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W300BM a fill-in Translator for WHA (AM) - Channel Study
Board Of Regents Of The University Of Wisconsin System

REFERENCE CH# 300D - 107.9 MHz, Pwr= 0.25 kW, HAAT= 385.0 M, COR= 684.6 M DISPLAY DATES
43 03 21.0 N. Average Protected F(50-50)= 25.39 km DATA 05-09-17
89 32 06.0 W. Omni-directional SEARCH 05-10-17

CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kW)	INT(km)	PRO(km)	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)
300D	W300BM	LIC	_C_	98.6	10.38	43 02 30.5	0.250	23.8	7.1	-74.8*
Madison		WI		278.7	BLFT20160412ABH	89 24 31.0	44	331	Board Of Regents Of The Un	
297B	WSJY	LIC	_CN	125.8	48.33	42 48 02.0	26.000	5.9	65.3	-19.1*<**
Fort Atkinson		WI		306.1	BLH19900817KC	89 03 16.0	206	474	Nrg License Sub, Llc	
299B	WVCY-FM	LIC	DC_	94.5	119.30	42 57 46.0	43.000	72.9	60.5	3.3
Milwaukee		WI		275.5	BMLED20050623AAF	88 04 23.0	161	403	Vcy America, Inc.	
300B	WLEY-FM	LIC	DCN	135.7	172.99	41 56 01.0	21.000	109.4	54.5	22.1
Aurora		IL		316.6	BLH19910827KB	88 04 23.0	232	455	Wley Licensing, Inc.	
300B	WLEY-FM	LIC	DCX	135.6	172.96	41 56 03.0	21.000	109.2	54.1	22.5
Aurora		IL		316.6	BLH20170420AAM	88 04 22.0	232	450	Wley Licensing, Inc.	
299D	W299CD	LIC	_C_	292.1	77.80	43 18 55.5	0.160	24.1	15.6	23.4
Richland Center		WI		111.5	BLFT20160419ABB	90 25 34.6		431	Fruit Broadcasting, Llc	
300C	KFMW	LIC	_C_	249.7	202.10	42 24 02.0	100.000	193.3	88.8	39.1
Waterloo		IA		68.1	BLH20031113AIR	91 50 36.0	550	834	Nrg License Sub, Llc	
299A	WLLT	LIC	NCX	182.6	128.88	41 53 51.9	3.000	38.8	25.5	64.2
Polo		IL		2.5	BLH20070806ACL	89 36 19.6	145	371	Sauk Valley Broadcasting C	
300C	WBCV	LIC	_CN	2.0	222.87	45 03 33.0	100.000	176.4	75.1	71.0
Wausau		WI		182.1	BLH19850205KW	89 26 10.0	314	742	Nrg License Sub, Llc	
298A	WDBQ-FM	LIC	_CN	224.4	101.40	42 24 02.0	6.000	2.5	25.1	73.4
Galena		IL		43.8	BMLH19970117KB	90 23 55.0	100	346	Townsquare Media Dubuque L	

Terrain database is FCC 30 meter , 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= East 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.
<** No real interference exists based on U/D study - see attachments

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".

