

## **ENGINEERING EXHIBIT**

### **“Maximization” Application to Modify Post-Transition Digital Television Station Construction Permit**

prepared for

#### **Gray Television Licensee, Inc.**

WIFR-DT Freeport, IL  
Facility ID 4689  
Ch. 23 170 kW 220 m

*Gray Television Licensee, Inc. (“Gray”)* is the licensee of television station WIFR(TV), analog Channel 23 and digital Channel 41, Freeport, IL. A Construction Permit (“CP”, BPCDT-20080327AHN) authorizes construction of the WIFR-DT post-transition digital facility on Channel 23, as established in Appendix B of the Seventh Report and Order in MB Docket 87-278. *Gray* herein seeks to modify the CP to expand the WIFR-DT post-transition Channel 23 digital facility. The instant application is intended to be filed by June 20, 2008 in response to the FCC’s lifting of the August 3, 2004 “freeze” concerning expansion in service area.<sup>1</sup>

The current CP authorizes operation with an effective radiated power (“ERP”) of 49.4 kW at 220 meters antenna height above average terrain (“HAAT”), with a nondirectional antenna. An increase in ERP to 170 kW is proposed herein. No other changes are proposed.

The proposed digital Channel 23 operation will employ the existing non-directional shared antenna system licensed for WIFR’s analog Channel 23 and digital Channel 41. The antenna is a horizontally polarized Dielectric model TUF-O4-14/56H-1-T. The antenna is top-mounted on the existing WIFR antenna supporting structure, having FCC Antenna Structure Registration number 1209945. No change to the overall structure height and no tower work are required to carry out this proposal.

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<sup>1</sup>Public Notice “*Commission Lifts the Freeze On the Filing of Maximization Applications and Petitions for Digital Channel Substitutions, Effective Immediately*” DA 08-1213, released May 30, 2008.

A map is supplied as **Figure 1**, which depicts the standard predicted coverage contours. This map includes the boundaries of Freeport, WIFR-DT’s principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 48 dBμ contour.

The proposed WIFR-DT facility’s predicted service population provides a 124.9 percent match of the Appendix B facility, as detailed in the table below.

<b>Post-Transition Population Summary</b>		
Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	972,890	1,229,547
Not affected by terrain losses	969,061	1,217,983
Lost to all interference	59,411	81,741
Net DTV Service	<b>909,650</b>	<b>1,136,242</b>
Match of Appendix B	---	<b>124.91%</b>

A detailed interference study per OET Bulletin 69<sup>2</sup> shows that the proposal complies with the 0.5 percent limit of new interference caused to the Appendix B facilities and current post-transition authorizations of pertinent nearby stations. **Pursuant to §73.616(e)(1), FCC processing of this proposal is requested on the basis of a 1 km cell size.** The interference study output report is provided as **Table 1**. Protection requirements towards authorized Class A stations are also satisfied.

The nearest FCC monitoring station is 267 km distant at Allegan, MI. This exceeds by a large margin 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. The site location is beyond the border areas requiring international coordination.

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<sup>2</sup>FCC 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.

### **Human Exposure to Radiofrequency Electromagnetic Field (Environmental)**

The proposal will involve use of an existing transmitting antenna. 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. No tower construction or change in structure height is proposed. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

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 considering 10 percent antenna relative field in downward elevations (pattern data shows less than 10 percent relative field at angles 15 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is  $1.3 \mu\text{W}/\text{cm}^2$ , which is 0.4 percent of the general population/uncontrolled maximum permitted exposure limit. This is well 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.

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.

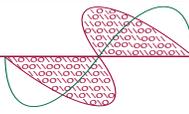
Joseph M. Davis, P.E.  
June 11, 2008

**Chesapeake RF Consultants, LLC**  
11993 Kahns Road  
Manassas, VA 20112  
703-650-9600

### List of Attachments

Figure 1	Proposed Coverage Contours
Table 1	OET Bulletin 69 Interference Study
Form 301	Saved Version of Engineering Sections from FCC Form at Time of Upload

*This material was entered June 11, 2008 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.*



**Chesapeake RF Consultants, LLC**  
 Radiofrequency Consulting Engineers  
 Digital Television and Radio

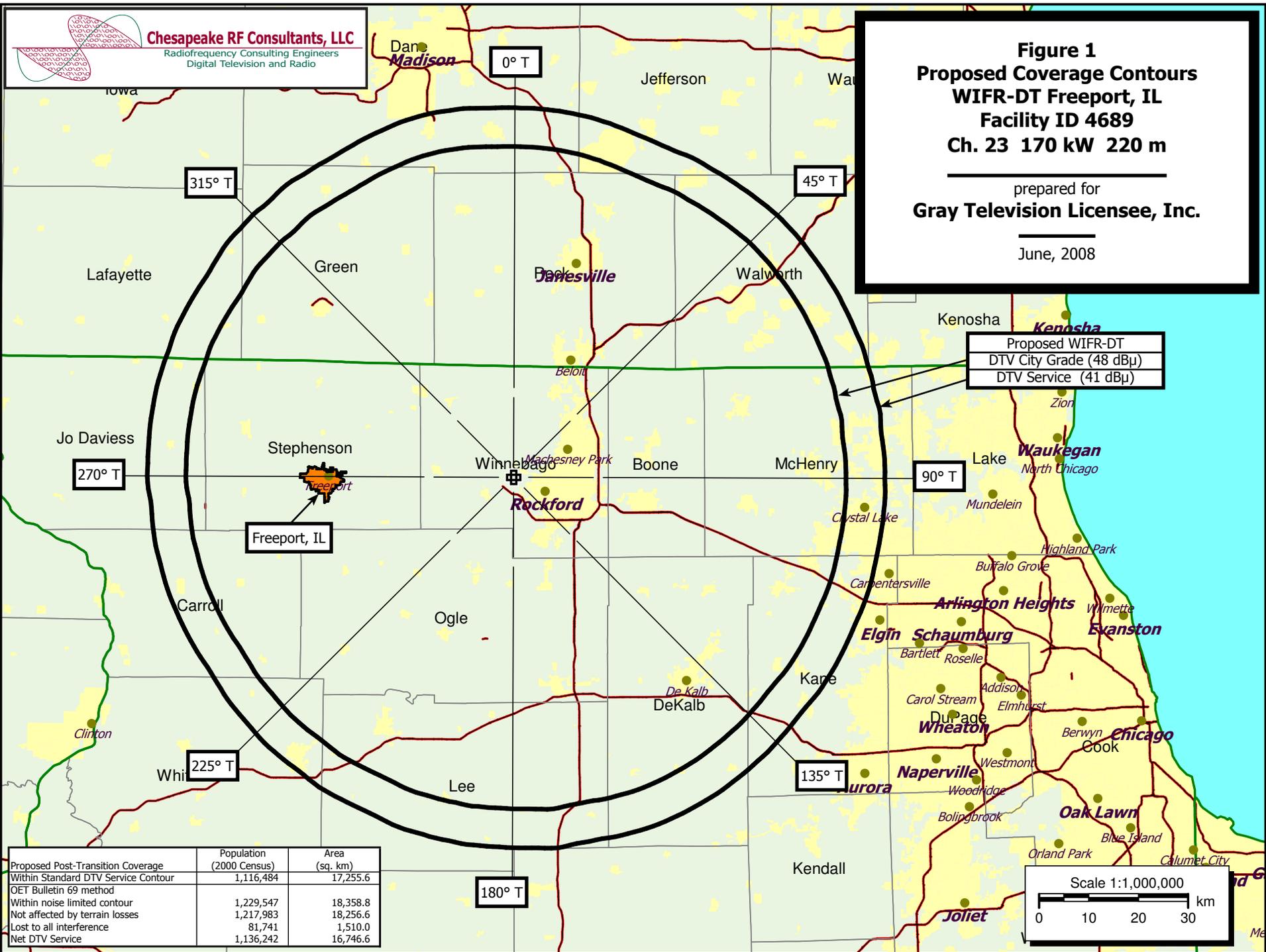
**Figure 1**  
**Proposed Coverage Contours**  
**WIFR-DT Freeport, IL**  
**Facility ID 4689**  
**Ch. 23 170 kW 220 m**

