

ENGINEERING EXHIBIT

Application for Construction Permit New Replacement Digital Television Translator

prepared for

Barrington Traverse City License LLC

WPBN-TV Traverse City, MI

Replacement Digital Translator

Harrietta, MI Ch. 50 15 kW

Barrington Traverse City License LLC (“*Barrington*”) is the licensee of television station WPBN-TV, Facility ID 21253, Traverse City, MI. Pursuant to the procedures adopted in MB Docket 08-253,¹ *Barrington* herein proposes to construct a new replacement digital television translator station on Channel 50. *Barrington* is contemporaneously filing a petition for rulemaking to change the WPBN-TV post-transition allotment to Channel 47, from Channel 7.

Figure 1 depicts the 51 dB μ coverage contour of the proposed translator, along with the proposed Channel 47 noise limited contour and the pre-transition analog Channel 7 Grade B contour (BLCT-1578). The digital Channel 47 noise-limited contour falls short of encompassing a substantial portion of the analog Grade B contour area. The proposed digital translator facility’s contour will cover some of the areas that are predicted to lose service with WPBN-TV’s transition to digital Channel 47. The translator’s contour does not extend beyond that of the pre-transition analog Grade B contour.

The proposed digital translator facility will employ an antenna system to be side-mounted on the existing tower structure previously utilized by the WPBN-TV analog Channel 7 facility, associated with Antenna Structure Registration number 1031841. No change to the overall structure height is proposed. The maximum effective radiated power is 15 kW utilizing a directional antenna.

¹Report and Order, *Amendment of Parts 73 and 74 of the Commission’s Rules to Establish Rules for Replacement Digital Low Power Television Translator Stations*, MB Docket 08-253, FCC 09-36, released May 8, 2009.

Detailed interference studies per OET Bulletin 69² show that the proposal complies with the Commission's interference protection requirements toward all post-transition digital television, television translator, LPTV, and Class A stations. The results, summarized in **Table 1**, show that any new interference does not exceed the Commission's interference limits (0.5 percent to full power and Class A stations, and 2.0 percent to secondary stations).

Accordingly, the instant proposal complies with §§73.6012 – 73.6020 regarding interference protection to digital television, low power television, television translator, Class A television, and land mobile facilities.

The proposed site is located 239 km from the nearest U.S. – Canadian border. Channel 50 was originally allotted to WPBN-TV as its pre-transition digital channel with 1000 kW ERP at the same site as that proposed herein for the 15 kW digital translator. Thus, Canadian coordination has already been obtained for use of digital Channel 50 at this location for full power operation, and the translator's operation will not exceed the full power parameters.

The nearest FCC monitoring station is 187 km distant at Allegan, MI. This exceeds the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no AM stations within 3.2 kilometers of the site, based on information contained within the Commission's database.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed transmitting antenna will be side-mounted on an existing antenna support structure. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules.

²FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A cell size of 1 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission's implementation of OET-69 show excellent correlation.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Based on OET-65 equation (10), and assuming the worst-case 100 percent antenna relative field in downward elevations, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $6.0 \mu\text{W}/\text{cm}^2$, which is 1.3 percent of the general population/uncontrolled maximum permitted exposure limit. This is below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent. When the antenna's vertical plane pattern is considered, the calculated signal density will be even lower.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

Certification

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.



Joseph M. Davis, P.E.
July 23, 2009

Chesapeake RF Consultants, LLC
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List of Attachments

Figure 1	Coverage Contour Comparison
Table 1	Interference Analysis Results Summary
Form 346	Saved Version of Engineering Sections from FCC Form at Time of Upload

This material was entered July 23, 2009 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

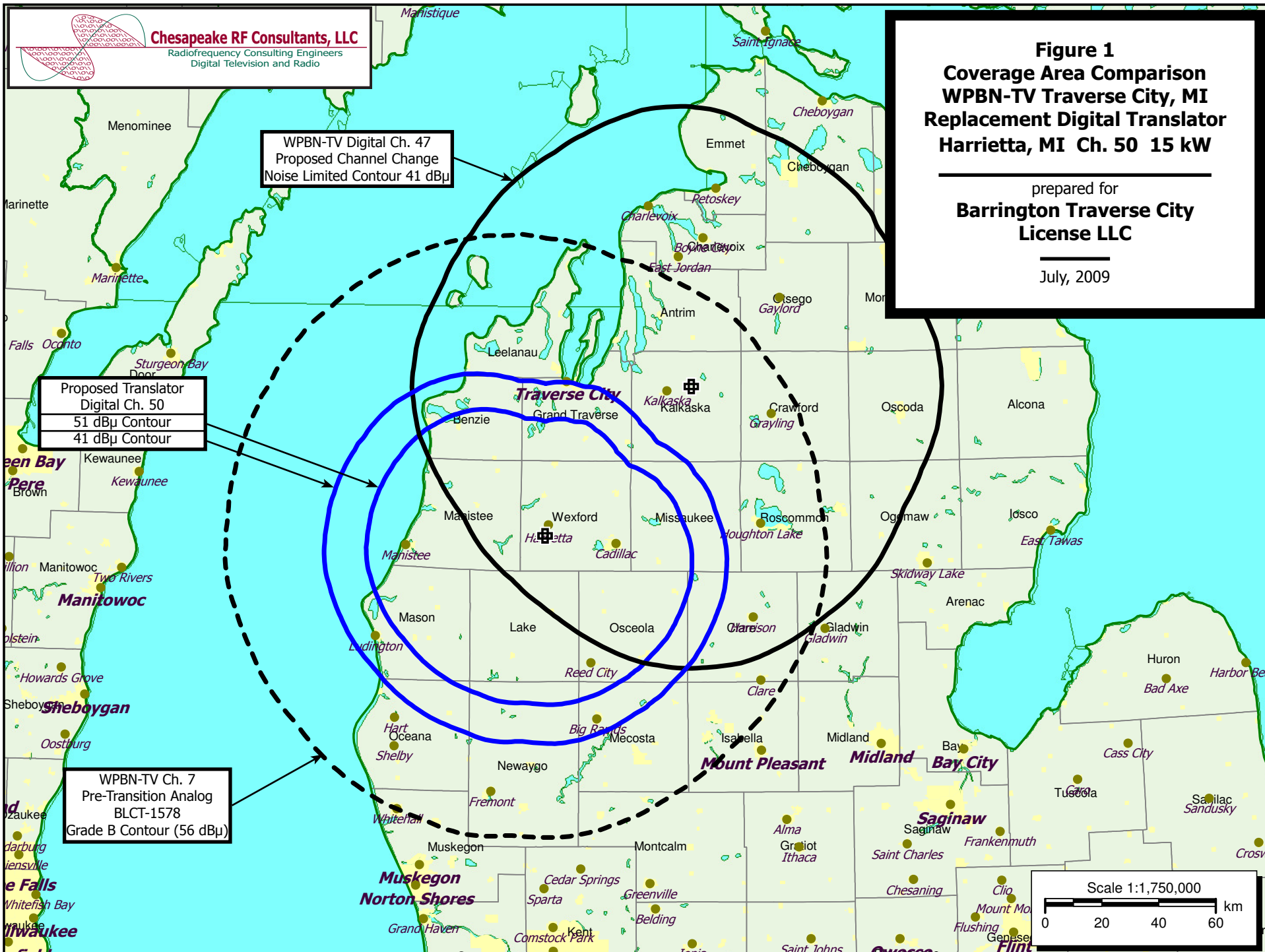


Table 1 OET Bulletin 69 Interference Study

(worst-case scenarios shown page 1 of 17)

TW Census data selected 2000

Post Transition Data Base Selected /space/software/cdbs/pt_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 07-23-2009 Time: 17:08:28

