



MINNESOTA OFFICE
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ENGINEERING EXHIBIT 26

ALLOCATION CONSIDERATIONS

A review of allotments and assignments on channel 271, on the three immediately upper adjacent, the three immediately lower adjacent channels and the two channels removed by 53 and 54 channels (218 & 219) shows that the site proposed would not be in full compliance with Section 73.207. Table 1 shows the results of a spacing study at the present licensed site. As can be seen in this table there are short-spaced conditions with WMUK, WTMX, WXLG and WQLF.

Table 2 shows the results of the spacing study and the proposed site location. This study shows that the predicted short-spaced conditions are reduced except to WQLF which is slightly increased.

Table 1

WLUM ALLOCATION STUDY

REFERENCE				CLASS = B		DISPLAY DATES	
43 05 48 N				Current Spacings		DATA	08-19-05
87 54 19 W				Channel 271 - 102.1 MHz		SEARCH	08-19-05
Call	Channel	Location	Dist	Azi	FCC	Margin	
WLUMFM	LIC-D 271B	Milwaukee	WI 0.00	0.0	241.0	-241.00*	
WMUK	LIC 271B	Kalamazoo	MI 208.42	110.5	241.0	-32.58*	
WTMX	LIC 270B	Skokie	IL 137.07	170.6	169.0	-31.93*	
WXLG	LIC 272A	Waukegan	IL 82.99	178.6	113.0	-30.01*	
WQLF	LIC-N 271A	Lena	IL 176.82	242.3	178.0	-1.18*	
WQTCFM	LIC 272A	Manitowoc	WI 116.45	10.9	113.0	3.45	
WRKU	LIC-Z 271A	Forestville	WI 183.36	12.4	178.0	5.36	
WDEZ	LIC 270C	Wausau	WI 248.15	325.5	217.0	31.15	
WAUH	LIC 272A	Wautoma	WI 144.69	316.4	113.0	31.69	
WALS	LIC 271A	Oglesby	IL 217.38	203.7	178.0	39.38	
WALS.C	CP -N 271A	Oglesby	IL 220.48	203.7	178.0	42.48	
WRHLFM	LIC 272A	Rochelle	IL 161.14	216.3	113.0	48.14	
WYBR	LIC-N 272C3	Big Rapids	MI 199.20	70.0	145.0	54.20	
WSTM	LIC 217A	Kiel	WI 70.87	350.4	15.0	55.87	
WNNCFM	LIC 273B	Madison	WI 130.64	267.6	74.0	56.64	
WMRR	LIC 269B1	Muskegon Heights	MI 129.24	80.5	71.0	58.24	
WIBAFM	LIC 268B	Madison	WI 132.80	268.6	74.0	58.80	
WVAZ	LIC 274B	Oak Park	IL 135.05	170.0	74.0	61.05	
WLDRFM	LIC 270C1	Traverse City	MI 257.04	42.8	195.0	62.04	



OWL ENGINEERING & EMC TEST LABS, INC.

CONSULTING COMMUNICATIONS ENGINEERS - EMC TEST LABORATORIES

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The protected 54 dbuv/m contours for both the present licensed location and the proposed new location were calculated and are shown in Figure 3. As can be seen in this figure the protected contour has not been increased with the instant proposal over land. The area on the eastern portion of the predicted contour has been slightly increased but this area is over the water area of Lake Michigan.

Table 2

WLUM NEW SITE ALLOCATION STUDY

REFERENCE						DISPLAY DATES		
43 06 42 N		CLASS = B				DATA	08-19-05	
87 55 50 W		Current Spacings				SEARCH	08-19-05	
----- Channel 271 - 102.1 MHz -----								
Call	Channel	Location	Dist	Azi	FCC	Margin		