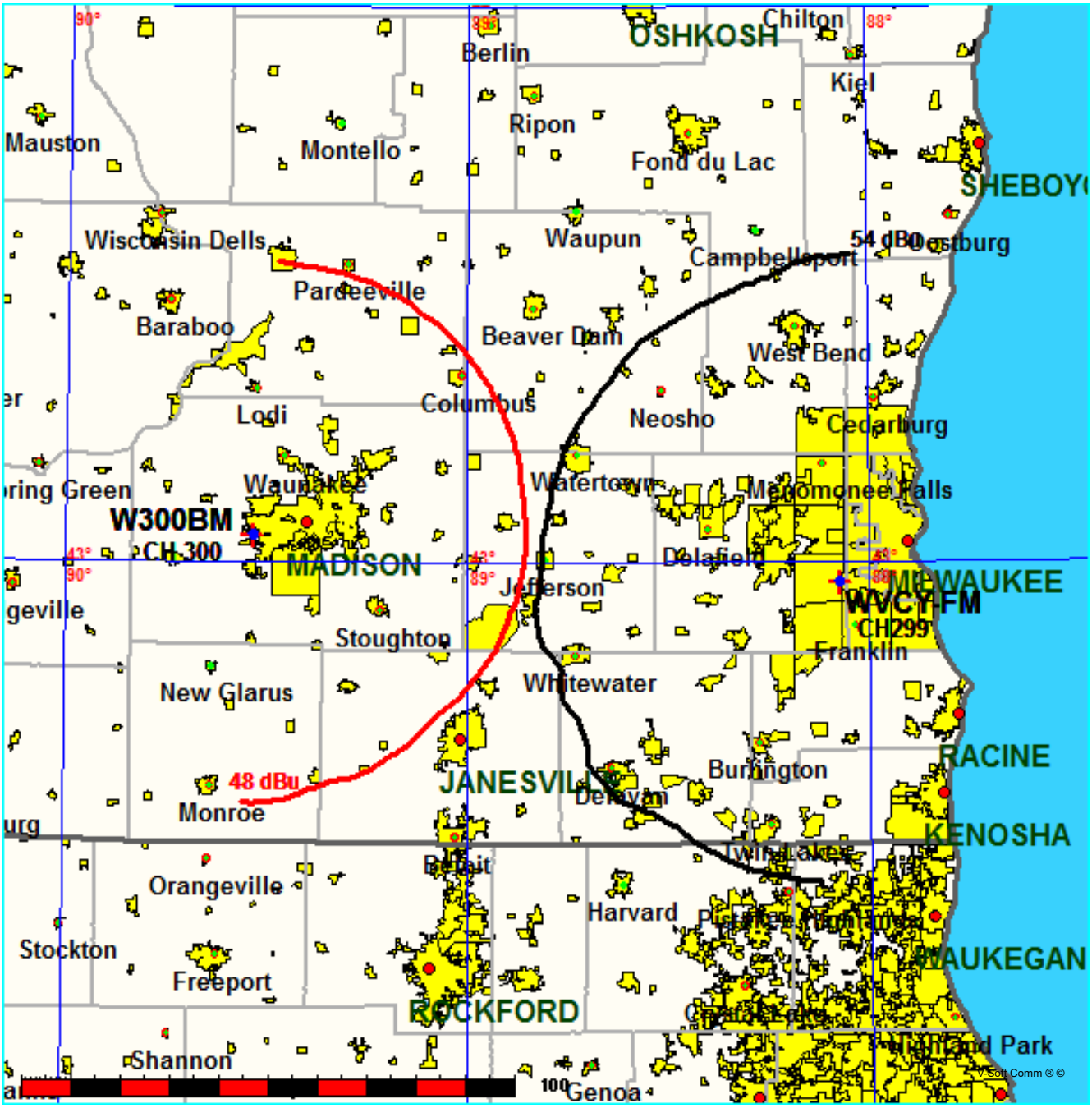
The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. “Z” indicates a 73.215 directional. An “N” indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will 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.

W300BM vs WVCY-FM - Contour-to-Contour
Board Of Regents Of The University Of Wisconsin System

FMCommander Single Allocation Study - 05-10-2017 - FCC 30 meter
W300BM's Overlaps (In= 20.47 km, Out= 3.31 km)

W300BM CH 300 D
Lat= 43 03 21.0, Lng= 89 32 06.0
0.25 kW 385 m HAAT, 684.6 m COR
Prot.= 60 dBu, Intef.= 48 dBu

WVCY-FM CH 299 B DA BMLED20050623AAF
Lat= 42 57 46.0, Lng= 88 04 23.0
43.0 kW 161 m HAAT, 403 m COR
Prot.= 54 dBu, Intef.= 54 dBu