Record Selected for Analysis

NEW-LD USERRECORD-01 HARRIETTA MI US
Channel 50 ERP 15. kW HAAT 382. m RCMSL 00726 m STRINGENT MASK
Latitude 044-16-33 Longitude 0085-42-48
Status APP Zone 2 Border
Dir Antenna Make usr Model DIE TLP-M Beam tilt N Ref Azimuth 200.
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	0.508	374.0	40.0
45.0	0.533	331.0	38.5
90.0	5.382	310.1	50.4
135.0	14.172	312.5	55.8
180.0	12.641	391.5	59.0
225.0	13.015	435.1	61.3
270.0	13.254	458.9	62.3
315.0	4.455	439.0	55.0

Contour Overlap to Proposed Station

Contour Overlap Evaluation to Proposed Station Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance
Distance to border = 239.3km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Table 1 OET Bulletin 69 Interference Study

(worst-case scenarios shown page 2 of 17)

Start of Interference Analysis

Channel	Call	City/State	ARN
50	NEW-LD	HARRIETTA MI	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
36	W36CE	HOUGHTON LAKE MI	77.1	LIC	BLTTL	-20001219ACD
36	W36BZ	TRAVERSE CITY MI	55.0	APP	BLTTL	-20001213AEG
42	W42CB	HESPERIA MI	84.9	LIC	BLTT	-19950609IU
46	W46CR	SAGINAW/MIDLAND MI	127.0	LIC	BLTTL	-19991012AAT
46	W46AD	TRAVERSE CITY, ETC. MI	55.7	LIC	BLTT	-19820907IC
48	W48CL	GRAND RAPIDS MI	139.9	LIC	BLTTL	-20000328ACP
48	W48BY	LUDINGTON MI	54.6	LIC	BLTTL	-20001218ABG
48	W48CC	TRAVERSE CITY MI	55.0	LIC	BLTTL	-20001213ABR
49	WMKG-LD	MUSKEGON MI	119.2	CP	BDCCDTL	-20061018ABV
49	W49CB	GREEN BAY WI	181.7	LIC	BLTT	-20030602BCK
50	WXFT-DT	AURORA IL	308.7	CP MOD	BMPCDT	-20080616ACK
50	WPXD-DR	ANN ARBOR MI	278.0	APP	BPRM	-20090408AQV
50	DW50BG	ESCANABA MI	204.8	LIC	BLTTL	-19961101JB
50	W50CD	HOUGHTON LAKE MI	77.1	LIC	BLTTL	-20001219ACE
50	WOKZ-CA	KALAMAZOO MI	220.1	LIC	BLTTA	-20021213ABP
50	W50CA	SAULT STE. MARIE MI	257.2	LIC	BLTTL	-20001208ABU
50	NEW	TOLEDO OH	341.2	APP	BDCCDTL	-20061030ARV
50	WISC-TV	MADISON WI	335.8	APP	BLCDT	-20050701ABU
50	WISC-TV	MADISON WI	335.8	CP	BPCDT	-19991027ABG
51	W51CR	PETOSKEY MI	146.5	LIC	BLTTL	-20071220ABW
52	W52CO	HOUGHTON LAKE MI	77.1	LIC	BLTTL	-20001219ABT
52	W52DB	MUSKEGON MI	112.6	LIC	BLTTL	-20040217ACY
52	W52CP	TRAVERSE CITY MI	55.0	LIC	BLTTL	-20001220AAW
54	W54CR	TRAVERSE CITY MI	55.0	LIC	BLTT	-20031104ABZ
57	W57CQ	HOUGHTON LAKE MI	77.1	LIC	BLTTL	-20001219ACF
58	W58CN	TRAVERSE CITY MI	55.0	LIC	BLTTL	-20001201AAJ

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
36	W36CE	HOUGHTON LAKE MI	BLTTL	-20001219ACD

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
29	WGTU	TRAVERSE CITY MI	57.0	CP	BPCDT	-20080619AJY
29	WGTU	TRAVERSE CITY MI	57.0	PLN	DTVPLN	-DTVPI069
32	WFQX-DR	CADILLAC MI	50.6	APP	BPRM	-20080620AOP
32	WFQX-TV	CADILLAC MI	50.6	PLN	DTVPLN	-DTVPI183
32	WFQX-TV	CADILLAC MI	50.6	CP	BPCDT	-20090505AAI
32	WFQX-TV	CADILLAC MI	50.6	APP	BMPCDT	-20090527AFA
36	WFFT-TV	FORT WAYNE IN	355.5	CP MOD	BMPCDT	-20070125ACY
36	WFFT-TV	FORT WAYNE IN	355.5	PLN	DTVPLN	-DTVPI325
36	WJYS	HAMMOND IN	356.2	LIC	BLCDT	-20020801ABI
36	WJYS	HAMMOND IN	356.2	PLN	DTVPLN	-DTVPI326

Table 1 OET Bulletin 69 Interference Study

(worst-case scenarios shown page 3 of 17)

36	WJYS	HAMMOND IN	356.2	CP	BPCDT	-20080619AIZ
36	WLNS-TV	LANSING MI	180.5	CP MOD	BMPCDT	-20080618AEA
36	WLNS-TV	LANSING MI	180.5	PLN	DTVPLN	-DTVPI333
36	W36BZ	TRAVERSE CITY MI	92.3	APP	BLTTL	-20001213AEG
36	W08CK	MADISON-MIDDLETON WI	396.4	APP	BDISDTL	-20090518AAD
36	W29DJ	SHEBOYGAN WI	286.5	APP	BDISDTL	-20090630AET
50	NEW-LD	HARRIETTA MI	77.1	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
36	W36BZ	TRAVERSE CITY MI	BLTTL -20001213AEG

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
29	WGTU	TRAVERSE CITY MI	49.5	CP	BPCDT -20080619AJY
29	WGTU	TRAVERSE CITY MI	49.5	PLN	DTVPLN -DTVPI069
32	WFQX-DR	CADILLAC MI	75.8	APP	BPRM -20080620AOP
32	WFQX-TV	CADILLAC MI	75.8	PLN	DTVPLN -DTVPI183
32	WFQX-TV	CADILLAC MI	75.8	CP	BPCDT -20090505AAI
32	WFQX-TV	CADILLAC MI	75.8	APP	BMPCDT -20090527AFA
36	WJYS	HAMMOND IN	357.6	LIC	BLCDT -20020801ABI
36	WJYS	HAMMOND IN	357.6	PLN	DTVPLN -DTVPI326
36	WJYS	HAMMOND IN	357.6	CP	BPCDT -20080619AIZ
36	W36CE	HOUGHTON LAKE MI	92.3	LIC	BLTTL -20001219ACD
36	WLNS-TV	LANSING MI	254.5	CP MOD	BMPCDT -20080618AEA
36	WLNS-TV	LANSING MI	254.5	PLN	DTVPLN -DTVPI333
36	W36CD	PETOSKEY MI	97.9	LIC	BLTTL -20071220ABS
36	W08CK	MADISON-MIDDLETON WI	350.1	APP	BDISDTL -20090518AAD
36	WLEF-TV	PARK FALLS WI	380.6	CP MOD	BMPEDT -20080611ABN
36	WLEF-TV	PARK FALLS WI	380.7	PLN	DTVPLN -DTVPI354
36	W29DJ	SHEBOYGAN WI	256.7	APP	BDISDTL -20090630AET
50	NEW-LD	HARRIETTA MI	55.0	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application Ref. No.
42	W42CB	HESPERIA MI	BLTT -19950609IU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
41	WOLP-LD	GRAND RAPIDS MI	105.2	CP	BDCCDTL -20061020ACU
42	W64CQ	ARLINGTON HEIGHTS IL	222.8	CP	BDIST -20070709ACL
42	WQRF-TV	ROCKFORD IL	290.7	CP MOD	BMPCDT -20070207ABW

Table 1 OET Bulletin 69 Interference Study

(worst-case scenarios shown page 4 of 17)

