

Doug Vernier, Telecommunications Consultants
1600 Picturesque Dr., Cedar Falls, IA 50613

Contour-to-Contour Channel Study - WJIT Cross-service
JP BROADCAST CORP.

REFERENCE
18 25 37.2 N.
66 20 20.4 W.

CH# 267D - 101.3 MHz, Pwr= 0.07 kW, HAAT= 1.3 M, COR= 73 M
Average Protected F(50-50)= 5.15 km
Omni-directional

DISPLAY DATES
DATA 05-15-18
SEARCH 05-15-18

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)
264B Bayamon	WXYX	LIC _CX PR		132.8 312.8	22.85 BLH20150721AAJ	18 17 14.4 66 10 48.3	50.000 341	10.3 604	94.5 Raad Broadcasting Corporat	-72.8* <
270B Ponce	WZAR	LIC _CN PR		216.9 36.8	37.89 BMLH19820630AP	18 09 15.0 66 33 15.0	14.000 789	6.9 1274	88.1 Uno Radio Of Ponce, Inc.	-51.4* <
270D San Juan	WZAR-FM3	CP DV_ PR		129.2 309.2	23.42 BNPFTB20180117ACC	18 17 38.0 66 10 01.0	0.500	1.1 550	28.2 Uno Radio Of Ponce, Inc.	-5.3* <
268D San Juan	W268BK	LIC DC_ PR		124.0 304.0	29.17 BLFT20140509AFA	18 16 49.0 66 06 35.0	0.250	32.5 531	16.9 Caguas Educational Tv, Inc	0.2
266D San Juan	W266CF	LIC DV_ PR		124.0 304.0	29.17 BLFT20150427ABN	18 16 49.0 66 06 35.0	0.250	28.7 522	16.9 Aurio A. Matos Barreto	1.7
266B Ponce	WRI O	LIC _CN PR		216.9 36.8	55.46 BLH19860609KA	18 01 40.0 66 39 14.0	50.000 -14	45.3 176	36.1 Arso Radio Corporation	8.9
268B Isabel a	WELX	LIC _CN PR		271.3 91.1	85.26 BLH19920107KA	18 26 36.0 67 08 50.0	50.000 129	62.0 226	45.8 La Equis Broadcasting Corp	16.7
270D Arecibo	WZAR-FM1	CP _C_ PR		279.4 99.2	37.28 BNPFTB20180117ABZ	18 28 52.2 66 41 16.4	2.000	1.8 69	17.5 Uno Radio Of Ponce, Inc.	19.1

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= 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.

Reference station has protected zone issue: Arecibo AM tower

< Protected using U/D ratios - Please see the following 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.

1775176 Sabana, PR, Showing Protection to WXYX
 Geographic Coordinates: N.18 25 37.20 W.66 20 20.40
 74.1204(d) Study - Using FCC 30 meter Terrain Database
 Translator or LPFM Maximum Licensed ERP = 0.07
 Translator or LPFM Antenna Height AG = 58 Meters
 1775176 Antenna Model = SHPX2H

Protected Station's Contour = 87.49388 dBu
 Translator's or LPFM's full Interference contour 127.49388

Review Azimuth = 15 Degrees True
 Relative Field on the horizon at Review Azimuth = 1.000
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.07 kW
 Distance between stations = 22.9 km
 Protected Station= WXYX, 50 kW, 604 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)
00.00	1.0	1.0	0.0700	024.7660	024.7660	058.000
05.00	0.984	1.0	0.0678	024.3697	024.2770	055.876
10.00	0.938	1.0	0.0616	023.2305	022.8775	053.966
15.00	0.865	1.0	0.0524	021.4225	020.6926	052.455
20.00	0.772	1.0	0.0417	019.1193	017.9663	051.461
25.00	0.665	1.0	0.0310	016.4694	014.9263	051.040
30.00	0.553	1.0	0.0214	013.6956	011.8607	051.152
35.00	0.442	1.0	0.0137	010.9466	008.9669	051.721
40.00	0.339	1.0	0.0080	008.3957	006.4314	052.603
45.00	0.248	1.0	0.0043	006.1420	004.3430	053.657
50.00	0.172	1.0	0.0021	004.2597	002.7381	054.737
55.00	0.112	1.0	0.0009	002.7738	001.5910	055.728
60.00	0.068	1.0	0.0003	001.6841	000.8420	056.542
65.00	0.037	1.0	0.0001	000.9163	000.3873	057.170
70.00	0.018	1.0	0.0000	000.4458	000.1525	057.581
75.00	0.007	1.0	0.0000	000.1734	000.0449	057.833
80.00	0.002	1.0	0.0000	000.0495	000.0086	057.951
85.00	0.001	1.0	0.0000	000.0248	000.0022	057.975
90.00	0.0	1.0	0.0000	000.0025	000.0000	057.998

1775176 Sabana, PR, Showing Protection to WZAR
 Geographic Coordinates: N.18 25 37.20 W.66 20 20.40
 74.1204(d) Study - Using FCC 30 meter Terrain Database
 Translator or LPFM Maximum Licensed ERP = 0.07
 Translator or LPFM Antenna Height AG = 58 Meters
 1775176 Antenna Model = SHPX2H

Protected Station's Contour = 75.40182 dBu
 Translator's or LPFM's full Interference contour 115.40182

Review Azimuth = 15 Degrees True
 Relative Field on the horizon at Review Azimuth = 1.000
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.07 kW
 Distance between stations = 37.9 km
 Protected Station= WZAR, 14 kW, 1274 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)
00.00	1.0	1.0	0.0700	099.6456	099.6456	058.000
05.00	0.984	1.0	0.0678	098.0512	097.6781	049.454
10.00	0.938	1.0	0.0616	093.4676	092.0476	041.770
15.00	0.865	1.0	0.0524	086.1934	083.2565	035.692
20.00	0.772	1.0	0.0417	076.9264	072.2872	031.690
25.00	0.665	1.0	0.0310	066.2643	060.0559	029.995
30.00	0.553	1.0	0.0214	055.1040	047.7215	030.448
35.00	0.442	1.0	0.0137	044.0433	036.0782	032.738
40.00	0.339	1.0	0.0080	033.7798	025.8769	036.287
45.00	0.248	1.0	0.0043	024.7121	017.4741	040.526
50.00	0.172	1.0	0.0021	017.1390	011.0168	044.871
55.00	0.112	1.0	0.0009	011.1603	006.4013	048.858
60.00	0.068	1.0	0.0003	006.7759	003.3879	052.132
65.00	0.037	1.0	0.0001	003.6869	001.5581	054.659
70.00	0.018	1.0	0.0000	001.7936	000.6135	056.315
75.00	0.007	1.0	0.0000	000.6975	000.1805	057.326
80.00	0.002	1.0	0.0000	000.1993	000.0346	057.804
85.00	0.001	1.0	0.0000	000.0996	000.0087	057.901
90.00	0.0	1.0	0.0000	000.0100	000.0000	057.990