05-10-2017 Terrain Data: FCC 30 meter FMOver Analysis

WVCY-FM BMLED20050623AAF	W300BM
Channel = 299B	Channel = 300D
Max ERP = 43 kW	Max ERP = 0.25 kW
RCAMSL = 403 m	RCAMSL = 684.6 m
N. Lat. 42 57 46.0	N. Lat. 43 03 21.0
W. Lng. 88 04 23.0	W. Lng. 89 32 06.0
Protected	Interfering
54 dBu	48 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
215.0	023.5468	0156.3	058.7	123.9	000.2500	0384.4	103.8	31.29	
216.0	024.3814	0156.3	059.0	124.1	000.2500	0384.1	102.8	31.56	
217.0	025.2305	0155.4	059.2	124.2	000.2500	0383.8	101.7	31.83	
218.0	026.0942	0153.8	059.3	124.2	000.2500	0383.7	100.7	32.11	
219.0	026.9724	0152.3	059.4	124.3	000.2500	0383.6	099.7	32.39	
220.0	027.8651	0151.9	059.7	124.4	000.2500	0383.5	098.6	32.68	
221.0	029.0544	0153.1	060.2	124.6	000.2500	0383.1	097.5	32.97	
222.0	030.2686	0152.8	060.6	124.8	000.2500	0382.8	096.4	33.27	
223.0	031.5076	0151.9	060.8	124.9	000.2500	0382.7	095.4	33.58	
224.0	032.7715	0152.4	061.3	125.0	000.2500	0382.4	094.2	33.91	
225.0	034.0603	0153.5	061.8	125.3	000.2500	0382.0	093.1	34.24	
226.0	035.2181	0153.4	062.1	125.3	000.2500	0381.8	092.0	34.58	
227.0	036.3952	0151.6	062.2	125.3	000.2500	0382.0	090.9	34.92	
228.0	037.5917	0149.4	062.2	125.1	000.2500	0382.2	089.8	35.28	
229.0	038.8075	0147.7	062.3	125.0	000.2500	0382.4	088.8	35.63	
230.0	040.0427	0145.2	062.2	124.9	000.2500	0382.7	087.7	35.99	
231.0	040.6257	0145.1	062.3	124.8	000.2500	0382.9	086.6	36.35	
232.0	041.2130	0145.0	062.5	124.6	000.2500	0383.1	085.5	36.72	
233.0	041.8044	0144.8	062.6	124.5	000.2500	0383.3	084.5	37.09	
234.0	042.4001	0143.0	062.5	124.2	000.2500	0383.9	083.5	37.45	
235.0	043.0000	0142.6	062.5	124.0	000.2500	0384.3	082.4	37.82	
236.0	043.0000	0139.3	062.1	123.4	000.2500	0385.1	081.6	38.14	
237.0	043.0000	0133.1	061.2	122.5	000.2500	0386.7	080.9	38.41	
238.0	043.0000	0129.9	060.7	121.9	000.2500	0387.7	080.1	38.70	
239.0	043.0000	0127.2	060.3	121.3	000.2500	0388.1	079.4	38.98	
240.0	043.0000	0125.6	060.0	120.8	000.2500	0388.4	078.6	39.26	
241.0	043.0000	0126.1	060.1	120.5	000.2500	0388.6	077.6	39.60	
242.0	043.0000	0124.8	059.9	120.0	000.2500	0389.3	076.8	39.90	
243.0	043.0000	0124.2	059.8	119.5	000.2500	0390.2	076.0	40.21	
244.0	043.0000	0122.7	059.6	118.9	000.2500	0391.6	075.2	40.51	
245.0	043.0000	0126.6	060.2	118.8	000.2500	0391.7	074.0	40.92	
246.0	043.0000	0128.6	060.5	118.5	000.2500	0392.5	073.0	41.29	
247.0	043.0000	0128.7	060.5	118.0	000.2500	0393.2	072.1	41.60	
248.0	043.0000	0130.3	060.7	117.7	000.2500	0393.8	071.2	41.96	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
249.0	043.0000	0129.5	060.6	117.0	000.2500	0394.3	070.4	42.22
250.0	043.0000	0127.6	060.3	116.3	000.2500	0394.9	069.8	42.44
251.0	043.0000	0124.6	059.9	115.4	000.2500	0394.1	069.4	42.58
252.0	043.0000	0122.8	059.6	114.6	000.2500	0395.2	068.9	42.79
253.0	043.0000	0119.7	059.1	113.7	000.2500	0397.0	068.5	42.96