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prepared for  
**Gray Television Licensee, Inc.**

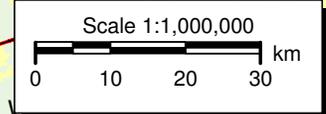
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June, 2008



Proposed WIFR-DT  
 DTV City Grade (48 dBμ)  
 DTV Service (41 dBμ)

Proposed Post-Transition Coverage	Population (2000 Census)	Area (sq. km)
Within Standard DTV Service Contour	1,116,484	17,255.6
OET Bulletin 69 method		
Within noise limited contour	1,229,547	18,358.8
Not affected by terrain losses	1,217,983	18,256.6
Lost to all interference	81,741	1,510.0
Net DTV Service	1,136,242	16,746.6



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

**Cell Size = 1 km**

TW Census data selected 2000  
Post Transition Data Base Selected /space/software/cdbs/pt\_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-08-2008 Time: 22:31:46

Record Selected for Analysis

WIFR-DT USERRECORD-01 FREEPORT IL US  
Channel 23 ERP 170. kW HAAT 220. m RCAMSL 00463 m  
Latitude 042-17-48 Longitude 0089-10-15  
Status APP Zone 1 Border  
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

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	170.000	219.4	74.8
45.0	170.000	226.4	75.3
90.0	170.000	224.8	75.2
135.0	170.000	230.6	75.6
180.0	170.000	222.1	75.0
225.0	170.000	202.9	73.5
270.0	170.000	210.9	74.1
315.0	170.000	220.9	74.9

Evaluation toward Class A Stations

Contour overlap to Class A station  
WVME-CA 23 CHICAGO IL BLTTA 20040129AOW

Contour overlap to Class A station  
W23BW 23 MADISON WI BLTTA 20031125AAQ

Contour overlap to Class A station  
W23BW 23 MADISON WI BPTTA 20030326AHF

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

**Table 1 WIFR-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 2 of 17)

**Cell Size = 1 km**

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
23	WIFR-DT	FREEPORT IL	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
22	WVCY-TV	MILWAUKEE WI	136.4	LIC	BLCDDT	-20060619AAX
22	WVCY-TV	MILWAUKEE WI	136.3	PLN	DTVPLN	-DTVP0830
23	KCWI-TV	AMES IA	370.4	PLN	DTVPLN	-DTVP0843
23	KCWI-TV	AMES IA	370.3	CP	BPCDT	-20080314ABC
23	WVME-CA	CHICAGO IL	134.8	LIC	BLTTA	-20040129AOW
23	WQPT-TV	MOLINE IL	148.3	LIC	BLEDT	-20030702AAR
23	WQPT-TV	MOLINE IL	148.3	PLN	DTVPLN	-DTVP0846
23	WIPB	MUNCIE IN	399.7	CP	BPEDT	-20080227ABW
23	WIPB	MUNCIE IN	399.7	PLN	DTVPLN	-DTVP0847
23	KQEG-CA	LA CRESCENT MN	236.4	LIC	BLTTA	-20040602ABA
23	WBAY-TV	GREEN BAY WI	253.2	LIC	BMLCDDT	-20040723ADS
23	WBAY-TV	GREEN BAY WI	253.2	PLN	DTVPLN	-DTVP0869
23	W23BW	MADISON WI	87.7	LIC	BLTTA	-20031125AAQ
23	W23BW	MADISON WI	87.7	APP	BPTTA	-20030326AHF
24	W24AJ	AURORA IL	97.0	LIC	BLTTL	-19990716JA
30	WSPY-LP	PLANO IL	85.7	LIC	BLTTL	-19900514IR

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
22	WVCY-TV	MILWAUKEE WI	BLCDDT	-20060619AAX

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
21	WYCC	CHICAGO IL	135.1	LIC	BLEDT	-20030501ABC
21	WYCC	CHICAGO IL	135.1	PLN	DTVPLN	-DTVP0759
21	WCMW	MANISTEE MI	166.2	PLN	DTVPLN	-DTVP0769
21	WCMW	MANISTEE MI	166.2	CP	BPEDT	-20080222ABG
21	WIWB	SURING WI	137.7	LIC	BLCDDT	-20040521ADD
21	WIWB	SURING WI	137.7	PLN	DTVPLN	-DTVP0789
22	KWWF	WATERLOO IA	343.5	PLN	DTVPLN	-DTVP0800
22	WBUI	DECATUR IL	358.3	LIC	BLCDDT	-20040521ADS
22	WBUI	DECATUR IL	358.3	PLN	DTVPLN	-DTVP0802
22	WSBT-TV	SOUTH BEND IN	215.0	PLN	DTVPLN	-DTVP0803
22	WSBT-TV	SOUTH BEND IN	215.0	CP	BPCDDT	-20080317AHE
22	WNEM-TV	BAY CITY MI	331.2	CP MOD	BMPCDDT	-20040721AMM
22	WNEM-TV	BAY CITY MI	331.2	PLN	DTVPLN	-DTVP0808
23	WIFR	FREEPORT IL	136.4	PLN	DTVPLN	-DTVP0845
23	WBAY-TV	GREEN BAY WI	146.2	LIC	BMLCDDT	-20040723ADS

**Table 1 WIFR-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 3 of 17)

**Cell Size = 1 km**

23 WBAY-TV GREEN BAY WI 146.2 PLN DTVPLN -DTVP0869  
 23 WIFR-DT FREEPORT IL 136.4 APP USERRECORD-01  
 Proposal causes no interference

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel Call City/State Application Ref. No.  
 22 WVCY-TV MILWAUKEE WI DTVPLN -DTVP0830

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
21	WYCC	CHICAGO IL	135.0	LIC	BLEDT -20030501ABC
21	WYCC	CHICAGO IL	135.0	PLN	DTVPLN -DTVP0759
21	WCMW	MANISTEE MI	166.3	PLN	DTVPLN -DTVP0769
21	WCMW	MANISTEE MI	166.3	CP	BEDT -20080222ABG
21	WIWB	SURING WI	137.8	LIC	BLEDT -20040521ADD
21	WIWB	SURING WI	137.8	PLN	DTVPLN -DTVP0789
22	KWWF	WATERLOO IA	343.4	PLN	DTVPLN -DTVP0800
22	WBUI	DECATUR IL	358.2	LIC	BLEDT -20040521ADS
22	WBUI	DECATUR IL	358.2	PLN	DTVPLN -DTVP0802
22	WSBT-TV	SOUTH BEND IN	215.0	PLN	DTVPLN -DTVP0803
22	WSBT-TV	SOUTH BEND IN	215.0	CP	BPCDT -20080317AHE
22	WNEM-TV	BAY CITY MI	331.2	CP MOD	BMPCDT -20040721AMM
22	WNEM-TV	BAY CITY MI	331.2	PLN	DTVPLN -DTVP0808
23	WIFR	FREEPORT IL	136.3	PLN	DTVPLN -DTVP0845
23	WBAY-TV	GREEN BAY WI	146.3	LIC	BMLCDT -20040723ADS
23	WBAY-TV	GREEN BAY WI	146.3	PLN	DTVPLN -DTVP0869
23	WIFR-DT	FREEPORT IL	136.3	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel Call City/State Application Ref. No.  
 23 KCWI-TV AMES IA DTVPLN -DTVP0843

