EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of WWRS-DT, Channel 43 in Mayville, Wisconsin, in support of its application for modification of Construction Permit BPCDT-20111028ACH. The purpose of this modification is to specify a reduction in proposed effective radiated power from 725 kW to 600 kW. No change in site location, antenna pattern (from that authorized) or antenna height is proposed herein.

It is proposed to utilize the present ERI antenna as a directional antenna. It is currently mounted at the 126-meter level of the existing 150-meter structure. Exhibit B provides azimuth and elevation patterns for the proposed antenna. Exhibit C is a map upon which the revised service contours are plotted. As shown, the city of license continues to be completely contained within the proposed 43 dBu service contour. A new interference study is included in Exhibit D, and it is important to note that the study utilized a cell size of 1.0 kilometer and an increment spacing of 0.1 kilometers. A power density calculation is provided in Exhibit E.

It is not expected that the proposed facility would cause objectionable interference to any other broadcast or non-broadcast station authorized to operate at or near the WWRS-DT site. However, if such should occur, the owner of this station recognizes its obligation to take whatever corrective actions are necessary.

Since no change in overall height or location of the existing tower is proposed herein, the FAA has not been notified of this application. The Commission has assigned Antenna Structure Registration Number 1219139 to this tower.

EXHIBIT A

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

KEVIN T. FISHER

April 5, 2012

ELECTRONICS RESEARCH, INC.

EXHIBIT B-1

ANTENNA ELEVATION PATTERN

PROPOSED WWRS-DT
CHANNEL 43 – MAYVILLE, WISCONSIN

SMITH AND FISHER

ELEVATION PATTERN

TYPE:	ATL25H3H	
Directivity:	Numeric	dBd
Main Lobe:	25.00	13.98
Horizontal:	16.85	12.27
Beam Tilt:	0.75	
Polarization:	Horizontal	
Frequency:	43 (Digital)	
Location:	Mayville, WI	