42	WQRF-TV	ROCKFORD IL	290.1	PLN	DTVPLN	-DTVPI499
42	WNDU-TV	SOUTH BEND IN	216.6	LIC	BLCDT	-20060717AAG
42	WNDU-TV	SOUTH BEND IN	216.6	PLN	DTVPLN	-DTVPI502
42	WNDU-TV	SOUTH BEND IN	216.6	CP	BPCDT	-20080619AAB
42	WGGN-TV	SANDUSKY OH	358.2	PLN	DTVPLN	-DTVPI512
42	WPNE-TV	GREEN BAY WI	183.5	LIC	BMLEDT	-20040818AAP
42	WPNE	GREEN BAY WI	183.5	PLN	DTVPLN	-DTVPI524
42	W42DH-D	SAYNER/VILAS COUNTY WI	389.5	CP MOD	BMPDPT	-20080723AAW
44	WZPX-TV	BATTLE CREEK MI	125.1	LIC	BLCDT	-20020510AAG
44	WZPX	BATTLE CREEK MI	125.1	PLN	DTVPLN	-DTVPI578
45	WLLA	KALAMAZOO MI	119.4	LIC	BLCDT	-20070529AEA
45	WLLA	KALAMAZOO MI	119.4	PLN	DTVPLN	-DTVPI617
50	NEW-LD	HARRIETTA MI	84.9	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	W46CR	SAGINAW/MIDLAND MI	BLTTL -19991012AAT

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
38	WSYM-TV	LANSING MI	116.9	CP MOD	BMPCDT -20060602ABQ
38	WSYM-TV	LANSING MI	116.9	PLN	DTVPLN -DTVPI369
44	WZPX-TV	BATTLE CREEK MI	102.6	LIC	BLCDT -20020510AAG
44	WZPX	BATTLE CREEK MI	102.6	PLN	DTVPLN -DTVPI578
45	WLLA	KALAMAZOO MI	129.9	LIC	BLCDT -20070529AEA
45	WLLA	KALAMAZOO MI	129.9	PLN	DTVPLN -DTVPI617
46	WMEU-LD	CHICAGO IL	312.2	CP MOD	BMPDPTL -20081008AHH
46	WHME-DR	SOUTH BEND IN	251.7	APP	BPRM -20080619AET
46	WHME-TV	SOUTH BEND IN	251.7	PLN	DTVPLN -DTVPI646
46	WHME-TV	SOUTH BEND IN	251.7	APP	BPCDT -20090716AAZ
46	WBSF	BAY CITY MI	55.4	PLN	DTVPLN -DTVPI648
46	WBSF	BAY CITY MI	55.4	CP MOD	BMPCDT -20080620AGE
46	W46AD	TRAVERSE CITY, ETC. MI	167.7	LIC	BLTT -19820907IC
46	WUPW	TOLEDO OH	225.0	LIC	BLCDT -20030411AAF
46	WUPW	TOLEDO OH	225.0	PLN	DTVPLN -DTVPI653
46	WUPW	TOLEDO OH	225.0	APP	BPCDT -20080619AJB
46	WDJT-TV	MILWAUKEE WI	278.6	CP MOD	BMPCDT -20000419ABR
46	WDJT-TV	MILWAUKEE WI	278.6	PLN	DTVPLN -DTVPI664
47	W66BV	DETROIT MI	179.1	CP	BDISDPT -20070105AAR
47	W66BV	DETROIT MI	179.1	APP	BDISDPT -20060214ADU
48	WAQP	SAGINAW MI	50.5	LIC	BLCDT -20060824ADS
48	WAQP	SAGINAW MI	50.5	PLN	DTVPLN -DTVPI711
61	W61DK	MOUNT PLEASANT MI	28.0	LIC	BLTTL -20010914AAA
50	NEW-LD	HARRIETTA MI	127.0	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 5

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 5 of 17)

Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	W46AD	TRAVERSE CITY, ETC. MI	BLTT -19820907IC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	WFUP	VANDERBILT MI	85.4	CP	BPCDT -20081119AMT
45	WFUP	Vanderbilt MI	85.4	PLN	DTVPLN -DTVPI618
46	WMEU-LD	CHICAGO IL	358.7	CP MOD	BMPDCL -20081008AAH
46	WHME-DR	SOUTH BEND IN	355.7	APP	BPRM -20080619AET
46	WHME-TV	SOUTH BEND IN	355.7	PLN	DTVPLN -DTVPI646
46	WHME-TV	SOUTH BEND IN	355.7	APP	BPCDT -20090716AAZ
46	WBSF	BAY CITY MI	206.1	PLN	DTVPLN -DTVPI648
46	WBSF	BAY CITY MI	206.1	CP MOD	BMPDCL -20080620AGE
46	W46CR	SAGINAW/MIDLAND MI	167.7	LIC	BLTTL -19991012AAT
46	WUPW	TOLEDO OH	391.4	LIC	BLCDT -20030411AAF
46	WUPW	TOLEDO OH	391.4	PLN	DTVPLN -DTVPI653
46	WUPW	TOLEDO OH	391.4	APP	BPCDT -20080619AJB
46	WTPX-TV	ANTIGO WI	299.2	LIC	BMLCDT -20041015ADT
46	WTPX	ANTIGO WI	299.2	PLN	DTVPLN -DTVPI663
46	WDJT-TV	MILWAUKEE WI	258.0	CP MOD	BMPDCL -20000419ABR
46	WDJT-TV	MILWAUKEE WI	258.0	PLN	DTVPLN -DTVPI664
50	NEW-LD	HARRIETTA MI	55.7	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	W48CL	GRAND RAPIDS MI	BLTTL -20000328ACP

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
40	WKAR-TV	EAST LANSING MI	113.6	APP	BMPEDT -20080620AIJ
40	WKAR-TV	EAST LANSING MI	113.6	PLN	DTVPLN -DTVPI438
40	WKAR-TV	EAST LANSING MI	113.6	CP	BPEDT -20080314ACE
44	WZPX-TV	BATTLE CREEK MI	66.6	LIC	BLCDT -20020510AAG
44	WZPX	BATTLE CREEK MI	66.6	PLN	DTVPLN -DTVPI578
45	WLLA	KALAMAZOO MI	55.3	LIC	BLCDT -20070529AEA
45	WLLA	KALAMAZOO MI	55.3	PLN	DTVPLN -DTVPI617
48	WMEU-CA	CHICAGO IL	200.4	APP	BSTA -20081015AAR
48	WHME-TV	SOUTH BEND IN	161.8	APP	BPCDT -20080619ABC
48	W48AV	DETROIT MI	241.8	CP	BDFCDTL -20060323AFZ
48	WJMN-TV	ESCANABA MI	359.5	CP MOD	BMPDCL -20081023AAF
48	WJMN-TV	ESCANABA MI	359.5	PLN	DTVPLN -DTVPI710
48	WAQP	SAGINAW MI	138.7	LIC	BLCDT -20060824ADS
48	WAQP	SAGINAW MI	138.7	PLN	DTVPLN -DTVPI711
48	WCPX-LP	COLUMBUS OH	394.6	APP	BDFCDTL -20060322ACI
48	WCPX-LP	COLUMBUS OH	403.0	APP	BDFCDTL -20090630ACG
48	WOCB-CD	MARION OH	318.8	APP	BSTA -20090720AAR
48	W48DB-D	COLOMA WI	327.3	LIC	BLDTT -20081107ADC
48	WBME-TV	RACINE WI	172.2	LIC	BMLCDT -20070823AED

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 6 of 17)

