

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

<b>In the Matter of:</b>	}	
	}	<b>MB Docket No.: 08-130</b>
<b>WWAZ LICENSE, LLC</b>	}	
	}	<b>RM - 11462</b>
<b>To Amend the Post-Transition</b>	}	
<b>Digital Television Table of Allotment</b>	}	
<b><u>for Station WWAZ-DT, Fond du Lac, WI</u></b>	}	

**To: The Secretary**  
**Attn: Chief, Video Division**  
**Media Bureau**

**SUPPLEMENT TO  
PETITION FOR RULEMAKING**

WWAZ License, LLC ("Petitioner"), by and through its attorneys, and pursuant to Section 73.623 of the Commission's rules, 47 C.F.R. § 73.623 (2007), hereby submits this Supplement to the Petition for Rulemaking filed on June 19, 2008, and amended on August 22, 2008, to change the post-transition digital television ("DTV") channel allotment of Station WWAZ-DT, Fond du Lac, Wisconsin (the "Station") to Channel 5, and to make related technical changes to the Station's technical parameters.

As previously demonstrated, the requested change in the post-transition DTV allotment to Channel 5 will fully comply with all applicable legal and technical requirements. First, the loss area associated with the proposed modification would continue to be well served by five or more television stations. Second, the proposed change would lead to an additional 1 million viewers receiving service. Third, the target audience of the Station are Hispanic viewers, and the proposed facility would increase the service to Hispanic viewers from 110,430 to 316,179 persons. Therefore, Petitioner believes that the proposed change would serve the public interest.

In an attempt to allay concerns regarding the loss area created by the proposed modification to the Station,<sup>1</sup> the instant supplement proposes the construction and operation of two digital television translator stations pursuant to the recently-adopted Notice of Proposed Rulemaking in MB Docket 08-253.<sup>2</sup> In the NPRM, the Commission established procedures by which television licensees seeking to fill in loss areas could submit applications for new digital television translator stations.

Attached hereto as Exhibit A is the Engineering Statement of Smith and Fisher, which establishes that the licensing to two proposed digital translators would serve 99.8 percent of the loss area population created by the station's proposed post-transition, channel-change facility. The translators proposed slightly expand the coverage area of the Station. Such expansion is necessary to maximize the service to the loss area resulting from channel-change facility proposed in the Petition. Any further expansion of the service area, in order to serve the remaining .2% loss area would lead to a substantial increase in the service area of the television translators beyond the Station's proposed service area, and thus has not been proposed.

In conjunction with the instant proposal, and pursuant to the *Public Notice*, released on December 30, 2008,<sup>3</sup> the Petitioner is submitting the applications for construction permit authorizations for both digital television translator stations, and the associated requests for special temporary authority. While the Petitioner understands that the Commission will not process the applications until the final rules are adopted and become effective, the requests for

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<sup>1</sup> It should be noted that the Commission granted the Petitioner's request to terminate the analog service of the Station on July 28, 2008 (DA 08-1569).

<sup>2</sup> See *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Replacement Digital Low Power Television Translator Stations*, MB Docket No. 08-253, Notice of Proposed Rulemaking, released on December 23, 2008 (the "NPRM").

<sup>3</sup> *Media Bureau Announces Application And STA Filing Procedures For New Replacement Digital Television Translators Beginning January 5, 2009*, DA 08-2818, released on December 30, 2008.

special temporary authority would permit the Petitioner to move forward upon grant of the Petition.

Therefore, Petitioner respectfully requests that the Commission expeditiously process and grant the pending request to amend the post-transition DTV Table of Allotments for WWAZ-DT. The requested changes comply with all applicable legal and technical requirements, and the Petitioner has taken steps to ameliorate any loss of service created by the proposed technical changes. As such, the grant of the instant Petition for Rulemaking would serve the public interest.

Respectfully submitted,

**WWAZ LICENSE, LLC**

By: 