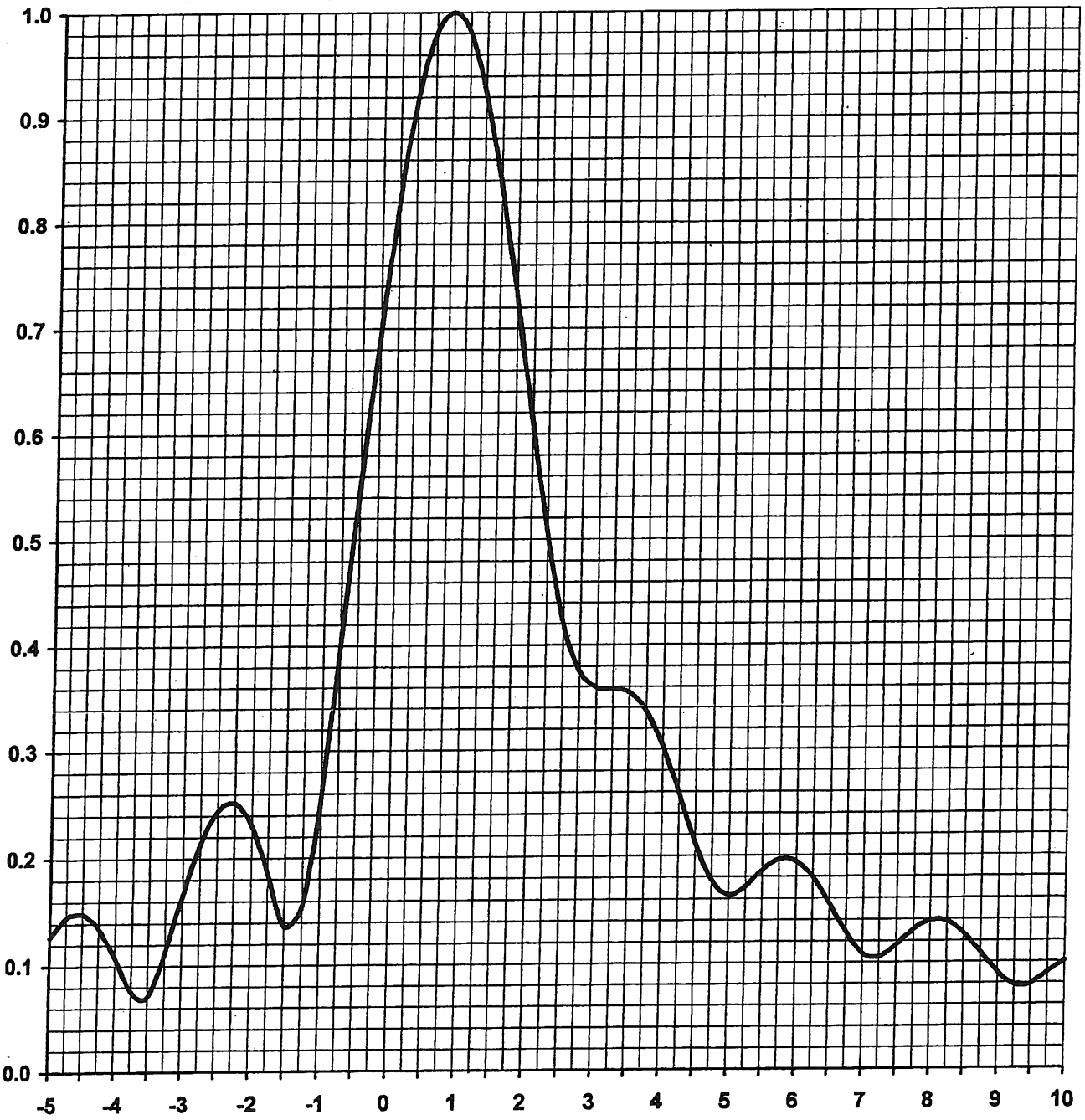


EXHIBIT B-2

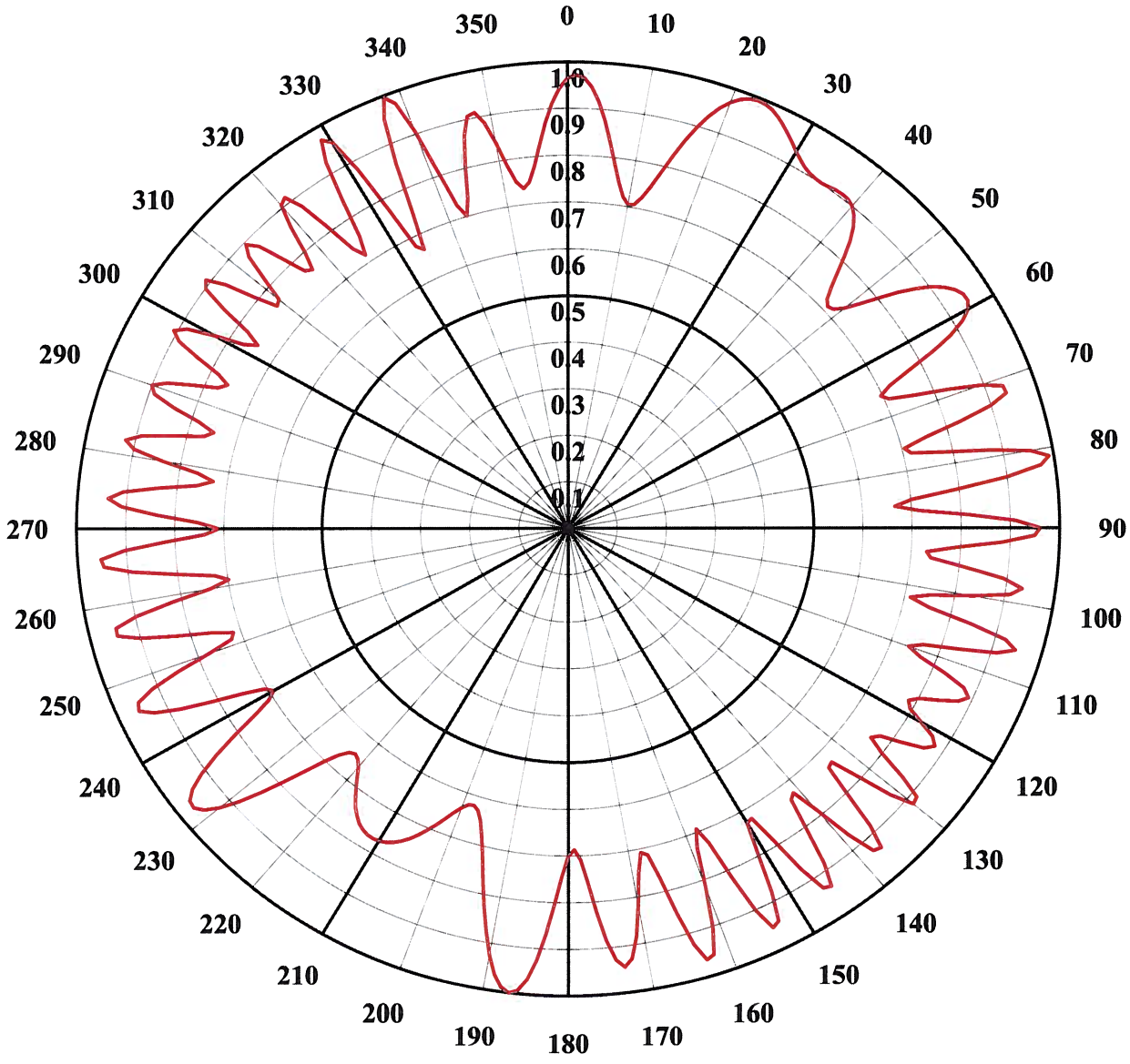
ANTENNA AZIMUTH PATTERN

PROPOSED WWRS-DT
CHANNEL 43 – MAYVILLE, WISCONSIN

SMITH AND FISHER

ERI®
AZIMUTH PATTERN

Type:		
	Numeric	**dBd**
Directivity:		
Peak(s) At:		
Polarization:		
Channel:		
Location:		



