

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of Television Translator W52BO, Channel 52 in Meadville, Pennsylvania, in support of this Application for Construction Permit to operate on Channel 40 from the licensed site. This proposal is being submitted in response to the Commission's reclamation of Channel 52 spectrum for future auction, thereby placing this translator in a displacement situation.

It is proposed to mount a standard ERI omnidirectional antenna at the 118-meter level of the existing 122.5-meter communications tower. Because the station will be located across Lake Erie from the Canadian border, the transmitter will be limited to an output power of 1 kilowatt. Exhibit B is a map upon which the predicted service contours of the instant proposal are plotted. Since no change in site location is proposed herein, the newly proposed 74 dBu contour necessarily encompasses a significant portion of that which obtains from the licensed facility. Therefore, the changes proposed herein constitute a "minor" change in facilities.

Operating parameters for the proposed facility are tabulated in Exhibit C. A contour overlap analysis and interference study are provided in Exhibit D, and a power density calculation follows as Exhibit E.

It is important to note that a grant of this application is contingent upon the Commission's dismissal of a pending application to move W65DJ in Houghton Lake,

EXHIBIT A

Michigan, to Channel 40 in Erie, Pennsylvania, 460 kilometers away. It is believed that a site change of that magnitude is inconsistent with the FCC's Rules governing minor-change applications [see also Exhibit D].

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 1025876 to this tower.

