

**Goldman Engineering Management
Auburn, CA**

WLEY-3- Chicago

AMENDED NARRATIVE DESCRIPTION OF REQUEST FOR BOOSTER

By this application, WLEY Licensing, Inc. (“WLEY”), licensee of WLEY-FM Channel 300B, Aurora, IL respectfully requests an on-channel booster pursuant to FCC 47C.F.R. §74.1232 to better serve the Chicago coverage area within WLEY-FM’s 54dBu contour. This application amends the pending application BNPFTB-20151216AEO in response to an informal objection (the “Objection”) filed by AMFM Broadcasting Licenses, LLC (“AMFM”) licensee of station WGCI-FM, Channel 298B, Chicago, IL. Facility ID No. 51165. In the objection, AMFM complains of potential second adjacent interference to WGCI-FM. While on-channel boosters are not specifically required to prevent interference to second adjacent stations, WLEY recognizes the concern of AMFM and hereby is amending its application to limit the power of all four boosters to 99 watts and mount the antennas in a way that completely protects WGCI-FM from any ground-level second adjacent interference. The protection of WGCI-FM is demonstrated in Exhibit F. The only modification to BNPFTB-20151216AEO is the addition of Exhibit F.

Based upon the instant amended application, the concerns raised by AMFM are moot and WLEY respectfully requests that the amended applications for boosters be granted. A draft copy of the engineering for the proposed revised booster applications were sent to Mr. Jeff Littlejohn of AMFM. In an email response, Mr. Littlejohn expressed his approval of the revised boosters and agreed that AMFM would not oppose the amended application.

FACILITIES REQUESTED

The requested facility will operate within the 54dBu contour of WLEY-FM. A map showing the coverage of this booster in relationship to the WLEY-FM signal is shown in Exhibit A. The proposed boosters will meet contour overlap and distance requirements to other stations, (terrain from FCC 30 second terrain database). The antenna being used is a Jampro 1-1-(2) dual element, single level log-periodic antenna.

The two antennas are rotated 30 degrees from vertical to achieve slant H+V polarization and pointed 45 degrees from each other to achieve a wider beam width. The Azimuth Pattern is attached as Exhibit D and the vertical elevation pattern is attached as Exhibit E.

Booster Location:	“LOOP” (WLEY-3)
ASR	1009155
Geographic Coordinates (NAD27):	41°52’ 08.6” N, 87° 41’ 35.6” W
Channel:	300 (107.9 MHz)
Effective Radiated Power:	99 W (H+V)
Antenna Type, Pattern:	Jampro JAVA 1-1-(2), log-periodic
Antenna Orientation:	100° True
Site Height AMSL	182.0m
Tower OAGL	78.3m
Antenna Height :	
Above ground:	65.0m
Above mean sea level:	247.0m
Above average terrain:	65.0m

ALLOCATION

As shown in the allocation chart below, WLEY-FM3 (LOOP), is fully compliant with all rules:

ComStudy 2.2 search of channel 300 (107.9 MHz Class D) at 41-52-08.6 N, 87-41-35.6 W.

CALL	CITY	ST CHN CL	DIST	SEP	BRNG	CLEARANCE
WGCI-FM	CHICAGO	IL 298 B	4.91	0.00	77.1	-52.86 dB 2 nd ADJ
WLEY-FM	AURORA	IL 300 B	32.32	0.00	283.0	-33.33 dB PRIMARY
WDRV	CHICAGO	IL 246 B	6.20	15.00	73.3	-8.8 IF- SHORT
WVCY-FM	MILWAUKEE	WI 299 B	125.45	0.00	345.7	11.17 dB
WMUS	MUSKEGON	MI 300 B1	192.12	0.00	34.9	14.51 dB
WNTR	INDIANAPOLIS	IN 300 B	252.71	0.00	149.8	19.17 dB
WRKR	PORTAGE	MI 299 B	197.14	0.00	80.8	22.92 dB
WIBL	FAIRBURY	IL 299 B1	165.08	0.00	213.8	22.50 dB
WCDD	CANTON	IL 300 B1	244.45	0.00	233.7	23.22 dB
WIBL	FAIRBURY	IL 299 B1	165.08	0.00	213.8	24.04 dB
WKIO	ARCOLA	IL 300 A	225.09	0.00	191.0	26.64 dB
WSJY	FORT ATKINSON	WI 297 B	152.62	0.00	313.2	27.62 dB
WJFX	NEW HAVEN	IN 300 A	238.91	0.00	112.3	28.51 dB
WRSW-FM	WARSAW	IN 297 B	170.64	0.00	114.4	29.95 dB
WLLT	POLO	IL 299 A	158.75	0.00	271.8	29.53 dB
WMRS	MONTICELLO	IN 299 A	157.34	0.00	147.7	29.36 dB
WWQC	CLIFTON	IL 297 A	109.76	0.00	201.9	35.11 dB
WBBL-FM	GREENVILLE	MI 297 B	231.33	0.00	55.6	39.61 dB