Electronics Research, Inc.
7777 Gardner Road
Chandler, Indiana 47610

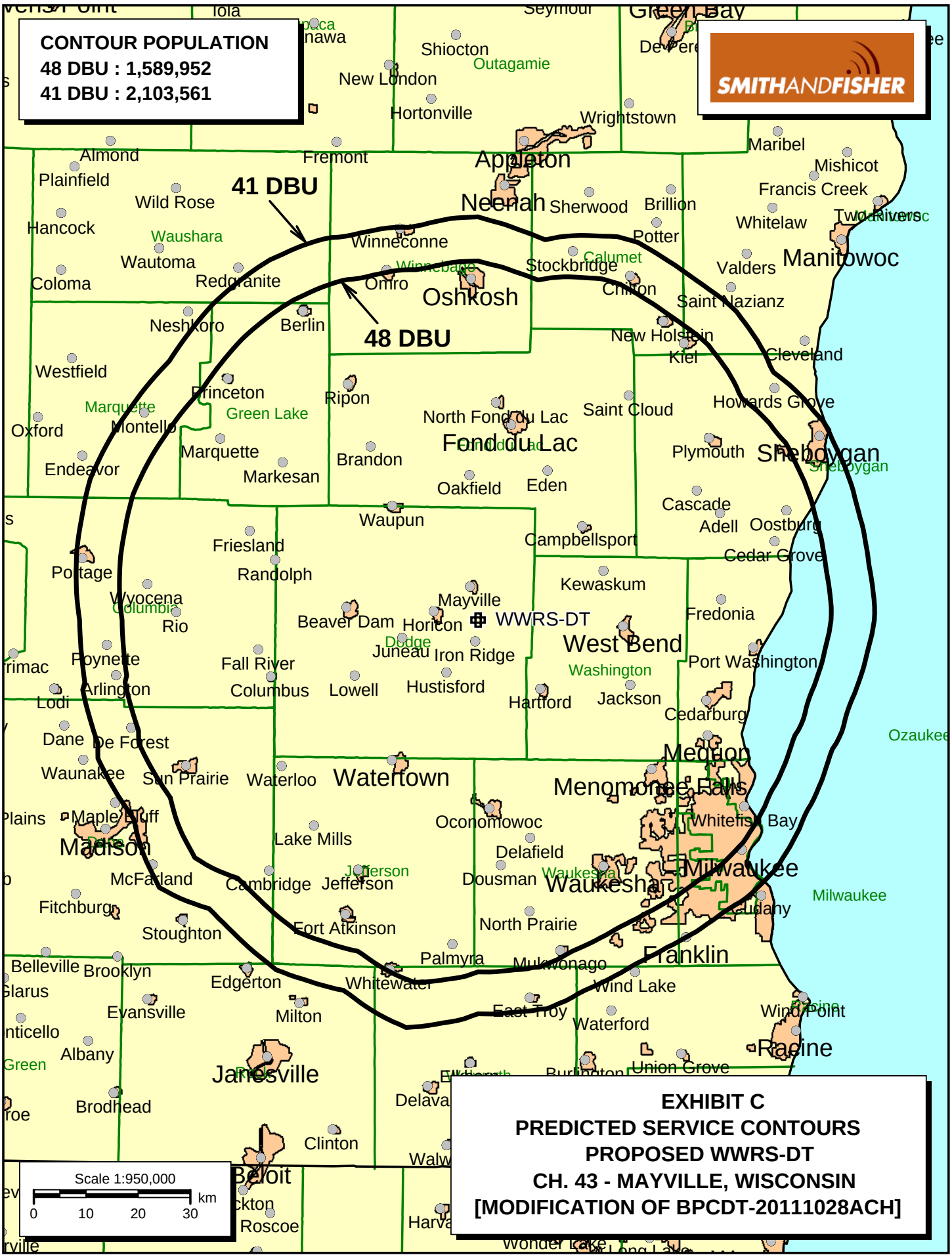

CONTOUR POPULATION
48 DBU : 1,589,952
41 DBU : 2,103,561
SMITHANDFISHER
41 DBU
48 DBU
WWRS-DT
Scale 1:950,000
0 10 20 30 km
EXHIBIT C
PREDICTED SERVICE CONTOURS
PROPOSED WWRS-DT
CH. 43 - MAYVILLE, WISCONSIN
[MODIFICATION OF BPCDT-20111028ACH]

EXHIBIT D-1

INTERFERENCE STUDY

PROPOSED WWRS-DT
CHANNEL 43 – MAYVILLE, WISCONSIN
[MODIFICATION OF BPCDT-20111028ACH]

The instant application specifies an ERP of 600 kw (directional) at 186 meters above average terrain, which we have determined to be allowable under the FCC's interference standards with respect to various post-transition digital television facilities as well as to Class A low power television stations.

In evaluating the interference effect of this proposal, we have relied upon the previously submitted V-Soft Communications "SunDTV" computer program, which mimics the FCC's program. In conducting that study (which assumed the higher 725 kW ERP), we employed a cell size of 1.0 kilometer and an increment spacing of 0.1 kilometer along each radial. In addition, we utilized the 2000 U.S. Census. The summary results of that study appear again in Exhibit D-2.

As shown, the proposed WWRS-DT facility would not contribute more than 0.5% interference (beyond that which is caused by the allotted WWRS-DT facility) to the service population of any potentially affected post-transition DTV station.

A Longley-Rice interference study also reveals that the proposed WWRS-DT facility does not cause significant (0.5%) interference within the protected service contour of any potentially affected Class A low power television station.

Therefore, this proposal meets the FCC's *de minimis* interference standards for DTV operations and Class A LPTV facilities.

EXHIBIT D-1

It is also important to note that the applicant is willing to accept interference to the facility proposed herein from the pending maximization proposal of WCPX-DT, Channel 43 in Chicago, Illinois (BPCDT-20080619AIL). Accordingly, since the proposed WWRS-DT facility meets the FCC's interference requirements to the WCPX-DT proposal, the applications are not mutually exclusive.