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	KWWF	WATERLOO IA	147.5	PLN	DTVPLN -DTVP0800
22	WOWT-TV	OMAHA NE	208.6	LIC	BLEDT -20050706AAA
22	WOWT-TV	OMAHA NE	208.6	PLN	DTVPLN -DTVP0815
23	WIFR	FREEPORT IL	370.4	PLN	DTVPLN -DTVP0845
23	WQPT-TV	MOLINE IL	275.2	LIC	BLEDT -20030702AAR
23	WQPT-TV	MOLINE IL	275.2	PLN	DTVPLN -DTVP0846
23	WIFR-DT	FREEPORT IL	370.4	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 4

**Table 1 WIFR-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 4 of 17)

**Cell Size = 1 km**

Analysis of current record

Channel Call City/State Application Ref. No.  
 23 KCWI-TV AMES IA BPCDT -20080314ABC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	KWWF	WATERLOO IA	147.5	PLN	DTVPLN -DTVP0800
22	WOWT-TV	OMAHA NE	208.7	LIC	BLEDT -20050706AAA
22	WOWT-TV	OMAHA NE	208.7	PLN	DTVPLN -DTVP0815
23	WIFR	FREEPORT IL	370.3	PLN	DTVPLN -DTVP0845
23	WQPT-TV	MOLINE IL	275.1	LIC	BLEDT -20030702AAR
23	WQPT-TV	MOLINE IL	275.1	PLN	DTVPLN -DTVP0846
23	WIFR-DT	FREEPORT IL	370.3	APP	USERRECORD-01

Total scenarios = 2

Result key: 1

Scenario 1 Affected station 4  
 Before Analysis

Results for: 23A IA AMES BPCDT 20080314ABC CP  
 HAAT 610.0 m, ATV ERP 246.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	955551	38666.7
not affected by terrain losses	953897	38523.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	86	21.5
lost to ATV IX only	86	21.5
lost to all IX	86	21.5

Potential Interfering Stations Included in above Scenario 1

23A IL MOLINE BLEDT 20030702AAR LIC

After Analysis

Results for: 23A IA AMES BPCDT 20080314ABC CP  
 HAAT 610.0 m, ATV ERP 246.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	955551	38666.7
not affected by terrain losses	953897	38523.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	86	22.5
lost to ATV IX only	86	22.5
lost to all IX	86	22.5

Potential Interfering Stations Included in above Scenario 1

23A IL MOLINE BLEDT 20030702AAR LIC  
 23A IL FREEPORT USERRECORD01 APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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

**Cell Size = 1 km**

Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
23	WWME-CA	CHICAGO IL	BLTTA	-20040129AOW

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
16	WTVO	ROCKFORD IL	134.5	LIC	BLCDT	-20021024AAS
16	WTVO	ROCKFORD IL	134.5	PLN	DTVPLN	-DTVP0565
16	WNDU-TV	SOUTH BEND IN	121.9	LIC	BLCT	-20060627ACE
19	WGN-TV	CHICAGO IL	0.0	LIC	BLCDT	-20040316ACQ
19	WGN-TV	CHICAGO IL	0.0	PLN	DTVPLN	-DTVP0676
20	WYCC	CHICAGO IL	2.5	LIC	BLET	-20041105AQB
21	WYCC	CHICAGO IL	2.5	LIC	BLEDT	-20030501ABC
21	WYCC	CHICAGO IL	2.5	PLN	DTVPLN	-DTVP0759
22	W64CQ	ARLINGTON HEIGHTS IL	40.5	LIC	BLTT	-19991020AAO
22	W65CZ	JOLIET IL	50.1	APP	BPTTL	-20020423ABE
22	WSBT-TV	SOUTH BEND IN	121.2	PLN	DTVPLN	-DTVP0803
22	WSBT-TV	SOUTH BEND IN	121.2	CP	BPCT	-20050613AFT
22	WSBT-TV	SOUTH BEND IN	121.2	CP	BPCT	-20080317AHE
23	WBUI	DECATUR IL	237.0	LIC	BLCT	-20010406ABK
23	WIFR	FREEPORT IL	134.8	CP	BPCT	-20080327AHN
23	WIFR	FREEPORT IL	134.8	PLN	DTVPLN	-DTVP0845
23	WIFR	FREEPORT IL	134.8	LIC	BMLCT	-20040615ABU
23	WQPT-TV	MOLINE IL	236.5	LIC	BLEDT	-20030702AAR
23	WQPT-TV	MOLINE IL	236.5	PLN	DTVPLN	-DTVP0846
23	WNDY-TV	MARION IN	239.3	LIC	BLCT	-19990430KE
23	WIPB	MUNCIE IN	273.5	CP	BPCT	-20080227ABW
23	WIPB	MUNCIE IN	273.5	PLN	DTVPLN	-DTVP0847
23	WKAR-TV	EAST LANSING MI	280.3	LIC	BMLCT	-20040128AKK
23	WBAY-TV	GREEN BAY WI	282.9	LIC	BMLCDT	-20040723ADS
23	WBAY-TV	GREEN BAY WI	282.9	PLN	DTVPLN	-DTVP0869
23	W23BW	MADISON WI	199.6	LIC	BLTTA	-20031125AAQ
23	W23BW	MADISON WI	199.6	APP	BPTTA	-20030326AHF
25	WCGV-TV	MILWAUKEE WI	137.0	CP MOD	BMPCDT	-20010920AAK
25	WCGV-TV	MILWAUKEE WI	137.0	PLN	DTVPLN	-DTVP0942
26	WCIU-TV	CHICAGO IL	0.0	LIC	BLCT	-19990604KI
27	WCIU-TV	CHICAGO IL	0.0	CP MOD	BMPCDT	-20021202ABR
27	WCIU-TV	CHICAGO IL	0.0	PLN	DTVPLN	-DTVP0998
31	WFLD	CHICAGO IL	0.0	LIC	BLCDT	-20050606ABF
31	WFLD	CHICAGO IL	0.0	PLN	DTVPLN	-DTVP1142
38	WCPX	CHICAGO IL	0.0	LIC	BLCT	-20050715ACC
38	WGBO-TV	JOLIET IL	2.5	CP	BPCT	-20080314AEF
38	WGBO-TV	JOLIET IL	2.5	PLN	DTVPLN	-DTVP1364
23	WIFR-DT	FREEPORT IL	134.8	APP	USERRECORD-01	

Total scenarios = 16

Result key: 3  
Scenario 1 Affected station 5  
Before Analysis

Results for: 23N IL CHICAGO		BLTTA	20040129AOW	LIC
	POPULATION	AREA (sq km)		
within Noise Limited Contour	3591138	3049.0		
not affected by terrain losses	3591138	3049.0		
lost to NTSC IX	3494723	2961.0		
lost to additional IX by ATV	0	0.0		