48	WBME-TV	RACINE WI	175.6	PLN	DTVPLN	-DTVPI727
48	WBME-TV	RACINE WI	178.2	CP MOD	BMPDCL	-20080620ACE
48	WBME-TV	RACINE WI	178.2	APP	BMPDCL	-20090709ABY
49	WOCH-CA	CHICAGO IL	198.2	APP	BMPDCL	-20090630AHX
49	WOCH-CA	CHICAGO IL	198.2	CP	BDISDTA	-20080605ABA
49	NEW	CHICAGO IL	198.2	APP	BSFDTL	-20060630CYR
49	NEW	CHICAGO IL	200.4	APP	BSFDTL	-20060630AUQ
49	WBND-LD	SOUTH BEND IN	160.0	LIC	BLDCL	-20071012ATA
49	WMKG-LD	MUSKEGON MI	42.4	CP	BDFCDTL	-20061018ABV
51	WLAJ	LANSING MI	119.5	LIC	BLCDT	-20040422ABI
51	WLAJ	LANSING MI	119.5	PLN	DTVPLN	-DTVPI800
50	NEW-LD	HARRIETTA MI	139.9	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	W48BY	LOUDINGTON MI	BLTTL -20001218ABG

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
41	WGBA-TV	GREEN BAY WI	135.2	CP MOD	BMPDCL -20080207AAN
41	WGBA	GREEN BAY WI	135.2	PLN	DTVPLN -DTVPI487
41	WGBA-TV	GREEN BAY WI	135.2	APP	BMPDCL -20080620AEI
48	WMEU-CA	CHICAGO IL	265.2	APP	BSTA -20081015AAR
48	WHME-TV	SOUTH BEND IN	275.0	APP	BPCDT -20080619ABC
48	W48AV	DETROIT MI	331.7	CP	BDFCDTL -20060323AFZ
48	WJMN-TV	ESCANABA MI	235.0	CP MOD	BMPDCL -20081023AAF
48	WJMN-TV	ESCANABA MI	235.0	PLN	DTVPLN -DTVPI710
48	WAQP	SAGINAW MI	205.9	LIC	BLCDT -20060824ADS
48	WAQP	SAGINAW MI	205.9	PLN	DTVPLN -DTVPI711
48	W48CC	TRAVERSE CITY MI	93.2	LIC	BLTTL -20001213ABR
48	W48DB-D	COLOMA WI	257.7	LIC	BLDCL -20081107ADC
48	W23BL	OSHKOSH WI	175.4	APP	BPTTL -20011120ABF
48	WBME-TV	RACINE WI	181.6	LIC	BMLCDT -20070823AED
48	WBME-TV	RACINE WI	166.6	PLN	DTVPLN -DTVPI727
48	WBME-TV	RACINE WI	166.7	CP MOD	BMPDCL -20080620ACE
48	WBME-TV	RACINE WI	166.7	APP	BMPDCL -20090709ABY
49	WMKG-LD	MUSKEGON MI	91.6	CP	BDFCDTL -20061018ABV
50	NEW-LD	HARRIETTA MI	54.6	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	W48CC	TRAVERSE CITY MI	BLTTL -20001213ABR

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 7 of 17)

Stations Potentially Affecting This Station						
Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	WFUP	VANDERBILT MI	86.5	CP	BPCDT	-20081119AMT
45	WFUP	Vanderbilt MI	86.5	PLN	DTVPLN	-DTVP1618
48	WHME-TV	SOUTH BEND IN	354.9	APP	BPCDT	-20080619ABC
48	W48AV	DETROIT MI	342.4	CP	BDPCDTL	-20060323AFZ
48	WJMN-TV	ESCANABA MI	180.4	CP MOD	BMPCDT	-20081023AAF
48	WJMN-TV	ESCANABA MI	180.4	PLN	DTVPLN	-DTVP1710
48	W48BY	LUDINGTON MI	93.2	LIC	BLTTL	-20001218ABG
48	WAQP	SAGINAW MI	216.4	LIC	BLCDT	-20060824ADS
48	WAQP	SAGINAW MI	216.4	PLN	DTVPLN	-DTVP1711
48	W48DB-D	COLOMA WI	317.9	LIC	BLDTT	-20081107ADC
48	WBME-TV	RACINE WI	273.9	LIC	BMLCDT	-20070823AED
48	WBME-TV	RACINE WI	257.2	PLN	DTVPLN	-DTVP1727
48	WBME-TV	RACINE WI	256.9	CP MOD	BMPCDT	-20080620ACE
48	WBME-TV	RACINE WI	256.9	APP	BMPCDT	-20090709ABY
49	WMKG-LD	MUSKEGON MI	172.7	CP	BDCCDTL	-20061018ABV
50	NEW-LD	HARRIETTA MI	55.0	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 9

Analysis of current record				
Channel	Call	City/State	Application	Ref. No.
49	WMKG-LD	MUSKEGON MI	BDCCDTL	-20061018ABV

Stations Potentially Affecting This Station						
Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
49	WOCH-CA	CHICAGO IL	192.6	APP	BMPDTA	-20090630AHX
49	WOCH-CA	CHICAGO IL	192.6	CP	BDISDTA	-20080605ABA
49	NEW	CHICAGO IL	192.6	APP	BSFDTL	-20060630CYR
49	NEW	CHICAGO IL	195.0	APP	BSFDTL	-20060630AUQ
49	WBND-LD	SOUTH BEND IN	181.9	LIC	BLDTL	-20071012ATA
49	WNWO-TV	TOLEDO OH	289.1	LIC	BLCDT	-20020403AAR
49	WNWO-TV	TOLEDO OH	289.1	PLN	DTVPLN	-DTVP1750
49	WMSN-TV	MADISON WI	275.1	CP	BPCDT	-20090209AGC
49	WMSN-TV	MADISON WI	275.1	PLN	DTVPLN	-DTVP1758
49	WMSN-DR	MADISON WI	275.1	APP	BPRM	-20080620AOW
49	WYTU-LP	MILWAUKEE WI	144.9	CP	BDISTTL	-20080801AXK
50	NEW-LD	HARRIETTA MI	119.2	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 10

Analysis of current record				
Channel	Call	City/State	Application	Ref. No.
49	W49CB	GREEN BAY WI	BLTT	-20030602BCK

Stations Potentially Affecting This Station

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 8 of 17)

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
41	WGBA-TV	GREEN BAY WI	5.7	CP MOD	BMPCDT	-20080207AAN
41	WGBA	GREEN BAY WI	5.7	PLN	DTVPLN	-DTVP1487
41	WGBA-TV	GREEN BAY WI	5.7	APP	BMPCDT	-20080620AEI
42	WPNE-TV	GREEN BAY WI	0.8	LIC	BMLDT	-20040818AAP
42	WPNE	GREEN BAY WI	0.8	PLN	DTVPLN	-DTVP1524
46	WTPX-TV	ANTIGO WI	136.8	LIC	BMLCDT	-20041015ADT
46	WTPX	ANTIGO WI	136.8	PLN	DTVPLN	-DTVP1663
46	WDJT-TV	MILWAUKEE WI	144.3	CP MOD	BMPCDT	-20000419ABR
46	WDJT-TV	MILWAUKEE WI	144.3	PLN	DTVPLN	-DTVP1664
48	W48DB-D	COLOMA WI	132.0	LIC	BLDTT	-20081107ADC
49	WOCH-CA	CHICAGO IL	280.6	APP	BMPDTA	-20090630AHX
49	WOCH-CA	CHICAGO IL	280.6	CP	BDISDTA	-20080605ABA
49	NEW	CHICAGO IL	280.6	APP	BSFDTL	-20060630CYR
49	NEW	CHICAGO IL	282.7	APP	BSFDTL	-20060630AUQ
49	WBND-LD	SOUTH BEND IN	343.5	LIC	BLDTL	-20071012ATA
49	WMKG-LD	MUSKEGON MI	195.7	CP	BDCCDTL	-20061018ABV
49	WEUX	CHIPPewa FALLS WI	296.8	CP MOD	BMPCDT	-20080619AJF
49	WEUX	CHIPPewa FALLS WI	296.8	PLN	DTVPLN	-DTVP1757
49	WMSN-TV	MADISON WI	194.9	CP	BPCDT	-20090209AGC
49	WMSN-TV	MADISON WI	194.9	PLN	DTVPLN	-DTVP1758
49	WMSN-DR	MADISON WI	194.9	APP	BPRM	-20080620AOW
49	WYTU-LP	MILWAUKEE WI	144.3	CP	BDISTTL	-20080801AXK
50	NEW-LD	HARRIETTA MI	181.7	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 11