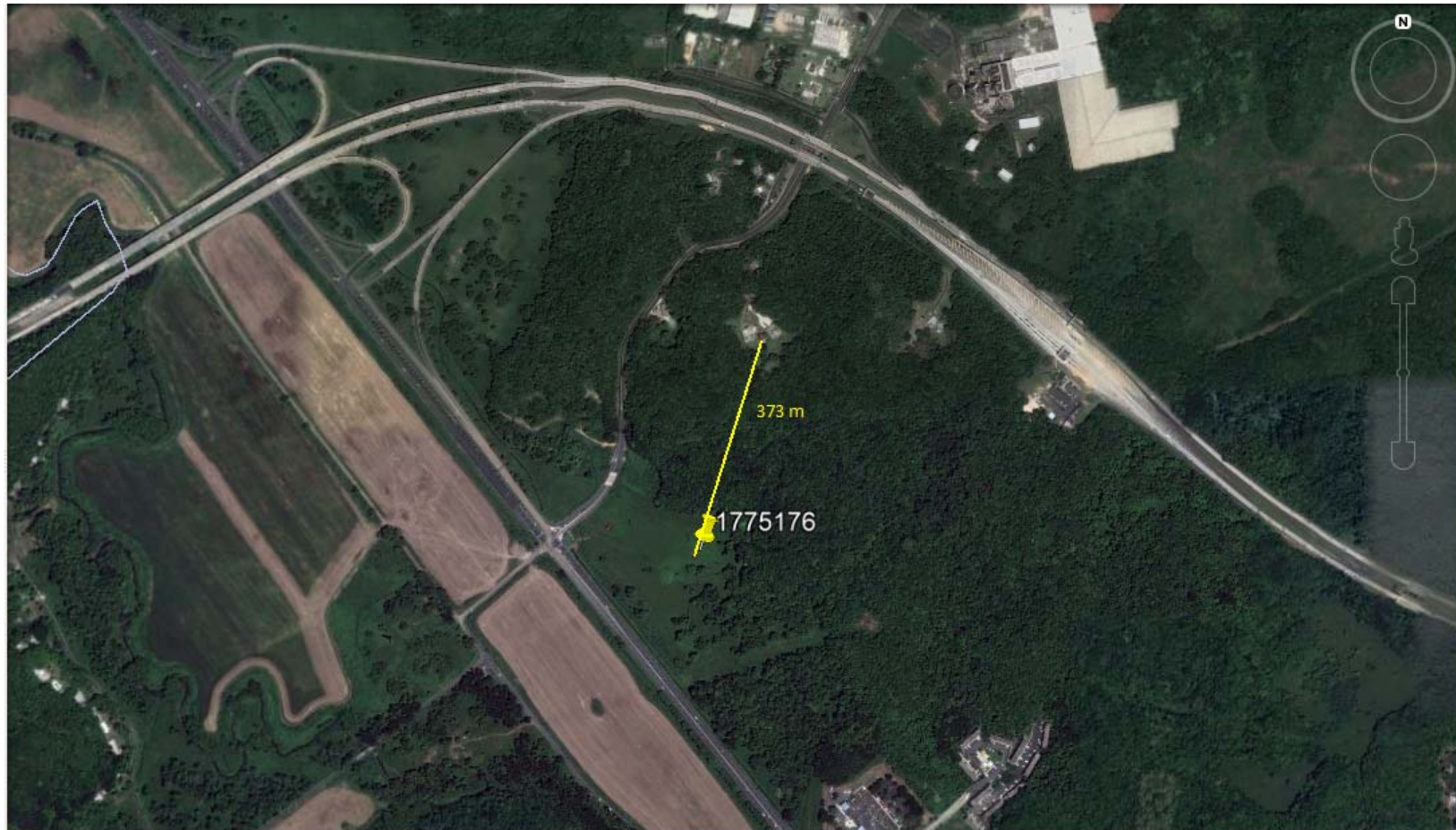
1775176 Sabana, PR, Showing Protection to WZAR-FM3
 Geographic Coordinates: N.18 25 37.20 W.66 20 20.40
 74.1204(d) Study - Using GLOBE 30 SEC Terrain Database
 Translator or LPFM Maximum Licensed ERP = 0.07
 Translator or LPFM Antenna Height AG = 58 Meters
 1775176 Antenna Model = SHPX2H

Protected Station's Contour = 63.28185 dBu
 Translator's or LPFM's full Interference contour 103.28185

Review Azimuth = 15 Degrees True
 Relative Field on the horizon at Review Azimuth = 1.000
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.07 kW
 Distance between stations = 23.4 km
 Protected Station= WZAR-FM3, .5 kW, 550 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)
00.00	1.0	1.0	0.0700	402.2134	402.2134	058.000
05.00	0.984	1.0	0.0678	395.7780	394.2719	023.506
10.00	0.938	1.0	0.0616	377.2762	371.5445	-007.513
15.00	0.865	1.0	0.0524	347.9146	336.0597	-032.047
20.00	0.772	1.0	0.0417	310.5087	291.7828	-048.200
25.00	0.665	1.0	0.0310	267.4719	242.4119	-055.039
30.00	0.553	1.0	0.0214	222.4240	192.6248	-053.212
35.00	0.442	1.0	0.0137	177.7783	145.6275	-043.969
40.00	0.339	1.0	0.0080	136.3503	104.4504	-029.644
45.00	0.248	1.0	0.0043	099.7489	070.5331	-012.533
50.00	0.172	1.0	0.0021	069.1807	044.4685	005.005
55.00	0.112	1.0	0.0009	045.0479	025.8384	021.099
60.00	0.068	1.0	0.0003	027.3505	013.6753	034.314
65.00	0.037	1.0	0.0001	014.8819	006.2894	044.512
70.00	0.018	1.0	0.0000	007.2398	002.4762	051.197
75.00	0.007	1.0	0.0000	002.8155	000.7287	055.280
80.00	0.002	1.0	0.0000	000.8044	000.1397	057.208
85.00	0.001	1.0	0.0000	000.4022	000.0351	057.599
90.00	0.0	1.0	0.0000	000.0402	000.0000	057.960

Satellite view of the proposed Translator site – with distance to the nearest house.



Contour-to-Contour Channel Study - Proposed vs W268BK
JP BROADCAST CORP.

FMCommander Single Allocation Study - 05-15-2018 - GLOBE 30 Sec
1775176's Overlaps (In= -6.98 km, Out= 0.18 km)