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

September 13, 2005

CONTOUR POPULATION
GRADE A (74 DBU) : 59,615
GRADE B (64 DBU) : 136,378

SMITH and FISHER

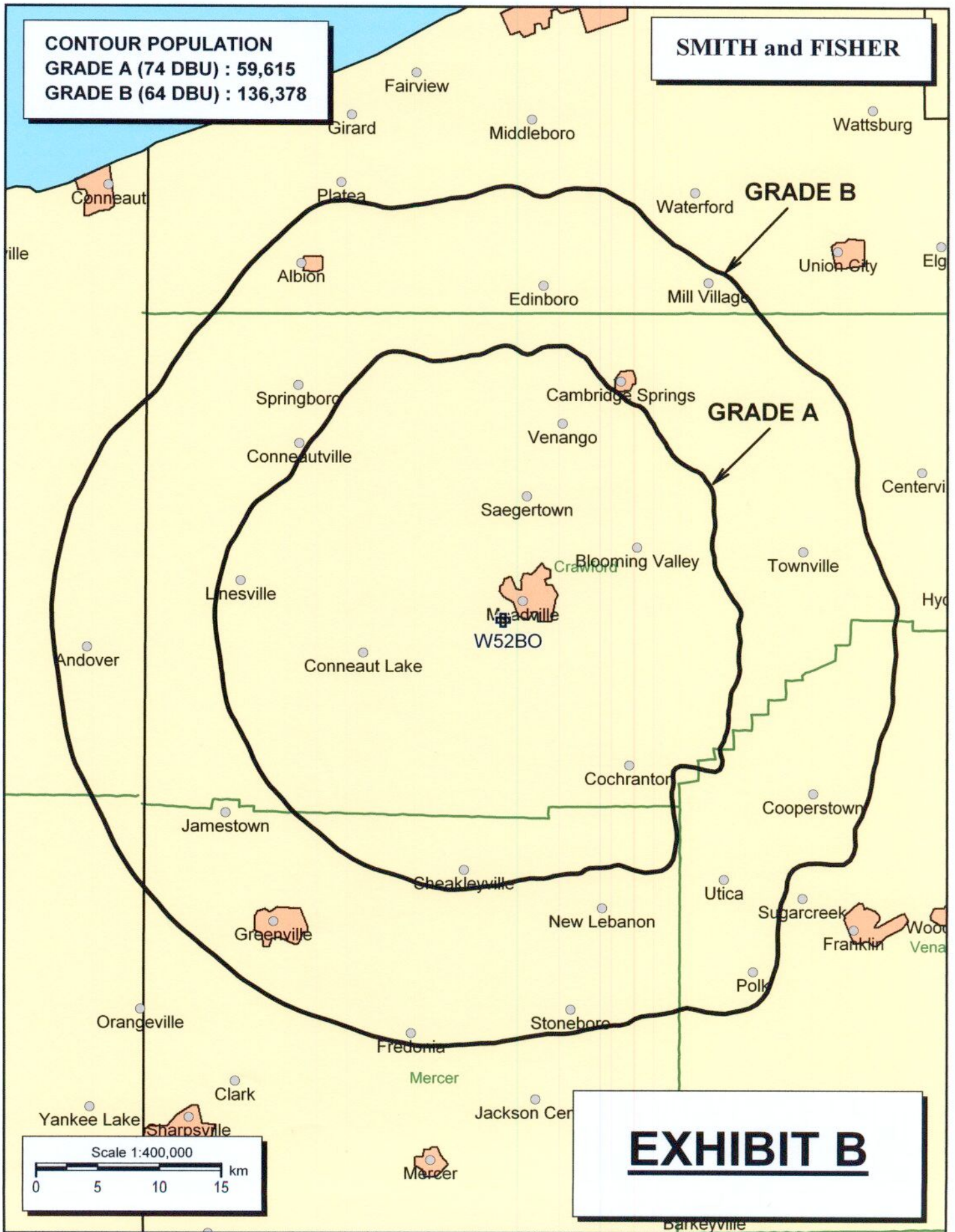


EXHIBIT B

EXHIBIT C

PROPOSED OPERATING PARAMETERS

PROPOSED TELEVISION TRANSLATOR W52BO
CHANNEL 40 - MEADVILLE, PENNSYLVANIA

Transmitter Power Output:	1.0 kw
Transmission Line Efficiency:	59.4%
Antenna Power Gain – Toward Horizon:	28.2
Antenna Power Gain – Main Lobe:	28.2
Effective Radiated Power – Toward Horizon:	16.8 kw
Effective Radiated Power – Main Lobe:	16.8 kw
Transmitter Make and Model:	Type-accepted
Rated Output	1.0 kw
Transmission Line Make and Model:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	417 feet
Antenna Make and Model:	ERI ALP16L2-HSOC
Orientation	Omnidirectional
Beam Tilt	0.5 degrees
Effective Height Above Ground:	118 meters
Effective Height Above Mean Sea Level:	550 meters

CONTOUR OVERLAP AND
LONGLEY-RICE INTERFERENCE STUDIES
PROPOSED TELEVISION TRANSLATOR W52BO
CHANNEL 40 - MEADVILLE, PENNSYLVANIA

We conducted a computer analysis of the interference situation for the proposed facility, the results of which are shown in Exhibit D-2. The study is based on contour protection requirements of Sections 74.705, 74.706, and 74.707 of the FCC's Rules with respect to analog full-power, digital full-power, and low power television stations, respectively. It concludes that the facility proposed herein meets these requirements except in six instances: W65DJ (appl.), Channel 40 in Erie, Pennsylvania; CFTO-DT, Channel 40 in Toronto, Canada; WPCB-TV, Channel 40 in Greensburg, Pennsylvania; WHIZ-DT, Channel 40 in Zanesville, Ohio; WKBN-DT, Channel 41 in Youngstown, Ohio; and, CBLN-TV, Channel 40 in London, Canada.

With respect to W65DJ, a pending application (BPTTL-20020307ABH), filed by MS Communications, seeks to move the station from Channel 65 in Houghton Lake, Michigan, to Channel 40 in Erie, Pennsylvania, under the Commission's displacement policy. However, as shown in Exhibit D-3, the distance between the licensed W65DJ site and that proposed in its pending application is 460 kilometers. This clearly exceeds the intent of the FCC's minor-change Rules. Therefore, it is requested that the Commission dismiss the pending W65DJ application, which will eliminate the interference conflict with the instant proposal.

We then conducted detailed interference studies using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to the other facilities of concern. The software utilizes a 2-square kilometer cell size, calculates

EXHIBIT D-1

signal strength at 1.0 kilometer increments along each radial studied, and employs the 1990 U.S. Census to count population within cells (except with regard to the two Canadian stations, where we employed the 1996 Canadian Census data). In addition, the program does not attribute interference to the proposed facility in cells within the protected station's service contour where interference from another source (other than proposed W52BO) already is predicted to exist (also known as "masking"). The results of these studies are summarized in Exhibit D-4. It concludes that the facility proposed herein causes no significant new interference to any of the stations of concern, including the Canadian facilities.