Analysis of current record				
Channel	Call	City/State	Application	Ref. No.
50	WXFT-DT	AURORA IL	BMPCDT	-20080616ACK

Stations Potentially Affecting This Station						
Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
49	WMSN-TV	MADISON WI	203.4	CP	BPCDT	-20090209AGC
49	WMSN-TV	MADISON WI	203.4	PLN	DTVPLN	-DTVP1758
49	WMSN-DR	MADISON WI	203.4	APP	BPRM	-20080620AOW
50	WEIU-TV	CHARLESTON IL	262.7	CP MOD	BMPEDT	-20050510ACW
50	WEIU-TV	CHARLESTON IL	262.7	PLN	DTVPLN	-DTVP1769
50	WEIU-TV	CHARLESTON IL	262.7	LIC	BLEDT	-20060504AAW
50	WPXD-DR	ANN ARBOR MI	362.3	APP	BPRM	-20090408AQV
50	WDTN	DAYTON OH	372.1	LIC	BLCDT	-20050629AAL
50	WDTN	DAYTON OH	372.1	PLN	DTVPLN	-DTVP1776
50	WISC-TV	MADISON WI	203.4	APP	BLCDT	-20050701ABU
50	WISC-TV	MADISON WI	203.4	PLN	DTVPLN	-DTVP1786
50	WISC-TV	MADISON WI	203.4	CP	BPCDT	-19991027ABG
51	WPWR-TV	GARY IN	0.0	LIC	BLCDT	-20050425ACE
51	WPWR-TV	GARY IN	0.0	PLN	DTVPLN	-DTVP1797
50	NEW-LD	HARRIETTA MI	308.7	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 12

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 9 of 17)

Analysis of current record					
Channel	Call	City/State	Application	Ref. No.	
50	WPXD-DR	ANN ARBOR MI	BPRM	-20090408AQV	
Stations Potentially Affecting This Station					
Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
49	WDLI-DR	CANTON OH	213.3	LIC	BPRM -20080620AHX
49	WDLI-TV	CANTON OH	213.3	PLN	DTVPLN -DTVPI749
49	WNWO-TV	TOLEDO OH	90.8	LIC	BLCDT -20020403AAR
49	WNWO-TV	TOLEDO OH	90.8	PLN	DTVPLN -DTVPI750
50	WXFT-DT	AURORA IL	362.3	CP MOD	BMPCDT -20080616ACK
50	WXFT-TV	AURORA IL	362.3	PLN	DTVPLN -DTVPI768
50	WEAO	AKRON OH	208.8	LIC	BLEDT -20040928AQT
50	WEAO	AKRON OH	208.8	PLN	DTVPLN -DTVPI775
50	WEAO	AKRON OH	208.8	CP	BPEDT -20080620AAD
50	WDTN	DAYTON OH	317.3	LIC	BLCDT -20050629AAL
50	WDTN	DAYTON OH	317.3	PLN	DTVPLN -DTVPI776
50	WQLN	ERIE PA	271.5	CP MOD	BMPEDT -20000412AAR
50	WQLN	ERIE PA	271.5	PLN	DTVPLN -DTVPI778
50	WQLN	ERIE PA	271.5	LIC	BLEDT -20060601BCQ
50	WPCB-TV	GREENSBURG PA	374.8	LIC	BLCDT -20030409ABC
50	WPCB-TV	GREENSBURG PA	374.8	PLN	DTVPLN -DTVPI779
51	WLAJ	LANSING MI	99.6	LIC	BLCDT -20040422ABI
51	WLAJ	LANSING MI	99.6	PLN	DTVPLN -DTVPI800
50	NEW-LD	HARRIETTA MI	278.0	APP	USERRECORD-01
Proposal causes no interference					

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Analysis of Interference to Affected Station 13

Analysis of current record					
Channel	Call	City/State	Application	Ref. No.	
50	DW50BG	ESCANABA MI	BLTTL	-19961101JB	
Stations Potentially Affecting This Station					
Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WJMN-TV	ESCANABA MI	56.3	CP MOD	BMPCDT -20081023AAF
48	WJMN-TV	ESCANABA MI	56.3	PLN	DTVPLN -DTVPI710
50	W67CH	LA CROSSE WI	381.4	CP MOD	BMPDPT -20080721AAL
50	WISC-TV	MADISON WI	342.5	APP	BLCDT -20050701ABU
50	WISC-TV	MADISON WI	342.5	PLN	DTVPLN -DTVPI786
50	WISC-TV	MADISON WI	342.5	CP	BPEDT -19991027ABG
50	NEW-LD	HARRIETTA MI	204.8	APP	USERRECORD-01
Proposal causes no interference					

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Analysis of Interference to Affected Station 14

Analysis of current record					
Channel	Call	City/State	Application	Ref. No.	
50	W50CD	HOUGHTON LAKE MI	BLTTL	-20001219ACE	

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 10 of 17)

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
46	WBSF	BAY CITY MI	115.8	PLN	DTVPLN	-DTVPI648
46	WBSF	BAY CITY MI	115.8	CP MOD	BMPCDT	-20080620AGE
48	WAQP	SAGINAW MI	131.1	LIC	BLCDT	-20060824ADS
48	WAQP	SAGINAW MI	131.1	PLN	DTVPLN	-DTVPI711
49	WMKG-LD	MUSKEGON MI	161.6	CP	BDCCDTL	-20061018ABV
50	WXFT-DT	AURORA IL	356.2	CP MOD	BMPCDT	-20080616ACK
50	WXFT-TV	AURORA IL	356.2	PLN	DTVPLN	-DTVPI768
50	WPXD-DR	ANN ARBOR MI	231.7	APP	BPRM	-20090408AQV
50	NEW	TOLEDO OH	309.3	APP	BDCCDTL	-20061030ARV
65	W65DJ	HOUGHTON LAKE MI	0.0	LIC	BLTTL	-20001218AAU
50	NEW-LD	HARRIETTA MI	77.1	APP	USERRECORD-01	
Proposal causes no interference						

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Analysis of Interference to Affected Station 15

Analysis of current record					
Channel	Call	City/State	Application	Ref. No.	
50	WOKZ-CA	KALAMAZOO MI	BLTTA	-20021213ABP	