1775176 CH 267 D

Lat= 18 25 37.2, Lng= 66 20 20.4

0.07 kW 1.3 m HAAT, 73 m COR

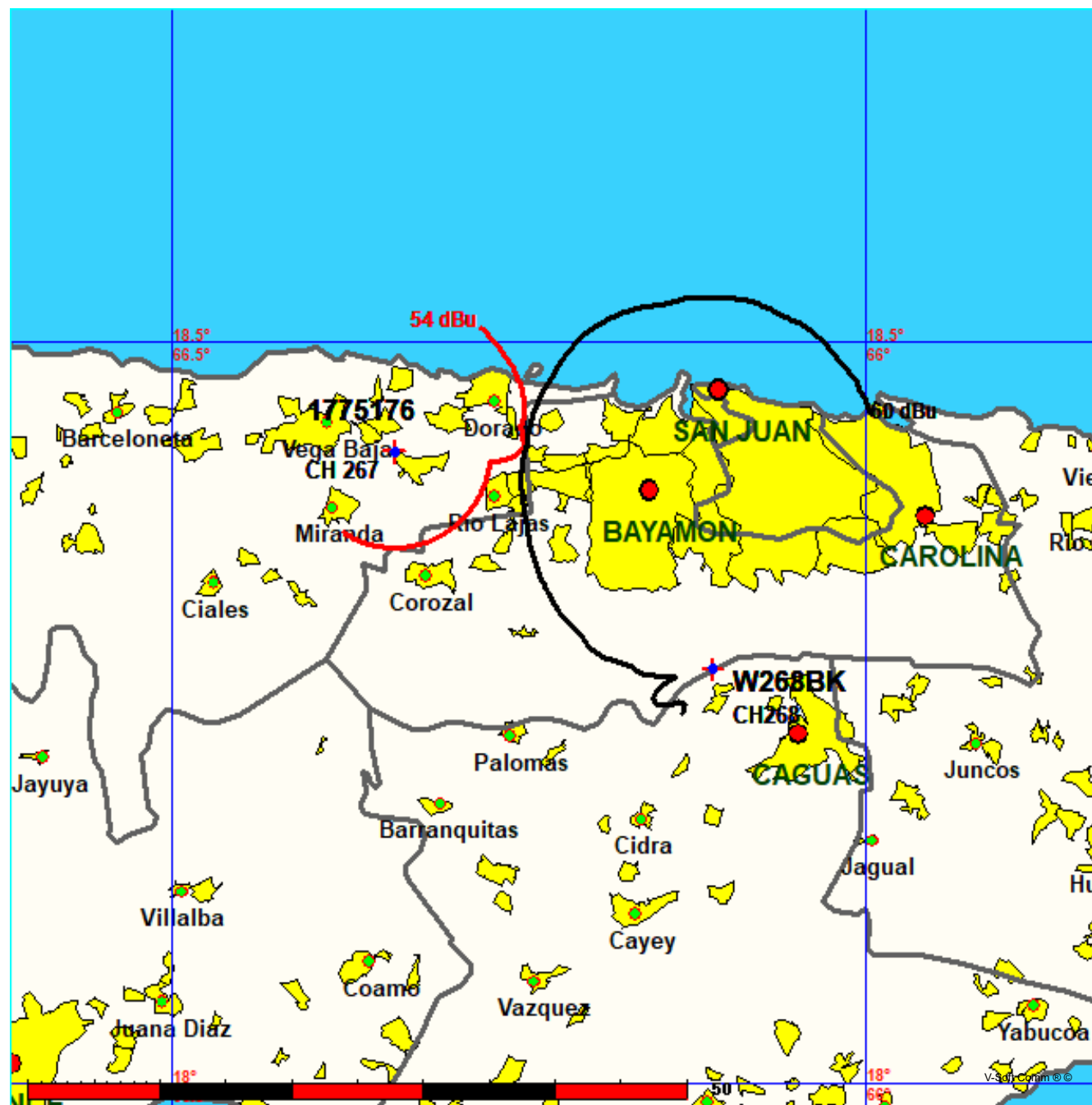
Prot.= 60 dBu, Intef.= 54 dBu

W268BK CH 268 D DA BLFT20140509AFA

Lat= 18 16 49.0, Lng= 66 06 35.0

0.25 kW 0 m HAAT, 531 m COR

Prot.= 60 dBu, Intef.= 54 dBu



05-15-2018

Terrain Data: GLOBE 30 Sec

FMOver Analysis

W268BK BLFT20140509AFA

1775176

Channel = 268D

Max ERP = 0.25 kW

RCAMSL = 531 m

N. Lat. 18 16 49.0

W. Lng. 66 06 35.0

Protected

60 dBu

Channel = 267D

Max ERP = 0.07 kW

RCAMSL = 73 m

N. Lat. 18 25 37.2

W. Lng. 66 20 20.4

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
244.0	000.0023	0165.0	005.1	133.3	000.0700	-0027.7	027.0	32.34	
245.0	000.0024	0157.3	005.0	133.1	000.0700	-0026.1	027.0	32.37	
246.0	000.0024	0148.1	004.9	132.8	000.0700	-0024.1	026.9	32.39	
247.0	000.0024	0138.1	004.7	132.4	000.0700	-0021.4	026.9	32.39	
248.0	000.0024	0126.9	004.5	131.9	000.0700	-0018.5	026.9	32.38	
249.0	000.0024	0116.6	004.3	131.5	000.0700	-0016.2	026.9	32.38	
250.0	000.0024	0107.8	004.2	131.2	000.0700	-0014.2	026.9	32.38	
251.0	000.0024	0100.6	004.0	130.8	000.0700	-0012.3	026.9	32.37	
252.0	000.0024	0092.4	003.9	130.4	000.0700	-0010.6	027.0	32.36	
253.0	000.0024	0082.7	003.7	130.0	000.0700	-0009.1	027.0	32.32	
254.0	000.0024	0071.8	003.4	129.5	000.0700	-0008.2	027.1	32.27	
255.0	000.0024	0061.2	003.2	129.0	000.0700	-0007.6	027.2	32.22	
256.0	000.0024	0054.5	003.0	128.7	000.0700	-0007.3	027.3	32.18	
257.0	000.0025	0053.7	003.0	128.6	000.0700	-0007.2	027.2	32.22	
258.0	000.0027	0058.0	003.2	128.8	000.0700	-0007.4	027.1	32.30	
259.0	000.0028	0065.9	003.4	129.1	000.0700	-0007.7	026.9	32.42	
260.0	000.0030	0075.3	003.7	129.5	000.0700	-0008.2	026.7	32.55	
261.0	000.0031	0085.5	004.0	129.8	000.0700	-0008.8	026.4	32.70	
262.0	000.0033	0098.0	004.3	130.3	000.0700	-0010.1	026.1	32.88	
263.0	000.0034	0111.0	004.7	130.8	000.0700	-0012.0	025.8	33.06	
264.0	000.0036	0123.2	005.0	131.1	000.0700	-0013.9	025.6	33.23	
265.0	000.0037	0136.4	005.3	131.5	000.0700	-0016.0	025.3	33.41	
266.0	000.0039	0148.1	005.6	131.8	000.0700	-0017.9	025.0	33.59	
267.0	000.0041	0148.3	005.6	131.8	000.0700	-0017.9	024.9	33.68	
268.0	000.0044	0150.7	005.8	131.9	000.0700	-0018.2	024.7	33.79	
269.0	000.0047	0153.2	005.9	131.9	000.0700	-0018.4	024.6	33.91	
270.0	000.0049	0155.9	006.0	131.9	000.0700	-0018.6	024.4	34.02	
271.0	000.0052	0165.4	006.3	132.2	000.0700	-0020.1	024.1	34.21	
272.0	000.0055	0182.5	006.7	132.6	000.0700	-0022.8	023.8	34.47	
273.0	000.0057	0199.6	007.1	132.9	000.0700	-0025.1	023.4	34.72	
274.0	000.0060	0217.0	007.5	133.3	000.0700	-0027.6	023.0	35.01	
275.0	000.0063	0238.5	008.0	133.8	000.0700	-0030.7	022.5	35.35	
276.0	000.0066	0256.5	008.4	134.2	000.0700	-0033.2	022.1	35.65	
277.0	000.0072	0272.8	008.9	134.7	000.0700	-0036.0	021.7	36.01	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
278.0	000.0078	0286.7	009.3	135.0	000.0700	-0038.2	021.2	36.34
279.0	000.0084	0291.2	009.5	135.1	000.0700	-0038.6	020.9	36.58
280.0	000.0091	0290.0	009.7	135.0	000.0700	-0038.0	020.7	36.76
281.0	000.0098	0286.4	009.8	134.8	000.0700	-0036.6	020.5	36.91
282.0	000.0104	0283.0	010.0	134.6	000.0700	-0035.3	020.3	37.07
283.0	000.0112	0284.5	010.2	134.4	000.0700	-0034.6	020.0	37.27
284.0	000.0119	0291.2	010.4	134.4	000.0700	-0034.5	019.7	37.54
285.0	000.0127	0299.2	010.7	134.4	000.0700	-0034.3	019.3	37.83
286.0	000.0135	0310.1	011.1	134.4	000.0700	-0034.3	018.9	38.15
287.0	000.0145	0321.3	011.5	134.4	000.0700	-0034.6	018.5	38.51
288.0	000.0156	0330.8	011.9	134.4	000.0700	-0034.3	018.1	38.86
289.0	000.0167	0337.5	012.2	134.2	000.0700	-0033.4	017.7	39.18
290.0	000.0178	0343.4	012.5	134.0	000.0700	-0031.9	017.3	39.48
291.0	000.0190	0348.2	012.8	133.7	000.0700	-0030.1	017.0	39.78
292.0	000.0202	0353.6	013.1	133.4	000.0700	-0028.0	016.6	40.08
293.0	000.0214	0358.9	013.4	133.0	000.0700	-0025.5	016.3	40.37
294.0	000.0227	0364.6	013.6	132.5	000.0700	-0022.6	015.9	40.67
295.0	000.0241	0371.6	014.0	132.0	000.0700	-0019.4	015.6	40.99
296.0	000.0254	0380.0	014.3	131.5	000.0700	-0016.1	015.2	41.33
297.0	000.0272	0388.1	014.7	130.9	000.0700	-0012.9	014.7	41.75
298.0	000.0290	0394.0	015.0	130.3	000.0700	-0009.9	014.4	42.21
299.0	000.0309	0397.9	015.3	129.5	000.0700	-0008.2	014.0	42.66
300.0	000.0329	0401.4	015.6	128.6	000.0700	-0007.2	013.6	43.11
301.0	000.0349	0405.3	015.9	127.6	000.0700	-0006.5	013.3	43.57
302.0	000.0369	0409.4	016.3	126.5	000.0700	-0005.5	012.9	44.06
303.0	000.0391	0413.0	016.6	125.3	000.0700	-0003.8	012.6	44.52
304.0	000.0412	0415.6	016.9	124.0	000.0700	-0002.5	012.3	44.96
305.0	000.0435	0417.4	017.1	122.6	000.0700	-0002.4	012.1	45.35
306.0	000.0458	0418.6	017.4	121.1	000.0700	-0003.7	011.8	45.71
307.0	000.0492	0420.0	017.7	119.4	000.0700	-0004.0	011.5	46.20
308.0	000.0526	0421.9	018.1	117.5	000.0700	0000.9	011.2	46.68
309.0	000.0562	0424.5	018.4	115.5	000.0700	0009.1	010.9	47.14
310.0	000.0599	0428.1	018.8	113.4	000.0700	0016.1	010.7	47.61
311.0	000.0638	0432.0	019.2	111.0	000.0700	0016.8	010.4	48.04
312.0	000.0677	0436.1	019.6	108.5	000.0700	0010.3	010.2	48.44
313.0	000.0718	0439.9	019.9	105.8	000.0700	0009.7	010.0	48.76
314.0	000.0760	0443.4	020.3	103.0	000.0700	0019.5	009.8	49.02
315.0	000.0803	0445.7	020.6	100.2	000.0700	0020.7	009.8	49.17
316.0	000.0847	0447.0	020.9	097.4	000.0700	0024.1	009.7	49.21
317.0	000.0896	0447.2	021.2	094.6	000.0700	0041.0	009.7	51.80
318.0	000.0946	0446.8	021.5	092.0	000.0700	0047.5	009.8	53.04
319.0	000.0997	0446.1	021.8	089.3	000.0700	0051.6	009.9	53.64
320.0	000.1050	0445.8	022.0	086.8	000.0700	0053.2	010.0	53.69
321.0	000.1104	0447.1	022.3	084.1	000.0700	0052.4	010.2	53.30
322.0	000.1159	0449.0	022.7	081.4	000.0700	0052.3	010.3	52.98
323.0	000.1216	0451.3	023.0	078.9	000.0700	0052.6	010.5	52.70
324.0	000.1274	0453.9	023.3	076.3	000.0700	0055.1	010.8	52.72
325.0	000.1334	0456.4	023.6	074.0	000.0700	0056.7	011.0	52.53
326.0	000.1395	0458.4	024.0	071.8	000.0700	0058.2	011.4	52.26
327.0	000.1444	0460.0	024.2	070.1	000.0700	0059.5	011.7	51.88
328.0	000.1495	0461.3	024.4	068.6	000.0700	0060.6	012.1	51.46