254.0	043.0000	0118.5	058.9	113.0	000.2500	0396.8	068.0	43.14
255.0	043.0000	0122.0	059.5	112.6	000.2500	0396.2	066.9	43.50
256.0	043.0000	0125.2	060.0	112.1	000.2500	0395.9	065.9	43.85
257.0	043.0000	0128.1	060.4	111.6	000.2500	0396.5	064.9	44.20
258.0	043.0000	0134.2	061.3	111.3	000.2500	0396.6	063.5	44.68
259.0	043.0000	0135.2	061.5	110.6	000.2500	0396.8	062.8	44.95
260.0	043.0000	0135.9	061.6	109.8	000.2500	0396.6	062.2	45.18
261.0	043.0000	0136.9	061.7	109.0	000.2500	0395.8	061.5	45.40
262.0	043.0000	0137.6	061.8	108.2	000.2500	0396.0	060.9	45.62
263.0	043.0000	0138.4	061.9	107.3	000.2500	0396.2	060.3	45.84
264.0	043.0000	0138.8	062.0	106.4	000.2500	0397.6	059.8	46.06
265.0	043.0000	0139.5	062.1	105.4	000.2500	0398.6	059.3	46.27
266.0	043.0000	0138.7	062.0	104.4	000.2500	0401.9	059.0	46.46
267.0	043.0000	0137.2	061.8	103.4	000.2500	0403.7	058.9	46.55
268.0	043.0000	0133.9	061.3	102.2	000.2500	0404.2	059.1	46.50
269.0	043.0000	0131.1	060.9	101.1	000.2500	0403.5	059.2	46.43
270.0	043.0000	0129.3	060.6	100.1	000.2500	0403.8	059.3	46.42
271.0	043.0000	0129.7	060.6	099.1	000.2500	0404.7	059.0	46.53
272.0	043.0000	0130.4	060.8	098.1	000.2500	0405.8	058.8	46.66
273.0	043.0000	0129.6	060.6	097.0	000.2500	0405.2	058.8	46.64
274.0	043.0000	0129.4	060.6	096.0	000.2500	0405.9	058.7	46.67
275.0	043.0000	0128.6	060.5	095.0	000.2500	0405.4	058.8	46.63
276.0	043.0000	0129.5	060.6	093.9	000.2500	0406.3	058.7	46.70
277.0	043.0000	0130.7	060.8	092.9	000.2500	0406.1	058.5	46.75
278.0	043.0000	0131.1	060.9	091.8	000.2500	0406.5	058.6	46.75
279.0	043.0000	0130.8	060.8	090.8	000.2500	0406.1	058.7	46.68
280.0	043.0000	0130.0	060.7	089.8	000.2500	0406.4	059.0	46.59
281.0	043.0000	0130.2	060.7	088.8	000.2500	0405.9	059.2	46.52
282.0	043.0000	0129.6	060.6	087.8	000.2500	0405.0	059.5	46.38
283.0	043.0000	0129.5	060.6	086.8	000.2500	0404.1	059.7	46.26
284.0	043.0000	0130.3	060.7	085.8	000.2500	0403.7	059.9	46.18
285.0	043.0000	0130.2	060.7	084.9	000.2500	0404.0	060.3	46.06
286.0	043.0000	0131.0	060.8	083.9	000.2500	0405.0	060.5	45.99
287.0	043.0000	0132.2	061.0	082.9	000.2500	0405.5	060.7	45.92
288.0	043.0000	0132.9	061.1	081.9	000.2500	0404.4	061.1	45.77
289.0	043.0000	0133.2	061.2	081.0	000.2500	0405.1	061.5	45.63
290.0	043.0000	0133.4	061.2	080.1	000.2500	0404.8	062.0	45.45
291.0	043.0000	0132.5	061.1	079.3	000.2500	0405.2	062.6	45.23
292.0	043.0000	0132.5	061.1	078.5	000.2500	0407.0	063.2	45.08
293.0	043.0000	0132.9	061.1	077.7	000.2500	0408.6	063.7	44.93
294.0	043.0000	0134.9	061.4	076.8	000.2500	0411.1	064.1	44.86
295.0	043.0000	0136.5	061.7	075.9	000.2500	0411.0	064.6	44.70
296.0	043.0000	0136.1	061.6	075.2	000.2500	0411.4	065.3	44.46
297.0	043.0000	0136.7	061.7	074.4	000.2500	0412.5	065.9	44.27
298.0	043.0000	0137.7	061.8	073.6	000.2500	0412.8	066.5	44.07
299.0	043.0000	0137.6	061.8	073.0	000.2500	0413.6	067.3	43.83