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

**Cell Size = 1 km**

lost to all IX 3494723 2961.0

Potential Interfering Stations Included in above Scenario 1

20N IL CHICAGO	BLET	20041105AQB	LIC
23N IL FREEPORT	BMLCT	20040615ABU	LIC
26N IL CHICAGO	BLCT	19990604KI	LIC
38N IL CHICAGO	BLCT	20050715ACC	LIC
19A IL CHICAGO	BLCDT	20040316ACQ	LIC
21A IL CHICAGO	BLEDT	20030501ABC	LIC
27A IL CHICAGO	BMPCDT	20021202ABR	CP
31A IL CHICAGO	BLCDT	20050606ABF	LIC

After Analysis

Results for: 23N IL CHICAGO		BLTTA	20040129AOW	LIC
	POPULATION	AREA (sq km)		
within Noise Limited Contour	3591138	3049.0		
not affected by terrain losses	3591138	3049.0		
lost to NTSC IX	3494723	2961.0		
lost to additional IX by ATV	0	0.0		
lost to all IX	3494723	2961.0		

Potential Interfering Stations Included in above Scenario 1

20N IL CHICAGO	BLET	20041105AQB	LIC
23N IL FREEPORT	BMLCT	20040615ABU	LIC
26N IL CHICAGO	BLCT	19990604KI	LIC
38N IL CHICAGO	BLCT	20050715ACC	LIC
19A IL CHICAGO	BLCDT	20040316ACQ	LIC
21A IL CHICAGO	BLEDT	20030501ABC	LIC
27A IL CHICAGO	BMPCDT	20021202ABR	CP
31A IL CHICAGO	BLCDT	20050606ABF	LIC
23A IL FREEPORT	USERRECORD01		APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
23	WQPT-TV	MOLINE IL	BLEDT	-20030702AAR

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
22	KWWF	WATERLOO IA	182.3	PLN	DTVPLN	-DTVP0800
22	WBUI	DECATUR IL	199.7	LIC	BLCDT	-20040521ADS
22	WBUI	DECATUR IL	199.7	PLN	DTVPLN	-DTVP0802
23	KCWI-TV	AMES IA	275.2	PLN	DTVPLN	-DTVP0843
23	KCWI-TV	AMES IA	275.1	CP	BPCT	-20080314ABC
23	WIFR	FREEPORT IL	148.3	PLN	DTVPLN	-DTVP0845
23	WBAY-TV	GREEN BAY WI	395.0	LIC	BMLCDT	-20040723ADS
23	WBAY-TV	GREEN BAY WI	395.0	PLN	DTVPLN	-DTVP0869
23	WIFR-DT	FREEPORT IL	148.3	APP	USERRECORD-01	

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

**Cell Size = 1 km**

Total scenarios = 2

Result key: 19  
Scenario 1 Affected station 6  
Before Analysis

Results for: 23A IL MOLINE BLEDT 20030702AAR LIC  
HAAT 269.0 m, ATV ERP 80.0 kW  
POPULATION AREA (sq km)  
within Noise Limited Contour 598591 16769.7  
not affected by terrain losses 598102 16752.9  
lost to NTSC IX 0 0.0  
lost to additional IX by ATV 620 93.6  
lost to ATV IX only 620 93.6  
lost to all IX 620 93.6

Potential Interfering Stations Included in above Scenario 1

23A IA AMES DTVPLN DTVP0843 PLN  
23A IL FREEPORT DTVPLN DTVP0845 PLN

After Analysis

Results for: 23A IL MOLINE BLEDT 20030702AAR LIC  
HAAT 269.0 m, ATV ERP 80.0 kW  
POPULATION AREA (sq km)  
within Noise Limited Contour 598591 16769.7  
not affected by terrain losses 598102 16752.9  
lost to NTSC IX 0 0.0  
lost to additional IX by ATV 2560 296.6  
lost to ATV IX only 2560 296.6  
lost to all IX 2560 296.6

Potential Interfering Stations Included in above Scenario 1

23A IA AMES DTVPLN DTVP0843 PLN  
23A IL FREEPORT USERRECORD01 APP

Percent new IX = 0.3247%

Worst case new IX 0.3247% Scenario 1

#####

Analysis of Interference to Affected Station 7

Analysis of current record  
Channel Call City/State Application Ref. No.  
23 WQPT-TV MOLINE IL DTVPLN -DTVP0846

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	KWTF	WATERLOO IA	182.3	PLN	DTVPLN -DTVP0800
22	WBUI	DECATUR IL	199.7	LIC	BLCDT -20040521ADS
22	WBUI	DECATUR IL	199.7	PLN	DTVPLN -DTVP0802
23	KCWI-TV	AMES IA	275.2	PLN	DTVPLN -DTVP0843
23	KCWI-TV	AMES IA	275.1	CP	BPCDT -20080314ABC
23	WIFR	FREEPORT IL	148.3	PLN	DTVPLN -DTVP0845

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

**Cell Size = 1 km**

23 WBAY-TV GREEN BAY WI 395.0 LIC BMLCDT -20040723ADS  
23 WBAY-TV GREEN BAY WI 395.0 PLN DTVPLN -DTVP0869  
23 WIFR-DT FREEPORT IL 148.3 APP USERRECORD-01

Total scenarios = 2

Result key: 21  
Scenario 1 Affected station 7  
Before Analysis

Results for: 23A IL MOLINE DTVPLN DTVP0846 PLN  
HAAT 269.0 m, ATV ERP 80.0 kW  
POPULATION AREA (sq km)  
within Noise Limited Contour 598591 16769.7  
not affected by terrain losses 598102 16752.9  
lost to NTSC IX 0 0.0  
lost to additional IX by ATV 620 93.6  
lost to ATV IX only 620 93.6  
lost to all IX 620 93.6

Potential Interfering Stations Included in above Scenario 1

23A IA AMES DTVPLN DTVP0843 PLN  
23A IL FREEPORT DTVPLN DTVP0845 PLN

After Analysis

Results for: 23A IL MOLINE DTVPLN DTVP0846 PLN  
HAAT 269.0 m, ATV ERP 80.0 kW  
POPULATION AREA (sq km)  
within Noise Limited Contour 598591 16769.7  
not affected by terrain losses 598102 16752.9  
lost to NTSC IX 0 0.0  
lost to additional IX by ATV 2560 296.6  
lost to ATV IX only 2560 296.6  
lost to all IX 2560 296.6

Potential Interfering Stations Included in above Scenario 1

23A IA AMES DTVPLN DTVP0843 PLN  
23A IL FREEPORT USERRECORD01 APP

Percent new IX = 0.3247%

Worst case new IX 0.3247% Scenario 1

#####

Analysis of Interference to Affected Station 8

Analysis of current record  
Channel Call City/State Application Ref. No.  
23 WIPB MUNCIE IN BPEDT -20080227ABW

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	WSBT-TV	SOUTH BEND IN	182.9	PLN	DTVPLN -DTVP0803
22	WSBT-TV	SOUTH BEND IN	182.9	CP	BPCDT -20080317AHE