Kathleen Victory

Lee G. Petro, Esquire

**FLETCHER, HEALD & HILDRETH, PLC**

1300 North 17<sup>th</sup> Street, 11<sup>th</sup> Floor

Arlington, Virginia 22209

703-812-0400 – Telephone

703-812-0486 – Telecopier

Its Attorney

February 23, 2009

**EXHIBIT A**

ENGINEERING STATEMENT

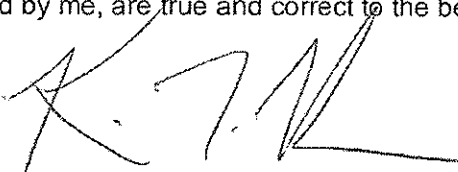
The engineering data contained herein have been prepared on behalf of WWAZ LICENSE, LLC, licensee of WWAZ-DT in Fond du Lac, Wisconsin, in support of this supplement to its pending Petition for Rulemaking (BPRM-20080619ALY) to substitute Channel 5 for Channel 44 as its post-transition digital television allotment. In the referenced Rulemaking, it was also proposed to move the transmitter site from the Iron Ridge tower site to a tower located in the Milwaukee antenna farm. As a result of this change in transmitter site, a "loss" area is created along the western and northwestern edge of the service contour of the WWAZ-DT Channel 44 allotment facility. It is proposed herein to employ two fill-in translators to serve almost all of this loss area. One will be licensed to Ripon, Wisconsin, and serve the northern portion of the loss area. The other will be licensed to Columbus, Wisconsin, and cover the southern part of the loss area. The engineering proposals for the fill-in translators in Ripon and Columbus are provided in Appendix A and Appendix B, respectively.

Attached hereto is a map on which we have plotted the service contours of the WWAZ-DT allotment facility on Channel 44 and the proposed facility on Channel 5. We have highlighted in green the loss area created by the change in transmitter sites proposed in the Channel 5 petition. To this map we have added the 41 dBu service contours for the proposed fill-in translators. While the population within the loss area is 163,814 (based on the 2000 U.S. Census), the combination of the two fill-in translators will serve all but 256 people in this area. This represents coverage of 99.8 percent of the loss area population.

It is important to note that translator sites, power levels and antenna patterns were chosen to maximize coverage of the loss area and minimize the extension of service beyond the allotted WWAZ-DT noise-limited contour. In order to cover the remaining 0.2 percent of

the loss area population, the Ripon translator's contour would have significantly extended beyond the WWAZ-DT contour.

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

A handwritten signature in black ink, appearing to read 'K. T. Fisher', with a stylized flourish at the end.

KEVIN T. FISHER

February 11, 2009



## APPENDIX A

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### Section III - Engineering (Digital)

#### TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

#### TECH BOX

1. Channel: 15
2. Translator Input Channel No. 5

3. Station proposed to be rebroadcast:

Call Sign WWAZ-DT	City Fond du Lac	State Wisconsin	Channel 5
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4. Antenna Location Coordinates: (NAD 27)

43 ° 47 31 ☒ N ☐ S Latitude  
88 ° 52 54 ☐ E ☒ W Longitude

5. Antenna Structure Registration Number: 1035940

☐ Not applicable

See Explanation  
in Exhibit No.

☐ FAA Notification Filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 329.2 meters
7. Overall Tower Height Above Ground Level: 128.6 meters
8. Height of Radiation Center Above Ground Level: 100 meters
9. Maximum Effective Radiated Power (ERP): 7.0 kW
10. Transmitter Output Power: 7.0 kW

11. a. Transmitting Antenna: ☐ Nondirectional ☒ Directional ☐ Directional composite

Manufacturer Andrew	Model ALP8L1-HSBR
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- b. Electrical Beam Tilt: 0.5 degrees ☐ Not applicable

c. Directional Antenna Relative Field Values:

Rotation: 130 ° ☐ No rotation ☐ N/A (Nondirectional)

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

12. Out-of-Channel Emission Mask: Simple ☐ Stringent ☒

**CERTIFICATION**

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030. ☒ Yes ☐ No See Explanation in Exhibit No. E

14. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. An Exhibit is required. ☒ Yes ☐ No See Explanation in Exhibit No. F

Exhibit No.  
F

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

15. **Channels 52-59.** If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:

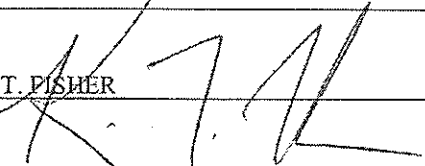
- ☐ The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.
- ☐ Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of

**PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.**

16. **Channels 60-69.** If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:

- ☐ Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees,
- ☐ Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreement(s) with 700 MHz public safety regional planning committee(s) and state frequency administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.
- ☐ Pursuant to Section 74.786(e), an applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name KEVIN T. FISHER		Relationship to Applicant (e.g., Consulting Engineer) ENGINEERING CONSULTANT	
Signature 		Date February 11, 2009	
Mailing Address SMITH AND FISHER, 2237 Tackett's Mill Drive, Suite A			
City Lake Ridge		State or Country (if foreign address) Virginia	ZIP Code 22192
Telephone Number (include area code) (703) 494-2101		E-Mail Address (if available) kevin@smithandfisher.com	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001),  
AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)),  
AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

EXHIBIT A

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.

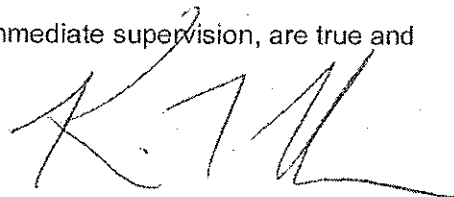
Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1035940 to this tower.

SMITH AND FISHER

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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.

