

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

Iowa State University - IPR										
REFERENCE		CH# 284D - 104.7 MHz, Pwr= 0.25 kw, HAAT= 26.9 M, COR= 327.7 M							DISPLAY DATES	
42 01 53.1 N.		Average Protected F(50-50)= 7.09 km							DATA 07-11-16	
93 39 03.2 W.		Omni-directional							SEARCH 07-11-16	
CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)	
281C Ames	KMYR	RSV-A IA	235.7 55.5	25.37	41 54 09.0 93 54 15.0	100.000 600	13.6 904	91.5 Saga Communications	-67.2* Of Iow	
281C Ames	KMYR	APP _CX IA	235.7 55.5	25.37 BPH20150603ABB	41 54 09.0 93 54 15.0	100.000 451	12.1 757	83.0 Saga Communications	-58.8* Of Iow	
281C0 Ames	KMYR	LIC _CN IA	235.7 55.5	25.37 BLH19861229KC	41 54 09.0 93 54 15.0	100.000 308	10.2 615	72.6 Saga Communications	-48.3* Of Iow	
286C3 Ames	KCYZ	LIC _CN IA	2.4 182.4	5.09 BLH19980203KC	42 04 38.0 93 38 54.0	25.000 100	4.2 403	40.4 Citicasters Licenses, Inc.	-36.4* Of Iow	
283D Des Moines	K283CC	CP _C_ IA	160.1 340.2	47.22 BPFT20160314ABJ	41 37 55.0 93 27 26.0	0.250	31.6 561	21.3 Saga Communications	14.5 Of Iow	
283D Des Moines	K283CC	LIC DC_ IA	160.1 340.2	47.22 BLFT20140723ACO	41 37 55.0 93 27 26.0	0.250 293	31.6 561	21.3 Saga Communications	14.5 Of Iow	
285L1 De Soto	KSDE-LP	LIC _ IA	208.1 27.9	62.48 BLL20031112ACY	41 32 07.0 94 00 18.0	0.100 16	313	Iowa Department Of	46.7 Transpo	
285C2 Oskaloosa	KBOE-FM	LIC _CN IA	133.1 313.8	114.93 BLH19910919KB	41 19 15.0 92 38 44.0	50.000 150	80.2 391	54.0 Jomast Corporation	46.9	
285A Hampton	KLMJ	LIC _CX IA	22.9 203.2	96.65 BLH20030611AAD	42 49 52.0 93 11 20.0	6.000 93	37.7 431	24.6 Cd Broadcasting, Inc.	61.4	
287C2 Chariton	KEDB	LIC NCX IA	157.4 337.9	137.23 BLH20081028ACO	40 53 23.0 93 01 29.0	34.000 182	5.9 475	52.6 Honey Creek Broadcasting,	83.5	
283C1 Cedar Rapids	KDAT	LIC _CN IA	87.4 268.7	161.47 BLH5113	42 04 51.0 91 41 45.0	100.000 168	92.8 422	62.4 Townsquare Media Cedar Rap	88.1	

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
Contour distances are on direct line to and from reference station. Reference zone= West Zone, Co to 3rd adjacent.  
All separation margins (if shown) include rounding.  
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, see attached studies.