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
329.0	000.1546	0462.6	024.7	067.1	000.0700	0061.6	012.4	51.01
330.0	000.1598	0464.1	024.9	065.8	000.0700	0062.6	012.8	50.55
331.0	000.1650	0466.1	025.2	064.5	000.0700	0063.4	013.3	50.06
332.0	000.1704	0467.9	025.4	063.4	000.0700	0063.9	013.7	49.55
333.0	000.1759	0469.3	025.7	062.4	000.0700	0064.2	014.1	49.01
334.0	000.1814	0470.4	025.9	061.5	000.0700	0064.4	014.6	48.47
335.0	000.1870	0471.8	026.1	060.7	000.0700	0064.5	015.1	48.20
336.0	000.1927	0474.0	026.4	059.9	000.0700	0064.7	015.5	47.79
337.0	000.1965	0476.4	026.6	059.4	000.0700	0064.8	016.0	47.39
338.0	000.2003	0478.2	026.8	059.0	000.0700	0064.9	016.5	46.98
339.0	000.2042	0479.2	026.9	058.7	000.0700	0065.0	017.0	46.57
340.0	000.2081	0479.7	027.1	058.5	000.0700	0065.1	017.5	46.15
341.0	000.2121	0479.8	027.2	058.5	000.0700	0065.1	018.0	45.74
342.0	000.2160	0479.1	027.3	058.5	000.0700	0065.1	018.5	45.33
343.0	000.2201	0477.8	027.4	058.6	000.0700	0065.1	018.9	44.91
344.0	000.2241	0475.9	027.4	058.8	000.0700	0065.0	019.4	44.51
345.0	000.2282	0473.9	027.5	059.0	000.0700	0064.9	019.9	44.10
346.0	000.2323	0472.0	027.5	059.2	000.0700	0064.9	020.4	43.70
347.0	000.2341	0471.0	027.6	059.6	000.0700	0064.7	020.8	43.31
348.0	000.2358	0470.1	027.6	059.9	000.0700	0064.6	021.3	42.92
349.0	000.2376	0468.3	027.6	060.3	000.0700	0064.5	021.8	42.55
350.0	000.2393	0466.2	027.6	060.8	000.0700	0064.5	022.2	42.19
351.0	000.2411	0464.2	027.5	061.2	000.0700	0064.4	022.7	41.83
352.0	000.2429	0463.3	027.6	061.6	000.0700	0064.3	023.1	41.47
353.0	000.2446	0463.7	027.6	061.9	000.0700	0064.3	023.6	41.11
354.0	000.2464	0464.2	027.7	062.2	000.0700	0064.2	024.1	40.75
355.0	000.2482	0464.7	027.8	062.4	000.0700	0064.2	024.5	40.40
356.0	000.2500	0464.8	027.8	062.8	000.0700	0064.1	025.0	40.06
357.0	000.2482	0465.0	027.8	063.3	000.0700	0063.9	025.4	39.74
358.0	000.2464	0465.3	027.7	063.8	000.0700	0063.7	025.9	39.42
359.0	000.2446	0466.5	027.7	064.3	000.0700	0063.5	026.3	39.09
000.0	000.2429	0468.5	027.7	064.7	000.0700	0063.3	026.7	38.77
001.0	000.2411	0470.4	027.7	065.1	000.0700	0063.0	027.2	38.45
002.0	000.2393	0472.4	027.8	065.5	000.0700	0062.8	027.6	38.14
003.0	000.2376	0474.4	027.8	065.9	000.0700	0062.5	028.1	37.83

Contour-to-Contour Channel Study - Proposed vs W266CF
JP BROADCAST CORP.

FMCommander Single Allocation Study - 05-15-2018 - GLOBE 30 Sec
1775176's Overlaps (In= -4.75 km, Out= 1.73 km)