WLUMFM	LIC-D 271B	Milwaukee	WI 2.64	129.1	241.0	-238.36		
WMUK	LIC 271B	Kalamazoo	MI 210.93	110.7	241.0	-30.07		
WTMX	LIC 270B	Skokie	IL 139.06	169.9	169.0	-29.94		
WXLC	LIC 272A	Waukegan	IL 84.73	177.3	113.0	-28.27		
WQLF	LIC-N 271A	Lena	IL 175.78	241.4	178.0	-2.22*		
WQTCFM	LIC 272A	Manitowoc	WI 115.23	12.1	113.0	2.23		
WRKU	LIC-Z 271A	Forestville	WI 182.19	13.1	178.0	4.19		
WDEZ	LIC 270C	Wausau	WI 245.61	325.6	217.0	28.61		
WAUH	LIC 272A	Wautoma	WI 142.06	316.5	113.0	29.06		
WALS	LIC 271A	Oglesby	IL 218.08	203.0	178.0	40.08		
WALS.C	CP -N 271A	Oglesby	IL 221.19	203.0	178.0	43.19		
WRHLFM	LIC 272A	Rochelle	IL 161.28	215.4	113.0	48.28		
WSTM	LIC 217A	Kiel	WI 68.90	351.9	15.0	53.90		
WNNCFM	LIC 273B	Madison	WI 128.66	266.8	74.0	54.66		
WYBR	LIC-N 272C3	Big Rapids	MI 200.58	70.7	145.0	55.58		
WIBAFM	LIC 268B	Madison	WI 130.80	267.8	74.0	56.80		
WMRR	LIC 269B1	Muskegon Heights	MI 131.01	81.4	71.0	60.01		
WLDRFM	LIC 270C1	Traverse City	MI 257.23	43.4	195.0	62.23		
WVAZ	LIC 274B	Oak Park	IL 137.06	169.3	74.0	63.06		



Interference Analysis

WTMX

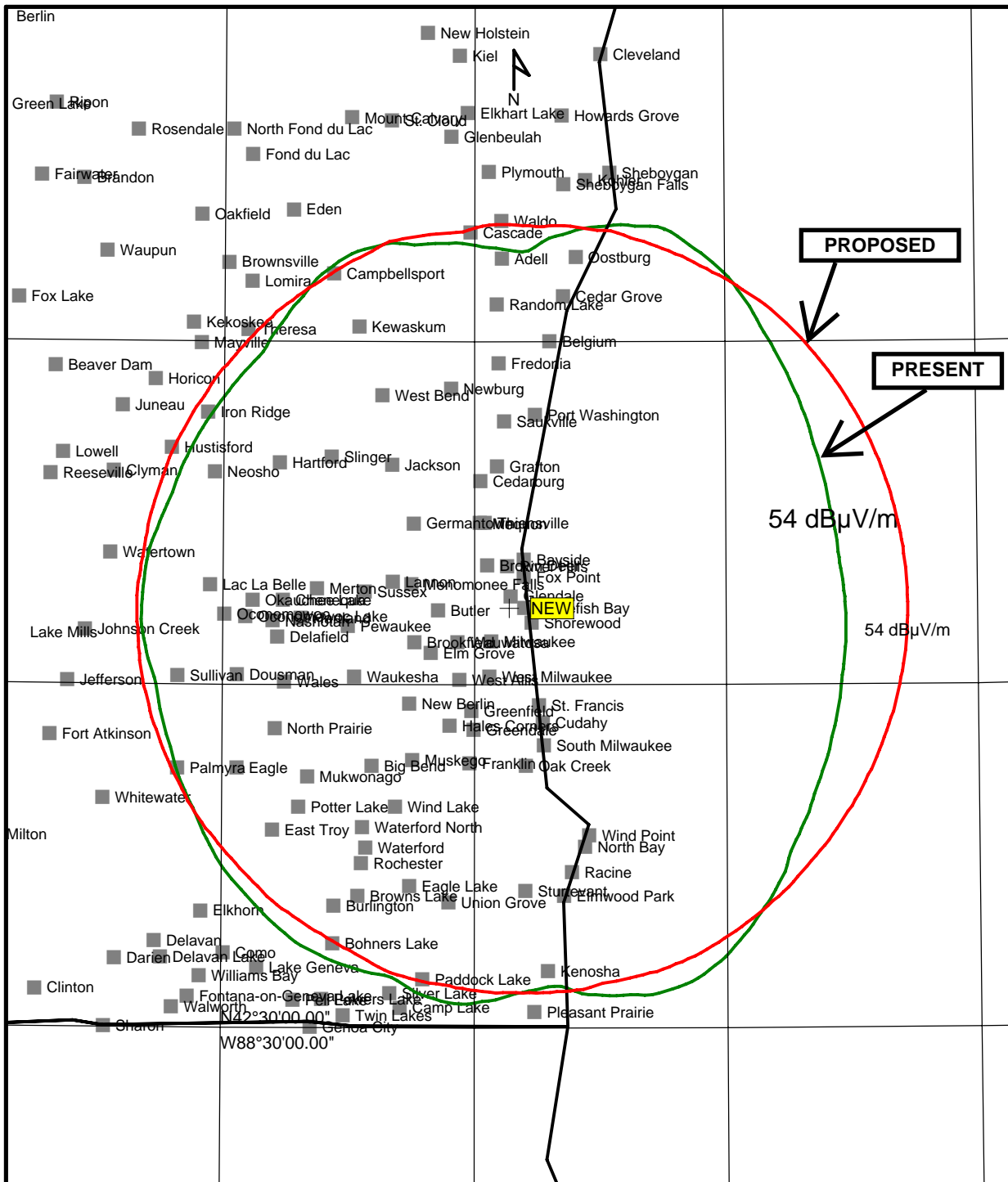
The interference contours with station WTMX are shown in Figure 5. As can be seen in this figure the proposed interference contours are predicted to be reduced from the presently licensed facility.