## 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.

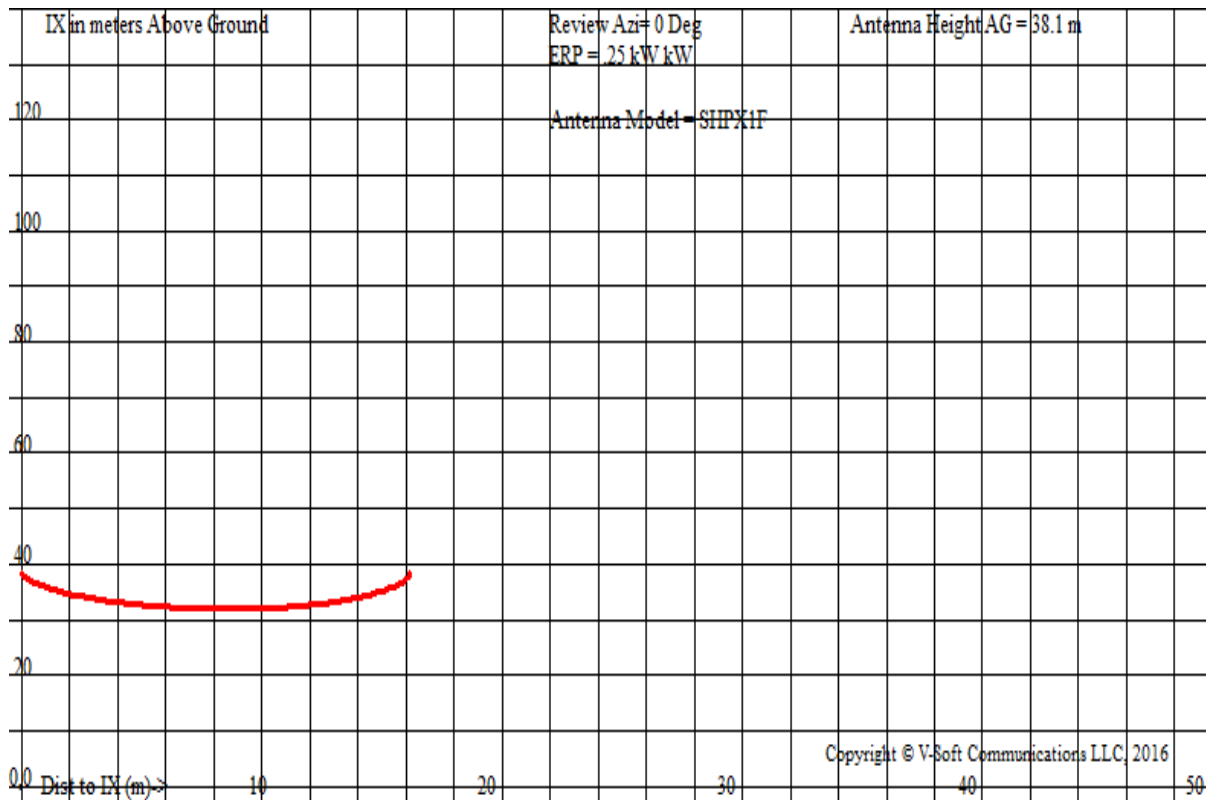


New Ames, Iowa  
 74.1204(d) Showing  
 Translator or LPFM Maximum Licensed ERP = 0.25  
 Translator or LPFM Antenna Height AG = 38.1 Meters  
 New Antenna Model = SHPX1F

Protected Station's Contour = 83.82464 dBu  
 Translator's or LPFM's full Interference contour 123.82464

Review Azimuth = 0 Degrees True  
 Relative Field on the horizon at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW  
 Distance between stations = 25.4 km  
 Protected Station= KMYR, 100 kW, 615 M Meters COR AMSL (License Record)

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	1.0	0.2500	071.4065	071.4065	038.100
05.0	0.993	1.0	0.2465	070.9067	070.6369	031.920
10.0	0.974	1.0	0.2372	069.5500	068.4934	026.023
15.0	0.941	1.0	0.2214	067.1936	064.9040	020.709
20.0	0.897	1.0	0.2012	064.0517	060.1889	016.193
25.0	0.843	1.0	0.1777	060.1957	054.5558	012.660
30.0	0.780	1.0	0.1521	055.6971	048.2351	010.251
35.0	0.709	1.0	0.1257	050.6272	041.4714	009.061
40.0	0.633	1.0	0.1002	045.2003	034.6255	009.046
45.0	0.554	1.0	0.0767	039.5592	027.9726	010.127
50.0	0.473	1.0	0.0559	033.7753	021.7103	012.227
55.0	0.394	1.0	0.0388	028.1342	016.1371	015.054
60.0	0.317	1.0	0.0251	022.6359	011.3179	018.497
65.0	0.245	1.0	0.0150	017.4946	007.3935	022.245
70.0	0.181	1.0	0.0082	012.9246	004.4205	025.955
75.0	0.124	1.0	0.0038	008.8544	002.2917	029.547
80.0	0.077	1.0	0.0015	005.4983	000.9548	032.685
85.0	0.041	1.0	0.0004	002.9277	000.2552	035.183
90.0	0.016	1.0	0.0001	001.1425	000.0000	036.957



New Ames, IA  
 74.1204(d) Showing  
 Translator or LPFM Maximum Licensed ERP = 0.25  
 Translator or LPFM Antenna Height AG = 38.1 Meters  
 New Antenna Model = SHPX1F

Protected Station's Contour = 96.54546 dBu  
 Translator's or LPFM's full Interference contour 136.54546

Review Azimuth = 0 Degrees True  
 Relative Field on the horizon at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW  
 Distance between stations = 5.1 km  
 Protected Station= KCYZ, 25 kW, 403 M Meters COR AMSL