As shown in Exhibit A the 54dBu contour of the booster will fall inside the 54dBu contour of WLEY-FM, Channel 300B. The proposed booster is within 15km distance to WDRV, 246B and the power has thus been limited to 99 watts as required. As shown in exhibit B, both the f50/10 34dBu and f50/10 40dBu interfering contours of the booster will be well contained within the f50/10 34dBu and f50/10 40dBu contours of WLEY-FM.

ENVIRONMENTAL CONSIDERATIONS

The Booster will be attached at the 65m height on an existing 78.3m registered tower (ASR 1009155). Because there will be no modifications to this tower it is exempt from environmental processing under CFR Section 1.1306.

The booster is proposed to operate at 99watts at 65m AGL. Using the FCC program “FM Model for Windows” for a worst case dipole antenna, the predicted RF power density at 2m AGL with a 65m center of radiation is $1.0\mu\text{W}/\text{cm}^2$ which is 0.5% of the maximum allowable public exposure (MPE) of $200\mu\text{W}/\text{cm}^2$. The vertical elevation pattern is shown as Exhibit E.

There are no other non-excluded RF sources on the tower.

The permittee agrees to reduce power or cease operations when it becomes necessary if workers are near the antenna in order to ensure that they will not be exposed to levels of radio frequency electromagnetic radiation that exceed FCC guidelines.

CERTIFICATION

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direct supervision, and that they are true and correct to the best of his knowledge and belief.



