

ENGINEERING EXHIBIT

“Maximization” Application to Modify Post-Transition Digital Television Station Construction Permit prepared for

Gray Television Licensee, Inc.
KWTX-DT Waco, TX
Facility ID 35903
Ch. 10 26 kW 555 m

Gray Television Licensee, Inc. (“Gray”) is the licensee of television station KWTX-TV, analog Channel 10 and digital Channel 53, Waco, TX. A Construction Permit (“CP”, BPCDT-20080317AEB) authorizes construction of the KWTX-DT post-transition digital facility on Channel 10, 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 KWTX-DT post-transition Channel 10 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.¹

The current CP authorizes operation with an effective radiated power (“ERP”) of 13.8 kW at 555 meters antenna height above average terrain (“HAAT”), with a nondirectional antenna. An increase in ERP to 26 kW is proposed herein. No other changes are proposed.

The proposed digital Channel 10 operation will employ a new non-directional antenna system to be installed in place of the licensed KWTX-TV analog Channel 10 antenna. The new antenna’s radiation center will be at the same elevation above ground and above mean sea level as the licensed KWTX-TV antenna. The antenna HAAT is changed to 555 meters (from 552 meters as currently licensed). The HAAT was recalculated from the USGS 3-arc second terrain database due to a geographic coordinate correction of three seconds longitude.

¹Public 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.

The antenna is a circularly polarized Dielectric model THV-12A10/CP-R 04. The antenna will be top-mounted on the existing KWTX-TV antenna supporting structure, as a replacement to the present top-mounted analog Channel 10 antenna. The overall structure's height will be reduced by 3.7 meters (from 511.8 meters AGL to 508.1 meters). The FAA has approved of the reduction in tower height (study number 2008-ASW-2090-OE) and the corresponding FCC Antenna Structure Registration (number 1046229) will be modified upon execution of the height reduction.

A map is supplied as **Figure 1**, which depicts the standard predicted coverage contours. This map includes the boundaries of Waco, KWTX-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 43 dBμ contour.

The proposed KWTX-DT facility's predicted service population provides a 121.8 percent match of the Appendix B facility, as detailed in the table below.

Post-Transition Population Summary

Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	1,197,734	1,474,984
Not affected by terrain losses	1,177,786	1,446,620
Lost to all interference	12,824	28,250
Net DTV Service	1,164,962	1,418,370
Match of Appendix B	---	121.75%

A detailed interference study per OET Bulletin 69² 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. 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 434 km distant at Kingsville, TX. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest

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 standard cell size of 2 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.

consideration of the monitoring station. The site is also located outside the areas specified in §73.1030(a)(1) and §73.1030(b). Thus, notification of the instant proposal to the National Radio Astronomy Observatory at Green Bank, West Virginia, or the Table Mountain Radio Receiving Zone in Boulder County, Colorado is not required. There are no authorized 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 zones that would require international coordination.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed transmitting antenna's installation will involve a reduction in overall tower height. Since no increase in height is proposed, 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 15 percent antenna relative field in downward elevations (pattern data shows less than 15 percent relative field at angles 20 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 $0.16 \mu\text{W}/\text{cm}^2$, which is 0.08 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 4, 2008

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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 4, 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.

Figure 1
Proposed Coverage Contours
KWTX-DT Waco, TX
Facility ID 35903
Ch. 10 26 kW 555 m