EXHIBIT D-2

LONGLEY-RICE INTERFERENCE STUDY RESULTS

PROPOSED WWRS-DT
CHANNEL 43 – MAYVILLE, WISCONSIN
[MODIFICATION OF BPCDT-20111028ACH]

Summary Study

Percent allowed new interference: 0.500
Percent allowed new interference to non Class A LPTV: 2.000
Census data selected 2000
Data Base Selected
./data_files/pt_tvdb.sff

WARNING WARNING WARNING
The following list of station records has been excluded from the analysis due to the fact that they have the same state, city and channel as the proposed station - This could cause the program to not find a potential fail situation

You can force the program to include these records by setting the state of the proposed record to ZZ and re-running the analysis

WWRS-TV	43 MAYVILLE	WI	BPCDT	20080618ATT
WWRS-TV	43 MAYVILLE	WI	BLCDT	20050825AEW
WWRS-TV	43 MAYVILLE	WI	BPCDT	20080618ATT

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 10-20-2011 Time: 06:52:17

Record Selected for Analysis

WWRS-MAX USERRECORD-01 MAYVILLE WI US
Channel 43 ERP 725. kW HAAT 184. m RCAMSL 00479 m
Latitude 043-26-11 Longitude 0088-31-34
Status APP Zone 1 Border Site number: 01
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 0.10 km

Facility (site # 01) meets maximum height/power limits

Site number 1

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	668.160	172.4	78.6
45.0	481.563	176.0	77.0
90.0	668.160	157.1	77.3
135.0	536.210	150.3	75.5
180.0	355.250	195.7	76.9
225.0	386.353	208.3	78.3
270.0	365.472	205.6	77.8
315.0	505.488	203.4	79.4

Evaluation toward Class A Stations from site # 01

No Spacing violations or contour overlap
to Class A stations from site # 01

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

WWRS-MAX 43 MAYVILLE WI USERRECORD01 Site # 01

and station

SHORT TO: WCPX-TV 43 CHICAGO IL BLCDT 20010226ABH
041-52-44 0087-38- 8
Req. separation 196.3 Actual separation 187.8 Short 8.5 km

SHORT TO: WCPX-TV 43 CHICAGO IL BPCDT 20080619AIL
041-53-44 0087-38- 8
Req. separation 196.3 Actual separation 186.1 Short 10.2 km

SHORT TO: WWRS-TV 43 MAYVILLE WI DTVPLN DTVP1561
43 -26-11 88 -31-34
Req. separation 196.3 Actual separation 0.0 Short 196.3 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE from Site # 01

Checks to Site Number 01

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

****

Start of Interference Analysis

Proposed Station

Channel	Call	City/State	ARN
43	WWRS-MAX	MAYVILLE WI	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
41	WMLW-CA	MILWAUKEE WI	60.2	LIC	BLTTA	20021002AAA
42	WQRF-TV	ROCKFORD IL	138.1	LIC	BLCDT	20070404ABY
42	WPNE-TV	GREEN BAY WI	116.0	LIC	BMLEDT	20040818AAP
43	KFXB-TV	DUBUQUE IA	198.4	LIC	BLCDT	20090528AEV
43	WCPX-TV	CHICAGO IL	187.8	LIC	BLCDT	20010226ABH
43	WCPX-TV	CHICAGO IL	186.1	APP	BPCDT	20080619AIL
44	WLS-DR	CHICAGO IL	187.8	APP	BPRM	20090724AEG
44	WLS-TV	CHICAGO IL	187.8	CP MOD	BMPCDT	20110331ABW

%%%

Study of this proposal found the following interference problem(s):

Proposal is MX with BPCDT 20080619AIL in scenario 2

EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED WWRS-DT
CHANNEL 43 – MAYVILLE, WISCONSIN
[MODIFICATION OF BPCDT-20111028ACH]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Mayville facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 600 kW, an antenna radiation center 126 meters above ground, and the elevation pattern of the ERI antenna, maximum power density two meters above ground of 0.0022 mw/cm^2 is calculated to occur 29 meters from the base of the tower. Since this is only 0.5 percent of the 0.43 mw/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 43 (644-650 MHz), a grant of this proposal may be considered a minor environmental action with respect to public and occupational ground-level exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.