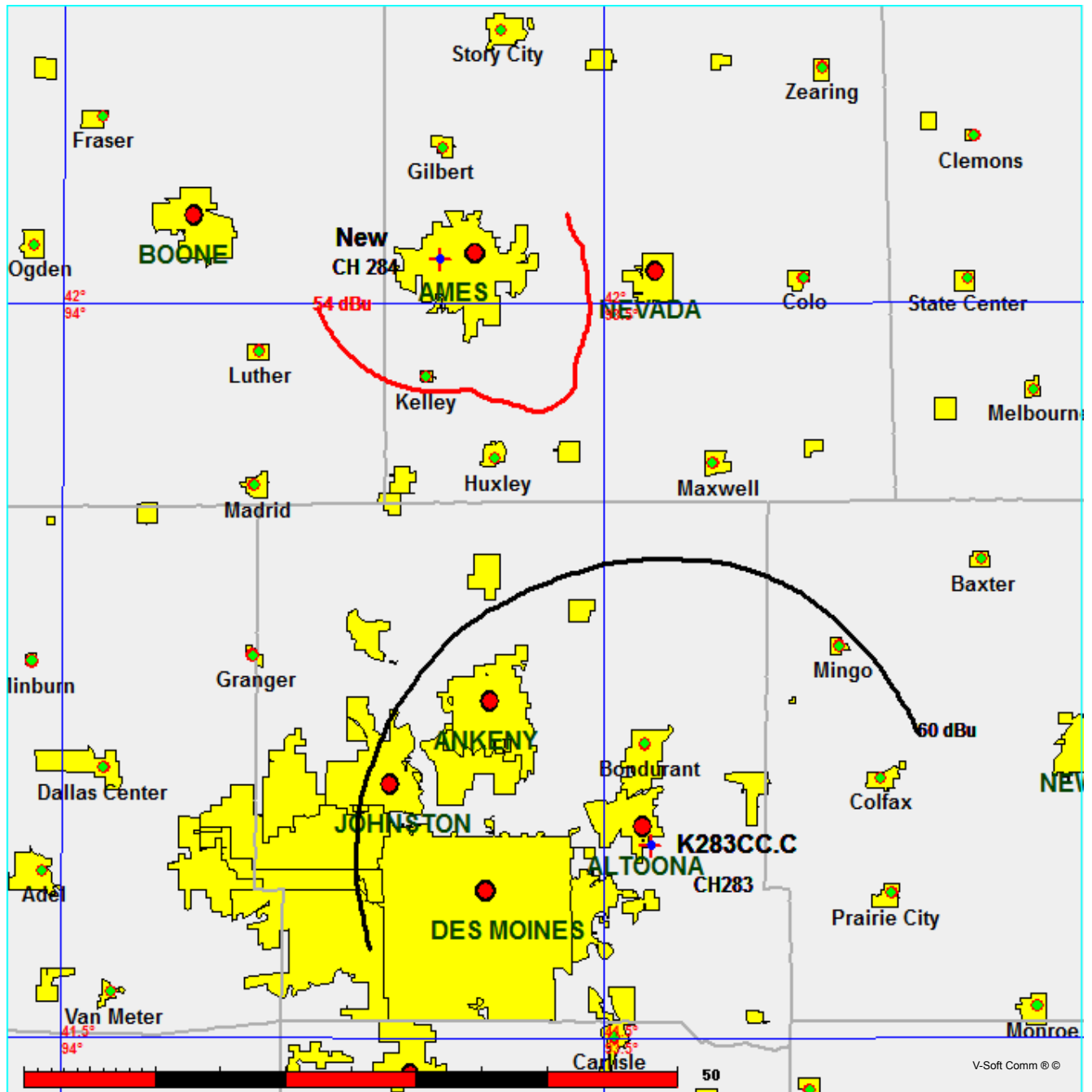
Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.0	1.0	1.0	0.2500	016.5081	016.5081	038.100
05.0	0.993	1.0	0.2465	016.3925	016.3302	036.671
10.0	0.974	1.0	0.2372	016.0789	015.8346	035.308
15.0	0.941	1.0	0.2214	015.5341	015.0048	034.079
20.0	0.897	1.0	0.2012	014.8078	013.9147	033.035
25.0	0.843	1.0	0.1777	013.9163	012.6125	032.219
30.0	0.780	1.0	0.1521	012.8763	011.1512	031.662
35.0	0.709	1.0	0.1257	011.7042	009.5876	031.387
40.0	0.633	1.0	0.1002	010.4496	008.0049	031.383
45.0	0.554	1.0	0.0767	009.1455	006.4668	031.633
50.0	0.473	1.0	0.0559	007.8083	005.0191	032.118
55.0	0.394	1.0	0.0388	006.5042	003.7307	032.772
60.0	0.317	1.0	0.0251	005.2331	002.6165	033.568
65.0	0.245	1.0	0.0150	004.0445	001.7093	034.434
70.0	0.181	1.0	0.0082	002.9880	001.0219	035.292
75.0	0.124	1.0	0.0038	002.0470	000.5298	036.123
80.0	0.077	1.0	0.0015	001.2711	000.2207	036.848
85.0	0.041	1.0	0.0004	000.6768	000.0590	037.426
90.0	0.016	1.0	0.0001	000.2641	000.0000	037.836

Contour-to-Contour Map Study - K283CC (CP)  
Iowa State University - Iowa Public Radio

FMCommander Single Allocation Study - 07-11-2016 - FCC NGDC 30 Sec  
New's Overlaps (In= 7.54 km, Out= 14.47 km)

New CH 284 D  
Lat= 42 01 53.1, Lng= 93 39 03.2  
0.25 kW 26.9 m HAAT, 327.7 m COR  
Prot.= 60 dBu, Intef.= 54 dBu

K283CC.C CH 283 D BPFT20160314ABJ  
Lat= 41 37 55.0, Lng= 93 27 26.0  
0.25 kW 0 m HAAT, 561 m COR  
Prot.= 60 dBu, Intef.= 54 dBu



