

**Goldman Engineering Management
Auburn, CA**

WJKL-FM1 Cicero North

NARRATIVE DESCRIPTION OF REQUEST FOR BOOSTER

By this application, Educational Media Foundation (“EMF”), licensee of WJKL (FM) Channel 232A, Glendale Heights, IL respectfully requests an on-channel booster pursuant to FCC 47C.F.R. §74.1232 to better serve the Chicago coverage area within WJKL’s 60dBu contour. This application is one of three applications for boosters filed concurrently. Please note that this on-channel booster for WJKL will be diplexed on the same antenna with WLEY-FM3 (300D), an on-channel booster for WLEY-FM (300B).

FACILITIES REQUESTED

The requested facility will operate within the 60dBu contour of WJKL (FM). It is requested that the call letters for this facility be assigned as WJKL-FM1. A map showing the coverage of this booster in relationship to the WJKL signal is shown in Exhibit A. The antenna being used is a Shively 6025 1-2, dual element, single level log-periodic antenna. The two antennas are rotated 30 degrees from vertical to achieve slant H+V polarization. The Azimuth Pattern is attached as Exhibit C.

Booster Location:	“LOOP” (WJKL-FM1)
ASR	1009155 (Exhibit B)
Geographic Coordinates (NAD27):	41°52’ 08.6” N, 87° 41’ 35.6” W
Channel:	232 (94.3 MHz)
Effective Radiated Power:	99 W (V), 26w (H)
Antenna Type, Pattern:	Shively 6025 1-2, dual 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, WJKL-FM1, will be fully compliant with all pertinent commission rules:

ComStudy 2.2 search of channel 232 (94.3 MHz Class D) at 41-52-08.6 N, 87-41-35.6 W.

CALL	CITY	ST	CHN	CL	DIST	SEP	BRNG	CLEARANCE	
WLIT-FM	CHICAGO	IL	230	B	4.91	0.00	77.1	-46.59 dB	2nd Adjacent- OK
WLS-FM	CHICAGO	IL	234	B	4.91	0.00	77.1	-46.98 dB	2nd Adjacent- OK
WJKL	GLENDALE HEIGHTS	IL	232	A	5.96	0.00	68.0	-35.38 dB	PRIMARY Station
WOJO	EVANSTON	IL	286	B	6.70	15.00	60.2	-8.3	IF- 99 watt limit
W232CK	GARY	IN	232	D	47.86	0.00	136.5	12.43 dB	
WZOC	PLYMOUTH	IN	232	B1	124.68	0.00	107.3	14.29 dB	
WGFA-FM	WATSEKA	IL	231	B	119.55	0.00	182.5	20.15 dB	
WKTI	MILWAUKEE	WI	233	B	136.86	0.00	352.9	24.63 dB	
WZOC	PLYMOUTH	IN	232	B1	123.61	0.00	108.7	24.19 dB	
WBCT	GRAND RAPIDS	MI	229	B	197.05	0.00	63.7	24.64 dB	
WKTI	MILWAUKEE	WI	233	B	136.86	0.00	352.9	25.95 dB	
WTNR	HOLLAND	MI	233	B	179.82	0.00	51.8	29.55 dB	
WJJO	WATERTOWN	WI	231	B	173.64	0.00	320.1	30.46 dB	

As shown in Exhibit A the 60dBu contour of the booster will fall inside the 60dBu contour of WJKL (FM), Channel 232A. The proposed booster is within 15km distance to WOJO (FM), 286B (54 channels) and therefore the power has thus been limited to 99 watts as required. As shown in the study above, there is no impact by the proposed booster to any co-channel or first adjacent facility other than the WJKL (FM) primary station. Exhibit B demonstrates that all interfering contours for WJKL-FM1 will be contained within the respective interfering contours of the primary facility.

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 μ W/cm². Further as a facility operating below 100 watts, the proposed booster is considered an excluded facility for purposes of RFR compliance.

There are no other non-excluded RF sources on the tower, however, WLEY-FM3 will continue to operate at 99 watts from the same antenna.