prepared for
Gray Television Licensee, Inc.
June, 2008

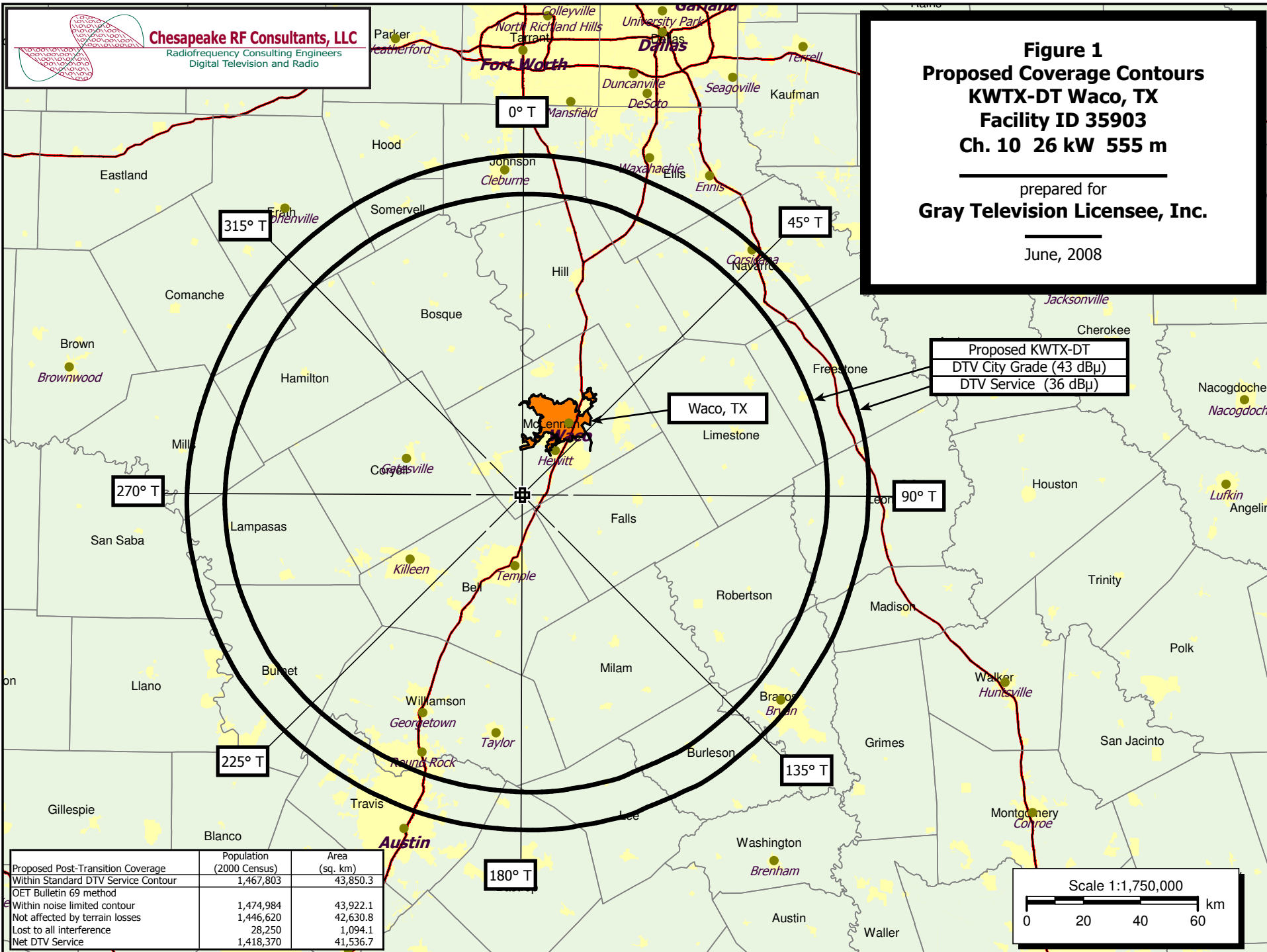


Table 1 KWTX-DT OET Bulletin 69 Interference Study

(worst-case scenarios shown page 1 of 11)

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

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-03-2008 Time: 21:28:25

Record Selected for Analysis

KWTX-DT USERRECORD-01 WACO TX US
Channel 10 ERP 26. kW HAAT 555. m RCMSL 00757 m
Latitude 031-19-19 Longitude 0097-19-02
Status APP Zone 2 Border
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	26.000	562.8	118.8
45.0	26.000	567.4	119.1
90.0	26.000	598.3	121.2
135.0	26.000	564.8	118.9
180.0	26.000	539.6	117.3
225.0	26.000	538.6	117.2
270.0	26.000	541.4	117.4
315.0	26.000	528.9	116.7

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

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

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Table 1 KWTX-DT OET Bulletin 69 Interference Study