07-11-2016

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

K283CC.C BPFT20160314ABJ

New

Channel = 283D

Max ERP = 0.25 kW

RCAMSL = 561 m

N. Lat. 41 37 55.0

W. Lng. 93 27 26.0

Protected

60 dBu

Channel = 284D

Max ERP = 0.25 kW

RCAMSL = 327.7 m

N. Lat. 42 01 53.1

W. Lng. 93 39 03.2

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
280.0	000.2500	0295.5	022.4	188.4	000.2500	0020.0	041.0	32.20	
281.0	000.2500	0294.3	022.3	188.3	000.2500	0020.1	040.6	32.32	
282.0	000.2500	0293.0	022.3	188.2	000.2500	0020.3	040.2	32.44	
283.0	000.2500	0291.8	022.3	188.1	000.2500	0020.4	039.8	32.56	
284.0	000.2500	0290.7	022.2	188.0	000.2500	0020.5	039.5	32.68	
285.0	000.2500	0289.7	022.2	187.9	000.2500	0020.7	039.1	32.81	
286.0	000.2500	0288.6	022.1	187.7	000.2500	0020.9	038.7	32.93	
287.0	000.2500	0288.0	022.1	187.6	000.2500	0021.0	038.3	33.06	
288.0	000.2500	0287.7	022.1	187.5	000.2500	0021.1	037.9	33.18	
289.0	000.2500	0287.5	022.1	187.4	000.2500	0021.2	037.6	33.31	
290.0	000.2500	0287.2	022.1	187.2	000.2500	0021.4	037.2	33.44	
291.0	000.2500	0286.9	022.1	187.1	000.2500	0021.5	036.8	33.57	
292.0	000.2500	0286.6	022.1	186.9	000.2500	0021.6	036.4	33.70	
293.0	000.2500	0286.7	022.1	186.8	000.2500	0021.8	036.1	33.83	
294.0	000.2500	0286.8	022.1	186.6	000.2500	0021.9	035.7	33.96	
295.0	000.2500	0286.7	022.1	186.4	000.2500	0022.0	035.3	34.09	
296.0	000.2500	0286.3	022.1	186.2	000.2500	0022.1	035.0	34.22	
297.0	000.2500	0285.6	022.0	185.9	000.2500	0022.2	034.6	34.35	
298.0	000.2500	0285.1	022.0	185.6	000.2500	0022.3	034.3	34.48	
299.0	000.2500	0284.6	022.0	185.4	000.2500	0022.4	033.9	34.61	
300.0	000.2500	0283.9	022.0	185.0	000.2500	0022.4	033.6	34.74	
301.0	000.2500	0283.1	021.9	184.7	000.2500	0022.5	033.3	34.86	
302.0	000.2500	0282.2	021.9	184.4	000.2500	0022.5	032.9	34.99	
303.0	000.2500	0281.4	021.9	184.0	000.2500	0022.5	032.6	35.11	
304.0	000.2500	0280.8	021.9	183.6	000.2500	0022.5	032.3	35.23	
305.0	000.2500	0280.3	021.8	183.3	000.2500	0022.5	032.0	35.36	
306.0	000.2500	0280.0	021.8	182.9	000.2500	0022.5	031.6	35.49	
307.0	000.2500	0279.9	021.8	182.5	000.2500	0022.5	031.3	35.62	
308.0	000.2500	0279.8	021.8	182.1	000.2500	0022.5	031.0	35.75	
309.0	000.2500	0279.5	021.8	181.6	000.2500	0022.5	030.7	35.89	
310.0	000.2500	0279.1	021.8	181.2	000.2500	0022.5	030.4	36.02	
311.0	000.2500	0278.9	021.8	180.7	000.2500	0022.5	030.1	36.16	
312.0	000.2500	0279.1	021.8	180.3	000.2500	0022.5	029.9	36.30	
313.0	000.2500	0279.8	021.8	179.8	000.2500	0022.5	029.6	36.45	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
314.0	000.2500	0280.6	021.8	179.3	000.2500	0022.7	029.3	36.60
315.0	000.2500	0281.0	021.9	178.8	000.2500	0023.0	029.0	36.75
316.0	000.2500	0280.9	021.9	178.3	000.2500	0023.3	028.7	36.88
317.0	000.2500	0280.4	021.8	177.7	000.2500	0023.7	028.5	37.01
318.0	000.2500	0279.6	021.8	177.0	000.2500	0024.1	028.3	37.14
319.0	000.2500	0278.5	021.8	176.4	000.2500	0024.5	028.1	37.25
320.0	000.2500	0277.4	021.7	175.7	000.2500	0024.8	027.9	37.36
321.0	000.2500	0276.5	021.7	175.0	000.2500	0025.1	027.7	37.47
322.0	000.2500	0275.8	021.7	174.3	000.2500	0025.3	027.5	37.58
323.0	000.2500	0275.1	021.6	173.6	000.2500	0025.6	027.3	37.68
324.0	000.2500	0274.3	021.6	172.9	000.2500	0026.1	027.1	37.78
325.0	000.2500	0273.3	021.6	172.2	000.2500	0026.7	027.0	37.87
326.0	000.2500	0271.8	021.5	171.4	000.2500	0027.2	026.9	37.94
327.0	000.2500	0270.4	021.5	170.6	000.2500	0027.7	026.8	38.00
328.0	000.2500	0269.5	021.4	169.9	000.2500	0028.0	026.7	38.07
329.0	000.2500	0269.2	021.4	169.1	000.2500	0028.5	026.5	38.15
330.0	000.2500	0269.2	021.4	168.3	000.2500	0029.2	026.4	38.23
331.0	000.2500	0269.0	021.4	167.6	000.2500	0030.0	026.3	38.29
332.0	000.2500	0268.7	021.4	166.8	000.2500	0030.9	026.2	38.56
333.0	000.2500	0268.4	021.4	166.0	000.2500	0031.8	026.1	38.82
334.0	000.2500	0268.0	021.4	165.2	000.2500	0032.6	026.1	39.07
335.0	000.2500	0267.4	021.3	164.3	000.2500	0033.6	026.0	39.31
336.0	000.2500	0266.7	021.3	163.5	000.2500	0034.7	026.0	39.59
337.0	000.2500	0266.2	021.3	162.7	000.2500	0035.9	026.0	39.88
338.0	000.2500	0266.2	021.3	161.9	000.2500	0037.1	025.9	40.17
339.0	000.2500	0266.3	021.3	161.1	000.2500	0038.0	025.9	40.41
340.0	000.2500	0266.5	021.3	160.2	000.2500	0038.8	025.9	40.59
341.0	000.2500	0267.0	021.3	159.4	000.2500	0039.5	025.9	40.76
342.0	000.2500	0267.4	021.3	158.6	000.2500	0040.2	025.9	40.91
343.0	000.2500	0267.5	021.4	157.8	000.2500	0040.9	025.9	41.04
344.0	000.2500	0267.4	021.3	157.0	000.2500	0041.6	026.0	41.15
345.0	000.2500	0267.4	021.3	156.1	000.2500	0042.3	026.0	41.28
346.0	000.2500	0267.5	021.4	155.3	000.2500	0043.3	026.1	41.45
347.0	000.2500	0268.0	021.4	154.5	000.2500	0044.4	026.1	41.62
348.0	000.2500	0268.7	021.4	153.7	000.2500	0045.5	026.2	41.80
349.0	000.2500	0269.8	021.4	152.9	000.2500	0046.6	026.2	41.99
350.0	000.2500	0270.7	021.5	152.1	000.2500	0047.9	026.3	42.18
351.0	000.2500	0271.3	021.5	151.3	000.2500	0049.4	026.4	42.40
352.0	000.2500	0271.7	021.5	150.5	000.2500	0051.0	026.5	42.61
353.0	000.2500	0271.8	021.5	149.8	000.2500	0052.6	026.7	42.79
354.0	000.2500	0271.8	021.5	149.0	000.2500	0053.9	026.8	42.91
355.0	000.2500	0272.0	021.5	148.3	000.2500	0055.1	027.0	43.00
356.0	000.2500	0272.6	021.5	147.6	000.2500	0056.2	027.1	43.07
357.0	000.2500	0273.2	021.6	146.9	000.2500	0057.2	027.3	43.12
358.0	000.2500	0273.4	021.6	146.2	000.2500	0058.1	027.5	43.13
359.0	000.2500	0273.6	021.6	145.5	000.2500	0058.8	027.7	43.11
000.0	000.2500	0274.0	021.6	144.9	000.2500	0059.4	027.9	43.07
001.0	000.2500	0274.7	021.6	144.2	000.2500	0059.9	028.1	43.01
002.0	000.2500	0275.4	021.6	143.6	000.2500	0060.2	028.3	42.92
003.0	000.2500	0275.7	021.7	143.0	000.2500	0060.4	028.5	42.82
004.0	000.2500	0275.9	021.7	142.4	000.2500	0060.6	028.8	42.69