WXLC

The interference contours with station WXLC are shown in Figure 6 that shows present contours and Figure 6A shows the proposed contours. As can be seen in this figure the proposed interference contours are predicted to be reduced from the presently licensed facility.

WQLF

The interference contours with station WQLF are shown in Figure 7 that shows present contours. As can be seen in this figure the proposed interference contours are predicted to be reduced from the presently licensed facility.



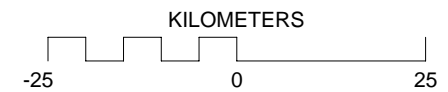
Prop. model: FCC-EDX
 Time: 50.0% Loc.: 50.0%
 Prediction Confidence Margin: 0.0dB
 Climate: Continental Temperate
 Land use (clutter): none
 Atmospheric Abs.: none
 K Factor: 1.333
 RX Antenna - Type: OMNI
 Height: 9.2 m AGL Gain: 0.00 dBd

Field strength at remote

■ = 54.0 dBµV/m

Display threshold level: -120.0 dBmW

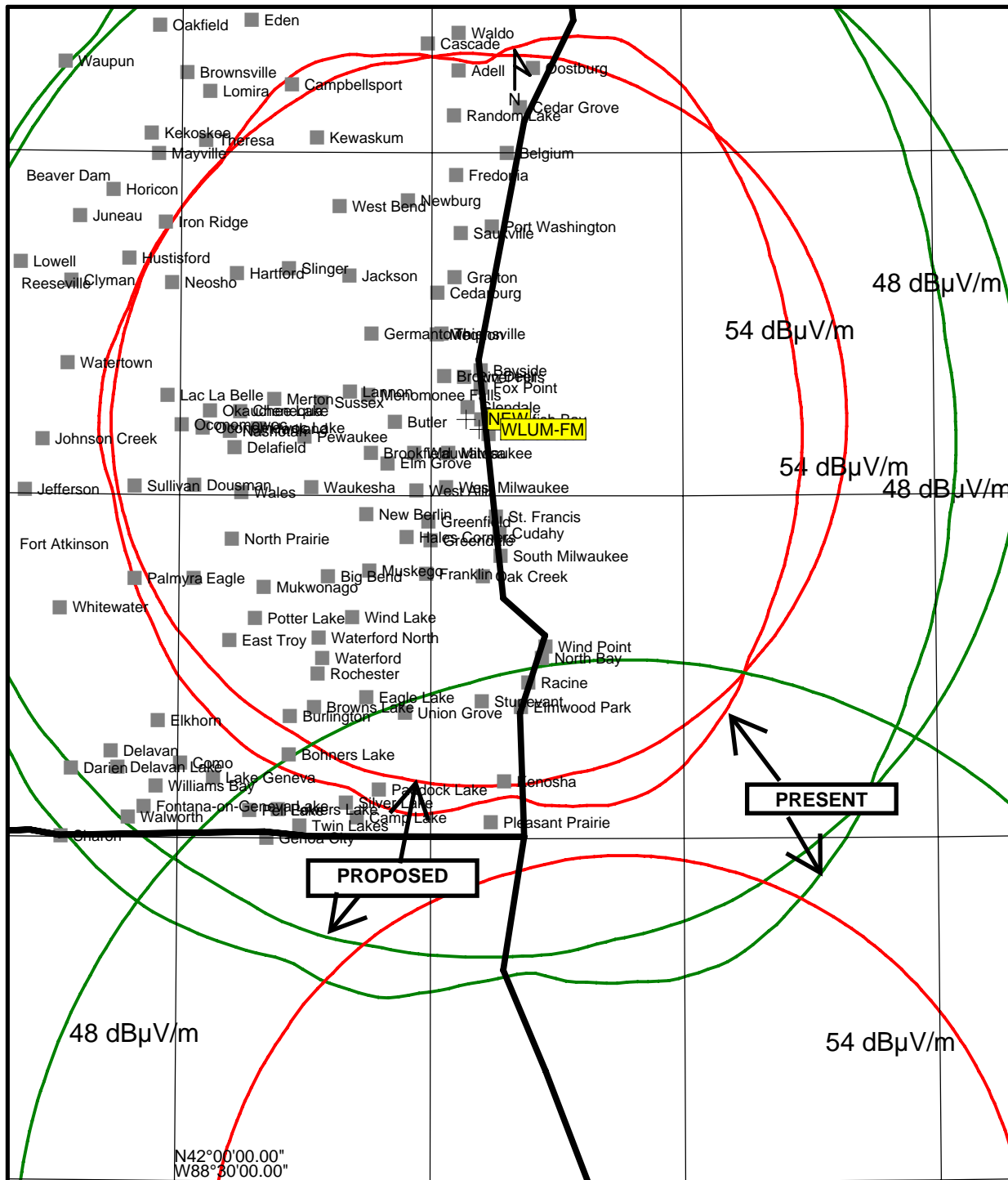
Reference Grid (spacing: 30')