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
300.0	043.0000	0137.6	061.8	072.3	000.2500	0413.6	068.1	43.56
301.0	043.0000	0137.8	061.8	071.7	000.2500	0414.1	068.9	43.31
302.0	043.0000	0137.5	061.8	071.1	000.2500	0414.3	069.7	43.03
303.0	043.0000	0137.0	061.7	070.6	000.2500	0414.0	070.6	42.73
304.0	043.0000	0135.8	061.6	070.2	000.2500	0413.9	071.5	42.40
305.0	043.0000	0134.9	061.4	069.8	000.2500	0414.0	072.5	42.09
306.0	043.0000	0135.2	061.5	069.3	000.2500	0413.6	073.3	41.79
307.0	043.0000	0135.3	061.5	068.8	000.2500	0412.8	074.2	41.47
308.0	043.0000	0136.8	061.7	068.2	000.2500	0412.5	075.0	41.20
309.0	043.0000	0136.3	061.6	067.9	000.2500	0412.0	076.0	40.86
310.0	043.0000	0135.8	061.6	067.5	000.2500	0412.0	076.9	40.53
311.0	043.0000	0135.7	061.6	067.1	000.2500	0411.7	077.9	40.21
312.0	043.0000	0136.0	061.6	066.8	000.2500	0411.8	078.8	39.89
313.0	043.0000	0137.1	061.7	066.3	000.2500	0412.1	079.8	39.60
314.0	043.0000	0139.1	062.0	065.8	000.2500	0412.2	080.6	39.31
315.0	043.0000	0140.2	062.2	065.4	000.2500	0413.2	081.6	39.02
316.0	043.0000	0141.3	062.4	065.1	000.2500	0413.9	082.5	38.72
317.0	043.0000	0142.5	062.5	064.7	000.2500	0415.0	083.5	38.43
318.0	043.0000	0143.0	062.6	064.4	000.2500	0415.6	084.5	38.11
319.0	043.0000	0143.9	062.7	064.1	000.2500	0416.5	085.5	37.80
320.0	043.0000	0144.3	062.8	063.9	000.2500	0416.4	086.6	37.45
321.0	043.0000	0144.2	062.8	063.7	000.2500	0416.2	087.6	37.09
322.0	043.0000	0143.4	062.7	063.6	000.2500	0416.2	088.7	36.73
323.0	043.0000	0142.8	062.6	063.6	000.2500	0416.0	089.8	36.37
324.0	043.0000	0142.4	062.5	063.5	000.2500	0415.9	090.9	36.02
325.0	043.0000	0141.5	062.4	063.4	000.2500	0415.9	092.0	35.67
326.0	043.0000	0141.1	062.3	063.3	000.2500	0415.8	093.1	35.33
327.0	043.0000	0140.8	062.3	063.3	000.2500	0415.7	094.2	34.99
328.0	043.0000	0140.6	062.3	063.2	000.2500	0415.6	095.2	34.66
329.0	043.0000	0140.5	062.2	063.2	000.2500	0415.6	096.3	34.34
330.0	043.0000	0140.4	062.2	063.1	000.2500	0415.5	097.4	34.02
331.0	043.0000	0140.6	062.3	063.1	000.2500	0415.5	098.5	33.71
332.0	043.0000	0140.8	062.3	063.0	000.2500	0415.5	099.6	33.40
333.0	043.0000	0140.7	062.3	063.0	000.2500	0415.4	100.7	33.09
334.0	043.0000	0140.8	062.3	063.0	000.2500	0415.4	101.8	32.79