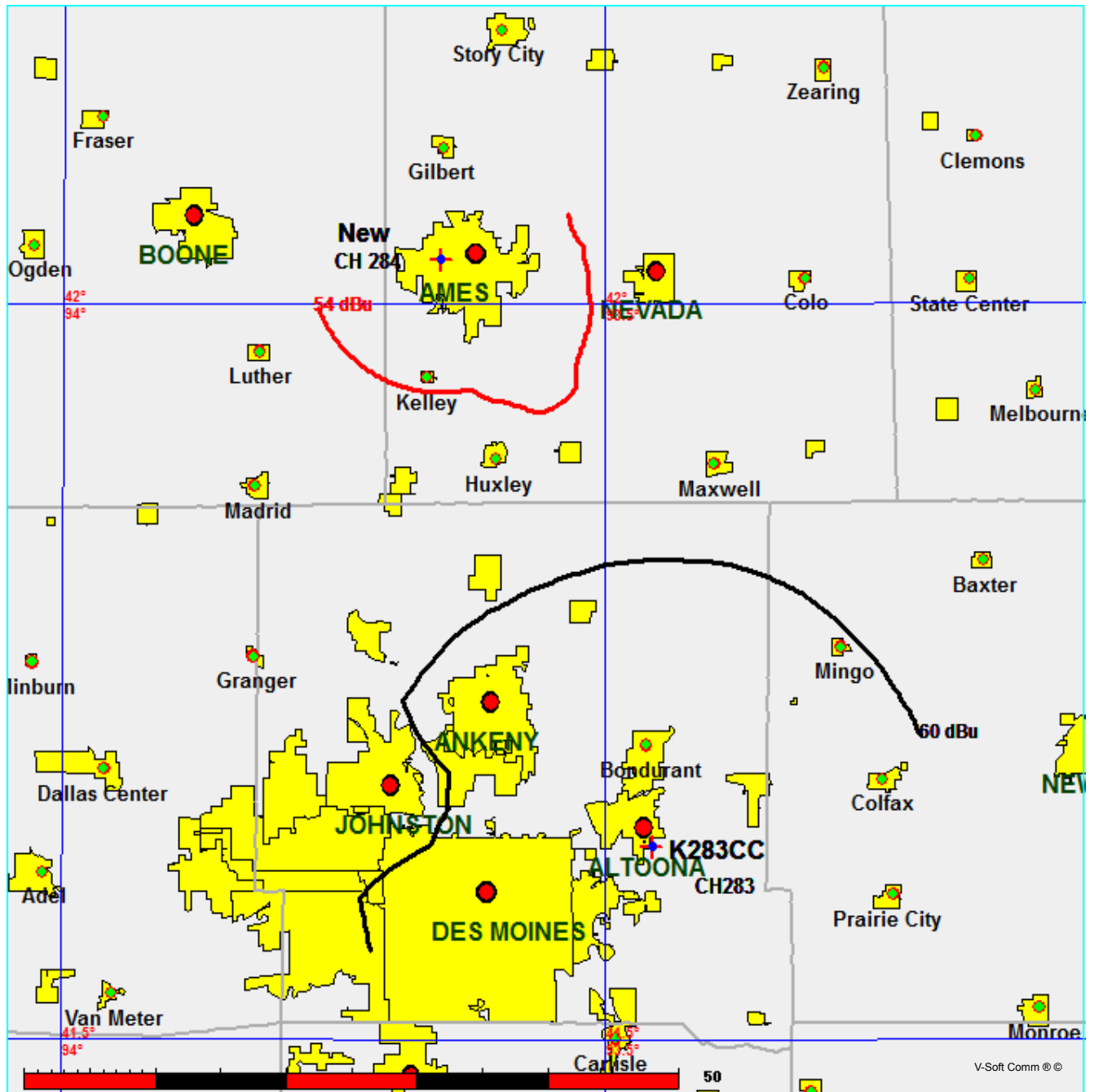
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
005.0	000.2500	0276.2	021.7		141.8	000.2500	0060.7	029.0	42.56
006.0	000.2500	0276.6	021.7		141.2	000.2500	0060.7	029.3	42.42
007.0	000.2500	0277.2	021.7		140.7	000.2500	0060.8	029.5	42.29
008.0	000.2500	0278.2	021.8		140.1	000.2500	0060.9	029.8	42.16
009.0	000.2500	0279.2	021.8		139.6	000.2500	0061.0	030.0	42.04
010.0	000.2500	0280.1	021.8		139.1	000.2500	0061.2	030.3	41.92
011.0	000.2500	0281.4	021.9		138.6	000.2500	0061.4	030.6	41.81
012.0	000.2500	0282.8	021.9		138.1	000.2500	0061.5	030.8	41.69
013.0	000.2500	0284.1	022.0		137.6	000.2500	0061.6	031.1	41.56
014.0	000.2500	0285.1	022.0		137.1	000.2500	0061.7	031.4	41.42
015.0	000.2500	0286.2	022.1		136.7	000.2500	0061.7	031.7	41.28
016.0	000.2500	0287.5	022.1		136.3	000.2500	0061.7	032.0	41.14
017.0	000.2500	0288.3	022.1		135.9	000.2500	0061.7	032.3	41.00
018.0	000.2500	0288.7	022.1		135.5	000.2500	0061.6	032.7	40.85
019.0	000.2500	0288.7	022.1		135.2	000.2500	0061.6	033.0	40.69
020.0	000.2500	0288.6	022.1		134.9	000.2500	0061.5	033.4	40.53
021.0	000.2500	0288.7	022.1		134.7	000.2500	0061.3	033.7	40.36
022.0	000.2500	0288.8	022.1		134.4	000.2500	0061.2	034.1	40.19
023.0	000.2500	0289.2	022.2		134.1	000.2500	0060.9	034.4	40.01
024.0	000.2500	0289.6	022.2		133.9	000.2500	0060.7	034.8	39.83
025.0	000.2500	0290.0	022.2		133.7	000.2500	0060.4	035.1	39.64
026.0	000.2500	0290.3	022.2		133.4	000.2500	0060.1	035.5	39.45
027.0	000.2500	0290.5	022.2		133.3	000.2500	0059.8	035.9	39.26
028.0	000.2500	0290.7	022.2		133.1	000.2500	0059.5	036.2	39.07
029.0	000.2500	0290.9	022.2		132.9	000.2500	0059.2	036.6	38.88
030.0	000.2500	0291.3	022.2		132.7	000.2500	0058.9	037.0	38.69
031.0	000.2500	0291.7	022.3		132.6	000.2500	0058.6	037.4	38.50
032.0	000.2500	0291.8	022.3		132.5	000.2500	0058.4	037.8	38.32
033.0	000.2500	0291.6	022.2		132.4	000.2500	0058.2	038.1	38.14
034.0	000.2500	0291.3	022.2		132.3	000.2500	0058.0	038.5	37.97
035.0	000.2500	0291.0	022.2		132.2	000.2500	0057.9	038.9	37.80
036.0	000.2500	0290.7	022.2		132.2	000.2500	0057.8	039.3	37.64
037.0	000.2500	0290.5	022.2		132.1	000.2500	0057.7	039.7	37.48
038.0	000.2500	0290.4	022.2		132.1	000.2500	0057.6	040.1	37.32
039.0	000.2500	0290.1	022.2		132.1	000.2500	0057.5	040.5	37.17