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
42	WNDU-TV	SOUTH BEND IN	90.2	LIC	BLCDT	-20060717AAG
42	WNDU-TV	SOUTH BEND IN	90.2	PLN	DTVPLN	-DTVPI502
42	WNDU-TV	SOUTH BEND IN	90.2	CP	BPEDT	-20080619AAB
46	WHME-DR	SOUTH BEND IN	89.0	APP	BPRM	-20080619AET
46	WHME-TV	SOUTH BEND IN	89.0	PLN	DTVPLN	-DTVPI646
46	WHME-TV	SOUTH BEND IN	89.0	APP	BPEDT	-20090716AAZ
48	WHME-TV	SOUTH BEND IN	89.0	APP	BPEDT	-20080619ABC
49	WOCH-CA	CHICAGO IL	169.3	APP	BMPDPT	-20090630AHX
49	WOCH-CA	CHICAGO IL	169.3	CP	BDISDTA	-20080605ABA
49	NEW	CHICAGO IL	169.3	APP	BSFDTL	-20060630CYR
49	NEW	CHICAGO IL	171.0	APP	BSFDTL	-20060630AUQ
49	WBND-LD	SOUTH BEND IN	88.1	LIC	BLDTL	-20071012ATA
49	W21BS	BATTLE CREEK MI	39.2	APP	BPDTL	-20011220ABD
49	WMKG-LD	MUSKEGON MI	114.1	CP	BDCCDTL	-20061018ABV
50	WXFT-DT	AURORA IL	170.9	CP MOD	BMPCDT	-20080616ACK
50	WXFT-TV	AURORA IL	170.9	PLN	DTVPLN	-DTVPI768
50	WEIU-TV	CHARLESTON IL	376.7	CP MOD	BMPEDT	-20050510ACW
50	WEIU-TV	CHARLESTON IL	376.6	PLN	DTVPLN	-DTVPI769
50	WEIU-TV	CHARLESTON IL	376.7	LIC	BLEDT	-20060504AAW
50	WKKG-LP	KOKOMO IN	210.9	CP	BDPCDTA	-20090630ADX
50	WKMF-LP	SULLIVAN IN	383.2	CP	BDCCDTL	-20061027ABD
50	WPXD-DR	ANN ARBOR MI	192.3	APP	BPRM	-20090408AQV
50	WEAO	AKRON OH	358.9	LIC	BLEDT	-20040928AQT
50	WEAO	AKRON OH	358.9	PLN	DTVPLN	-DTVPI775
50	WEAO	AKRON OH	358.9	CP	BPEDT	-20080620AAD
50	WDTN	DAYTON OH	309.2	LIC	BLCDT	-20050629AAL
50	WDTN	DAYTON OH	309.2	PLN	DTVPLN	-DTVPI776
50	NEW	TOLEDO OH	188.2	APP	BDCCDTL	-20061030ARV
50	WISC-TV	MADISON WI	329.1	APP	BLCDT	-20050701ABU
50	WISC-TV	MADISON WI	329.1	PLN	DTVPLN	-DTVPI786
50	WISC-TV	MADISON WI	329.1	CP	BPEDT	-19991027ABG
51	WIWU-CD	MARION IN	186.9	LIC	BLDTA	-20090611ABQ
51	WLAJ	LANSING MI	92.8	LIC	BLCDT	-20040422ABI

Table 1 OET Bulletin 69 Interference Study

(worst-case scenarios shown page 11 of 17)

51	WLAJ	LANSING MI	92.8	PLN	DTVPLN	-DTVPL800
50	NEW-LD	HARRIETTA MI	220.1	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 16

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
50	W50CA	SAULT STE. MARIE MI	BLTTL	-20001208ABU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
50	NEW-LD	HARRIETTA MI	257.2	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 17

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
50	NEW	TOLEDO OH	BDDCTL	-20061030ARV

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
49	WBND-LD	SOUTH BEND IN	220.2	LIC	BLDTL	-20071012ATA
49	WNWO-TV	TOLEDO OH	15.0	LIC	BLCDT	-20020403AAR
49	WNWO-TV	TOLEDO OH	15.0	PLN	DTVPLN	-DTVPL750
50	WXFT-DT	AURORA IL	340.8	CP MOD	BMPCDT	-20080616ACK
50	WXFT-TV	AURORA IL	340.8	PLN	DTVPLN	-DTVPL768
50	WKGK-LP	KOKOMO IN	254.9	CP	BDFCDTA	-20090630ADX
50	W50CI	LOUISVILLE KY	414.6	CP	BDFCDTL	-20090415AJP
50	WPXD-DR	ANN ARBOR MI	94.3	APP	BPRM	-20090408AQV
50	WEAO	AKRON OH	170.8	LIC	BLEDT	-20040928AQT
50	WEAO	AKRON OH	170.8	PLN	DTVPLN	-DTVPL775
50	WEAO	AKRON OH	170.8	CP	BPEDT	-20080620AAD
50	WDTN	DAYTON OH	223.2	LIC	BLCDT	-20050629AAL
50	WDTN	DAYTON OH	223.2	PLN	DTVPLN	-DTVPL776
50	WQLN	ERIE PA	290.6	CP MOD	BMPEDT	-20000412AAR
50	WQLN	ERIE PA	290.6	PLN	DTVPLN	-DTVPL778
50	WQLN	ERIE PA	290.6	LIC	BLEDT	-20060601BCQ
50	WPCB-TV	GREENSBURG PA	344.4	LIC	BLCDT	-20030409ABC
50	WPCB-TV	GREENSBURG PA	344.4	PLN	DTVPLN	-DTVPL779
51	WIWU-CD	MARION IN	210.9	LIC	BLDTA	-20090611ABQ
51	WLAJ	LANSING MI	118.1	LIC	BLCDT	-20040422ABI
51	WLAJ	LANSING MI	118.1	PLN	DTVPLN	-DTVPL800
51	W09CG	FINLAY OH	60.8	APP	BDISDTT	-20060329ACC
51	W51BI	KIRTLAND OH	187.6	CP	BDFCDT	-20060223ABH
51	WIVX-LP	LOUDONVILLE OH	159.3	APP	BDISDTL	-20090629ADH
50	NEW-LD	HARRIETTA MI	341.2	APP	USERRECORD-01	

Proposal causes no interference

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Table 1 OET Bulletin 69 Interference Study

(worst-case scenarios shown page 12 of 17)

Analysis of Interference to Affected Station 18

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
50	WISC-TV	MADISON WI	BLCDT	-20050701ABU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
49	KLJB	DAVENPORT IA	205.9	LIC	BLCDT	-20050713ADL
49	KLJB-TV	DAVENPORT IA	205.9	PLN	DTVPLN	-DTVPL737
49	WMSN-TV	MADISON WI	0.0	CP	BPCDT	-20090209AGC
49	WMSN-TV	MADISON WI	0.0	PLN	DTVPLN	-DTVPL758
49	WMSN-DR	MADISON WI	0.0	APP	BPRM	-20080620AOW
50	WXFT-DT	AURORA IL	203.4	CP MOD	BMPCDT	-20080616ACK
50	WXFT-TV	AURORA IL	203.4	PLN	DTVPLN	-DTVPL768
50	WEIU-TV	CHARLESTON IL	400.7	CP MOD	BMPEDT	-20050510ACW
50	WEIU-TV	CHARLESTON IL	400.7	PLN	DTVPLN	-DTVPL769
50	WEIU-TV	CHARLESTON IL	400.7	LIC	BLEDT	-20060504AAW
51	KGAN	CEDAR RAPIDS IA	206.8	CP MOD	BMPCDT	-20020911AAM
51	KGAN	CEDAR RAPIDS IA	206.8	PLN	DTVPLN	-DTVPL796
51	WPWR-TV	GARY IN	203.3	LIC	BLCDT	-20050425ACE
51	WPWR-TV	GARY IN	203.3	PLN	DTVPLN	-DTVPL797
50	NEW-LD	HARRIETTA MI	335.8	APP	USERRECORD-01	

Total scenarios = 4

Result key: 1

Scenario 1 Affected station 18 WISC-TV

Before Analysis

Results for: 50A WI MADISON	BLCDT	20050701ABU	APP
HAAT 466.0 m, ATV ERP 603.0 kW			

	POPULATION	AREA (sq km)
within Noise Limited Contour	1697346	34260.1
not affected by terrain losses	1678605	33645.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	56591	753.2
lost to ATV IX only	56591	753.2
lost to all IX	56591	753.2

Potential Interfering Stations Included in above Scenario 1

50A IL AURORA BMPCDT 20080616ACK CP

After Analysis

Results for: 50A WI MADISON	BLCDT	20050701ABU	APP
HAAT 466.0 m, ATV ERP 603.0 kW			

	POPULATION	AREA (sq km)
within Noise Limited Contour	1697346	34260.1
not affected by terrain losses	1678605	33645.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	56729	754.2
lost to ATV IX only	56729	754.2
lost to all IX	56729	754.2

Potential Interfering Stations Included in above Scenario 1

Table 1 OET Bulletin 69 Interference Study

(worst-case scenarios shown page 13 of 17)