The permittee agrees to reduce power or cease operations when it becomes necessary for workers or the general public to be on the roof 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

Loop Site Booster, 232D, 65m AGL, 99W ERP

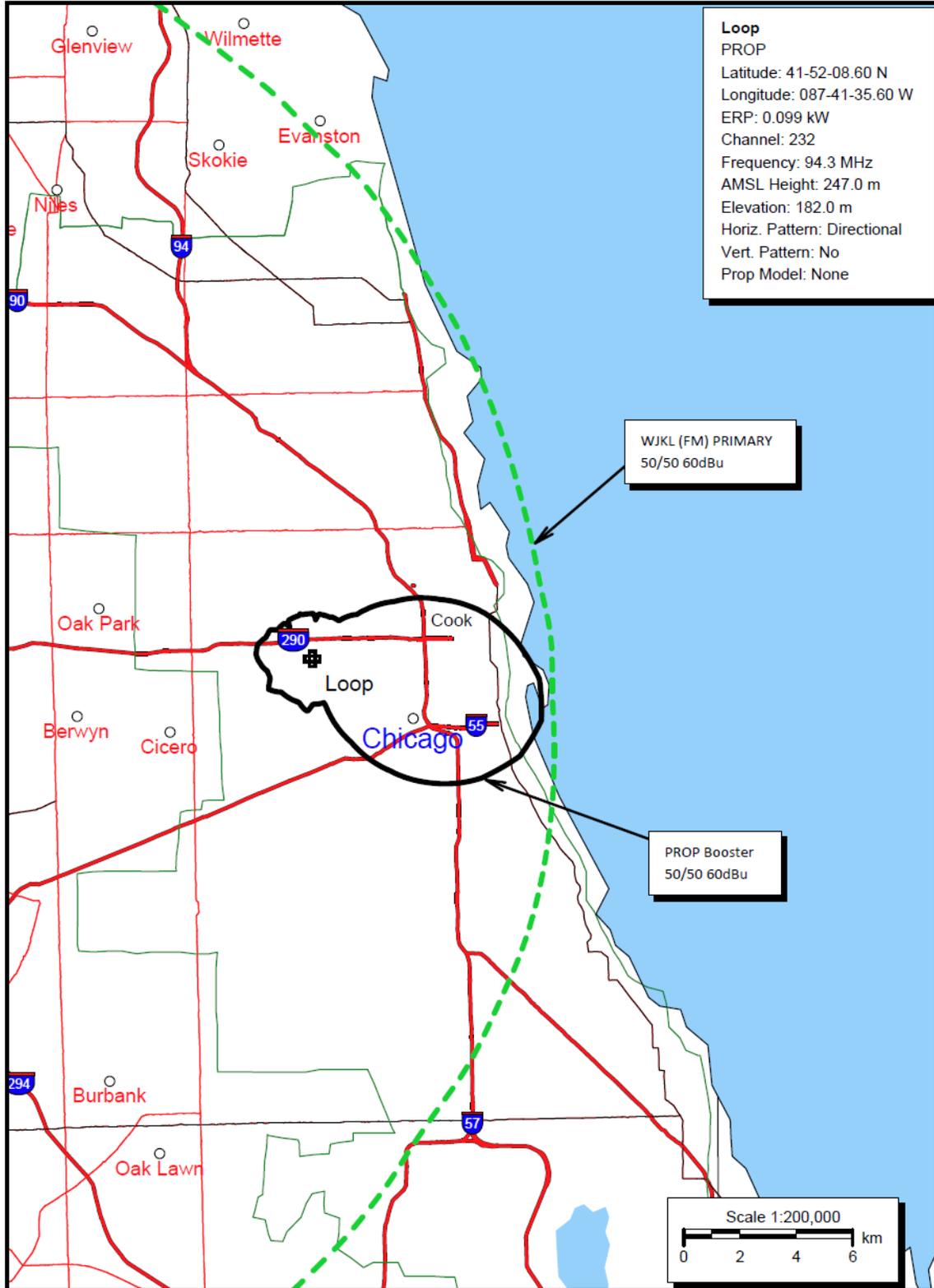


