ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of WWAZ LICENSE, LLC, licensee of Television Station WWAZ-DT in Fond du Lac, Wisconsin, in support of this Application for Construction Permit to specify a digital fill-in translator on Channel 15 in Ripon, Wisconsin. WWAZ-DT is allotted on Channel 44 at a site near Iron Ridge, Wisconsin. The station owner has filed a Petition for Rulemaking (BPRM-20080619ALY) to move the facility to the Milwaukee antenna farm and operate on Channel 5. As a result of this move, a loss area would be created along the western and northwestern edge of the Channel 44 allotment facility's service contour. A grant of the instant proposal would allow the station to place a predicted service contour over the northern half of the loss area.

It is proposed to mount a standard ERI (Andrew) directional antenna at the 100-meter level of an existing 129-meter communications tower. Exhibit B is a map upon which the predicted service contours are plotted. It is important to note that the proposed 41 dBu contour encompasses the station's city of license. Exhibit C depicts the coverage of the proposed translator with respect to the WWAZ-DT loss area. Operating parameters for the proposed facility are tabulated in Exhibit D. An interference study is provided in Exhibit E, and a power density calculation follows as Exhibit F.

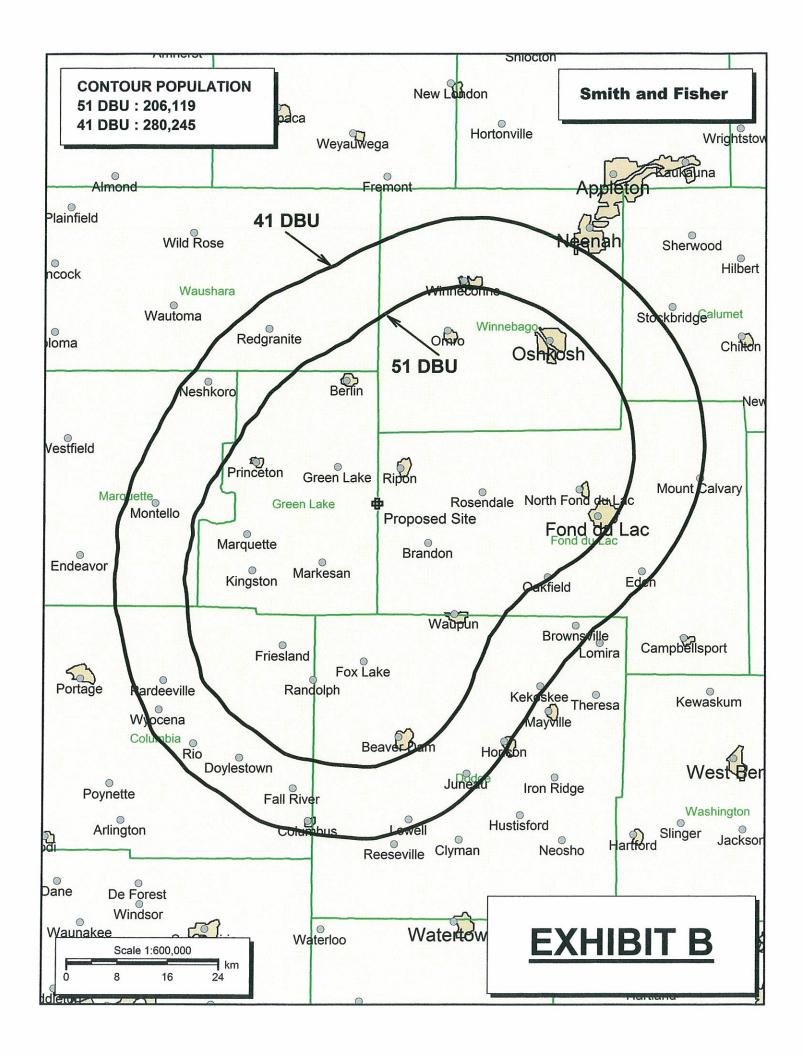
Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1035940 to this tower.