1775176 CH 267 D

Lat= 18 25 37.2, Lng= 66 20 20.4

0.07 kW 1.3 m HAAT, 73 m COR

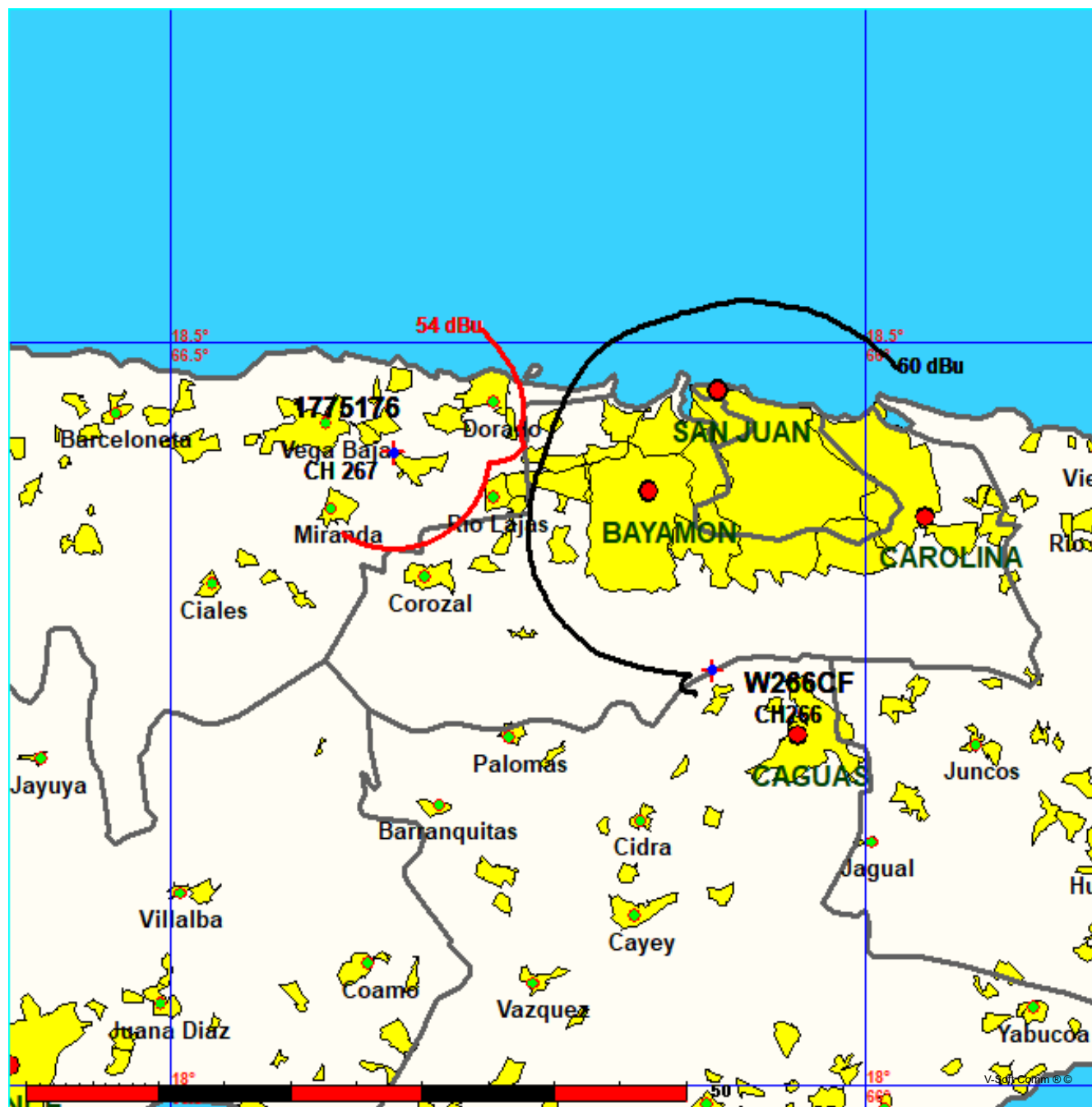
Prot.= 60 dBu, Intef.= 54 dBu

W266CF CH 266 D DA BLFT20150427ABN

Lat= 18 16 49.0, Lng= 66 06 35.0

0.25 kW 0 m HAAT, 522 m COR

Prot.= 60 dBu, Intef.= 54 dBu



05-15-2018

Terrain Data: GLOBE 30 Sec

FMOver Analysis

W266CF BLFT20150427ABN

1775176

Channel = 266D

Max ERP = 0.25 kW

RCAMSL = 522 m

N. Lat. 18 16 49.0

W. Lng. 66 06 35.0

Protected

60 dBu

Channel = 267D

Max ERP = 0.07 kW

RCAMSL = 73 m

N. Lat. 18 25 37.2

W. Lng. 66 20 20.4

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
244.0	000.0003	0156.0	002.7	128.8	000.0700	-0007.3	027.9	31.80	
245.0	000.0003	0148.3	002.7	128.6	000.0700	-0007.2	027.9	31.81	
246.0	000.0003	0139.1	002.6	128.5	000.0700	-0007.1	027.9	31.82	
247.0	000.0003	0129.1	002.5	128.3	000.0700	-0007.0	027.9	31.82	
248.0	000.0003	0117.9	002.5	128.1	000.0700	-0006.9	027.9	31.82	
249.0	000.0003	0107.6	002.4	128.0	000.0700	-0006.8	027.9	31.82	
250.0	000.0003	0098.8	002.3	127.8	000.0700	-0006.7	027.9	31.82	
251.0	000.0003	0091.6	002.2	127.6	000.0700	-0006.5	027.9	31.82	
252.0	000.0003	0083.4	002.2	127.5	000.0700	-0006.4	027.9	31.81	
253.0	000.0003	0073.7	002.1	127.3	000.0700	-0006.3	027.9	31.80	
254.0	000.0003	0062.8	002.0	127.1	000.0700	-0006.2	028.0	31.78	
255.0	000.0003	0052.2	001.8	126.8	000.0700	-0005.9	028.0	31.75	
256.0	000.0003	0045.5	001.7	126.6	000.0700	-0005.6	028.1	31.73	
257.0	000.0004	0044.7	001.7	126.6	000.0700	-0005.5	028.0	31.74	
258.0	000.0004	0049.0	001.9	126.7	000.0700	-0005.7	027.9	31.80	
259.0	000.0004	0056.9	002.0	126.9	000.0700	-0006.0	027.8	31.88	
260.0	000.0004	0066.3	002.2	127.1	000.0700	-0006.2	027.7	31.95	
261.0	000.0005	0076.5	002.3	127.2	000.0700	-0006.3	027.5	32.02	
262.0	000.0005	0089.0	002.5	127.4	000.0700	-0006.4	027.4	32.10	
263.0	000.0005	0102.0	002.6	127.6	000.0700	-0006.5	027.2	32.19	
264.0	000.0005	0114.2	002.8	127.8	000.0700	-0006.6	027.1	32.28	
265.0	000.0006	0127.4	002.9	127.9	000.0700	-0006.7	027.0	32.37	
266.0	000.0008	0139.1	003.4	128.4	000.0700	-0007.1	026.6	32.58	
267.0	000.0010	0139.3	003.7	128.8	000.0700	-0007.3	026.3	32.74	
268.0	000.0013	0141.7	004.0	129.1	000.0700	-0007.6	026.1	32.91	
269.0	000.0016	0144.2	004.3	129.4	000.0700	-0008.1	025.8	33.09	
270.0	000.0020	0146.9	004.6	129.7	000.0700	-0008.5	025.5	33.26	
271.0	000.0023	0156.4	005.0	130.1	000.0700	-0009.5	025.2	33.51	
272.0	000.0028	0173.5	005.5	130.7	000.0700	-0011.8	024.7	33.81	
273.0	000.0032	0190.6	005.9	131.2	000.0700	-0014.3	024.3	34.10	
274.0	000.0037	0208.0	006.4	131.7	000.0700	-0017.1	023.8	34.41	
275.0	000.0042	0229.5	007.0	132.3	000.0700	-0021.1	023.3	34.78	
276.0	000.0050	0247.5	007.6	133.0	000.0700	-0025.6	022.7	35.20	
277.0	000.0059	0263.8	008.2	133.7	000.0700	-0029.8	022.2	35.63	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
278.0	000.0069	0277.7	008.8	134.3	000.0700	-0033.6	021.6	36.05
279.0	000.0079	0282.2	009.2	134.6	000.0700	-0035.5	021.2	36.38
280.0	000.0090	0281.0	009.5	134.7	000.0700	-0036.2	020.8	36.65
281.0	000.0101	0277.4	009.8	134.7	000.0700	-0036.1	020.5	36.88
282.0	000.0114	0274.0	010.0	134.6	000.0700	-0035.8	020.3	37.10
283.0	000.0127	0275.5	010.3	134.7	000.0700	-0036.0	019.9	37.38
284.0	000.0141	0282.2	010.7	134.8	000.0700	-0036.9	019.5	37.73
285.0	000.0155	0290.2	011.1	135.0	000.0700	-0037.8	019.0	38.10
286.0	000.0166	0301.1	011.5	135.0	000.0700	-0038.3	018.6	38.46
287.0	000.0178	0312.3	011.9	135.1	000.0700	-0038.5	018.1	38.83
288.0	000.0190	0321.8	012.3	135.0	000.0700	-0038.2	017.7	39.18
289.0	000.0203	0328.5	012.6	134.8	000.0700	-0037.1	017.3	39.50
290.0	000.0216	0334.4	012.9	134.6	000.0700	-0035.7	016.9	39.81
291.0	000.0230	0339.2	013.2	134.3	000.0700	-0033.7	016.6	40.11
292.0	000.0243	0344.6	013.5	133.9	000.0700	-0031.4	016.2	40.41
293.0	000.0258	0349.9	013.8	133.5	000.0700	-0028.9	015.9	40.72
294.0	000.0272	0355.6	014.1	133.1	000.0700	-0025.9	015.5	41.03
295.0	000.0287	0362.6	014.4	132.5	000.0700	-0022.7	015.1	41.36
296.0	000.0302	0371.0	014.7	132.0	000.0700	-0019.0	014.7	41.77
297.0	000.0318	0379.1	015.1	131.3	000.0700	-0015.2	014.3	42.23
298.0	000.0333	0385.0	015.4	130.6	000.0700	-0011.2	014.0	42.66
299.0	000.0349	0388.9	015.6	129.7	000.0700	-0008.6	013.7	43.05
300.0	000.0366	0392.4	015.9	128.7	000.0700	-0007.3	013.4	43.45
301.0	000.0383	0396.3	016.1	127.7	000.0700	-0006.6	013.1	43.86
302.0	000.0400	0400.4	016.4	126.6	000.0700	-0005.5	012.8	44.28
303.0	000.0417	0404.0	016.7	125.3	000.0700	-0003.8	012.5	44.68
304.0	000.0435	0406.6	016.9	124.0	000.0700	-0002.5	012.3	45.04
305.0	000.0454	0408.4	017.1	122.6	000.0700	-0002.4	012.1	45.36
306.0	000.0470	0409.6	017.3	121.1	000.0700	-0003.7	011.9	45.60
307.0	000.0486	0411.0	017.5	119.5	000.0700	-0004.1	011.7	45.83
308.0	000.0503	0412.9	017.7	117.9	000.0700	-0000.3	011.6	46.06
309.0	000.0520	0415.5	017.9	116.2	000.0700	0006.4	011.5	46.28
310.0	000.0537	0419.1	018.1	114.4	000.0700	0013.4	011.3	46.50
311.0	000.0555	0423.0	018.3	112.5	000.0700	0017.5	011.2	46.71
312.0	000.0572	0427.1	018.6	110.5	000.0700	0015.9	011.1	46.89
313.0	000.0590	0430.9	018.8	108.5	000.0700	0010.4	011.0	47.02
314.0	000.0609	0434.4	019.0	106.4	000.0700	0008.4	011.0	47.11
315.0	000.0628	0436.7	019.2	104.4	000.0700	0014.0	010.9	47.12
316.0	000.0654	0438.0	019.4	102.3	000.0700	0021.4	010.9	47.15
317.0	000.0682	0438.2	019.7	100.2	000.0700	0020.7	011.0	47.10
318.0	000.0710	0437.8	019.8	098.2	000.0700	0021.3	011.0	46.99
319.0	000.0738	0437.1	020.0	096.2	000.0700	0031.8	011.1	47.29
320.0	000.0767	0436.8	020.2	094.3	000.0700	0042.3	011.2	49.53
321.0	000.0797	0438.1	020.4	092.2	000.0700	0047.5	011.3	50.45
322.0	000.0827	0440.0	020.7	090.2	000.0700	0050.2	011.5	50.75
323.0	000.0858	0442.3	020.9	088.2	000.0700	0053.6	011.6	51.11
324.0	000.0889	0444.9	021.1	086.2	000.0700	0052.9	011.8	50.73
325.0	000.0921	0447.4	021.4	084.2	000.0700	0052.4	012.0	50.34
326.0	000.0967	0449.4	021.7	082.1	000.0700	0052.3	012.2	50.04
327.0	000.1014	0451.0	022.0	080.1	000.0700	0052.2	012.4	49.68
328.0	000.1063	0452.3	022.3	078.3	000.0700	0053.1	012.6	49.47