(worst-case scenarios shown page 2 of 11)

Start of Interference Analysis

Channel	Call	Proposed Station City/State	ARN
10	KWTX-DT	WACO TX	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
09	KFWD	FORT WORTH TX	144.6	CP	BPCDT	-20080312ACF
09	KFWD	FORT WORTH TX	144.6	PLN	DTVPLN	-DTVP0224
09	KCEN-TV	TEMPLE TX	10.7	LIC	BLCDT	-20021010AAB
09	KCEN-TV	TEMPLE TX	10.7	PLN	DTVPLN	-DTVP0228
10	KZTV	CORPUS CHRISTI TX	394.8	PLN	DTVPLN	-DTVP0297
10	KZTV	CORPUS CHRISTI TX	402.9	APP	BPCDT	-20080324AAT
11	KTVT	FORT WORTH TX	143.8	PLN	DTVPLN	-DTVP0348
11	KTVT	FORT WORTH TX	143.8	CP	BPCDT	-20080328ACY

Analysis of Interference to Affected Station 1

Analysis of current record
Channel Call City/State Application Ref. No.
09 KFWD FORT WORTH TX BPCDT -20080312ACF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
08	WFAA-TV	DALLAS TX	1.0	CP	BPCDT	-20080303ALH
08	WFAA-TV	DALLAS TX	1.0	PLN	DTVPLN	-DTVP0166
09	KWTV	OKLAHOMA CITY OK	332.7	CP	BPCDT	-20080317AFP
09	KWTV	OKLAHOMA CITY OK	332.7	PLN	DTVPLN	-DTVP0215
09	KTRE	LUFKIN TX	242.1	PLN	DTVPLN	-DTVP0225
09	KTRE	LUFKIN TX	242.1	CP	BPCDT	-20080516ABZ
09	KLRN	SAN ANTONIO TX	385.8	PLN	DTVPLN	-DTVP0227
09	KLRN	SAN ANTONIO TX	385.8	APP	BPEDT	-20080306ABB
09	KCEN-TV	TEMPLE TX	148.1	LIC	BLCDT	-20021010AAB
09	KCEN-TV	TEMPLE TX	148.1	PLN	DTVPLN	-DTVP0228
10	KWTX-TV	WACO TX	144.6	CP	BPCDT	-20080317AEB
10	KWTX-TV	WACO TX	144.6	PLN	DTVPLN	-DTVP0298
10	KWTX-DT	WACO TX	144.6	APP	USERRECORD-01	

Total scenarios = 32

Result key: 1
Scenario 1 Affected station 1
Before Analysis

Results for: 9A TX FORT WORTH BPCDT 20080312ACF CP
HAAT 546.0 m, ATV ERP 13.0 kW
POPULATION AREA (sq km)
within Noise Limited Contour 5373334 33906.6
not affected by terrain losses 5370738 33521.1
lost to NTSC IX 0 0.0
lost to additional IX by ATV 75610 5015.9

Table 1 KWTX-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 3 of 11)

lost to ATV IX only	75610	5015.9
lost to all IX	75610	5015.9
Potential Interfering Stations Included in above Scenario 1		
8A TX DALLAS	BPCDT	20080303ALH CP
9A OK OKLAHOMA CITY	BPCDT	20080317AFP CP
9A TX LUFKIN	DTVPLN	DTVP0225 PLN
9A TX TEMPLE	BLCDT	20021010AAB LIC
10A TX WACO	BPCDT	20080317AEB CP
After Analysis		
Results for: 9A TX FORT WORTH	BPCDT	20080312ACF CP
HAAT 546.0 m, ATV ERP 13.0 kW		
within Noise Limited Contour	POPULATION 5373334	AREA (sq km) 33906.6
not affected by terrain losses	5370738	33521.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	75610	5015.9
lost to ATV IX only	75610	5015.9
lost to all IX	75610	5015.9
Potential Interfering Stations Included in above Scenario 1		
8A TX DALLAS	BPCDT	20080303ALH CP
9A OK OKLAHOMA CITY	BPCDT	20080317AFP CP
9A TX LUFKIN	DTVPLN	DTVP0225 PLN
9A TX TEMPLE	BLCDT	20021010AAB LIC
10A TX WACO	BPCDT	20080317AEB CP
10A TX WACO	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 2