EXHIBIT B- Interfering Contours

WJKL-FM1 Proposed Booster, 232D, 35m AGL, 99w ERP

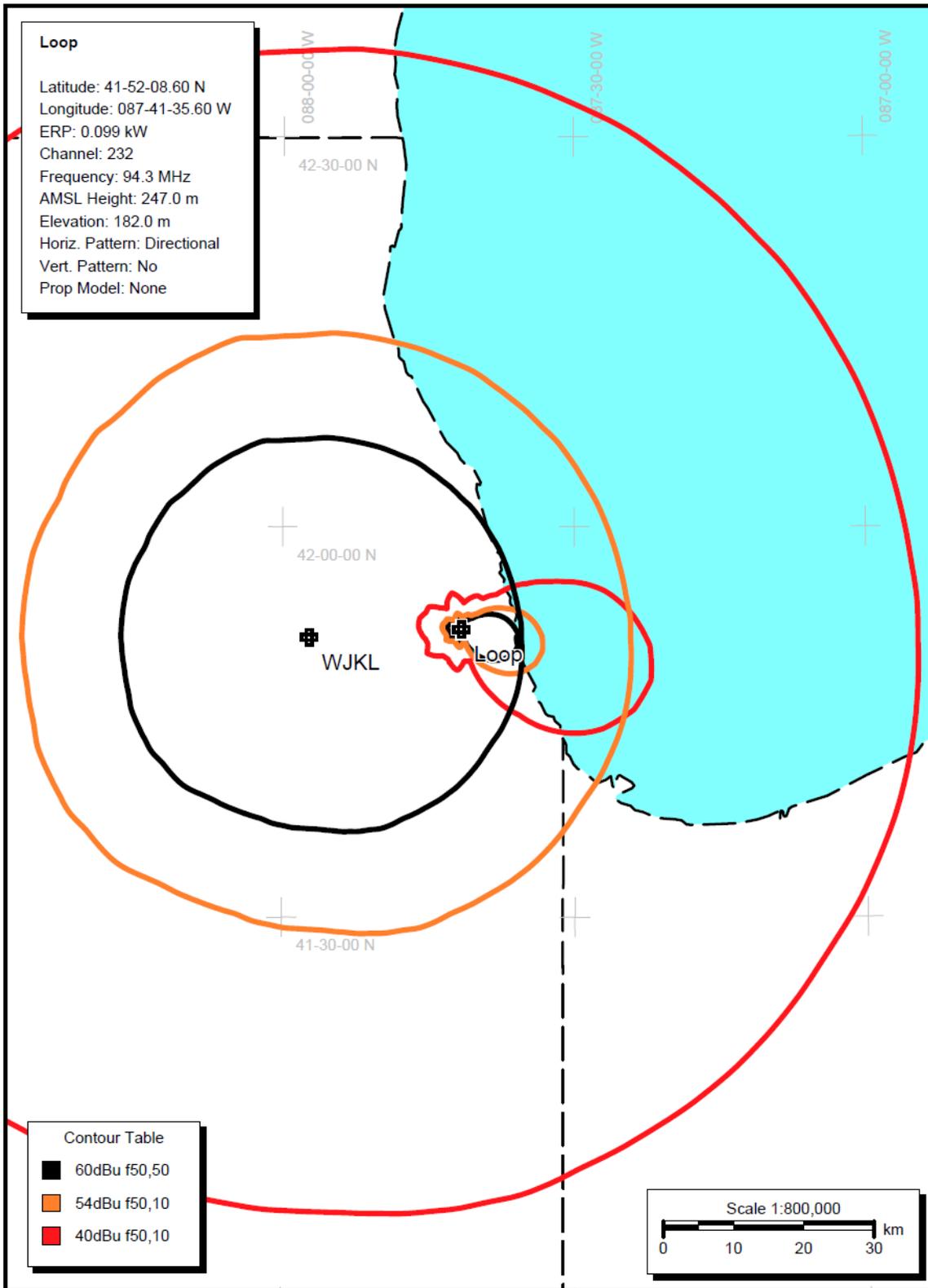


EXHIBIT B ASR

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 Type	Limited Liability Company
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Owner