Contour-to-Contour Map Study - K283CC  
Iowa State University - Iowa Public Radio

FMCommander Single Allocation Study - 07-11-2016 - FCC NGDC 30 Sec  
New's Overlaps (In= 7.54 km, Out= 14.47 km)

New CH 284 D  
Lat= 42 01 53.1, Lng= 93 39 03.2  
0.25 kW 26.9 m HAAT, 327.7 m COR  
Prot.= 60 dBu, Intef.= 54 dBu

K283CC CH 283 D DA BLFT20140723ACO  
Lat= 41 37 55.0, Lng= 93 27 26.0  
0.25 kW 292.5 m HAAT, 561 m COR  
Prot.= 60 dBu, Intef.= 54 dBu



07-11-2016

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

K283CC BLFT20140723ACO

New

Channel = 283D

Max ERP = 0.25 kW

RCAMSL = 561 m

N. Lat. 41 37 55.0

W. Lng. 93 27 26.0

Protected

60 dBu

Channel = 284D

Max ERP = 0.25 kW

RCAMSL = 327.7 m

N. Lat. 42 01 53.1

W. Lng. 93 39 03.2

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
280.0	000.0625	0295.5	015.8	179.3	000.2500	0022.7	041.7	31.99	
281.0	000.0640	0294.3	015.9	179.3	000.2500	0022.7	041.4	32.08	
282.0	000.0655	0293.0	015.9	179.3	000.2500	0022.7	041.1	32.16	
283.0	000.0671	0291.8	016.0	179.3	000.2500	0022.7	040.8	32.25	
284.0	000.0686	0290.7	016.0	179.3	000.2500	0022.7	040.6	32.34	
285.0	000.0702	0289.7	016.1	179.2	000.2500	0022.7	040.3	32.43	
286.0	000.0718	0288.6	016.2	179.2	000.2500	0022.7	040.0	32.52	
287.0	000.0734	0288.0	016.2	179.2	000.2500	0022.8	039.7	32.61	
288.0	000.0751	0287.7	016.3	179.2	000.2500	0022.8	039.4	32.71	
289.0	000.0767	0287.5	016.4	179.2	000.2500	0022.8	039.1	32.80	
290.0	000.0784	0287.2	016.5	179.2	000.2500	0022.8	038.8	32.90	
291.0	000.0912	0286.9	017.2	179.9	000.2500	0022.5	038.3	33.07	
292.0	000.1050	0286.6	017.8	180.7	000.2500	0022.5	037.8	33.24	
293.0	000.1197	0286.7	018.4	181.3	000.2500	0022.5	037.2	33.42	
294.0	000.1354	0286.8	019.0	182.0	000.2500	0022.5	036.7	33.60	
295.0	000.1521	0286.7	019.6	182.6	000.2500	0022.5	036.2	33.78	
296.0	000.1697	0286.3	020.1	183.2	000.2500	0022.5	035.7	33.97	
297.0	000.1884	0285.6	020.6	183.7	000.2500	0022.5	035.2	34.15	
298.0	000.2079	0285.1	021.1	184.2	000.2500	0022.5	034.6	34.34	
299.0	000.2285	0284.6	021.5	184.6	000.2500	0022.5	034.1	34.54	
300.0	000.2500	0283.9	022.0	185.0	000.2500	0022.4	033.6	34.74	
301.0	000.2500	0283.1	021.9	184.7	000.2500	0022.5	033.3	34.86	
302.0	000.2500	0282.2	021.9	184.4	000.2500	0022.5	032.9	34.99	
303.0	000.2500	0281.4	021.9	184.0	000.2500	0022.5	032.6	35.11	
304.0	000.2500	0280.8	021.9	183.6	000.2500	0022.5	032.3	35.23	
305.0	000.2500	0280.3	021.8	183.3	000.2500	0022.5	032.0	35.36	
306.0	000.2500	0280.0	021.8	182.9	000.2500	0022.5	031.6	35.49	
307.0	000.2500	0279.9	021.8	182.5	000.2500	0022.5	031.3	35.62	
308.0	000.2500	0279.8	021.8	182.1	000.2500	0022.5	031.0	35.75	
309.0	000.2500	0279.5	021.8	181.6	000.2500	0022.5	030.7	35.89	
310.0	000.2500	0279.1	021.8	181.2	000.2500	0022.5	030.4	36.02	
311.0	000.2500	0278.9	021.8	180.7	000.2500	0022.5	030.1	36.16	
312.0	000.2500	0279.1	021.8	180.3	000.2500	0022.5	029.9	36.30	
313.0	000.2500	0279.8	021.8	179.8	000.2500	0022.5	029.6	36.45	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
314.0	000.2500	0280.6	021.8	179.3	000.2500	0022.7	029.3	36.60