A handwritten signature in black ink, appearing to read 'K. T. Fisher', with a stylized flourish at the end.

KEVIN T. FISHER

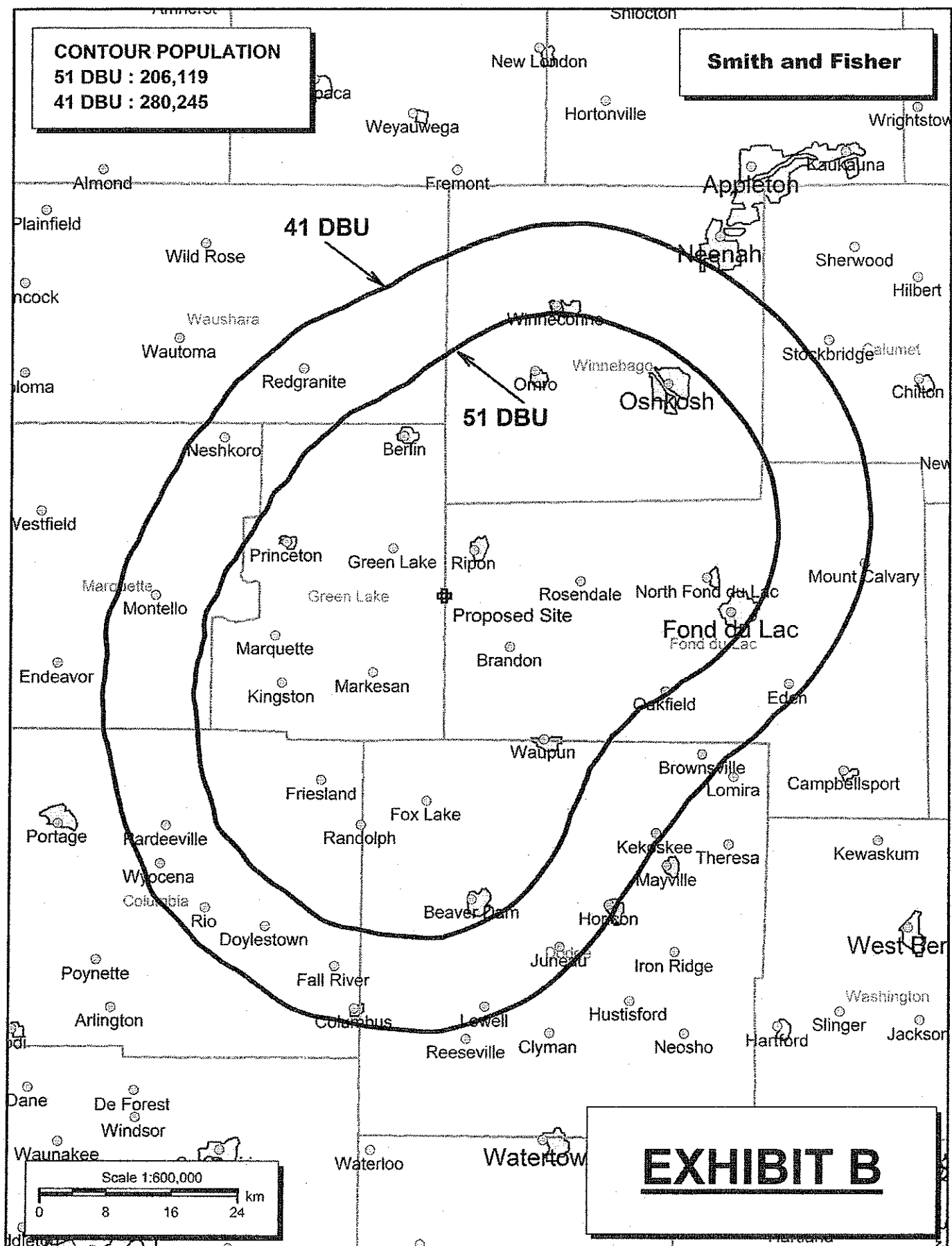
February 12, 2009.