Analysis of current record			
Channel	Call	City/State	Application Ref. No.
09	KFWD	FORT WORTH TX	DTVPLN -DTVP0224

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
08	WFAA-TV	DALLAS TX	1.0	CP	BPCDT -20080303ALH
08	WFAA-TV	DALLAS TX	1.0	PLN	DTVPLN -DTVP0166
09	KWTV	OKLAHOMA CITY OK	332.7	CP	BPCDT -20080317AFP
09	KWTV	OKLAHOMA CITY OK	332.7	PLN	DTVPLN -DTVP0215
09	KTRE	LUFKIN TX	242.1	PLN	DTVPLN -DTVP0225
09	KTRE	LUFKIN TX	242.1	CP	BPCDT -20080516ABZ
09	KLRN	SAN ANTONIO TX	385.8	PLN	DTVPLN -DTVP0227
09	KLRN	SAN ANTONIO TX	385.8	APP	BPCDT -20080306ABB
09	KCEN-TV	TEMPLE TX	148.1	LIC	BLCDT -20021010AAB
09	KCEN-TV	TEMPLE TX	148.1	PLN	DTVPLN -DTVP0228
10	KWTX-TV	WACO TX	144.6	CP	BPCDT -20080317AEB
10	KWTX-TV	WACO TX	144.6	PLN	DTVPLN -DTVP0298
10	KWTX-DT	WACO TX	144.6	APP	USERRECORD-01

Table 1 KWTX-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 4 of 11)

Total scenarios = 32

Result key: 33
Scenario 1 Affected station 2
Before Analysis

Results for: 9A TX FORT WORTH	DTVPLN	DTVP0224	PLN
HAAT 545.0 m, ATV ERP 6.9 kW			
within Noise Limited Contour	POPULATION 5312159	AREA (sq km) 30447.9	
not affected by terrain losses	5309107	30026.3	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	79864	4867.2	
lost to ATV IX only	79864	4867.2	
lost to all IX	79864	4867.2	

Potential Interfering Stations Included in above Scenario 1

8A TX DALLAS	BPCDT	20080303ALH CP
9A OK OKLAHOMA CITY	BPCDT	20080317AFP CP
9A TX LUFKIN	DTVPLN	DTVP0225 PLN
9A TX TEMPLE	BLCDT	20021010AAB LIC
10A TX WACO	BPCDT	20080317AEB CP

After Analysis

Results for: 9A TX FORT WORTH	DTVPLN	DTVP0224	PLN
HAAT 545.0 m, ATV ERP 6.9 kW			
within Noise Limited Contour	POPULATION 5312159	AREA (sq km) 30447.9	
not affected by terrain losses	5309107	30026.3	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	79869	4871.2	
lost to ATV IX only	79869	4871.2	
lost to all IX	79869	4871.2	

Potential Interfering Stations Included in above Scenario 1

8A TX DALLAS	BPCDT	20080303ALH CP
9A OK OKLAHOMA CITY	BPCDT	20080317AFP CP
9A TX LUFKIN	DTVPLN	DTVP0225 PLN
9A TX TEMPLE	BLCDT	20021010AAB LIC
10A TX WACO	BPCDT	20080317AEB CP
10A TX WACO	USERRECORD01	APP

Percent new IX = 0.0001%

Worst case new IX 0.0001% Scenario 1

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Analysis of Interference to Affected Station 3

Analysis of current record			
Channel	Call	City/State	Application Ref. No.
09	KCEN-TV	TEMPLE TX	BLCDT -20021010AAB

Stations Potentially Affecting This Station

Table 1 KWTX-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 5 of 11)