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

**Cell Size = 1 km**

23	WIFR	FREEPORT IL	399.7	PLN	DTVPLN	-DTVP0845
23	WVPX	AKRON OH	339.2	PLN	DTVPLN	-DTVP0858
23	WVPX	AKRON OH	339.2	CP	BPCDT	-20070625ACA
23	WSAZ-TV	HUNTINGTON WV	324.7	CP MOD	BMPCDT	-20080414AAQ
23	WSAZ-TV	HUNTINGTON WV	324.7	PLN	DTVPLN	-DTVP0870
24	WPTA	FORT WAYNE IN	113.5	LIC	BLCDT	-20031031AGU
24	WPTA	FORT WAYNE IN	113.5	PLN	DTVPLN	-DTVP0883
24	WCVN-TV	COVINGTON KY	140.4	LIC	BLEDT	-20020201ABJ
24	WCVN-TV	COVINGTON KY	140.4	PLN	DTVPLN	-DTVP0884
23	WIFR-DT	FREEPORT IL	399.7	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 9

Analysis of current record

Channel	Call	City/State	Application Ref. No.
23	WIPB	MUNCIE IN	DTVPLN -DTVP0847

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	WSBT-TV	SOUTH BEND IN	182.9	PLN	DTVPLN -DTVP0803
22	WSBT-TV	SOUTH BEND IN	182.9	CP	BPCDT -20080317AHE
23	WIFR	FREEPORT IL	399.7	PLN	DTVPLN -DTVP0845
23	WVPX	AKRON OH	339.2	PLN	DTVPLN -DTVP0858
23	WVPX	AKRON OH	339.2	CP	BPCDT -20070625ACA
23	WSAZ-TV	HUNTINGTON WV	324.7	CP MOD	BMPCDT -20080414AAQ
23	WSAZ-TV	HUNTINGTON WV	324.7	PLN	DTVPLN -DTVP0870
24	WPTA	FORT WAYNE IN	113.5	LIC	BLCDT -20031031AGU
24	WPTA	FORT WAYNE IN	113.5	PLN	DTVPLN -DTVP0883
24	WCVN-TV	COVINGTON KY	140.4	LIC	BLEDT -20020201ABJ
24	WCVN-TV	COVINGTON KY	140.4	PLN	DTVPLN -DTVP0884
23	WIFR-DT	FREEPORT IL	399.7	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.
23	KQEG-CA	LA CRESCENT MN	BLTTA -20040602ABA

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	WQOW-TV	EAU CLAIRE WI	117.7	CP MOD	BMPCDT -20041001AOM
15	WQOW-TV	EAU CLAIRE WI	117.7	PLN	DTVPLN -DTVP0556
20	KSMQ-TV	AUSTIN MN	99.4	CP	BPCDT -20000501AGW
20	KSMQ-TV	AUSTIN MN	99.4	PLN	DTVPLN -DTVP0729
23	KCWI-TV	AMES IA	285.0	LIC	BLCT -20010130ABE
23	KCWI-TV	AMES IA	285.0	PLN	DTVPLN -DTVP0843
23	KCWI-TV	AMES IA	284.9	CP	BPCDT -20080314ABC
23	WIFR	FREEPORT IL	236.4	CP	BPCDT -20080327AHN
23	WIFR	FREEPORT IL	236.4	PLN	DTVPLN -DTVP0845
23	WIFR	FREEPORT IL	236.4	LIC	BMLCT -20040615ABU

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

**Cell Size = 1 km**

23	WQPT-TV	MOLINE IL	281.0	LIC	BLEDT	-20030702AAR
23	WQPT-TV	MOLINE IL	281.0	PLN	DTVPLN	-DTVP0846
23	WUCW	MINNEAPOLIS MN	206.7	LIC	BLCT	-20030401AXI
23	WBAY-TV	GREEN BAY WI	273.2	LIC	BMLCDT	-20040723ADS
23	WBAY-TV	GREEN BAY WI	273.2	PLN	DTVPLN	-DTVP0869
23	W23BW	MADISON WI	166.0	LIC	BLTTA	-20031125AAQ
23	W23BW	MADISON WI	166.0	APP	BPTTA	-20030326AHF
24	KYIN	MASON CITY IA	130.5	LIC	BLET	-19860923KJ
30	WHLA-TV	LA CROSSE WI	8.5	LIC	BMLEDT	-20041013AAL
30	WHLA-TV	LA CROSSE WI	8.5	PLN	DTVPLN	-DTVP1128
23	WIFR-DT	FREEPORT IL	236.4	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 11

Analysis of current record

Channel	Call	City/State	Application Ref. No.
23	WBAY-TV	GREEN BAY WI	BMLCDT -20040723ADS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
22	WVCY-TV	MILWAUKEE WI	146.2	LIC	BLCDT -20060619AAX
22	WVCY-TV	MILWAUKEE WI	146.3	PLN	DTVPLN -DTVP0830
23	WIFR	FREEPORT IL	253.2	PLN	DTVPLN -DTVP0845
23	WQPT-TV	MOLINE IL	395.0	LIC	BLEDT -20030702AAR
23	WQPT-TV	MOLINE IL	395.0	PLN	DTVPLN -DTVP0846
24	WHRM-TV	WAUSAU WI	145.1	LIC	BLEDT -20051014AAW
24	WHRM-TV	WAUSAU WI	145.1	PLN	DTVPLN -DTVP0912
23	WIFR-DT	FREEPORT IL	253.2	APP	USERRECORD-01

Total scenarios = 4

Result key: 23

Scenario 1 Affected station 11

Before Analysis

Results for: 23A WI GREEN BAY BMLCDT 20040723ADS LIC

HAAT 372.0 m, ATV ERP 1000.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1161665	35900.8
not affected by terrain losses	1160704	35845.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	5330	289.1
lost to ATV IX only	5330	289.1
lost to all IX	5330	289.1

Potential Interfering Stations Included in above Scenario 1

22A WI MILWAUKEE	BLCDT	20060619AAX	LIC
24A WI WAUSAU	BLEDT	20051014AAW	LIC
23A IL FREEPORT	DTVPLN	DTVP0845	PLN

After Analysis

Results for: 23A WI GREEN BAY BMLCDT 20040723ADS LIC

HAAT 372.0 m, ATV ERP 1000.0 kW
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**Table 1 WIFR-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 11 of 17)

**Cell Size = 1 km**

	POPULATION	AREA (sq km)
within Noise Limited Contour	1161665	35900.8
not affected by terrain losses	1160704	35845.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	6743	342.0
lost to ATV IX only	6743	342.0
lost to all IX	6743	342.0

Potential Interfering Stations Included in above Scenario 1

22A WI MILWAUKEE	BLCDDT	20060619AAX	LIC
24A WI WAUSAU	BLEDDT	20051014AAW	LIC
23A IL FREEPORT	USERRECORD01		APP

Percent new IX = 0.1223%

Worst case new IX 0.1223% Scenario 1

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Analysis of Interference to Affected Station 12

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
23	WBAY-TV	GREEN BAY WI	DTVPLN	-DTVP0869

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
22	WVCY-TV	MILWAUKEE WI	146.2	LIC	BLCDDT	-20060619AAX
22	WVCY-TV	MILWAUKEE WI	146.3	PLN	DTVPLN	-DTVP0830
23	WIFR	FREEPORT IL	253.2	PLN	DTVPLN	-DTVP0845
23	WQPT-TV	MOLINE IL	395.0	LIC	BLEDDT	-20030702AAR
23	WQPT-TV	MOLINE IL	395.0	PLN	DTVPLN	-DTVP0846
24	WHRM-TV	WAUSAU WI	145.1	LIC	BLEDDT	-20051014AAW
24	WHRM-TV	WAUSAU WI	145.1	PLN	DTVPLN	-DTVP0912
23	WIFR-DT	FREEPORT IL	253.2	APP	USERRECORD-01	