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 PROTECTED CONTOURS

FIGURE 3

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Prop. model: FCC-EDX
Time: 10.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Land use (clutter): none
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.2 m AGL Gain: 0.00 dBd

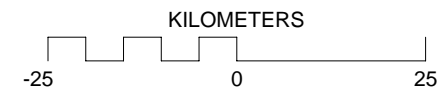
Sites

Site: MILWAUKEE
N43°06'42.00" W87°55'50.00" 187.0 m
NEW Tx.Ht.AGL: 271.3 m Total ERPd: 8.80 kW
Grp: 1 omni-horizontal/0.0° 102.1000 MHz

Site: MILWAUKEE
N43°05'48.00" W87°54'19.00" 198.0 m
WLUM-FM Tx.Ht.AGL: 243.0 m Total ERPd: 20.00kW
Grp: 1 directional-horizontal/0.0° 102.1000 MHz

Site: SKOKIE
N41°52'44.00" W87°38'08.00" 178.0 m
WTMX Tx.Ht.AGL: 479.0 m Total ERPd: 4.20kW
Grp: 1 omni-horizontal/0.0° 101.9000 MHz

Reference Grid (spacing: 30')

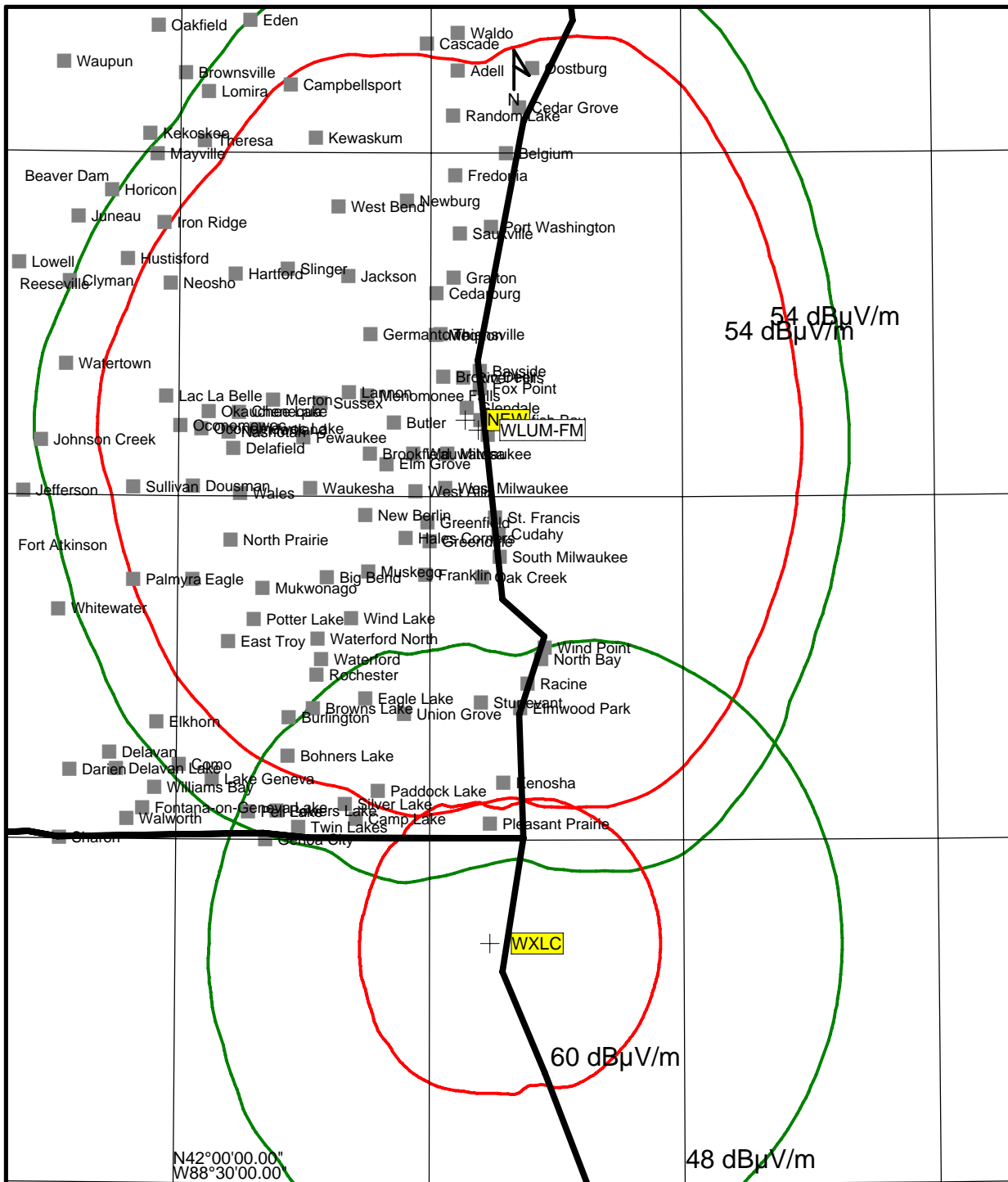


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INTERFERENCE CONTOURS

FIGURE 5 WLUM / WTMX

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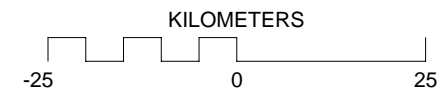
Prop. model: FCC-EDX
Time: 10.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Land use (clutter): none
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.2 m AGL Gain: 0.00 dBd

Sites

Site: MILWAUKEE
N43°06'42.00" W87°55'50.00" 187.0 m
NEW Tx.Ht.AGL: 271.3 m Total ERPd: 8.80 kW
Grp: 1 omni-horizontal/0.0° 102.1000 MHz

Site: WAUKEGAN
N42°20'59.00" W87°52'53.00" 213.7 m
WXLC Tx.Ht.AGL: 95.3 m Total ERPd: 3.00kW
Grp: 1 omni-horizontal/0.0° 102.3000 MHz

Reference Grid (spacing: 30')