Bertram S. Goldman
Goldman Engineering Management

EXHIBIT A

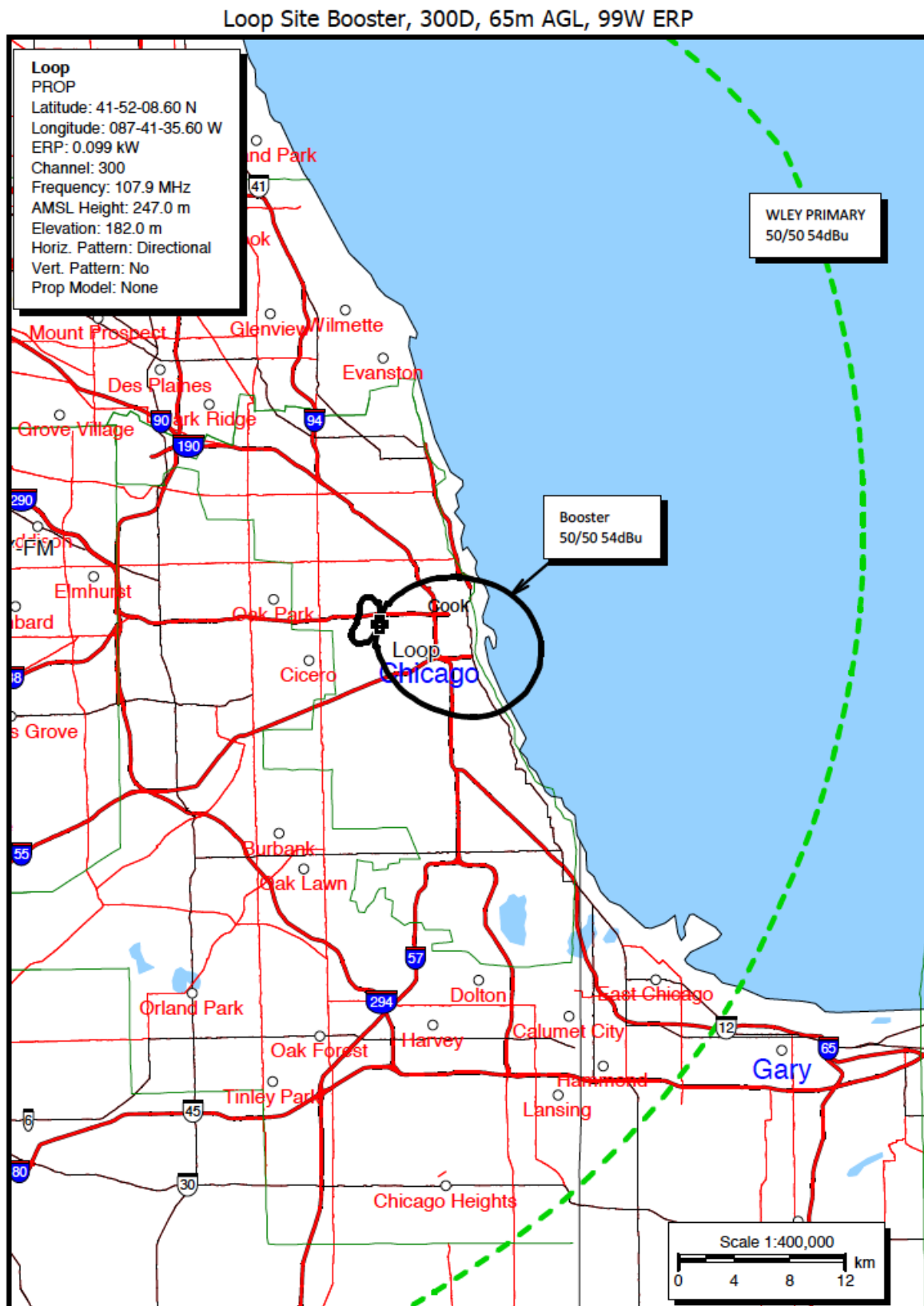


EXHIBIT B

Proposed Booster Contours Compared with Main WLEY Contours

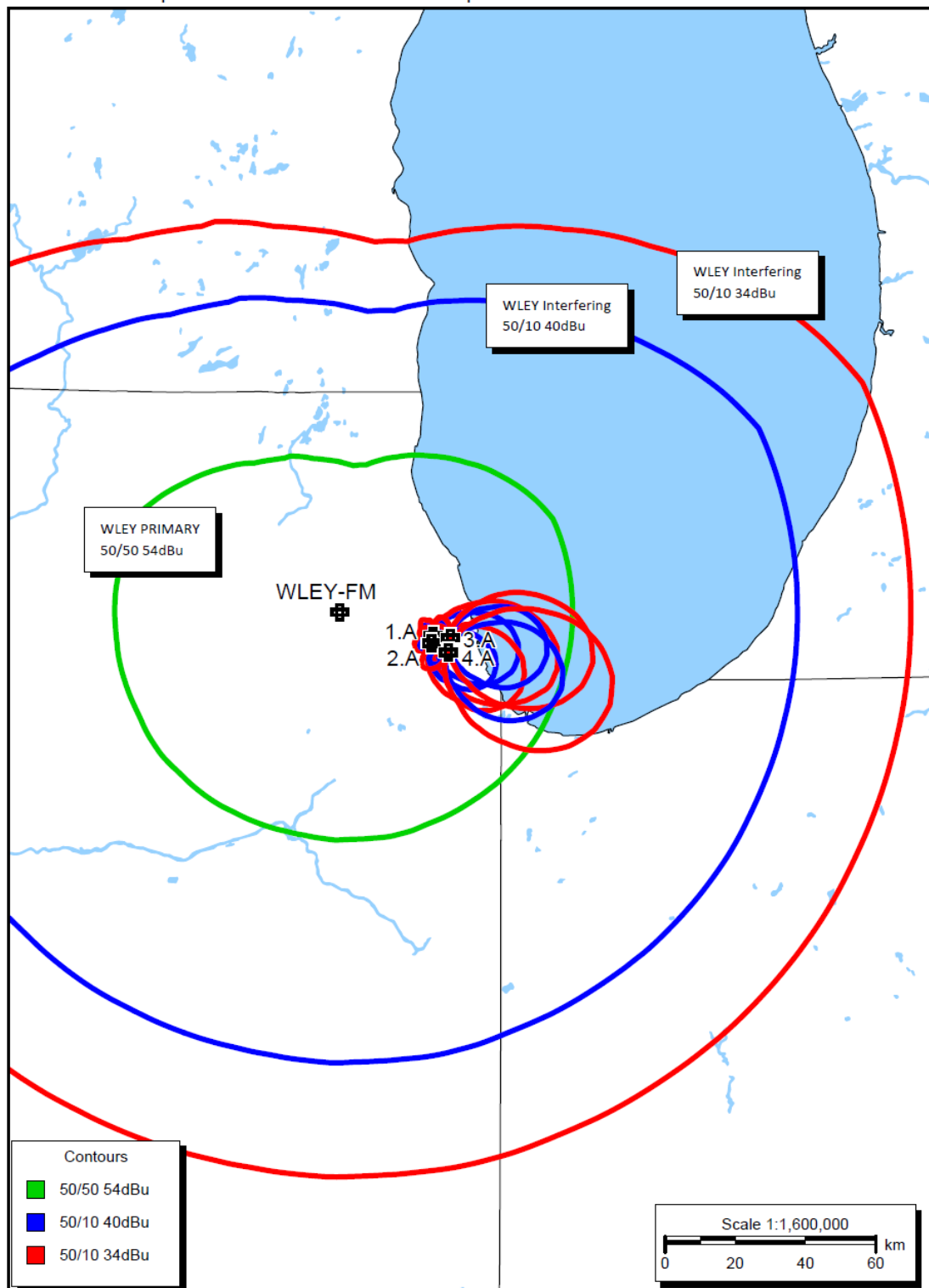


EXHIBIT C ASR

ASR Registration Search

Registration 1009155

 [Map Registration](#)

Registration Detail

Reg Number	1009155	Status	Constructed
File Number	A0981564	Constructed	01/01/1984
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type MAST - Mast

Location (in NAD83 Coordinates)

Lat/Long	41-52-08.8 N 087-41-35.9 W	Address	1003 S WASHTENAW ST
City, State	CHICAGO , IL		
Zip	60612	County	COOK
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
182.0	78.3
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
260.3	76.5

Painting and Lighting Specifications

FAA Chapters 4, 8, 12

Paint and Light in Accordance with FAA Circular Number 70/7460-1K

FAA Notification

FAA Study	2015-AGL-13106-OE	FAA Issue Date	10/19/2015
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Owner & Contact Information