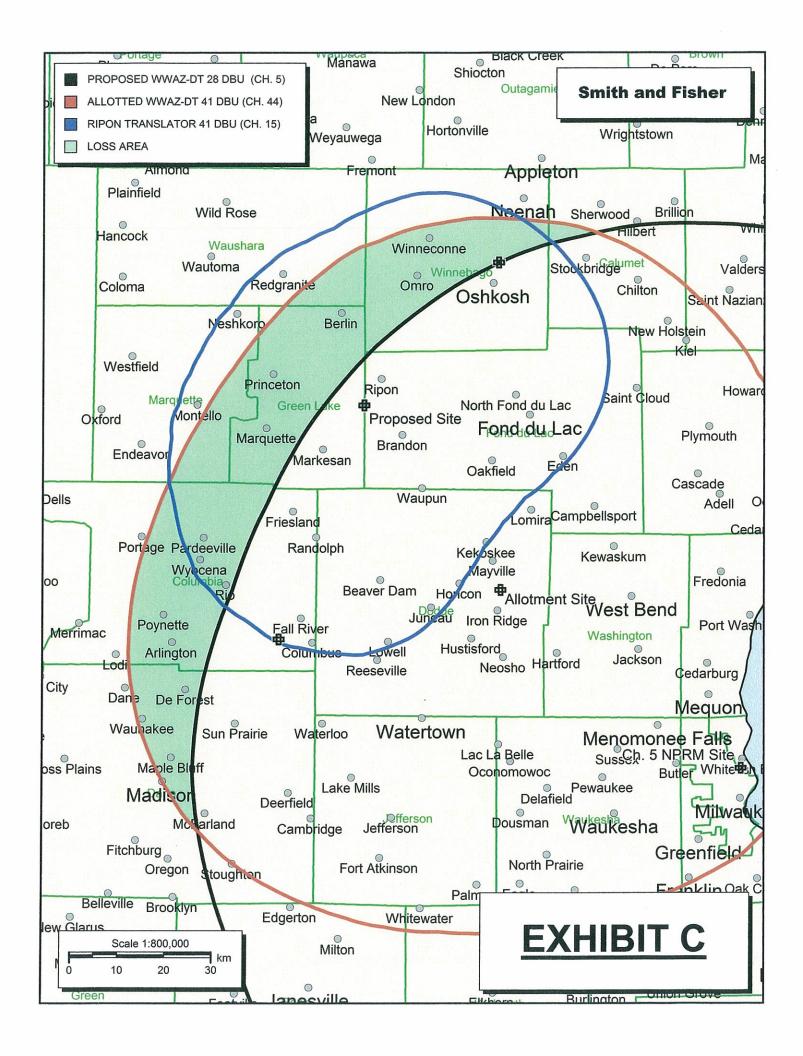
EXHIBIT A

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

February 12, 2009





SMITH AND FISHER

EXHIBIT D

PROPOSED OPERATING PARAMETERS

PROPOSED FILL-IN TRANSLATOR CHANNEL 15 - RIPON, WISCONSIN

ransmitter Power Output:	0.41 kw
Transmission Line Efficiency:	68.7%
Antenna Power Gain – Toward Horizon:	24.89
Antenna Power Gain – Main Lobe:	24.89
Effective Radiated Power – Toward Horizon:	7.0 kw
Effective Radiated Power – Main Lobe:	7.0 kw
Transmitter Make and Model:	Type-accepted

Transmission Line Make and Model:

Size and Type:

Length:

Andrew HJ7-50A

1-5/8" air heliax

350 feet*

Antenna Make and Model: ERI ALP8LI-HSBR
Orientation 130° T

Orientation 130° T
Beam Tilt 0.5 degrees

Radiation Center Above Ground: 100 meters

Radiation Center Above Mean Sea Level: 429 meters

*estimated

EXHIBIT E-1

PROPOSED FILL-IN TRANSLATOR CHANNEL 15 – RIPON, WISCONSIN

We conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 1-square kilometer cell size, calculates signal strength at 1.0 kilometer increments along each radial studied, and employs the 1990 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than that proposed herein) already is predicted to exist (also known as "masking"). A summary of the results of this study is provided in Exhibit E-2. It concludes that the facility proposed herein causes no significant new interference to any of the potentially affected full-power or low-power analog or digital (pre-transition or post-transition) television stations. [It is important to note that the proposed facility causes predicted interference to analog WMTV(TV), Channel 15 in Madison, Wisconsin. However, the owners of that station have notified the FCC that they intend to shut down this facility on February 17, 2009. Therefore, interference to this station can be ignored.]