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
329.0	000.1112	0453.6	022.5	076.5	000.0700	0054.9	012.9	49.37
330.0	000.1163	0455.1	022.8	074.8	000.0700	0056.2	013.2	49.14
331.0	000.1215	0457.1	023.1	073.2	000.0700	0057.2	013.5	48.86
332.0	000.1267	0458.9	023.4	071.7	000.0700	0058.3	013.9	48.56
333.0	000.1321	0460.3	023.7	070.3	000.0700	0059.3	014.3	48.24
334.0	000.1376	0461.4	024.0	069.1	000.0700	0060.2	014.6	47.89
335.0	000.1433	0462.8	024.2	067.9	000.0700	0061.0	015.0	47.79
336.0	000.1475	0465.0	024.5	067.0	000.0700	0061.7	015.5	47.51
337.0	000.1518	0467.4	024.7	066.1	000.0700	0062.4	015.9	47.21
338.0	000.1561	0469.2	024.9	065.4	000.0700	0062.9	016.3	46.89
339.0	000.1606	0470.2	025.1	064.8	000.0700	0063.2	016.8	46.54
340.0	000.1650	0470.7	025.3	064.3	000.0700	0063.5	017.2	46.18
341.0	000.1696	0470.8	025.5	063.9	000.0700	0063.7	017.7	45.81
342.0	000.1742	0470.1	025.6	063.6	000.0700	0063.8	018.1	45.43
343.0	000.1788	0468.8	025.8	063.4	000.0700	0063.9	018.6	45.05
344.0	000.1836	0466.9	025.9	063.4	000.0700	0063.9	019.1	44.66
345.0	000.1884	0464.9	026.0	063.3	000.0700	0063.9	019.5	44.28
346.0	000.1917	0463.0	026.0	063.4	000.0700	0063.9	020.0	43.90
347.0	000.1951	0462.0	026.1	063.5	000.0700	0063.8	020.4	43.52
348.0	000.1985	0461.1	026.2	063.6	000.0700	0063.8	020.9	43.14
349.0	000.2020	0459.3	026.2	063.8	000.0700	0063.7	021.4	42.76
350.0	000.2054	0457.2	026.3	064.0	000.0700	0063.7	021.8	42.39
351.0	000.2089	0455.2	026.3	064.2	000.0700	0063.5	022.3	42.02
352.0	000.2125	0454.3	026.4	064.3	000.0700	0063.5	022.7	41.65
353.0	000.2160	0454.7	026.5	064.4	000.0700	0063.4	023.2	41.28
354.0	000.2196	0455.2	026.6	064.5	000.0700	0063.4	023.7	40.92
355.0	000.2233	0455.7	026.8	064.6	000.0700	0063.3	024.2	40.56
356.0	000.2253	0455.8	026.8	064.9	000.0700	0063.2	024.6	40.20
357.0	000.2274	0456.0	026.9	065.1	000.0700	0063.0	025.1	39.86
358.0	000.2295	0456.3	027.0	065.4	000.0700	0062.9	025.6	39.52
359.0	000.2316	0457.5	027.1	065.6	000.0700	0062.8	026.0	39.17
000.0	000.2338	0459.5	027.2	065.7	000.0700	0062.6	026.5	38.84
001.0	000.2359	0461.4	027.3	065.9	000.0700	0062.5	027.0	38.50
002.0	000.2380	0463.4	027.4	066.1	000.0700	0062.4	027.5	38.17
003.0	000.2402	0465.4	027.6	066.3	000.0700	0062.2	028.0	37.85

Contour-to-Contour Channel Study - Proposed vs WRIO
JP BROADCAST CORP.