Total scenarios = 4

Result key: 27

Scenario 1 Affected station 12  
Before Analysis

Results for: 23A WI GREEN BAY DTVPLN DTVP0869 PLN

HAAT 372.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1161665	35900.8
not affected by terrain losses	1160704	35845.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	5330	289.1
lost to ATV IX only	5330	289.1
lost to all IX	5330	289.1

Potential Interfering Stations Included in above Scenario 1

22A WI MILWAUKEE	BLCDDT	20060619AAX	LIC
24A WI WAUSAU	BLEDDT	20051014AAW	LIC
23A IL FREEPORT	DTVPLN	DTVP0845	PLN

**Table 1 WIFR-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 12 of 17)

**Cell Size = 1 km**

After Analysis

Results for: 23A WI GREEN BAY DTVPLN DTVP0869 PLN  
HAAT 372.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1161665	35900.8
not affected by terrain losses	1160704	35845.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	6743	342.0
lost to ATV IX only	6743	342.0
lost to all IX	6743	342.0

Potential Interfering Stations Included in above Scenario 1

22A WI MILWAUKEE	BLCDDT	20060619AAX	LIC
24A WI WAUSAU	BLEDDT	20051014AAW	LIC
23A IL FREEPORT	USERRECORD01		APP

Percent new IX = 0.1223%

Worst case new IX 0.1223% Scenario 1

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Analysis of Interference to Affected Station 13

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
23	W23BW	MADISON WI	BLTTA	-20031125AAQ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
16	WTVO	ROCKFORD IL	88.7	LIC	BLCDDT	-20021024AAS
16	WTVO	ROCKFORD IL	88.7	PLN	DTVPLN	-DTVP0565
19	WMTV	MADISON WI	0.7	LIC	BLCDDT	-20040823ABP
19	WMTV	MADISON WI	0.7	PLN	DTVPLN	-DTVP0708
20	WHA-TV	MADISON WI	4.6	LIC	BLEDDT	-20020503AAF
20	WHA-TV	MADISON WI	4.6	PLN	DTVPLN	-DTVP0748
22	WVCY-TV	MILWAUKEE WI	127.9	LIC	BLCDDT	-20060619AAX
22	WVCY-TV	MILWAUKEE WI	127.9	PLN	DTVPLN	-DTVP0830
23	KCWI-TV	AMES IA	365.5	LIC	BLCT	-20010130ABE
23	KCWI-TV	AMES IA	365.5	PLN	DTVPLN	-DTVP0843
23	KCWI-TV	AMES IA	365.5	CP	BPCDDT	-20080314ABC
23	WMME-CA	CHICAGO IL	199.6	LIC	BLTTA	-20040129AOW
23	WMME-CA	CHICAGO IL	199.6	STA	BSTA	-20041208ABO
23	WBUI	DECATUR IL	349.1	LIC	BLCT	-20010406ABK
23	WIFR	FREEPORT IL	87.7	CP	BPCDDT	-20080327AHN
23	WIFR	FREEPORT IL	87.7	PLN	DTVPLN	-DTVP0845
23	WIFR	FREEPORT IL	87.7	LIC	BMLCT	-20040615ABU
23	WQPT-TV	MOLINE IL	207.2	LIC	BLEDDT	-20030702AAR
23	WQPT-TV	MOLINE IL	207.2	PLN	DTVPLN	-DTVP0846
23	WUCW	MINNEAPOLIS MN	367.9	LIC	BLCT	-20030401AXI
23	WBAY-TV	GREEN BAY WI	191.9	LIC	BMLCDDT	-20040723ADS
23	WBAY-TV	GREEN BAY WI	191.9	PLN	DTVPLN	-DTVP0869
24	WCGV-TV	MILWAUKEE WI	127.9	LIC	BLCT	-19920902KF
25	WCGV-TV	MILWAUKEE WI	127.9	CP MOD	BMPCDDT	-20010920AAK
25	WCGV-TV	MILWAUKEE WI	127.9	PLN	DTVPLN	-DTVP0942
26	WKOW-TV	MADISON WI	4.6	LIC	BLCDDT	-19981104KG

**Table 1 WIFR-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 13 of 17)

Cell Size = 1 km

26	WKOW-TV	MADISON WI	4.6	PLN	DTVPLN	-DTVP0984
26	WKOW-TV	MADISON WI	4.6	CP	BPCDT	-20000501AEY
38	W38CT	MADISON WI	0.0	LIC	BLTT	-20021203ACA
23	WIFR-DT	FREEPOR IL	87.7	APP	USERRECORD-01	

Total scenarios = 2

Result key: 31  
Scenario 1 Affected station 13  
Before Analysis

Results for: 23N WI MADISON	BLTTA	20031125AAQ	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	298025	1162.7	
not affected by terrain losses	297150	1144.1	
lost to NTSC IX	10377	160.6	
lost to additional IX by ATV	2073	23.5	
lost to all IX	12450	184.2	

Potential Interfering Stations Included in above Scenario 1

23N IL CHICAGO	BSTA	20041208ABO	STA
23N IL FREEPORT	BMLCT	20040615ABU	LIC
38N WI MADISON	BLTT	20021203ACA	LIC
23A WI GREEN BAY	BMLCDT	20040723ADS	LIC
23A IL FREEPORT	DTVPLN	DTVP0845	PLN

After Analysis

Results for: 23N WI MADISON	BLTTA	20031125AAQ	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	298025	1162.7	
not affected by terrain losses	297150	1144.1	
lost to NTSC IX	10377	160.6	
lost to additional IX by ATV	2073	23.5	
lost to all IX	12450	184.2	

Potential Interfering Stations Included in above Scenario 1

23N IL CHICAGO	BSTA	20041208ABO	STA
23N IL FREEPORT	BMLCT	20040615ABU	LIC
38N WI MADISON	BLTT	20021203ACA	LIC
23A WI GREEN BAY	BMLCDT	20040723ADS	LIC
23A IL FREEPORT	USERRECORD01		APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

#####

Analysis of Interference to Affected Station 14

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
23	W23BW	MADISON WI	BPTTA	-20030326AHF