FRN	0004334249	Owner Entity	Limited Liability Company
		Type	

Owner

SBC TOWER HOLDINGS LLC
Attention To: FCC GROUP
3300 E. RENNER ROAD, B3132
RICHARDSON , TX 75082

P: (855)699-7073
F: (972)907-1131
E: FCCMW@att.com

Contact

YOUNGBLOOD , REGINALD
Attention To: FCC GROUP
3300 E. RENNER ROAD, B3132
RICHARDSON , TX 75082

P: (855)699-7073
F: (972)907-1131
E: FCCMW@att.com

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Last Action Status

Status	Constructed	Received	10/20/2015
Purpose	Notification	Entered	10/20/2015

EXHIBIT D

Loop Antenna Pattern
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	0.947
20.0	0.805
30.0	0.612
40.0	0.412
50.0	0.243
60.0	0.124
70.0	0.054
80.0	0.019
90.0	0.005
100.0	0.004
110.0	0.015
120.0	0.027
130.0	0.034
140.0	0.035
150.0	0.03
160.0	0.023
170.0	0.02
180.0	0.02
190.0	0.02
200.0	0.023
210.0	0.03
220.0	0.035
230.0	0.034
240.0	0.027
250.0	0.015
260.0	0.004
270.0	0.005
280.0	0.019
290.0	0.054
300.0	0.124
310.0	0.243
320.0	0.412
330.0	0.612
340.0	0.805
350.0	0.947