**CONTOUR POPULATION**

**51 DBU : 206,119**

**41 DBU : 280,245**

**Smith and Fisher**



**EXHIBIT B**

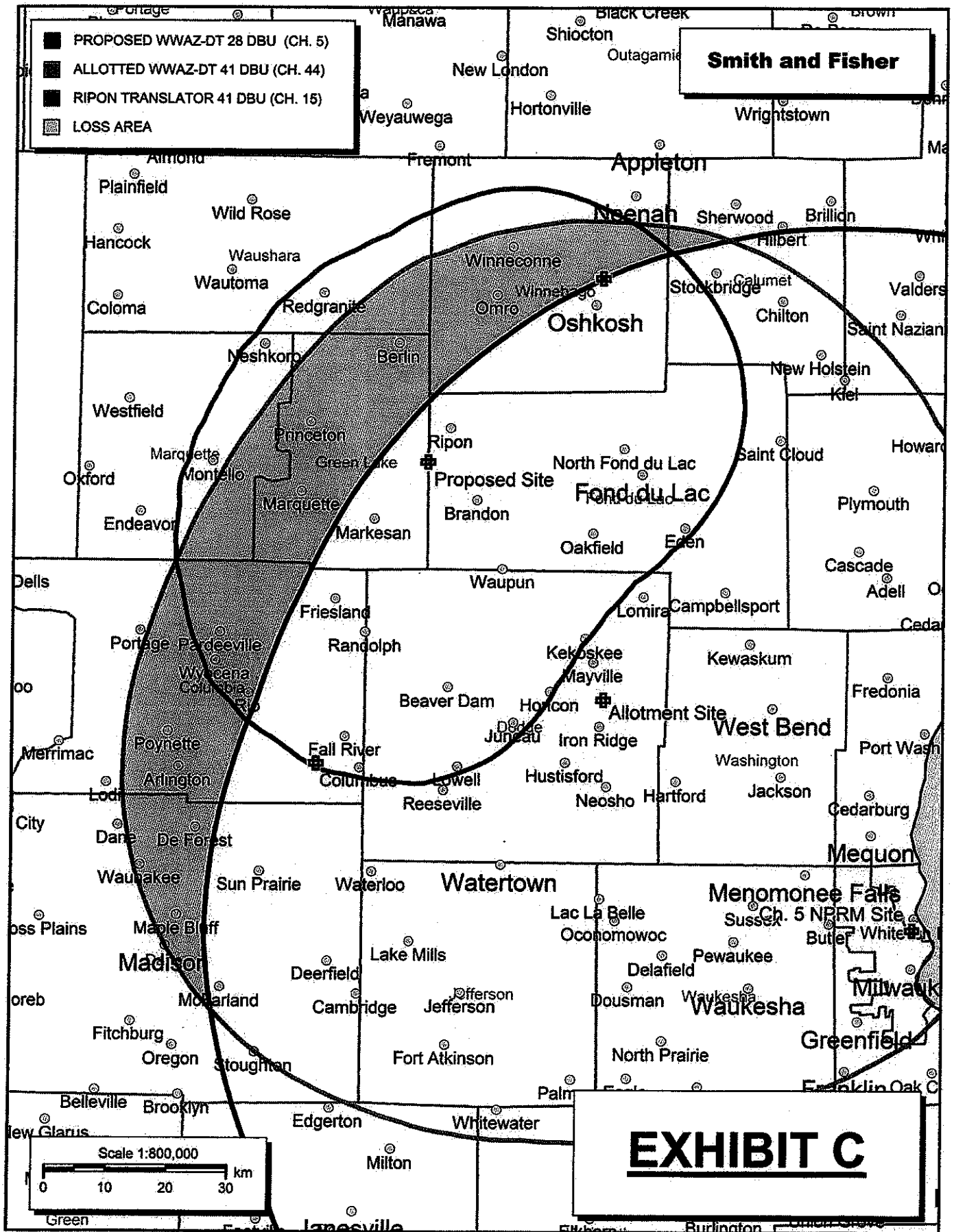


EXHIBIT D

PROPOSED OPERATING PARAMETERS

PROPOSED FILL-IN TRANSLATOR  
CHANNEL 15 - RIPON, WISCONSIN

Transmitter 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:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	350 feet*
Antenna Make and Model:	ERI ALP8LI-HSBR
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

LONGLEY-RICE INTERFERENCE STUDY  
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 (Deg)	ERP (kW)	HAAT (m)	51.0 dBu F(50,90) (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 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

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### Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
15	RIPON SI	OSHKOSH WI	USERRECORD01

