	51.06
022.0	016.5000	0564.4	071.5		105.9	000.2500	0265.7	038.9	50.47
023.0	016.5000	0567.2	071.6		105.9	000.2500	0265.7	040.1	49.90
024.0	016.5000	0568.7	071.7		106.1	000.2500	0265.7	041.4	49.34
025.0	016.5000	0571.6	071.8		106.1	000.2500	0265.7	042.7	48.79
026.0	016.5000	0575.4	072.0		106.2	000.2500	0265.7	043.9	48.24
027.0	016.5000	0579.0	072.2		106.2	000.2500	0265.7	045.2	47.70
028.0	016.5000	0583.9	072.4		106.3	000.2500	0265.7	046.5	47.17
029.0	016.5000	0591.3	072.7		106.2	000.2500	0265.7	047.8	46.64
030.0	016.5000	0598.6	073.0		106.2	000.2500	0265.7	049.1	46.11
031.0	016.5000	0604.2	073.3		106.3	000.2500	0265.7	050.4	45.59
032.0	016.5000	0608.9	073.4		106.5	000.2500	0265.6	051.7	45.07
033.0	016.5000	0614.7	073.7		106.6	000.2500	0265.6	053.0	44.54
034.0	016.5000	0621.1	073.9		106.8	000.2500	0265.5	054.3	44.02
035.0	016.5000	0627.9	074.2		106.9	000.2500	0265.5	055.6	43.49
036.0	016.5000	0635.2	074.5		107.0	000.2500	0265.5	056.9	42.96
037.0	016.5000	0642.7	074.7		107.2	000.2500	0265.4	058.2	42.44
038.0	016.5000	0646.4	074.9		107.5	000.2500	0265.5	059.5	41.94
039.0	016.5000	0641.3	074.7		108.1	000.2500	0265.6	060.6	41.51
040.0	016.5000	0627.5	074.2		109.0	000.2500	0265.8	061.7	41.13
041.0	016.5000	0611.8	073.6		110.0	000.2500	0265.3	062.7	40.75
042.0	016.5000	0600.0	073.1		110.8	000.2500	0264.0	063.7	40.33
043.0	016.5000	0594.9	072.9		111.4	000.2500	0262.7	064.8	39.89
044.0	016.5000	0594.9	072.9		111.8	000.2500	0261.6	066.0	39.44
045.0	016.5000	0596.0	072.9		112.2	000.2500	0260.6	067.2	38.99
046.0	016.5000	0597.3	073.0		112.6	000.2500	0259.3	068.4	38.53
047.0	016.5000	0599.1	073.0		112.9	000.2500	0258.2	069.6	38.08
048.0	016.5000	0604.3	073.3		113.2	000.2500	0257.3	070.8	37.62
049.0	016.5000	0613.2	073.6		113.4	000.2500	0256.7	072.1	37.16
050.0	016.5000	0624.7	074.1		113.5	000.2500	0256.3	073.5	36.69
051.0	016.5000	0637.4	074.5		113.6	000.2500	0255.9	074.8	36.22