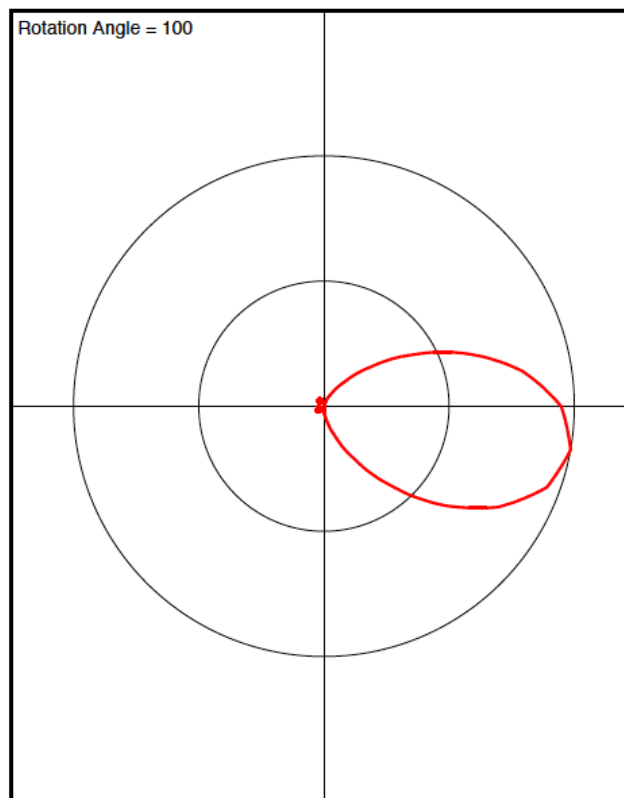
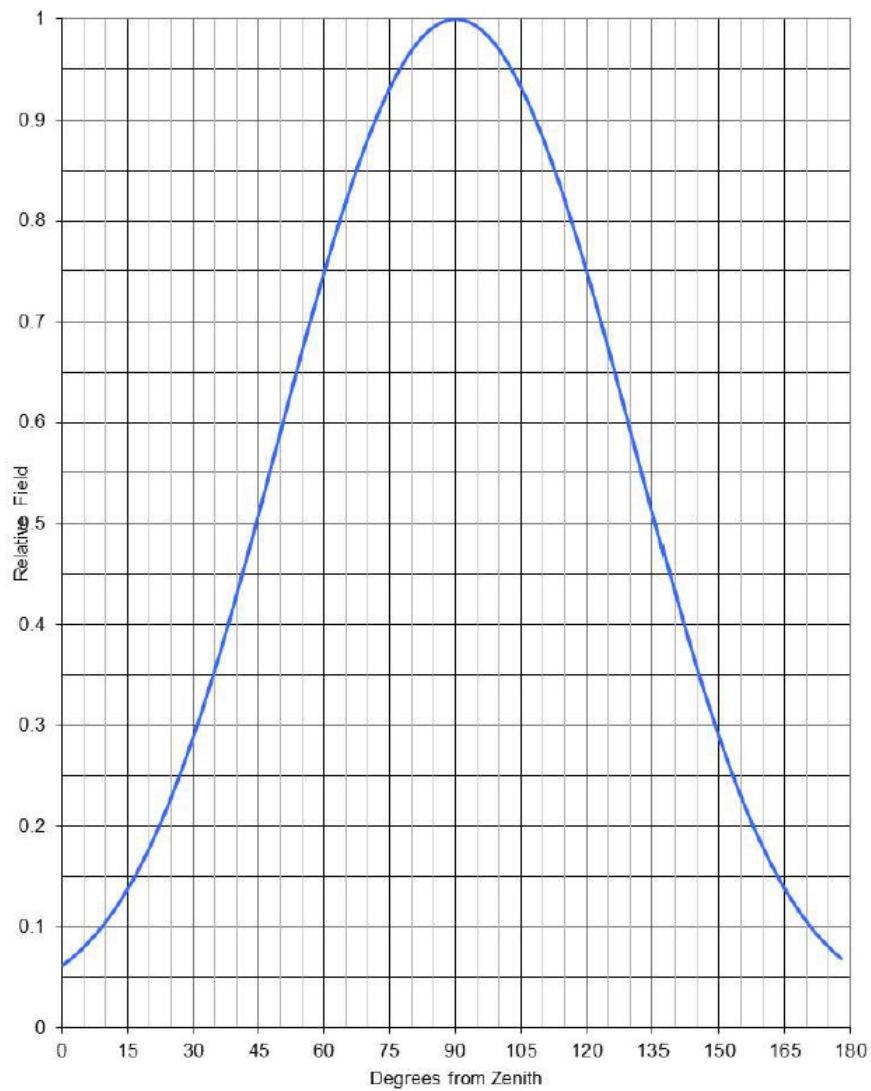