50A IL AURORA BMPCDT 20080616ACK CP
50A MI HARRIETTA USERRECORD01 APP

Percent new IX = 0.0085%

Worst case new IX 0.0085% Scenario 1

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Analysis of Interference to Affected Station 19

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
50	WISC-TV	MADISON WI	BPCDT	-19991027ABG

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
49	KLJB	DAVENPORT IA	205.9	LIC	BLCDT	-20050713ADL
49	KLJB-TV	DAVENPORT IA	205.9	PLN	DTVPLN	-DTVPI737
49	WMSN-TV	MADISON WI	0.0	CP	BPCDT	-20090209AGC
49	WMSN-TV	MADISON WI	0.0	PLN	DTVPLN	-DTVPI758
49	WMSN-DR	MADISON WI	0.0	APP	BPRM	-20080620AOW
50	WXFT-DT	AURORA IL	203.4	CP MOD	BMPCDT	-20080616ACK
50	WXFT-TV	AURORA IL	203.4	PLN	DTVPLN	-DTVPI768
50	WEIU-TV	CHARLESTON IL	400.7	CP MOD	BMPEDT	-20050510ACW
50	WEIU-TV	CHARLESTON IL	400.7	PLN	DTVPLN	-DTVPI769
50	WEIU-TV	CHARLESTON IL	400.7	LIC	BLEDT	-20060504AAW
51	KGAN	CEDAR RAPIDS IA	206.8	CP MOD	BMPCDT	-20020911AAM
51	KGAN	CEDAR RAPIDS IA	206.8	PLN	DTVPLN	-DTVPI796
51	WPWR-TV	GARY IN	203.3	LIC	BLCDT	-20050425ACE
51	WPWR-TV	GARY IN	203.3	PLN	DTVPLN	-DTVPI797
50	NEW-LD	HARRIETTA MI	335.8	APP	USERRECORD-01	

Total scenarios = 4

Result key: 5

Scenario 1 Affected station 19 WISC-TV

Before Analysis

Results for: 50A WI MADISON BPCDT 19991027ABG CP
HAAT 466.0 m, ATV ERP 603.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1697346	34260.1
not affected by terrain losses	1678605	33645.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	56591	753.2
lost to ATV IX only	56591	753.2
lost to all IX	56591	753.2

Potential Interfering Stations Included in above Scenario 1

50A IL AURORA BMPCDT 20080616ACK CP

After Analysis

Results for: 50A WI MADISON BPCDT 19991027ABG CP
HAAT 466.0 m, ATV ERP 603.0 kW

POPULATION AREA (sq km)

Table 1 OET Bulletin 69 Interference Study

(worst-case scenarios shown page 14 of 17)

within Noise Limited Contour	1697346	34260.1
not affected by terrain losses	1678605	33645.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	56729	754.2
lost to ATV IX only	56729	754.2
lost to all IX	56729	754.2

Potential Interfering Stations Included in above Scenario 1

50A IL AURORA BMPCDT 20080616ACK CP
50A MI HARRIETTA USERRECORD01 APP

Percent new IX = 0.0085%

Worst case new IX 0.0085% Scenario 1

#####

Analysis of Interference to Affected Station 20

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
51	W51CR	PETOSKEY MI	BLTTL	-20071220ABW

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
51	WLAJ	LANSING MI	341.6	LIC	BLCDT	-20040422ABI
51	WLAJ	LANSING MI	341.6	PLN	DTVPLN	-DTVPI800
66	W66CY	PETOSKEY MI	0.0	LIC	BLTTL	-20071220ACH
50	NEW-LD	HARRIETTA MI	146.5	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 21

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
52	W52CO	HOUGHTON LAKE MI	BLTTL	-20001219ABT

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	WFUP	VANDERBILT MI	97.8	CP	BPCDT	-20081119AMT
45	WFUP	Vanderbilt MI	97.8	PLN	DTVPLN	-DTVPI618
48	WAQP	SAGINAW MI	131.1	LIC	BLCDT	-20060824ADS
48	WAQP	SAGINAW MI	131.1	PLN	DTVPLN	-DTVPI711
52	W52CP	TRAVERSE CITY MI	92.3	LIC	BLTTL	-20001220AAW
67	W67DN	HOUGHTON LAKE MI	0.0	LIC	BLTTL	-20001219ACJ
50	NEW-LD	HARRIETTA MI	77.1	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

#####

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 15 of 17)

Analysis of Interference to Affected Station 22

Analysis of current record

Channel	Call	City/State	Application Ref. No.
52	W52DB	MUSKEGON MI	BLTTL -20040217ACY

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
44	WZPX-TV	BATTLE CREEK MI	113.2	LIC	BLCDT -20020510AAG
44	WZPX	BATTLE CREEK MI	113.2	PLN	DTVPLN -DTVPI578
45	WLLA	KALAMAZOO MI	100.7	LIC	BLCDT -20070529AEA
45	WLLA	KALAMAZOO MI	100.7	PLN	DTVPLN -DTVPI617
48	WBME-TV	RACINE WI	143.7	PLN	DTVPLN -DTVPI727
48	WBME-TV	RACINE WI	145.6	CP MOD	BMPCDT -20080620ACE
48	WBME-TV	RACINE WI	145.6	APP	BMPCDT -20090709ABY
50	NEW-LD	HARRIETTA MI	112.6	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 23

Analysis of current record

Channel	Call	City/State	Application Ref. No.
52	W52CP	TRAVERSE CITY MI	BLTTL -20001220AAW

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	WFUP	VANDERBILT MI	86.5	CP	BPCDT -20081119AMT
45	WFUP	Vanderbilt MI	86.5	PLN	DTVPLN -DTVPI618
52	W52CO	HOUGHTON LAKE MI	92.3	LIC	BLTTL -20001219ABT
50	NEW-LD	HARRIETTA MI	55.0	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 24

Analysis of current record

Channel	Call	City/State	Application Ref. No.
54	W54CR	TRAVERSE CITY MI	BLTT -20031104ABZ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
54	WXON-LP	FLINT MI	247.6	CP	BPTTL -20031201BFL
50	NEW-LD	HARRIETTA MI	55.0	APP	USERRECORD-01

Proposed station is beyond the site to

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 16 of 17)

nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 25

Analysis of current record

Channel	Call	City/State	Application Ref. No.
57	W57CQ	HOUGHTON LAKE MI	BLTTL -20001219ACF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
57	W57CP	PETOSKEY MI	133.0	LIC	BLTTL -20020226AAE
50	NEW-LD	HARRIETTA MI	77.1	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 26

Analysis of current record

Channel	Call	City/State	Application Ref. No.
58	W58CN	TRAVERSE CITY MI	BLTTL -20001201AAJ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
50	NEW-LD	HARRIETTA MI	55.0	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 27

Analysis of current record

Channel	Call	City/State	Application Ref. No.
50	NEW-LD	HARRIETTA MI	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
49	WMKG-LD	MUSKEGON MI	119.2	CP	BDCCDTL -20061018ABV
50	WXFT-DT	AURORA IL	308.7	CP MOD	BMPCDT -20080616ACK
50	WXFT-TV	AURORA IL	308.7	PLN	DTVPLN -DTVPI768
50	WKKG-LP	KOKOMO IN	428.5	CP	BDFCDTA -20090630ADX
50	WPXD-DR	ANN ARBOR MI	278.0	APP	BPRM -20090408AQV
50	W50CD	HOUGHTON LAKE MI	77.1	LIC	BLTTL -20001219ACE
50	NEW	TOLEDO OH	341.2	APP	BDCCDTL -20061030ARV
50	WISC-TV	MADISON WI	335.8	APP	BLCDT -20050701ABU
50	WISC-TV	MADISON WI	335.8	PLN	DTVPLN -DTVPI786
50	WISC-TV	MADISON WI	335.8	CP	BPCDT -19991027ABG

Table 1 OET Bulletin 69 Interference Study
(worst-case scenarios shown page 17 of 17)