### Stations Potentially Affected by Proposed Station

Chan No.	Call	City/State	Dist(km)	Status	Application	Ref.
14	WXOW-TV	LA CROSSE WI	199.4	CP MOD	BMPCDT	-
20080619AEF						
14	WIWB	SURING WI	115.8	LIC	BLCT	-
19980622KF						
15	KYOU-TV	OTTUMWA IA	383.0	CP MOD	BMPCDT	-
20080620AIS						
15	KYOU-TV	OTTUMWA IA	383.0	LIC	BLCT	-
19960528KO						
15	WXSP-CA	GRAND RAPIDS MI	267.9	LIC	BLTT	-
19910507JJ						
15	WXSP-CA	GRAND RAPIDS MI	267.9	CP	BDFCDTA	-
20060330AGO						
15	WXSP-CA	GRAND RAPIDS MI	267.9	APP	BMPDTA	-
20080804ADS						
15	W15BP	PINCONNING MI	384.1	LIC	BLTTL	-
20030609AAR						
15	W15BM	TRAVERSE CITY MI	276.4	APP	BPTTL	-
20040407ABB						
15	W15BM	TRAVERSE CITY MI	275.9	LIC	BLTTL	-
20001212AAE						
15	KSMQ-TV	AUSTIN MN	331.2	LIC	BMLET	-
20041214ADY						
15	WQOW-TV	EAU CLAIRE WI	234.1	CP MOD	BMPCDT	-
20041001AOM						
16	WTVO	ROCKFORD IL	168.9	LIC	BLCDDT	-
20021024AAS						
16	W29DJ	SHEBOYGAN WI	91.2	CP	BDFCDTT	-
20060329AEI						
16	W16AY	WHITING WI	104.5	LIC	BLTTL	-
20001213ABK						
17	W17CF	OSHKOSH WI	41.4	LIC	BLTT	-
19990608JA						
18	WVTV	MILWAUKEE WI	110.4	LIC	BLCT	-
19870804KE						
22	960920YL	GREEN BAY WI	71.0	APP	BPCT	-
19960920YL						
23	W23BW	MADISON WI	95.3	LIC	BLTTA	-
20031125AAQ						
23	W23BW	MADISON WI	95.3	APP	BPTTA	-
20030326AHF						

EXHIBIT E-2 continued

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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  $0.0014 \text{ mw/cm}^2$  is calculated to occur 40 meters northeast and southwest of the base of the tower. Since this is only 0.5 percent of the  $0.32 \text{ mw/cm}^2$  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.

## APPENDIX B

### Section III - Engineering (Digital)

#### TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

#### TECH BOX

1. Channel: 30
2. Translator Input Channel No. 5

3. Station proposed to be rebroadcast:

Call Sign WWAZ-DT	City Fond du Lac	State Wisconsin	Channel 5
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4. Antenna Location Coordinates: (NAD 27)

43 ° 20 40 ☒ N ☐ S Latitude  
89 ° 06 10 ☐ E ☒ W Longitude

5. Antenna Structure Registration Number: 1224263

☐ Not applicable

See Explanation  
in Exhibit No.

☐ FAA Notification Filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 275 meters
7. Overall Tower Height Above Ground Level: 113 meters
8. Height of Radiation Center Above Ground Level: 99 meters
9. Maximum Effective Radiated Power (ERP): 5.0 kW
10. Transmitter Output Power: 0.55 kW

11. a. Transmitting Antenna: ☐ Nondirectional ☒ Directional ☐ Directional composite

Manufacturer MCI	Model 955312
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- b. Electrical Beam Tilt: \_\_\_\_\_ degrees ☒ Not applicable

c. Directional Antenna Relative Field Values:

Rotation: 240 ° ☐ No rotation ☐ N/A (Nondirectional)

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

12. Out-of-Channel Emission Mask: Simple ☐ Stringent ☒

**CERTIFICATION**

13. Interference. The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030. ☒ Yes ☐ No See Explanation in Exhibit No. E

14. Environmental Protection Act. The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. An Exhibit is required. ☒ Yes ☐ No See Explanation in Exhibit No. F

Exhibit No.  
F

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

15. Channels 52-59. If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:

- ☐ The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.
- ☐ Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of

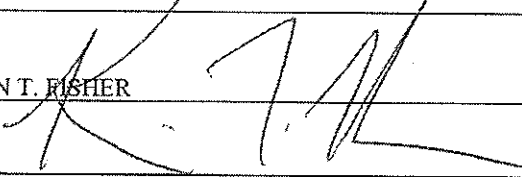
**PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.**



16. **Channels 60-69.** If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:

- ☐ Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees,
- ☐ Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreement(s) with 700 MHz public safety regional planning committee(s) and state frequency administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.
- ☐ Pursuant to Section 74.786(e), an applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name <b>KEVIN T. FISHER</b>		Relationship to Applicant (e.g., Consulting Engineer) <b>ENGINEERING CONSULTANT</b>	
Signature 		Date <b>February 11, 2009</b>	
Mailing Address <b>SMITH AND FISHER, 2237 Tackett's Mill Drive, Suite A</b>			
City <b>Lake Ridge</b>		State or Country (if foreign address) <b>Virginia</b>	ZIP Code <b>22192</b>
Telephone Number (include area code) <b>(703) 494-2101</b>		E-Mail Address (if available) <b>kevin@smithandfisher.com</b>	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

EXHIBIT A

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 30 in Columbus, Wisconsin. WWAZ-DT is allotted on Channel 44 at a site near Iron Ridge, Wisconsin. The station owners have 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 southern half of the loss area.

It is proposed to mount a standard MCI directional antenna at the 99-meter level of an existing 113-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 1224263 to this tower.