315.0	000.2500	0281.0	021.9	178.8	000.2500	0023.0	029.0	36.75
316.0	000.2500	0280.9	021.9	178.3	000.2500	0023.3	028.7	36.88
317.0	000.2500	0280.4	021.8	177.7	000.2500	0023.7	028.5	37.01
318.0	000.2500	0279.6	021.8	177.0	000.2500	0024.1	028.3	37.14
319.0	000.2500	0278.5	021.8	176.4	000.2500	0024.5	028.1	37.25
320.0	000.2500	0277.4	021.7	175.7	000.2500	0024.8	027.9	37.36
321.0	000.2500	0276.5	021.7	175.0	000.2500	0025.1	027.7	37.47
322.0	000.2500	0275.8	021.7	174.3	000.2500	0025.3	027.5	37.58
323.0	000.2500	0275.1	021.6	173.6	000.2500	0025.6	027.3	37.68
324.0	000.2500	0274.3	021.6	172.9	000.2500	0026.1	027.1	37.78
325.0	000.2500	0273.3	021.6	172.2	000.2500	0026.7	027.0	37.87
326.0	000.2500	0271.8	021.5	171.4	000.2500	0027.2	026.9	37.94
327.0	000.2500	0270.4	021.5	170.6	000.2500	0027.7	026.8	38.00
328.0	000.2500	0269.5	021.4	169.9	000.2500	0028.0	026.7	38.07
329.0	000.2500	0269.2	021.4	169.1	000.2500	0028.5	026.5	38.15
330.0	000.2500	0269.2	021.4	168.3	000.2500	0029.2	026.4	38.23
331.0	000.2500	0269.0	021.4	167.6	000.2500	0030.0	026.3	38.29
332.0	000.2500	0268.7	021.4	166.8	000.2500	0030.9	026.2	38.56
333.0	000.2500	0268.4	021.4	166.0	000.2500	0031.8	026.1	38.82
334.0	000.2500	0268.0	021.4	165.2	000.2500	0032.6	026.1	39.07
335.0	000.2500	0267.4	021.3	164.3	000.2500	0033.6	026.0	39.31
336.0	000.2500	0266.7	021.3	163.5	000.2500	0034.7	026.0	39.59
337.0	000.2500	0266.2	021.3	162.7	000.2500	0035.9	026.0	39.88
338.0	000.2500	0266.2	021.3	161.9	000.2500	0037.1	025.9	40.17
339.0	000.2500	0266.3	021.3	161.1	000.2500	0038.0	025.9	40.41
340.0	000.2500	0266.5	021.3	160.2	000.2500	0038.8	025.9	40.59
341.0	000.2500	0267.0	021.3	159.4	000.2500	0039.5	025.9	40.76
342.0	000.2500	0267.4	021.3	158.6	000.2500	0040.2	025.9	40.91
343.0	000.2500	0267.5	021.4	157.8	000.2500	0040.9	025.9	41.04
344.0	000.2500	0267.4	021.3	157.0	000.2500	0041.6	026.0	41.15
345.0	000.2500	0267.4	021.3	156.1	000.2500	0042.3	026.0	41.28
346.0	000.2500	0267.5	021.4	155.3	000.2500	0043.3	026.1	41.45
347.0	000.2500	0268.0	021.4	154.5	000.2500	0044.4	026.1	41.62
348.0	000.2500	0268.7	021.4	153.7	000.2500	0045.5	026.2	41.80
349.0	000.2500	0269.8	021.4	152.9	000.2500	0046.6	026.2	41.99
350.0	000.2500	0270.7	021.5	152.1	000.2500	0047.9	026.3	42.18
351.0	000.2500	0271.3	021.5	151.3	000.2500	0049.4	026.4	42.40
352.0	000.2500	0271.7	021.5	150.5	000.2500	0051.0	026.5	42.61
353.0	000.2500	0271.8	021.5	149.8	000.2500	0052.6	026.7	42.79
354.0	000.2500	0271.8	021.5	149.0	000.2500	0053.9	026.8	42.91
355.0	000.2500	0272.0	021.5	148.3	000.2500	0055.1	027.0	43.00
356.0	000.2500	0272.6	021.5	147.6	000.2500	0056.2	027.1	43.07
357.0	000.2500	0273.2	021.6	146.9	000.2500	0057.2	027.3	43.12
358.0	000.2500	0273.4	021.6	146.2	000.2500	0058.1	027.5	43.13
359.0	000.2500	0273.6	021.6	145.5	000.2500	0058.8	027.7	43.11
000.0	000.2500	0274.0	021.6	144.9	000.2500	0059.4	027.9	43.07
001.0	000.2500	0274.7	021.6	144.2	000.2500	0059.9	028.1	43.01
002.0	000.2500	0275.4	021.6	143.6	000.2500	0060.2	028.3	42.92
003.0	000.2500	0275.7	021.7	143.0	000.2500	0060.4	028.5	42.82
004.0	000.2500	0275.9	021.7	142.4	000.2500	0060.6	028.8	42.69