FMCommander Single Allocation Study - 05-15-2018 - GLOBE 30 Sec
1775176's Overlaps (In= 4.99 km, Out= 8.92 km)

1775176 CH 267 D

Lat= 18 25 37.2, Lng= 66 20 20.4

0.07 kW 1.3 m HAAT, 73 m COR

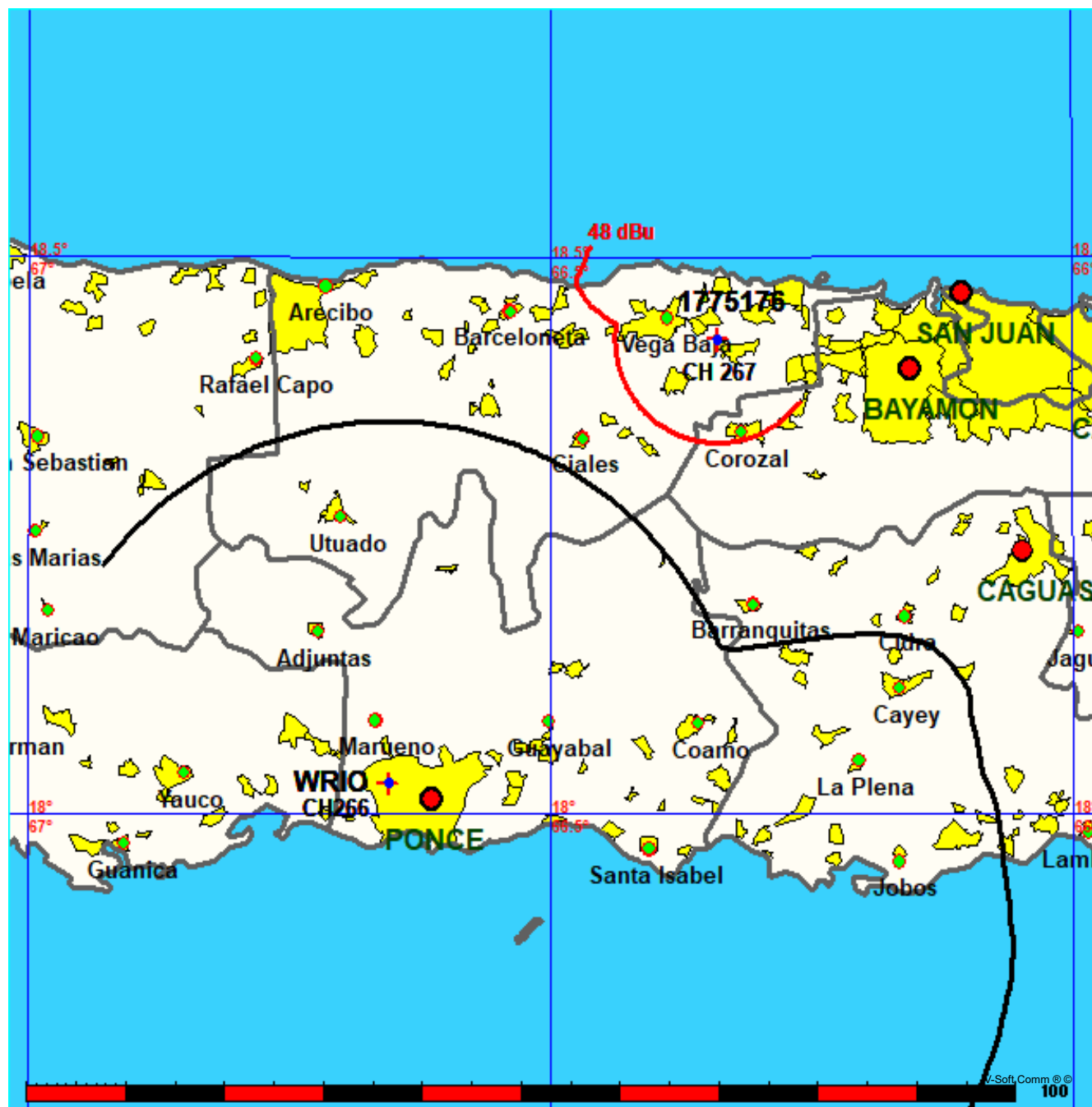
Prot.= 54 dBu, Intef.= 48 dBu

WRIO CH 266 B BLH19860609KA

Lat= 18 01 40.0, Lng= 66 39 14.0

50.0 kW -14 m HAAT, 176 m COR

Prot.= 54 dBu, Intef.= 54 dBu



05-16-2018

Terrain Data: GLOBE 30 Sec

FMOver Analysis

WRIO BLH19860609KA

1775176

Channel = 266B

Max ERP = 50 kW

RCAMSL = 176 m

N. Lat. 18 01 40.0

W. Lng. 66 39 14.0

Protected

54 dBu

Channel = 267D

Max ERP = 0.07 kW

RCAMSL = 73 m

N. Lat. 18 25 37.2

W. Lng. 66 20 20.4

Interfering

48 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
337.0	050.0000	-0376.8	036.1	256.8	000.0700	-0052.9	048.6	24.69	
338.0	050.0000	-0389.1	036.1	256.9	000.0700	-0052.6	048.0	24.82	
339.0	050.0000	-0399.1	036.1	257.1	000.0700	-0052.3	047.4	24.96	
340.0	050.0000	-0406.4	036.1	257.2	000.0700	-0052.1	046.8	25.11	
341.0	050.0000	-0412.0	036.1	257.2	000.0700	-0051.8	046.1	25.26	
342.0	050.0000	-0416.8	036.1	257.3	000.0700	-0051.5	045.5	25.41	
343.0	050.0000	-0420.8	036.1	257.4	000.0700	-0051.3	044.9	25.58	
344.0	050.0000	-0420.3	036.1	257.4	000.0700	-0051.1	044.2	25.74	
345.0	050.0000	-0413.7	036.1	257.5	000.0700	-0051.0	043.6	25.91	
346.0	050.0000	-0403.9	036.1	257.5	000.0700	-0050.9	043.0	26.09	
347.0	050.0000	-0390.5	036.1	257.5	000.0700	-0050.8	042.4	26.27	
348.0	050.0000	-0376.9	036.1	257.5	000.0700	-0050.8	041.7	26.45	
349.0	050.0000	-0363.0	036.1	257.5	000.0700	-0050.9	041.1	26.64	
350.0	050.0000	-0346.2	036.1	257.5	000.0700	-0051.0	040.5	26.84	
351.0	050.0000	-0332.3	036.1	257.4	000.0700	-0051.2	039.8	27.03	
352.0	050.0000	-0323.4	036.1	257.4	000.0700	-0051.4	039.2	27.24	
353.0	050.0000	-0317.8	036.1	257.3	000.0700	-0051.7	038.6	27.44	
354.0	050.0000	-0315.5	036.1	257.2	000.0700	-0052.0	038.0	27.65	
355.0	050.0000	-0318.1	036.1	257.0	000.0700	-0052.4	037.3	27.86	
356.0	050.0000	-0323.7	036.1	256.9	000.0700	-0052.8	036.7	28.08	
357.0	050.0000	-0327.1	036.1	256.7	000.0700	-0053.1	036.1	28.30	
358.0	050.0000	-0329.4	036.1	256.5	000.0700	-0053.5	035.5	28.52	
359.0	050.0000	-0331.7	036.1	256.3	000.0700	-0053.8	034.8	28.74	
000.0	050.0000	-0331.6	036.1	256.1	000.0700	-0054.0	034.2	28.97	
001.0	050.0000	-0330.3	036.1	255.8	000.0700	-0054.2	033.6	29.19	
002.0	050.0000	-0328.8	036.1	255.5	000.0700	-0054.2	033.0	29.42	
003.0	050.0000	-0326.9	036.1	255.2	000.0700	-0054.2	032.4	29.65	
004.0	050.0000	-0318.3	036.1	254.8	000.0700	-0054.3	031.8	29.89	
005.0	050.0000	-0309.2	036.1	254.4	000.0700	-0054.5	031.2	30.14	
006.0	050.0000	-0305.6	036.1	254.0	000.0700	-0054.7	030.6	30.40	
007.0	050.0000	-0305.5	036.1	253.5	000.0700	-0054.7	030.1	30.67	
008.0	050.0000	-0307.1	036.1	253.0	000.0700	-0054.7	029.5	30.96	
009.0	050.0000	-0311.5	036.1	252.5	000.0700	-0054.8	028.9	31.25	
010.0	050.0000	-0315.2	036.1	251.9	000.0700	-0055.2	028.4	31.55	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
011.0	050.0000	-0318.4	036.1	251.3	000.0700	-0056.0	027.8	31.86
012.0	050.0000	-0317.9	036.1	250.6	000.0700	-0057.1	027.3	32.18
013.0	050.0000	-0317.7	036.1	249.9	000.0700	-0058.4	026.7	32.50
014.0	050.0000	-0319.9	036.1	249.2	000.0700	-0060.0	026.2	32.83
015.0	050.0000	-0320.4	036.1	248.3	000.0700	-0061.6	025.7	33.16
016.0	050.0000	-0319.2	036.1	247.5	000.0700	-0063.3	025.2	33.48
017.0	050.0000	-0317.3	036.1	246.5	000.0700	-0065.5	024.7	33.81
018.0	050.0000	-0316.9	036.1	245.6	000.0700	-0067.0	024.2	34.13
019.0	050.0000	-0315.2	036.1	244.5	000.0700	-0067.6	023.8	34.45
020.0	050.0000	-0309.0	036.1	243.4	000.0700	-0067.8	023.3	34.77
021.0	050.0000	-0297.2	036.1	242.3	000.0700	-0068.0	022.9	35.07
022.0	050.0000	-0283.2	036.1	241.1	000.0700	-0067.6	022.5	35.37
023.0	050.0000	-0272.1	036.1	239.8	000.0700	-0067.7	022.1	35.66
024.0	050.0000	-0267.2	036.1	238.4	000.0700	-0067.3	021.8	35.93
025.0	050.0000	-0264.9	036.1	237.0	000.0700	-0066.0	021.4	36.20
026.0	050.0000	-0260.3	036.1	235.6	000.0700	-0065.9	021.1	36.44
027.0	050.0000	-0251.4	036.1	234.1	000.0700	-0067.6	020.8	36.68
028.0	050.0000	-0240.6	036.1	232.5	000.0700	-0070.0	020.5	36.89
029.0	050.0000	-0232.9	036.1	230.9	000.0700	-0069.5	020.3	37.08
030.0	050.0000	-0229.4	036.1	229.2	000.0700	-0066.4	020.1	37.26