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
08	WFAA-TV	DALLAS TX	147.6	CP	BPCDT	-20080303ALH
08	WFAA-TV	DALLAS TX	147.6	PLN	DTVPLN	-DTVP0166
09	KFWD	FORT WORTH TX	148.1	CP	BPCDT	-20080312ACF
09	KFWD	FORT WORTH TX	148.1	PLN	DTVPLN	-DTVP0224
09	KTRE	LUFKIN TX	230.3	PLN	DTVPLN	-DTVP0225
09	KTRE	LUFKIN TX	230.3	CP	BPCDT	-20080516ABZ
09	KLRN	SAN ANTONIO TX	242.1	PLN	DTVPLN	-DTVP0227
09	KLRN	SAN ANTONIO TX	242.1	APP	BPEDT	-20080306ABB
10	KWTX-TV	WACO TX	10.7	CP	BPCDT	-20080317AEB
10	KWTX-TV	WACO TX	10.6	PLN	DTVPLN	-DTVP0298
10	KWTX-DT	WACO TX	10.7	APP	USERRECORD-01	

Total scenarios = 32

Result key: 66

Scenario 2 Affected station 3
Before Analysis

Results for: 9A TX TEMPLE BLCDT 20021010AAB LIC

HAAT 527.0 m, ATV ERP 25.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1410002	39962.5
not affected by terrain losses	1357183	39161.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	95227	4825.8
lost to ATV IX only	95227	4825.8
lost to all IX	95227	4825.8

Potential Interfering Stations Included in above Scenario 2

8A TX DALLAS	BPCDT	20080303ALH	CP
9A TX FORT WORTH	BPCDT	20080312ACF	CP
9A TX LUFKIN	DTVPLN	DTVP0225	PLN
9A TX SAN ANTONIO	DTVPLN	DTVP0227	PLN
10A TX WACO	DTVPLN	DTVP0298	PLN

After Analysis

Results for: 9A TX TEMPLE BLCDT 20021010AAB LIC

HAAT 527.0 m, ATV ERP 25.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1410002	39962.5
not affected by terrain losses	1357183	39161.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	95622	4966.6
lost to ATV IX only	95622	4966.6
lost to all IX	95622	4966.6

Potential Interfering Stations Included in above Scenario 2

8A TX DALLAS	BPCDT	20080303ALH	CP
9A TX FORT WORTH	BPCDT	20080312ACF	CP
9A TX LUFKIN	DTVPLN	DTVP0225	PLN
9A TX SAN ANTONIO	DTVPLN	DTVP0227	PLN
10A TX WACO	DTVPLN	DTVP0298	PLN
10A TX WACO	USERRECORD01		APP

Percent new IX = 0.0313%

Worst case new IX 0.0313% Scenario 2

Table 1 KWTX-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 6 of 11)

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
09	KCEN-TV	TEMPLE TX	DTVPLN	-DTVP0228

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
08	WFAA-TV	DALLAS TX	147.6	CP	BPCDT	-20080303ALH
08	WFAA-TV	DALLAS TX	147.6	PLN	DTVPLN	-DTVP0166
09	KFWD	FORT WORTH TX	148.1	CP	BPCDT	-20080312ACF
09	KFWD	FORT WORTH TX	148.1	PLN	DTVPLN	-DTVP0224
09	KTRE	LUFKIN TX	230.3	PLN	DTVPLN	-DTVP0225
09	KTRE	LUFKIN TX	230.3	CP	BPCDT	-20080516ABZ
09	KLRN	SAN ANTONIO TX	242.1	PLN	DTVPLN	-DTVP0227
09	KLRN	SAN ANTONIO TX	242.1	APP	BPEDT	-20080306ABB
10	KWTX-TV	WACO TX	10.7	CP	BPCDT	-20080317AEB
10	KWTX-TV	WACO TX	10.6	PLN	DTVPLN	-DTVP0298
10	KWTX-DT	WACO TX	10.7	APP	USERRECORD-01	

Total scenarios = 32

Result key: 98

Scenario 2 Affected station 4
Before Analysis

Results for: 9A TX TEMPLE DTVPLN DTVP0228 PLN

HAAT 527.0 m, ATV ERP 25.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1410002	39962.5
not affected by terrain losses	1357183	39161.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	95227	4825.8
lost to ATV IX only	95227	4825.8
lost to all IX	95227	4825.8