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
005.0	000.2500	0276.2	021.7		141.8	000.2500	0060.7	029.0	42.56
006.0	000.2500	0276.6	021.7		141.2	000.2500	0060.7	029.3	42.42
007.0	000.2500	0277.2	021.7		140.7	000.2500	0060.8	029.5	42.29
008.0	000.2500	0278.2	021.8		140.1	000.2500	0060.9	029.8	42.16
009.0	000.2500	0279.2	021.8		139.6	000.2500	0061.0	030.0	42.04
010.0	000.2500	0280.1	021.8		139.1	000.2500	0061.2	030.3	41.92
011.0	000.2500	0281.4	021.9		138.6	000.2500	0061.4	030.6	41.81
012.0	000.2500	0282.8	021.9		138.1	000.2500	0061.5	030.8	41.69
013.0	000.2500	0284.1	022.0		137.6	000.2500	0061.6	031.1	41.56
014.0	000.2500	0285.1	022.0		137.1	000.2500	0061.7	031.4	41.42
015.0	000.2500	0286.2	022.1		136.7	000.2500	0061.7	031.7	41.28
016.0	000.2500	0287.5	022.1		136.3	000.2500	0061.7	032.0	41.14
017.0	000.2500	0288.3	022.1		135.9	000.2500	0061.7	032.3	41.00
018.0	000.2500	0288.7	022.1		135.5	000.2500	0061.6	032.7	40.85
019.0	000.2500	0288.7	022.1		135.2	000.2500	0061.6	033.0	40.69
020.0	000.2500	0288.6	022.1		134.9	000.2500	0061.5	033.4	40.53
021.0	000.2500	0288.7	022.1		134.7	000.2500	0061.3	033.7	40.36
022.0	000.2500	0288.8	022.1		134.4	000.2500	0061.2	034.1	40.19
023.0	000.2500	0289.2	022.2		134.1	000.2500	0060.9	034.4	40.01
024.0	000.2500	0289.6	022.2		133.9	000.2500	0060.7	034.8	39.83
025.0	000.2500	0290.0	022.2		133.7	000.2500	0060.4	035.1	39.64
026.0	000.2500	0290.3	022.2		133.4	000.2500	0060.1	035.5	39.45
027.0	000.2500	0290.5	022.2		133.3	000.2500	0059.8	035.9	39.26
028.0	000.2500	0290.7	022.2		133.1	000.2500	0059.5	036.2	39.07
029.0	000.2500	0290.9	022.2		132.9	000.2500	0059.2	036.6	38.88
030.0	000.2500	0291.3	022.2		132.7	000.2500	0058.9	037.0	38.69
031.0	000.2500	0291.7	022.3		132.6	000.2500	0058.6	037.4	38.50
032.0	000.2500	0291.8	022.3		132.5	000.2500	0058.4	037.8	38.32
033.0	000.2500	0291.6	022.2		132.4	000.2500	0058.2	038.1	38.14
034.0	000.2500	0291.3	022.2		132.3	000.2500	0058.0	038.5	37.97
035.0	000.2500	0291.0	022.2		132.2	000.2500	0057.9	038.9	37.80
036.0	000.2500	0290.7	022.2		132.2	000.2500	0057.8	039.3	37.64
037.0	000.2500	0290.5	022.2		132.1	000.2500	0057.7	039.7	37.48
038.0	000.2500	0290.4	022.2		132.1	000.2500	0057.6	040.1	37.32
039.0	000.2500	0290.1	022.2		132.1	000.2500	0057.5	040.5	37.17