EXHIBIT E



Elevation Pattern



Model: JAVA-1-1(2)
Description: Dual Log Periodic Antenna
30° Roll



Elevation Pattern Tabulation

COMPUTED ELEVATION PATTERN

Elevation Angle	Relative Field	Relative Field, dB	Elevation Angle	Relative Field	Relative Field, dB
90	0.062	-24.16	0	1.000	0.00
88	0.069	-23.28	-2	0.999	-0.01
86	0.076	-22.36	-4	0.995	-0.04
84	0.085	-21.43	-6	0.989	-0.10
82	0.095	-20.49	-8	0.980	-0.17
80	0.105	-19.54	-10	0.969	-0.27
78	0.117	-18.60	-12	0.956	-0.39
76	0.131	-17.67	-14	0.941	-0.53
74	0.146	-16.74	-16	0.923	-0.69
72	0.162	-15.83	-18	0.903	-0.88
70	0.179	-14.94	-20	0.882	-1.09
68	0.198	-14.06	-22	0.859	-1.32
66	0.219	-13.21	-24	0.834	-1.58
64	0.240	-12.38	-26	0.807	-1.86
62	0.264	-11.57	-28	0.779	-2.17
60	0.289	-10.79	-30	0.750	-2.50
58	0.315	-10.04	-32	0.720	-2.86
56	0.342	-9.32	-34	0.689	-3.24
54	0.371	-8.62	-36	0.657	-3.65
52	0.400	-7.95	-38	0.625	-4.09
50	0.431	-7.31	-40	0.592	-4.55
48	0.462	-6.70	-42	0.559	-5.05
46	0.494	-6.12	-44	0.527	-5.57
44	0.527	-5.57	-46	0.494	-6.12
42	0.559	-5.05	-48	0.462	-6.70
40	0.592	-4.55	-50	0.431	-7.31
38	0.625	-4.09	-52	0.400	-7.95
36	0.657	-3.65	-54	0.371	-8.62
34	0.689	-3.24	-56	0.342	-9.32
32	0.720	-2.86	-58	0.315	-10.04
30	0.750	-2.50	-60	0.289	-10.79
28	0.779	-2.17	-62	0.264	-11.57
26	0.807	-1.86	-64	0.240	-12.38
24	0.834	-1.58	-66	0.219	-13.21
22	0.859	-1.32	-68	0.198	-14.06
20	0.882	-1.09	-70	0.179	-14.94
18	0.903	-0.88	-72	0.162	-15.83
16	0.923	-0.70	-74	0.146	-16.74
14	0.941	-0.53	-76	0.131	-17.66
12	0.956	-0.39	-78	0.117	-18.60
10	0.969	-0.27	-80	0.105	-19.54
8	0.980	-0.17	-82	0.095	-20.49
6	0.989	-0.10	-84	0.085	-21.43
4	0.995	-0.04	-86	0.076	-22.37
2	0.999	-0.01	-88	0.069	-23.28