Total scenarios = 2

Result key: 10
Scenario 2 Affected station 27 NEW-LD
Before Analysis

Results for: 50A MI HARRIETTA USERRECORD01 APP
HAAT 382.0 m, ATV ERP 15.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	122608	8661.0
not affected by terrain losses	122192	8629.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	77	2.0
lost to ATV IX only	77	2.0
lost to all IX	77	2.0

Potential Interfering Stations Included in above Scenario 2

50A MI ANN ARBOR BPRM 20090408AQV APP

#####

FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

SECTION III - ENGINEERING DATA (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 Number: 50											
2.	Translator Input Channel No. : 47											
3.	Primary station proposed to be rebroadcast:											
	Facility Identifier	Call Sign	City	State	Channel							
	21253	WPBN-TV	TRAVERSE CITY	MI	47							
4.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 44 Minutes 16 Seconds 33 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 85 Minutes 42 Seconds 48 <input checked="" type="radio"/> West <input type="radio"/> East											
5.	Antenna Structure Registration Number: 1031841 <input type="checkbox"/> Not Applicable [Exhibit 10] <input type="checkbox"/> Notification filed with FAA											
6.	Antenna Location Site Elevation Above Mean Sea Level: 434 meters											
7.	Overall Tower Height Above Ground Level: 342.9 meters											
8.	Height of Radiation Center Above Ground Level: 292 meters											
9.	Maximum Effective Radiated Power (ERP): 15 kW											
10.	Transmitter Output Power: 0.95 kW											
11.	a. Transmitting Antenna: Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under CDBS Public Access (http://fjallfoss.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search. <input type="radio"/> Nondirectional <input type="radio"/> Directional "Off-the-shelf" <input checked="" type="radio"/> Directional composite Manufacturer DIE Model TLP-24M(C) b. Electrical Beam Tilt: 0.5 degrees <input type="checkbox"/> Not Applicable											
	c. Directional Antenna Relative Field Values: <input type="checkbox"/> N/A (Nondirectional or Directional "Off-the-shelf") Rotation (Degrees): <input checked="" type="checkbox"/> No Rotation											
	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
	0	0.184	10	0.226	20	0.257	30	0.227	40	0.183	50	0.194
	60	0.278	70	0.393	80	0.502	90	0.599	100	0.688	110	0.778
	120	0.873	130	0.951	140	0.993	150	0.998	160	0.976	170	0.944
	180	0.918	190	0.901	200	0.895	210	0.908	220	0.921	230	0.942
	240	0.974	250	0.995	260	0.985	270	0.940	280	0.865	290	0.775
	300	0.684	310	0.593	320	0.497	330	0.392	340	0.280	350	0.197
	Additional Azimuths	146	1.0	253	0.996							

[Relative Field Polar Plot](#)

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: <input type="radio"/> Simple <input checked="" type="radio"/> 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. <input checked="" type="radio"/> Yes <input type="radio"/> No <div>See Explanation in [Exhibit 11]</div>
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. <input checked="" type="radio"/> Yes <input type="radio"/> No <div>See Explanation in [Exhibit 12]</div> 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: <input type="checkbox"/> The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available. <input type="checkbox"/> Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licenses 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.
16.	Channels 60-69. If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable: <input type="checkbox"/> Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application, all commercial wireless licenses 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. <input type="checkbox"/> 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 agreements(s) with 700 MHz public safety regional planning committee(s) and state 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. <input type="checkbox"/> Pursuant to Section 74.786(e), the 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.
PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.	

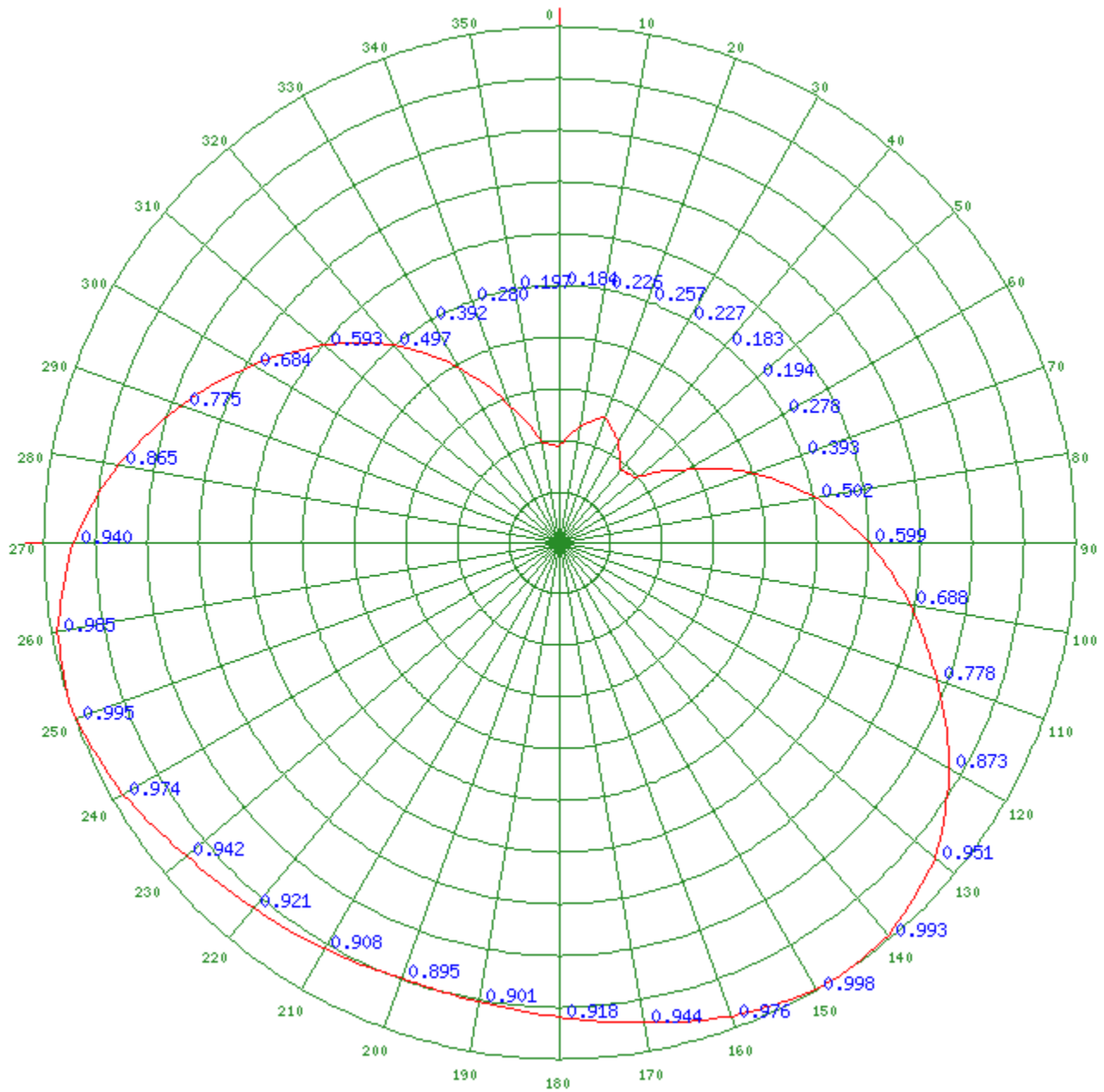
SECTION III PREPARER'S CERTIFICATION

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 JOSEPH M. DAVIS, P.E.		Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature		Date 7/23/2009	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 11993 KAHNS ROAD			
City MANASSAS		State or Country (if foreign address) VA	Zip Code 20112 -
Telephone Number (include area code) 7036509600		E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	

Any specified rotation has already been applied to the plotted pattern.
Field strength values shown on a rotated pattern may differ from the listed values
because intermediate azimuths are interpolated between entered azimuths.

Close Window



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