As a result, it is believed that the proposed facility complies with the requirements of Sections 74.709, 74,793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030 of the Commission's Rules.

Summary Study

1990 Census data selected
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 02-11-2009 Time: 08:54:45

Record Selected for Analysis

RIPON SI USERRECORD-01 OSHKOSH WI US Channel 15 ERP 7. kW HAAT 147. m RCAMSL 00429 m SIMPLE MASK Latitude 043-47-31 Longitude 0088-52-54

Status APP Zone 1 Border

Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth

130.

Last update Cutoff date Docket

Comments Applicant

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Not full service station

Facility meets maximum power limit

Azimuth	ERP	HAAT	51.0 dBu F(50,90)
(Deg)	(kW)	(m)	(km)
0.0	0.557	145.1	29.5
45.0	5.384	140.3	40.8
90.0	4.097	129.2	38.7
135.0	0.464	127.8	27.4
180.0	5.964	144.5	41.6
225.0	3.844	140.1	39.1
270.0	0.312	166.9	27.9
315.0	0.140	180.8	24.7

Contour Overlap to Proposed Station

Contour Overlap Evaluation to Proposed Station Complete

LANDMOBILE SPACING VIOLATIONS FOUND

To CHICAGO IL Channel 15 from Channel 15 Required separation 250.0 km Actual 236.0 km Short 14.0 km Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountian

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

15 RIPON SI OSHKOSH WI USERRECORDO1

Stations Potentially Affected by Proposed Station

Chan Call No.	City/State	Dist(km)	Status	Application	n Ref.
14 WXOW-TV 20080619AEF	LA CROSSE WI	199.4	CP MOD	BMPCDT ·	-
14 WIWB 19980622KF	SURING WI	115.8	LIC	BLCT	~
15 KYOU-TV 20080620AIS	OTTUMWA IA	383.0	CP MOD	BMPCDT	_
15 KYOU-TV 19960528KO	OTTUMWA IA	383.0	LIC	BLCT	-
15 WXSP-CA 19910507JJ	GRAND RAPIDS MI	267.9	LIC	BLTT	_
15 WXSP-CA 20060330AGO	GRAND RAPIDS MI	267.9	CP	BDFCDTA	-
15 WXSP-CA 20080804ADS	GRAND RAPIDS MI	267.9	APP	BMPDTA	-
15 W15BP 20030609AAR	PINCONNING MI	384.1	LIC	BLTTL	-
15 W15BM 20040407ABB	TRAVERSE CITY MI	276.4	APP	BPTTL	_
15 W15BM 20001212AAE	TRAVERSE CITY MI	275.9	ric	BLTTL	-
15 KSMQ-TV 20041214ADY	AUSTIN MN	331.2	LIC	BMLET	_
15 WQOW-TV 20041001AOM	EAU CLAIRE WI	234.1	CP MOD	BMPCDT	_
16 WTVO 20021024AAS	ROCKFORD IL	168.9	LIC	BLCDT	-
16 W29DJ 20060329AEI	SHEBOYGAN WI	91.2	CP	BDFCDTT	-
16 W16AY 20001213ABK	WHITING WI	104.5	LIC	BLTTL	-
17 W17CF 19990608JA	OSHKOSH WI	41.4	LIC	BLTT	_
18 WVTV 19870804KE	MILWAUKEE WI	110.4	LIC	BLCT ·	-
	GREEN BAY WI	71.0	APP	BPCT -	-
23 W23BW 20031125AAQ	MADISON WI	95.3	LIC	BLTTA -	-
23 W23BW 20030326AHF	MADISON WI	. 95.3	APP	BPTTA -	-

Study of this proposal found the following interference problem(s): NONE.

EXHIBIT F

POWER DENSITY CALCULATION PROPOSED FILL-IN TRANSLATOR CHANNEL 15 - RIPON, WISCONSIN

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Ripon facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 7.0 kw, an antenna radiation center 100 meters above ground, and the vertical pattern of the MCI antenna, maximum power density two meters above ground of 0.0014 mw/cm² is calculated to occur 40 meters northeast and southwest of the base of the tower. Since this is only 0.5 percent of the 0.32 mw/cm² reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 15 (476-482 MHz), this proposal may be excluded from consideration with respect to public 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.