Potential Interfering Stations Included in above Scenario 2

8A TX DALLAS	BPCDT	20080303ALH	CP
9A TX FORT WORTH	BPCDT	20080312ACF	CP
9A TX LUFKIN	DTVPLN	DTVP0225	PLN
9A TX SAN ANTONIO	DTVPLN	DTVP0227	PLN
10A TX WACO	DTVPLN	DTVP0298	PLN

After Analysis

Results for: 9A TX TEMPLE DTVPLN DTVP0228 PLN

HAAT 527.0 m, ATV ERP 25.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1410002	39962.5
not affected by terrain losses	1357183	39161.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	95622	4966.6
lost to ATV IX only	95622	4966.6
lost to all IX	95622	4966.6

Table 1 KWTX-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 7 of 11)

Potential Interfering Stations Included in above Scenario 2

8A TX DALLAS	BPCDT	20080303ALH	CP
9A TX FORT WORTH	BPCDT	20080312ACF	CP
9A TX LUFKIN	DTVPLN	DTVP0225	PLN
9A TX SAN ANTONIO	DTVPLN	DTVP0227	PLN
10A TX WACO	DTVPLN	DTVP0298	PLN
10A TX WACO	USERRECORD01		APP

Percent new IX = 0.0313%

Worst case new IX 0.0313% Scenario 2

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
10	KZTV	CORPUS CHRISTI TX	DTVPLN -DTVP0297

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
09	KLRN	SAN ANTONIO TX	185.7	PLN	DTVPLN -DTVP0227
09	KLRN	SAN ANTONIO TX	185.7	APP	BPEDT -20080306ABB
10	KWTX-TV	WACO TX	394.8	CP	BPCDT -20080317AEB
10	KWTX-TV	WACO TX	394.8	PLN	DTVPLN -DTVP0298
11	KVCT	VICTORIA TX	128.3	CP MOD	BMPCDT -20021107AAS
11	KVCT	VICTORIA TX	128.3	PLN	DTVPLN -DTVP0352
10	KWTX-DT	WACO TX	394.8	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
10	KZTV	CORPUS CHRISTI TX	BPCDT -20080324AAT

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
09	KLRN	SAN ANTONIO TX	193.3	PLN	DTVPLN -DTVP0227
09	KLRN	SAN ANTONIO TX	193.3	APP	BPEDT -20080306ABB
10	KWTX-TV	WACO TX	402.9	CP	BPCDT -20080317AEB
10	KWTX-TV	WACO TX	402.9	PLN	DTVPLN -DTVP0298
11	KVCT	VICTORIA TX	135.8	CP MOD	BMPCDT -20021107AAS
11	KVCT	VICTORIA TX	135.8	PLN	DTVPLN -DTVP0352
10	KWTX-DT	WACO TX	402.9	APP	USERRECORD-01

Proposed station is beyond the site to nearest cell evaluation distance

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Table 1 KWTX-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 8 of 11)

Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application Ref. No.
11	KTVT	FORT WORTH TX	DTVPLN -DTVP0348

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
10	KWTX-TV	WACO TX	143.8	CP	BPCDT -20080317AEB
10	KWTX-TV	WACO TX	143.8	PLN	DTVPLN -DTVP0298
11	KSWO-TV	LAWTON OK	244.9	CP MOD	BMPCDT -20030213AAF
11	KSWO-TV	LAWTON OK	244.9	PLN	DTVPLN -DTVP0337
11	KOED-TV	TULSA OK	400.2	CP	BPEDT -20080318ADB
11	KOED-TV	TULSA OK	400.2	PLN	DTVPLN -DTVP0338
11	KHOU-TV	HOUSTON TX	362.8	PLN	DTVPLN -DTVP0349
11	KHOU-TV	HOUSTON TX	362.8	CP	BPCDT -20080303ALI
11	KLST	SAN ANGELO TX	321.2	APP	BMPCDT -20070125ACQ
11	KLST	SAN ANGELO TX	321.2	PLN	DTVPLN -DTVP0351
11	KLST	SAN ANGELO TX	321.2	CP	BPCDT -19991015ABB
11	KVCT	VICTORIA TX	415.3	CP MOD	BMPCDT -20021107AAS
11	KVCT	VICTORIA TX	415.3	PLN	DTVPLN -DTVP0352
12	KAMU-TV	COLLEGE STATION TX	224.2	PLN	DTVPLN -DTVP0407
12	KAMU-TV	COLLEGESTATION/BRYAN TX	224.2	LIC	BLEDT -20030319AFB
12	KXII	SHERMAN TX	162.3	PLN	DTVPLN -DTVP0409
12	KXII	SHERMAN TX	162.3	CP	BPCDT -20080401AXO
10	KWTX-DT	WACO TX	143.8	APP	USERRECORD-01