SMITH AND FISHER

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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

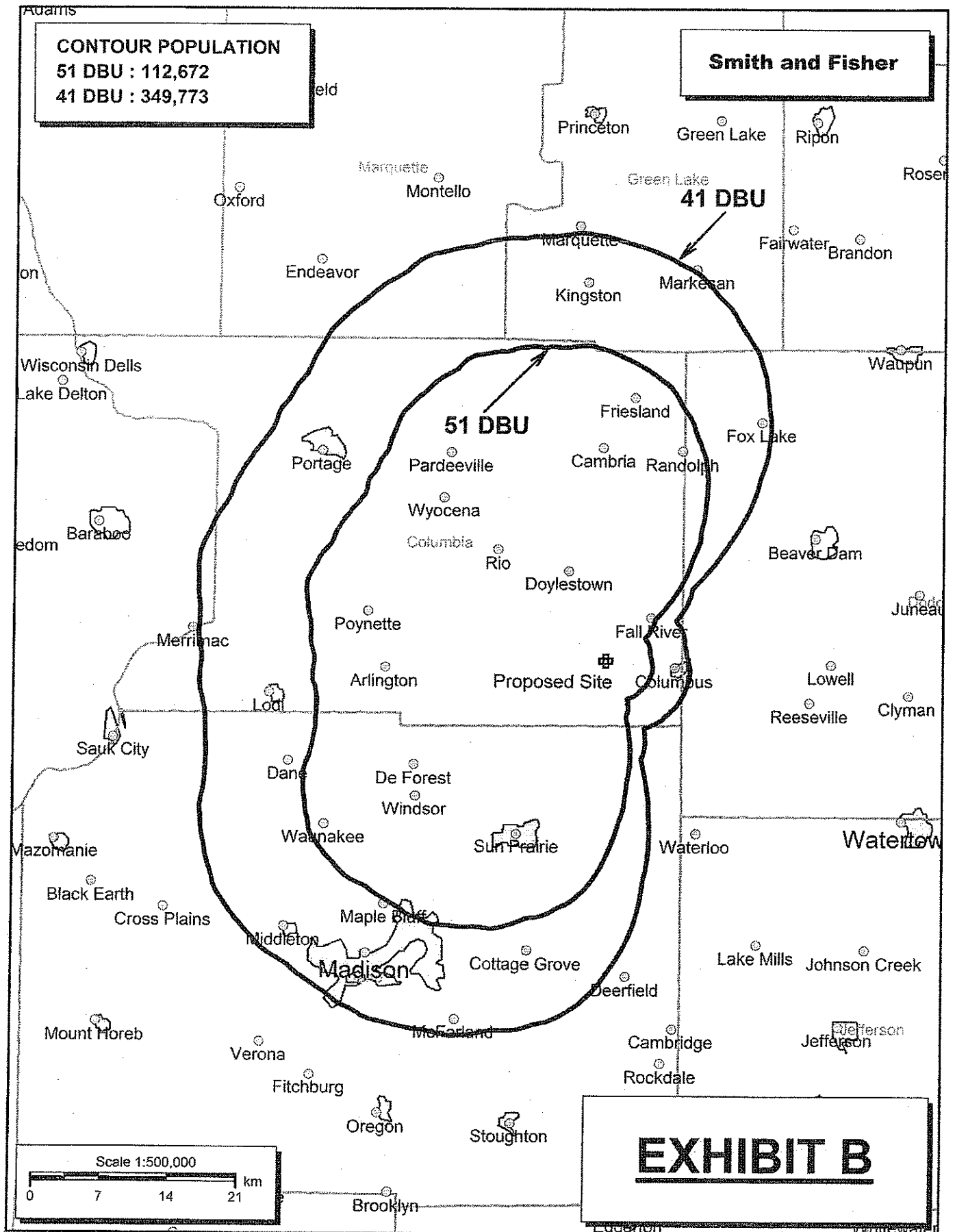
February 11, 2009

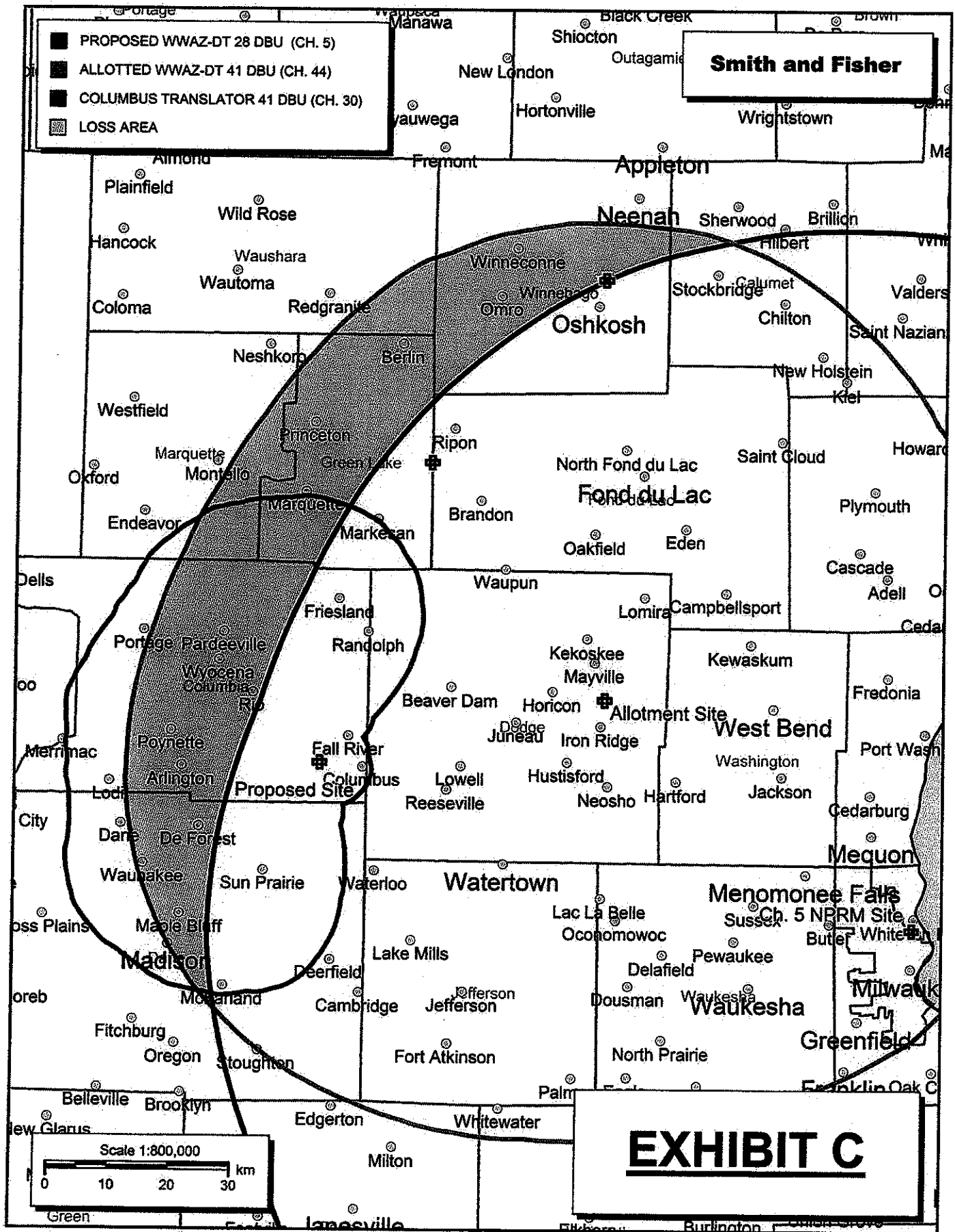
**CONTOUR POPULATION**

**51 DBU : 112,672**

**41 DBU : 349,773**

**Smith and Fisher**





SMITH AND FISHER

EXHIBIT D

PROPOSED OPERATING PARAMETERS

PROPOSED FILL-IN TRANSLATOR  
CHANNEL 30 – COLUMBUS, WISCONSIN

Transmitter Power Output:	0.55 kw
Transmission Line Efficiency:	66.2%
Antenna Power Gain – Toward Horizon:	13.8
Antenna Power Gain – Main Lobe:	13.8
Effective Radiated Power – Toward Horizon:	5.0 kw
Effective Radiated Power – Main Lobe:	5.0 kw
Transmitter Make and Model:	Type-accepted
Transmission Line Make and Model:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	350 feet*
Antenna Make and Model:	MCI 955312
Orientation	240° T
Beam Tilt	none
Radiation Center Above Ground:	99 meters
Radiation Center Above Mean Sea Level:	374 meters

\*estimated

EXHIBIT E-1

LONGLEY-RICE INTERFERENCE STUDY  
PROPOSED FILL-IN TRANSLATOR  
CHANNEL 30 – COLUMBUS, 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 analog or digital full-power or low-power television stations.

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: 02-10-2009 Time: 15:37:29

Record Selected for Analysis .