Model: JAVA-1-1(2)
Description: Dual Log Periodic Antenna
30° Roll

Exhibit F- 2nd Adjacent Protection to WGCI-FM

WLEY-3

41° 52' 08.6" N

87° 41' 35.6" W

65m AGL, 99w

WLEY-3 Loop Twr, IL

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.099

Translator or LPFM Antenna Height AG = 65 Meters

WLEY-3 Antenna Model = CA5-FM-CP-RM_0098-MHZ_CPOL_000DT

Protected Station's Contour = 97.36736 dBu

Translator's or LPFM's full Interference contour 137.36736

Review Azimuth = 0 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

Translator/LPFM ERP on the horizon at Review Azimuth = 0.099 kW

Distance between stations = 4.9 km

Protected Station= WGCI-F, 3.7 kW, 653 M Meters COR AMSL

Depression Angle From Horizon(Deg) (m)	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
00.00	1.0	1.0	0.0990	009.4504	009.4504	065.000
01.00	0.997	1.0	0.0983	009.4173	009.4159	064.836
02.00	0.993	1.0	0.0976	009.3833	009.3776	064.673
03.00	0.989	1.0	0.0969	009.3502	009.3374	064.511
04.00	0.986	1.0	0.0962	009.3171	009.2944	064.350
05.00	0.982	1.0	0.0955	009.2831	009.2478	064.191
06.00	0.976	1.0	0.0944	009.2264	009.1759	064.036
07.00	0.97	1.0	0.0932	009.1697	009.1014	063.882
08.00	0.964	1.0	0.0921	009.1130	009.0243	063.732
09.00	0.958	1.0	0.0909	009.0563	008.9448	063.583
10.00	0.952	1.0	0.0898	008.9996	008.8629	063.437
11.00	0.945	1.0	0.0884	008.9287	008.7647	063.296
12.00	0.937	1.0	0.0870	008.8578	008.6643	063.158
13.00	0.93	1.0	0.0856	008.7860	008.5608	063.024
14.00	0.922	1.0	0.0842	008.7151	008.4563	062.892
15.00	0.915	1.0	0.0828	008.6443	008.3497	062.763
16.00	0.905	1.0	0.0811	008.5517	008.2204	062.643
17.00	0.895	1.0	0.0793	008.4600	008.0903	062.527
18.00	0.886	1.0	0.0776	008.3683	007.9587	062.414
19.00	0.876	1.0	0.0759	008.2757	007.8248	062.306
20.00	0.866	1.0	0.0742	008.1840	007.6905	062.201
21.00	0.852	1.0	0.0719	008.0517	007.5169	062.115
22.00	0.838	1.0	0.0695	007.9194	007.3428	062.033
23.00	0.824	1.0	0.0672	007.7871	007.1681	061.957
24.00	0.81	1.0	0.0650	007.6548	006.9930	061.887
25.00	0.796	1.0	0.0627	007.5225	006.8177	061.821
26.00	0.781	1.0	0.0603	007.3760	006.6295	061.767
27.00	0.765	1.0	0.0579	007.2286	006.4407	061.718
28.00	0.749	1.0	0.0556	007.0821	006.2531	061.675
29.00	0.734	1.0	0.0533	006.9356	006.0660	061.638