Stations Potentially Affecting This Station

**Table 1 WIFR-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 14 of 17)

Cell Size = 1 km

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
16	WTVO	ROCKFORD IL	88.7	LIC	BLCDDT	-20021024AAS
16	WTVO	ROCKFORD IL	88.7	PLN	DTVPLN	-DTVP0565
19	WMTV	MADISON WI	0.7	LIC	BLCDDT	-20040823ABP
19	WMTV	MADISON WI	0.7	PLN	DTVPLN	-DTVP0708
20	WHA-TV	MADISON WI	4.6	LIC	BLEDT	-20020503AAF
20	WHA-TV	MADISON WI	4.6	PLN	DTVPLN	-DTVP0748
21	WHA-TV	MADISON WI	4.6	LIC	BLET	-20020227ABP
22	WVCY-TV	MILWAUKEE WI	127.9	LIC	BLCDDT	-20060619AAX
22	WVCY-TV	MILWAUKEE WI	127.9	PLN	DTVPLN	-DTVP0830
23	KCWI-TV	AMES IA	365.5	LIC	BLCT	-20010130ABE
23	KCWI-TV	AMES IA	365.5	PLN	DTVPLN	-DTVP0843
23	KCWI-TV	AMES IA	365.5	CP	BPCDT	-20080314ABC
23	WWME-CA	CHICAGO IL	199.6	LIC	BLTTA	-20040129AOW
23	WWME-CA	CHICAGO IL	199.6	STA	BSTA	-20041208ABO
23	WBUI	DECATUR IL	349.1	LIC	BLCT	-20010406ABK
23	WIFR	FREEPOR IL	87.7	CP	BPCDT	-20080327AHN
23	WIFR	FREEPOR IL	87.7	PLN	DTVPLN	-DTVP0845
23	WIFR	FREEPOR IL	87.7	LIC	BMLCT	-20040615ABU
23	WQPT-TV	MOLINE IL	207.2	LIC	BLEDT	-20030702AAR
23	WQPT-TV	MOLINE IL	207.2	PLN	DTVPLN	-DTVP0846
23	WUCW	MINNEAPOLIS MN	367.9	LIC	BLCT	-20030401AXI
23	WBAY-TV	GREEN BAY WI	191.9	LIC	BMLCDT	-20040723ADS
23	WBAY-TV	GREEN BAY WI	191.9	PLN	DTVPLN	-DTVP0869
24	WCGV-TV	MILWAUKEE WI	127.9	LIC	BLCT	-19920902KF
25	WCGV-TV	MILWAUKEE WI	127.9	CP MOD	BMPCDT	-20010920AAK
25	WCGV-TV	MILWAUKEE WI	127.9	PLN	DTVPLN	-DTVP0942
26	WKOW-TV	MADISON WI	4.6	LIC	BLCDDT	-19981104KG
26	WKOW-TV	MADISON WI	4.6	PLN	DTVPLN	-DTVP0984
26	WKOW-TV	MADISON WI	4.6	CP	BPCDT	-20000501AEY
27	WKOW-TV	MADISON WI	4.6	LIC	BLCT	-20000306AAW
38	W38CT	MADISON WI	0.0	LIC	BLTT	-20021203ACA
23	WIFR-DT	FREEPOR IL	87.7	APP	USERRECORD-01	

Total scenarios = 2

Result key: 33  
Scenario 1 Affected station 14  
Before Analysis

Results for: 23N WI MADISON	BPTTA	20030326AHF	APP
	POPULATION	AREA (sq km)	
within Noise Limited Contour	332471	1525.9	
not affected by terrain losses	332169	1484.8	
lost to NTSC IX	32970	281.1	
lost to additional IX by ATV	49	2.9	
lost to all IX	33019	284.0	

Potential Interfering Stations Included in above Scenario 1

21N WI MADISON	BLET	20020227ABP	LIC
23N IL CHICAGO	BSTA	20041208ABO	STA
23N IL FREEPORT	BMLCT	20040615ABU	LIC
27N WI MADISON	BLCT	20000306AAW	LIC
38N WI MADISON	BLTT	20021203ACA	LIC
23A WI GREEN BAY	BMLCDT	20040723ADS	LIC
23A IL FREEPORT	DTVPLN	DTVP0845	PLN

After Analysis

Results for: 23N WI MADISON	BPTTA	20030326AHF	APP
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**Table 1 WIFR-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 15 of 17)

**Cell Size = 1 km**

	POPULATION	AREA (sq km)
within Noise Limited Contour	332471	1525.9
not affected by terrain losses	332169	1484.8
lost to NTSC IX	32970	281.1
lost to additional IX by ATV	49	3.9
lost to all IX	33019	285.0

Potential Interfering Stations Included in above Scenario 1

21N WI MADISON	BLET	20020227ABP	LIC
23N IL CHICAGO	BSTA	20041208ABO	STA
23N IL FREEPORT	BMLCT	20040615ABU	LIC
27N WI MADISON	BLCT	20000306AAW	LIC
38N WI MADISON	BLTT	20021203ACA	LIC
23A WI GREEN BAY	BMLCDT	20040723ADS	LIC
23A IL FREEPORT	USERRECORD01		APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 15

Analysis of current record

Channel	Call	City/State	Application Ref. No.
24	W24AJ	AURORA IL	BLTTL -19990716JA

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	WTVO	ROCKFORD IL	96.2	LIC	BLCDDT -20021024AAS
16	WTVO	ROCKFORD IL	96.2	PLN	DTVPLN -DTVP0565
17	WTVO	ROCKFORD IL	96.2	LIC	BMLCT -20021024AAY
17	WYIN	GARY IN	92.2	LIC	BLEDDT -20040206AAA
17	WYIN	GARY IN	92.2	PLN	DTVPLN -DTVP0597
21	WYCC	CHICAGO IL	76.1	LIC	BLEDDT -20030501ABC
21	WYCC	CHICAGO IL	76.1	PLN	DTVPLN -DTVP0759
23	WIFR	FREEPORT IL	97.0	CP	BPCDDT -20080327AHN
23	WIFR	FREEPORT IL	97.0	PLN	DTVPLN -DTVP0845
23	WIFR	FREEPORT IL	97.0	LIC	BMLCT -20040615ABU
24	WQPT-TV	MOLINE IL	163.5	LIC	BLET -19980729KE
24	WPTA	FORT WAYNE IN	278.3	LIC	BLCDDT -20031031AGU
24	WPTA	FORT WAYNE IN	278.3	PLN	DTVPLN -DTVP0883
24	WTLJ	MUSKEGON MI	257.9	LIC	BLCDDT -20051115ABP
24	WTLJ	MUSKEGON MI	257.9	PLN	DTVPLN -DTVP0888
24	KMOV	ST. LOUIS MO	376.3	PLN	DTVPLN -DTVP0890
24	KMOV	ST. LOUIS MO	376.3	CP	BPCDDT -20080303ALL
24	WCGV-TV	MILWAUKEE WI	170.7	LIC	BLCDDT -19920902KF
24	WHRM-TV	WAUSAU WI	381.8	LIC	BLEDDT -20051014AAW
24	WHRM-TV	WAUSAU WI	381.8	PLN	DTVPLN -DTVP0912
27	WCIU-TV	CHICAGO IL	74.2	CP MOD	BMPCCDT -20021202ABR
27	WCIU-TV	CHICAGO IL	74.2	PLN	DTVPLN -DTVP0998
28	WYZZ-TV	BLOOMINGTON IL	122.9	CP MOD	BMPCCDT -20030805AHV
28	WYZZ-TV	BLOOMINGTON IL	122.9	PLN	DTVPLN -DTVP1036
31	WFLD	CHICAGO IL	74.2	LIC	BLCDDT -20050606ABF
31	WFLD	CHICAGO IL	74.2	PLN	DTVPLN -DTVP1142
38	WCPX	CHICAGO IL	74.2	LIC	BLCDDT -20050715ACC
38	WGBO-TV	JOLIET IL	76.1	CP	BPCDDT -20080314AEF

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

**Cell Size = 1 km**

38	WGBO-TV	JOLIET IL	76.1	PLN	DTVPLN	-DTVP1364
39	WAOE	PEORIA IL	142.1	CP MOD	BMPCCDT	-20061211AAW
39	WAOE	PEORIA IL	140.8	PLN	DTVPLN	-DTVP1403
39	WQRF-TV	ROCKFORD IL	96.1	LIC	BLCT	-19960402KE
23	WIFR-DT	FREEPORT IL	97.0	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.
30	WSPY-LP	PLANO IL	BLTTL -19900514IR