SBC TOWER HOLDINGS LLC	P: (855)699-7073
Attention To: FCC GROUP	F: (972)907-1131
3300 E. RENNER ROAD, B3132	E: FCCMW@att.com
RICHARDSON , TX 75082	

Contact

YOUNGBLOOD , REGINALD	P: (855)699-7073
Attention To: FCC GROUP	F: (972)907-1131
3300 E. RENNER ROAD, B3132	E: FCCMW@att.com
RICHARDSON , TX 75082	

Last Action Status

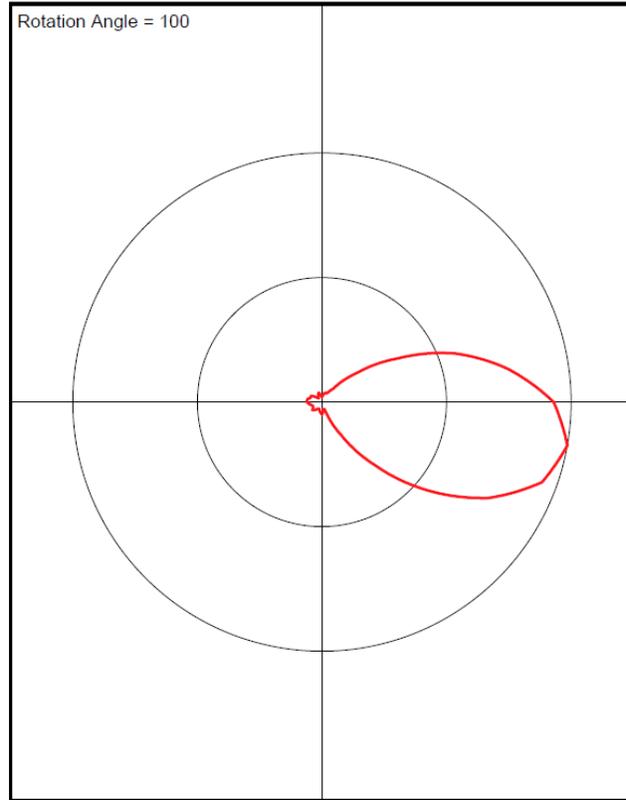
Status	Constructed	Received	10/20/2015
Purpose	Notification	Entered	10/20/2015

EXHIBIT C

WJKL-FM1 PROP Antenna Pattern

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
5.0	0.97
10.0	0.94
15.0	0.855
20.0	0.77
25.0	0.66
30.0	0.55
35.0	0.44
40.0	0.33
45.0	0.24
50.0	0.15
55.0	0.09
60.0	0.03
65.0	0.03
70.0	0.03
75.0	0.04
80.0	0.05
85.0	0.045
90.0	0.04
95.0	0.035
100.0	0.03
105.0	0.03
110.0	0.03
115.0	0.035
120.0	0.04
125.0	0.045
130.0	0.05
135.0	0.045
140.0	0.04
145.0	0.04
150.0	0.04
155.0	0.045
160.0	0.05
165.0	0.055
170.0	0.06
175.0	0.06
180.0	0.06
185.0	0.055
190.0	0.05
195.0	0.05
200.0	0.05
205.0	0.04
210.0	0.03
215.0	0.025
220.0	0.02
225.0	0.025
230.0	0.03
235.0	0.035
240.0	0.04
245.0	0.035
250.0	0.03
255.0	0.025
260.0	0.02
265.0	0.025
270.0	0.03
275.0	0.035
280.0	0.04
285.0	0.04
290.0	0.04
295.0	0.055
300.0	0.07
305.0	0.125
310.0	0.18
315.0	0.265



320.0	0.35
325.0	0.46
330.0	0.57
335.0	0.665
340.0	0.76
345.0	0.845
350.0	0.93
355.0	0.965