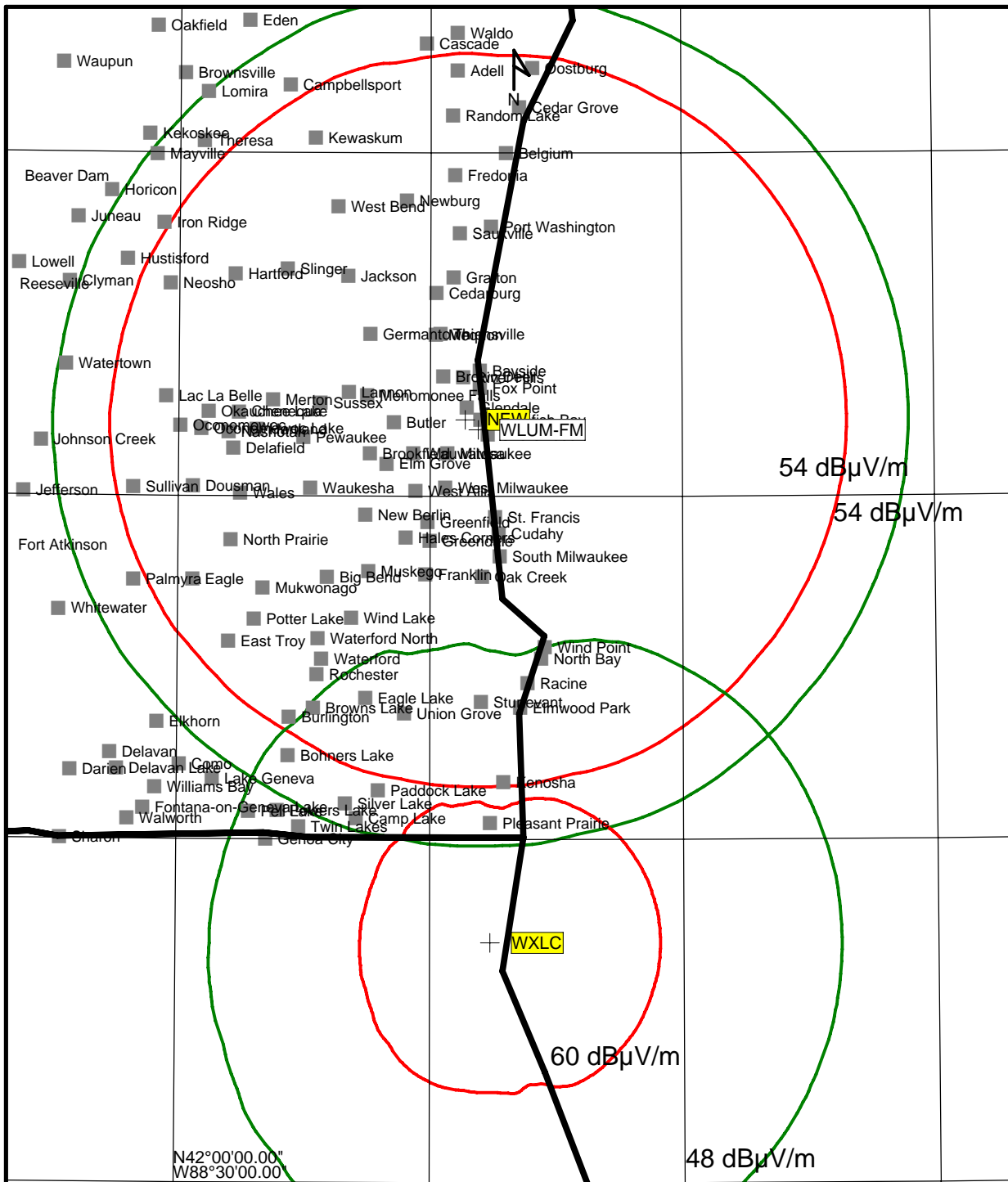


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INTERFERENCE CONTOURS - PRESENT

FIGURE 6 WLUM / WXLC

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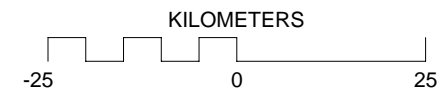
Prop. model: FCC-EDX
Time: 10.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Land use (clutter): none
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.2 m AGL Gain: 0.00 dBd

Sites

Site: MILWAUKEE
N43°06'42.00" W87°55'50.00" 187.0 m
NEW Tx.Ht.AGL: 271.3 m Total ERPd: 8.80 kW
Grp: 1 omni-horizontal/0.0° 102.1000 MHz

Site: WAUKEGAN
N42°20'59.00" W87°52'53.00" 213.7 m
WXLC Tx.Ht.AGL: 95.3 m Total ERPd: 3.00kW
Grp: 1 omni-horizontal/0.0° 102.3000 MHz

Reference Grid (spacing: 30')



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INTERFERENCE CONTOURS - PROPOSED

FIGURE 6A WLUM / WXLC

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