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
23	WIFR	FREEPORT IL	85.7	CP	BPCDDT -20080327AHN
23	WIFR	FREEPORT IL	85.7	PLN	DTVPLN -DTVP0845
23	WIFR	FREEPORT IL	85.7	LIC	BMLCT -20040615ABU
27	WCIU-TV	CHICAGO IL	81.5	CP MOD	BMPCCDT -20021202ABR
27	WCIU-TV	CHICAGO IL	81.5	PLN	DTVPLN -DTVP0998
28	WYZZ-TV	BLOOMINGTON IL	124.0	CP MOD	BMPCCDT -20030805AHV
28	WYZZ-TV	BLOOMINGTON IL	124.0	PLN	DTVPLN -DTVP1036
29	WMAQ-TV	CHICAGO IL	81.5	LIC	BLCT -20010531ACY
29	WMAQ-TV	CHICAGO IL	81.5	PLN	DTVPLN -DTVP1069
30	960508KF	DAVENPORT IA	154.7	APP	BPET -19960508KF
30	960710LA	DAVENPORT IA	158.5	APP	BPET -19960710LA
30	961001KU	DAVENPORT IA	156.9	APP	BPCT -19961001KU
30	WMBD-TV	PEORIA IL	140.0	CP MOD	BMPCCDT -20060314ABP
30	WMBD-TV	PEORIA IL	140.0	PLN	DTVPLN -DTVP1107
30	WTU	BLOOMINGTON IN	331.2	LIC	BLET -20020919ABC
30	KDNL-TV	ST. LOUIS MO	373.8	LIC	BLCT -19800312KG
30	WHLA-TV	LA CROSSE WI	329.4	LIC	BMLEDDT -20041013AAL
30	WHLA-TV	LA CROSSE WI	329.4	PLN	DTVPLN -DTVP1128
30	WVCY-TV	MILWAUKEE WI	167.5	LIC	BLCT -19830119KI
31	WFLD	CHICAGO IL	81.5	LIC	BLCDDT -20050606ABF
31	WFLD	CHICAGO IL	81.5	PLN	DTVPLN -DTVP1142
38	WGBO-TV	JOLIET IL	83.1	CP	BPCDDT -20080314AEF
38	WGBO-TV	JOLIET IL	83.1	PLN	DTVPLN -DTVP1364
44	WSNS-TV	CHICAGO IL	81.5	LIC	BLCT -20000110AAU
45	WSNS-TV	CHICAGO IL	81.5	LIC	BLCDDT -20010612AIB
45	WSNS-TV	CHICAGO IL	81.5	PLN	DTVPLN -DTVP1611
23	WIFR-DT	FREEPORT IL	85.7	APP	USERRECORD-01

Proposed station is beyond the site to nearest cell evaluation distance

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Analysis of Interference to Affected Station 17

Analysis of current record

Channel	Call	City/State	Application Ref. No.
23	WIFR-DT	FREEPORT IL	USERRECORD-01

Stations Potentially Affecting This Station

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

**Cell Size = 1 km**

Chan	Call	City/State	Dist (km)	Status	Application	Ref. No.
22	WVCY-TV	MILWAUKEE WI	136.4	LIC	BLCDDT	-20060619AAX
22	WVCY-TV	MILWAUKEE WI	136.3	PLN	DTVPLN	-DTVP0830
23	KCWI-TV	AMES IA	370.4	PLN	DTVPLN	-DTVP0843
23	KCWI-TV	AMES IA	370.3	CP	BPCDDT	-20080314ABC
23	WQPT-TV	MOLINE IL	148.3	LIC	BLEDDT	-20030702AAR
23	WQPT-TV	MOLINE IL	148.3	PLN	DTVPLN	-DTVP0846
23	WIPB	MUNCIE IN	399.7	CP	BPEDDT	-20080227ABW
23	WIPB	MUNCIE IN	399.7	PLN	DTVPLN	-DTVP0847
23	WBAY-TV	GREEN BAY WI	253.2	LIC	BMLCDDT	-20040723ADS
23	WBAY-TV	GREEN BAY WI	253.2	PLN	DTVPLN	-DTVP0869

Total scenarios = 16

Result key: 46  
Scenario 12 Affected station 17  
Before Analysis

Results for: 23A IL FREEPORT USERRECORD01 APP  
HAAT 220.0 m, ATV ERP 170.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1229547	18358.8
not affected by terrain losses	1217983	18256.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	81741	1510.0
lost to ATV IX only	81741	1510.0
lost to all IX	81741	1510.0

Potential Interfering Stations Included in above Scenario 12

22A WI MILWAUKEE	DTVPLN	DTVP0830	PLN
23A IA AMES	DTVPLN	DTVP0843	PLN
23A IL MOLINE	DTVPLN	DTVP0846	PLN
23A WI GREEN BAY	DTVPLN	DTVP0869	PLN

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

<b>SECTION III-D - DTV Engineering</b>	
<b>Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.</b>	
<p><b>Pre-Transition Certification Checklist:</b> An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to change pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.</p> <p><b>Post-Transition Expedited Processing:</b> An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.</p>	
1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:	
(a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622.	<input checked="" type="radio"/> Yes <input type="radio"/> No
(b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input type="radio"/> No
(c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input type="radio"/> No
(d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
(e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Applicant must <b>submit the Exhibit</b> called for in Item 13.	<input checked="" type="radio"/> Yes <input type="radio"/> No
3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.	<input checked="" type="radio"/> Yes <input type="radio"/> No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable.	<input checked="" type="radio"/> Yes <input type="radio"/> No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	<input checked="" type="radio"/> Yes <input type="radio"/> No

<b>SECTION III-D - DTV Engineering</b>	
<b>TECHNICAL SPECIFICATIONS</b>	
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.	
<b>TECH BOX</b>	
1. Channel Number:	DTV 23 Analog TV, if any 23
2. Zone:	<input checked="" type="radio"/> I <input type="radio"/> II <input type="radio"/> III
3. Antenna Location Coordinates: (NAD 27)	Latitude: Degrees 42 Minutes 17 Seconds 48 <input checked="" type="radio"/> North <input type="radio"/> South  Longitude: Degrees 89 Minutes 10 Seconds 15 <input checked="" type="radio"/> West <input type="radio"/> East
4. Antenna Structure Registration Number: 1209945	<input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level:	249.9 meters
6. Overall Tower Height Above Ground Level:	222.2 meters
7. Height of Radiation Center Above Ground Level:	213.1 meters
8. Height of Radiation Center Above Average Terrain :	219.7 meters
9. Maximum Effective Radiated Power (average power):	170 kW
10. Antenna Specifications:	

a. Manufacturer DIE Model TUF-O4-14/56H-1-T

b. Electrical Beam Tilt:  
0.5 degrees  Not Applicable

c. Mechanical Beam Tilt:  
degrees toward azimuth  
degrees True  Not Applicable  
Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). [Exhibit 42]

d. Polarization:  
 Horizontal  Circular  Elliptical

e. Directional Antenna Relative Field Values:  Not applicable (Nondirectional)

[For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.]  
[Relative Field Values]

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If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. **Exhibit required.** [Exhibit 43]

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?  Yes  No [Exhibit 44]  
If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** item 3 is answered "No.") [Exhibit 45]

13. **Environmental Protection Act. Submit in an Exhibit** the following: [Exhibit 46]  
If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.  
  
By checking "Yes" to **Certification Checklist** Item 2, 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.  
  
If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R Section 1.1311.

**PREPARERS CERTIFICATION ON SECTION III 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 6/11/2008	
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		

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).