30.00	0.718	1.0	0.0511	006.7882	005.8788	061.606
31.00	0.7	1.0	0.0486	006.6181	005.6728	061.591
32.00	0.682	1.0	0.0461	006.4480	005.4682	061.583
33.00	0.664	1.0	0.0437	006.2779	005.2651	061.581
34.00	0.646	1.0	0.0414	006.1078	005.0636	061.585
35.00	0.628	1.0	0.0391	005.9377	004.8639	061.594
36.00	0.608	1.0	0.0366	005.7487	004.6508	061.621
37.00	0.588	1.0	0.0343	005.5597	004.4401	061.654
38.00	0.568	1.0	0.0320	005.3707	004.2321	061.693
39.00	0.548	1.0	0.0298	005.1816	004.0269	061.739
40.00	0.528	1.0	0.0276	004.9926	003.8246	061.791
41.00	0.507	1.0	0.0255	004.7942	003.6182	061.855
42.00	0.486	1.0	0.0234	004.5957	003.4153	061.925
43.00	0.465	1.0	0.0214	004.3973	003.2160	062.001
44.00	0.444	1.0	0.0195	004.1988	003.0204	062.083
45.00	0.423	1.0	0.0177	004.0003	002.8287	062.171
46.00	0.405	1.0	0.0162	003.8227	002.6555	062.250
47.00	0.386	1.0	0.0147	003.6450	002.4859	062.334
48.00	0.367	1.0	0.0133	003.4673	002.3201	062.423
49.00	0.348	1.0	0.0120	003.2897	002.1582	062.517
50.00	0.329	1.0	0.0107	003.1120	002.0004	062.616
51.00	0.313	1.0	0.0097	002.9561	001.8603	062.703
52.00	0.296	1.0	0.0087	002.8001	001.7239	062.793
53.00	0.28	1.0	0.0077	002.6433	001.5908	062.889
54.00	0.263	1.0	0.0069	002.4873	001.4620	062.988
55.00	0.247	1.0	0.0060	002.3314	001.3372	063.090
56.00	0.235	1.0	0.0055	002.2237	001.2435	063.156
57.00	0.224	1.0	0.0050	002.1169	001.1529	063.225
58.00	0.213	1.0	0.0045	002.0101	001.0652	063.295
59.00	0.201	1.0	0.0040	001.9024	000.9798	063.369
60.00	0.19	1.0	0.0036	001.7956	000.8978	063.445
61.00	0.18	1.0	0.0032	001.7039	000.8261	063.510
62.00	0.171	1.0	0.0029	001.6132	000.7573	063.576
63.00	0.161	1.0	0.0026	001.5215	000.6908	063.644
64.00	0.151	1.0	0.0023	001.4298	000.6268	063.715
65.00	0.142	1.0	0.0020	001.3391	000.5659	063.786
66.00	0.14	1.0	0.0019	001.3240	000.5385	063.790
67.00	0.139	1.0	0.0019	001.3098	000.5118	063.794
68.00	0.137	1.0	0.0019	001.2956	000.4854	063.799
69.00	0.136	1.0	0.0018	001.2805	000.4589	063.805
70.00	0.134	1.0	0.0018	001.2664	000.4331	063.810
71.00	0.134	1.0	0.0018	001.2682	000.4129	063.801
72.00	0.134	1.0	0.0018	001.2701	000.3925	063.792
73.00	0.135	1.0	0.0018	001.2720	000.3719	063.784
74.00	0.135	1.0	0.0018	001.2739	000.3511	063.775
75.00	0.135	1.0	0.0018	001.2758	000.3302	063.768
76.00	0.136	1.0	0.0018	001.2881	000.3116	063.750
77.00	0.138	1.0	0.0019	001.3013	000.2927	063.732
78.00	0.139	1.0	0.0019	001.3136	000.2731	063.715
79.00	0.14	1.0	0.0019	001.3259	000.2530	063.698
80.00	0.142	1.0	0.0020	001.3391	000.2325	063.681
81.00	0.143	1.0	0.0020	001.3542	000.2118	063.662
82.00	0.145	1.0	0.0021	001.3703	000.1907	063.643
83.00	0.147	1.0	0.0021	001.3864	000.1690	063.624
84.00	0.148	1.0	0.0022	001.4015	000.1465	063.606
85.00	0.15	1.0	0.0022	001.4176	000.1235	063.588
86.00	0.152	1.0	0.0023	001.4317	000.0999	063.572
87.00	0.153	1.0	0.0023	001.4450	000.0756	063.557
88.00	0.154	1.0	0.0024	001.4591	000.0509	063.542
89.00	0.156	1.0	0.0024	001.4733	000.0257	063.527
90.00	0.157	1.0	0.0024	001.4865	000.0000	063.513