As a result, waivers of Section 74.705 of the Commission's Rules with respect to interference to WPCB-TV and Section 74.706 of the Rules with regard to WHIZ-DT and WKBN-DT are requested and believed to be justified based on the aforementioned Longley-Rice studies.

In addition, it is requested that this proposal be coordinated with the Canadian government. Our Longley-Rice-based studies indicate that this Meadville proposal will not result in any interference to the two Canadian stations mentioned above.

SMITH AND FISHER

EXHIBIT D-2

PROPOSED W52BO
CH. 40 - MEADVILLE PA

REFERENCE

41 37 39 N
80 10 15 W

LPTV Pwr = 16.8 kW, HAMS L COR= 550 M

DISPLAY DATES

DATA 09-03-05
SEARCH 09-13-05

..... Channel 40-, 626 MHz

Call	Channel	Location	Dist	Azi	FCC	Margin
W65DJ AP	40-	Erie	PA	54.76	20.0	> 199.73 -144.97
CFTO-D AP	40Z	Toronto	ON	232.83	15.7	> 308.67 -75.84
WPCBT*LI	40+	Greensburg	PA	140.97	166.5	> 204.32 -63.35
WHIZ-D*CPM	40	Zanesville	OH	243.03	219.6	> 292.00 -48.97
WKBN-D*CP	41	Youngstown	OH	74.82	212.1	> 115.33 -40.51
CBLNTV LI	40Z	London	ON	176.90	327.0	> 196.34 -19.44
WNYB LI	26+	Jamestown	NY	115.43	42.1	> 107.85 7.58
WLMB LI	40-	Toledo	OH	320.60	273.6	> 292.26 28.34
WVIZ LI	25+	Cleveland	OH	134.86	256.8	> 104.45 30.41
WVIZ CP	25+	Cleveland	OH	134.88	256.8	> 104.35 30.53
WDLI-D LI	39	Canton	OH	134.99	242.3	> 091.79 43.20
WKHU-C LI	25Z	Kittanning	PA	106.13	148.0	> 052.95 53.18
ALW41A AL	41Z	Wheeling	WV	179.37	195.2	> 124.39 54.98
WIVB-D LI	39	Buffalo	NY	171.59	47.5	> 115.02 56.57
WICZTV LI	40-	Binghamton	NY	354.27	80.8	> 292.19 62.08

* Actual radials antenna height and directional patterns used (if any)

SMITH and FISHER

W65DJ

CANADA

MICHIGAN

PROPOSED SITE

PENNSYLVANIA

OHIO

Scale 1:3,000,000

0 40 80 120 km

EXHIBIT D-3



INTERFERENCE SUMMARY

PROPOSED TELEVISION TRANSLATOR W52BO
CHANNEL 40 - MEADVILLE, PENNSYLVANIA

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Grade B Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
*CFTO-DT	Appl.	Toronto, ON	40	6,861,146	0	0
CBLN-TV	Lic.	London, ON	40	708,995	0	0
WPCB-TV BLCT-19990706KF	Lic.	Greensburg, PA	40	2,739,189	12,114	0.4
WHIZ-DT BMPCDT-20020314AAE	CP	Zanesville, OH	40	801,248	0	0
WKBN-DT BPCDT-19991025ACU	CP	Youngstown, OH	41	5,151,789	157	<0.1

*Assuming ERP = 550 kw/HAAT = 300 m.

EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED TELEVISION TRANSLATOR W52BO
CHANNEL 40 - MEADVILLE, PENNSYLVANIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Meadville facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 16.8 kw, an effective antenna height of 118 meters above ground, and the vertical pattern of the ERI antenna, maximum power density two meters above ground of 0.0011 mw/cm^2 is calculated to occur 38 meters from the base of the tower. Since this is only 0.3 percent of the 0.42 mw/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 40 (626-632 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.