NEW SOUT USERRECORD-01 COLUMBUS WI US  
Channel 30 ERP 5. kW HAAT 87. m RCAMSL 00374 m STRINGENT MASK  
Latitude 043-20-40 Longitude 0089-06-10  
Status APP Zone 3 Border  
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth  
240.  
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 (Deg)	ERP (kW)	HAAT (m)	51.0 dBu F(50,90) (km)
0.0	2.657	83.9	32.1
45.0	0.017	97.2	10.7
90.0	0.000	106.3	4.7
135.0	0.000	105.7	4.7
180.0	0.238	91.6	20.4
225.0	4.227	77.5	33.5
270.0	2.858	66.4	29.9
315.0	3.785	67.5	31.5

Contour Overlap to Proposed Station

Contour Overlap Evaluation to Proposed Station Complete

## LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain



EXHIBIT E-2 continued

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Channel	Proposed Station	ARN
30	Call City/State NEW SOUT COLUMBUS WI	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan No.	Call	City/State	Dist(km)	Status	Application	Ref.
15	WMTV	MADISON WI	45.1	LIC	BLCT	-
20040809	ABJ					
16	W16AY	WHITING WI	140.7	LIC	BLTTL	-
20001213	ABK					
22	960920YL	GREEN BAY WI	123.8	APP	BPCT	-
19960920	YL					
23	WIFR	FREEPORT IL	116.6	LIC	BMLCT	-
20040615	ABU					
23	W23BW	MADISON WI	44.5	LIC	BLTTA	-
20031125	AAQ					
23	W23BW	MADISON WI	44.5	APP	BPTTA	-
20030326	AHF					
27	WKOW-TV	MADISON WI	47.5	LIC	BLCT	-
20000306	AAW					
28	960722KR	SHEBOYGAN WI	72.1	APP	BPCT	-
19960722	KR					
29	960920IP	DUBUQUE IA	163.3	APP	BPET	-
19960920	IP					
29	WMAQ-TV	CHICAGO IL	202.3	LIC	BLCDT	-
20010531	ACY					
29	W65EE	JANESVILLE WI	73.3	CP	BPTT	-
20031218	AAS					
29	W29DJ	SHEBOYGAN WI	100.9	CP	BDFCDTL	-
20080408	ABL					
29	W29DJ	SHEBOYGAN WI	96.2	LIC	BLTTL	-
20080221	AAP					
29	W29DJ	SHEBOYGAN WI	100.9	CP	BPTTL	-
20080311	ABX					
30	960710LA	DAVENPORT IA	229.4	APP	BPET	-
19960710	LA					
30	960508KF	DAVENPORT IA	247.5	APP	BPET	-
19960508	KF					
30	961001KU	DAVENPORT IA	235.2	APP	BPCT	-
19961001	KU					
30	WCRD-LP	CARTHAGE IL	116.6	CP	BDCCDTL	-
20061030	AMS					
30	W57DN	ELGIN IL	165.3	CP	BDISDTT	-
20060213	ACF					
30	WMBD-TV	PEORIA IL	303.3	CP MOD	BMPCDT	-
20060314	ABP					
30	WSPY-LP	PLANO IL	191.6	LIC	BLTTL	-
19900514	IR					

EXHIBIT E-2 continued

30	WTMS-LD	MINNEAPOLIS, ETC. MN	378.6	CP	BDCCDTL	-
20061010	ANC					
30	W30BU	GREEN BAY WI	144.0	LIC	BLTTL	-
20030923	AAD					
30	WHLA-TV	LA CROSSE WI	189.5	LIC	BMLEDT	-
20041013	AAL					
30	WVCY-TV	MILWAUKEE WI	101.3	LIC	BLCT	-
19830119	KI					
31	WFLD	CHICAGO IL	202.3	LIC	BLCDT	-
20050606	ABF					
31	WFLD	CHICAGO IL	202.3	CP	BPCDT	-
20080616	AAN					
31	W48BY	BEAVER DAM WI	16.8	APP	BPTTL	-
20011119	AAV					
31	WHLA-TV	LA CROSSE WI	189.5	LIC	BMLET	-
20041013	AAM					
31	WBWT-LP	MILWAUKEE WI	100.9	CP	BDCCDTL	-
20061025	ADF					
31	WFXS-DR	WITTENBERG WI	192.4	APP	BPRM	-
20080612	ADX					
31	WFXS	WITTENBERG WI	192.4	CP MOD	BMPCDT	-
20081117	ACB					
33	WFBN-LP	ROCKFORD IL	119.8	LIC	BLTTL	-
19890616	II					
34	W58CO	MADISON WI	42.8	APP	BPTTL	-
20020307	ABS					
38	W38CT	MADISON WI	44.5	LIC	BLTT	-
20021203	ACA					
38	WBWT-LP	MILWAUKEE WI	100.9	LIC	BLTTL	-
20070223	AGI					

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

NONE.

EXHIBIT F

POWER DENSITY CALCULATION  
PROPOSED FILL-IN TRANSLATOR  
CHANNEL 30 – COLUMBUS, 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 Columbus facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 5.0 kw, an antenna radiation center 99 meters above ground, and the vertical pattern of the MCI antenna, maximum power density two meters above ground of  $0.00022 \text{ mw/cm}^2$  is calculated to occur 90 meters northwest of the base of the tower. Since this is less than 0.1 percent of the  $0.38 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 30 (566-572 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.