031.0	050.0000	-0228.2	036.1	227.5	000.0700	-0065.0	019.9	37.41
032.0	050.0000	-0225.2	036.1	225.7	000.0700	-0065.8	019.7	37.54
033.0	050.0000	-0218.4	036.1	223.9	000.0700	-0063.8	019.6	37.65
034.0	050.0000	-0211.5	036.1	222.1	000.0700	-0058.8	019.5	37.73
035.0	050.0000	-0204.7	036.1	220.2	000.0700	-0055.6	019.4	37.79
036.0	050.0000	-0197.9	036.1	218.4	000.0700	-0057.6	019.4	37.82
037.0	050.0000	-0190.1	036.1	216.5	000.0700	-0061.9	019.3	37.83
038.0	050.0000	-0182.2	036.1	214.6	000.0700	-0070.7	019.4	37.81
039.0	050.0000	-0174.8	036.1	212.8	000.0700	-0084.8	019.4	37.77
040.0	050.0000	-0167.0	036.1	210.9	000.0700	-0098.6	019.5	37.70
041.0	050.0000	-0157.8	036.1	209.1	000.0700	-0109.1	019.6	37.61
042.0	050.0000	-0148.6	036.1	207.3	000.0700	-0114.5	019.8	37.49
043.0	050.0000	-0142.3	036.1	205.6	000.0700	-0116.1	019.9	37.35
044.0	050.0000	-0140.0	036.1	203.9	000.0700	-0117.2	020.1	37.19
045.0	050.0000	-0139.2	036.1	202.2	000.0700	-0122.5	020.4	37.00
046.0	050.0000	-0136.1	036.1	200.6	000.0700	-0130.4	020.6	36.80
047.0	050.0000	-0132.5	036.1	199.1	000.0700	-0131.1	020.9	36.58
048.0	050.0000	-0127.0	036.1	197.6	000.0700	-0131.8	021.2	36.34
049.0	050.0000	-0118.8	036.1	196.1	000.0700	-0135.5	021.6	36.09
050.0	050.0000	-0107.3	036.1	194.8	000.0700	-0135.4	021.9	35.82
051.0	050.0000	-0094.8	036.1	193.5	000.0700	-0130.8	022.3	35.54
052.0	050.0000	-0084.0	036.1	192.2	000.0700	-0127.0	022.7	35.25
053.0	050.0000	-0077.3	036.1	191.0	000.0700	-0129.1	023.1	34.95
054.0	050.0000	-0072.2	036.1	189.9	000.0700	-0134.8	023.5	34.64
055.0	050.0000	-0065.2	036.1	188.8	000.0700	-0139.1	024.0	34.32
056.0	050.0000	-0055.1	036.1	187.8	000.0700	-0142.8	024.4	34.00
057.0	050.0000	-0042.7	036.1	186.8	000.0700	-0139.9	024.9	33.67
058.0	050.0000	-0032.0	036.1	185.9	000.0700	-0134.7	025.4	33.35
059.0	050.0000	-0024.0	036.1	185.1	000.0700	-0130.5	025.9	33.02
060.0	050.0000	-0017.2	036.1	184.3	000.0700	-0127.2	026.4	32.69
061.0	050.0000	-0010.7	036.1	183.6	000.0700	-0124.2	027.0	32.37

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
062.0	050.0000	-0004.1	036.1	182.9	000.0700	-0126.3	027.5	32.05
063.0	050.0000	0001.6	036.1	182.2	000.0700	-0127.2	028.0	31.73
064.0	050.0000	0006.8	036.1	181.6	000.0700	-0127.6	028.6	31.43
065.0	050.0000	0013.5	036.1	181.0	000.0700	-0127.9	029.2	31.13
066.0	050.0000	0020.6	036.1	180.5	000.0700	-0128.2	029.7	30.84
067.0	050.0000	0026.2	036.1	180.0	000.0700	-0128.4	030.3	30.55
068.0	050.0000	0028.7	036.1	179.6	000.0700	-0128.6	030.9	30.29
069.0	050.0000	0032.9	037.4	177.0	000.0700	-0124.6	031.1	30.21
070.0	050.0000	0038.6	039.9	172.2	000.0700	-0103.8	031.1	30.21
071.0	050.0000	0047.5	043.7	165.0	000.0700	-0102.7	031.3	30.12
072.0	050.0000	0059.8	047.9	157.4	000.0700	-0111.6	032.1	29.78
073.0	050.0000	0071.8	050.9	152.4	000.0700	-0089.5	033.3	29.30
074.0	050.0000	0082.7	053.5	148.6	000.0700	-0075.7	034.8	28.76
075.0	050.0000	0091.0	055.3	146.3	000.0700	-0074.2	036.2	28.24
076.0	050.0000	0097.0	056.5	145.0	000.0700	-0074.9	037.6	27.78
077.0	050.0000	0101.4	057.3	144.4	000.0700	-0074.7	038.8	27.36
078.0	050.0000	0105.0	058.0	144.1	000.0700	-0074.6	040.0	26.98
079.0	050.0000	0107.4	058.5	144.1	000.0700	-0074.6	041.1	26.64
080.0	050.0000	0109.9	058.9	144.1	000.0700	-0074.6	042.2	26.31
081.0	050.0000	0111.8	059.2	144.4	000.0700	-0074.7	043.3	26.00
082.0	050.0000	0111.9	059.3	144.9	000.0700	-0074.9	044.2	25.74
083.0	050.0000	0111.8	059.2	145.6	000.0700	-0074.6	045.1	25.51
084.0	050.0000	0112.3	059.3	146.1	000.0700	-0074.3	046.1	25.27
085.0	050.0000	0113.2	059.5	146.5	000.0700	-0074.1	047.1	25.03
086.0	050.0000	0114.0	059.6	147.0	000.0700	-0074.0	048.1	24.81
087.0	050.0000	0114.7	059.7	147.5	000.0700	-0074.1	049.0	24.60
088.0	050.0000	0114.8	059.8	148.0	000.0700	-0074.8	049.9	24.40
089.0	050.0000	0116.1	060.0	148.4	000.0700	-0075.3	051.0	24.18
090.0	050.0000	0119.2	060.5	148.5	000.0700	-0075.6	052.1	23.93
091.0	050.0000	0122.3	061.0	148.7	000.0700	-0075.9	053.3	23.68
092.0	050.0000	0125.3	061.4	148.9	000.0700	-0076.3	054.4	23.43
093.0	050.0000	0126.6	061.6	149.4	000.0700	-0077.5	055.4	23.22
094.0	050.0000	0127.7	061.8	149.8	000.0700	-0079.0	056.4	23.01
095.0	050.0000	0129.6	062.1	150.2	000.0700	-0080.3	057.5	22.78
096.0	050.0000	0131.3	062.4	150.6	000.0700	-0081.8	058.5	22.57