Total scenarios = 96

Result key: 129

Scenario 1 Affected station 7

Before Analysis

Results for: 11A TX FORT WORTH	DTVPLN	DTVP0348	PLN
HAAT 500.0 m, ATV ERP 26.3 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	5498212	41453.7	
not affected by terrain losses	5482084	40657.7	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	65997	2661.2	
lost to ATV IX only	65997	2661.2	
lost to all IX	65997	2661.2	

Potential Interfering Stations Included in above Scenario 1

10A TX WACO	BPCDT	20080317AEB	CP
11A OK LAWTON	BMPCDT	20030213AAF	CP
11A OK TULSA	BPEDT	20080318ADB	CP
11A TX HOUSTON	DTVPLN	DTVP0349	PLN
11A TX SAN ANGELO	DTVPLN	DTVP0351	PLN
12A TX SHERMAN	DTVPLN	DTVP0409	PLN

After Analysis

Results for: 11A TX FORT WORTH	DTVPLN	DTVP0348	PLN
HAAT 500.0 m, ATV ERP 26.3 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	5498212	41453.7	
not affected by terrain losses	5482084	40657.7	

Table 1 KWTX-DT OET Bulletin 69 Interference Study

(worst-case scenarios shown page 9 of 11)

lost to NTSC IX	0	0.0
lost to additional IX by ATV	73671	2922.5
lost to ATV IX only	73671	2922.5
lost to all IX	73671	2922.5

Potential Interfering Stations Included in above Scenario 1

10A TX WACO	BPCDT	20080317AEB	CP
11A OK LAWTON	BMPCDT	20030213AAF	CP
11A OK TULSA	BPEDT	20080318ADB	CP
11A TX HOUSTON	DTVPLN	DTVP0349	PLN
11A TX SAN ANGELO	DTVPLN	DTVP0351	PLN
12A TX SHERMAN	DTVPLN	DTVP0409	PLN
10A TX WACO	USERRECORD01		APP

Percent new IX = 0.1417%

Worst case new IX 0.1417% Scenario 1

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Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application Ref. No.
11	KTVT	FORT WORTH TX	BPCDT -20080328ACY

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
10	KWTX-TV	WACO TX	143.8	CP	BPCDT -20080317AEB
10	KWTX-TV	WACO TX	143.8	PLN	DTVPLN -DTVP0298
11	KSWO-TV	LAWTON OK	244.9	CP MOD	BMPCDT -20030213AAF
11	KSWO-TV	LAWTON OK	244.9	PLN	DTVPLN -DTVP0337
11	KOED-TV	TULSA OK	400.2	CP	BPEDT -20080318ADB
11	KOED-TV	TULSA OK	400.2	PLN	DTVPLN -DTVP0338
11	KHOU-TV	HOUSTON TX	362.8	PLN	DTVPLN -DTVP0349
11	KHOU-TV	HOUSTON TX	362.8	CP	BPCDT -20080303ALI
11	KLST	SAN ANGELO TX	321.2	APP	BMPCDT -20070125ACQ
11	KLST	SAN ANGELO TX	321.2	PLN	DTVPLN -DTVP0351
11	KLST	SAN ANGELO TX	321.2	CP	BPCDT -19991015ABB
11	KVCT	VICTORIA TX	415.3	CP MOD	BMPCDT -20021107AAS
11	KVCT	VICTORIA TX	415.3	PLN	DTVPLN -DTVP0352
12	KAMU-TV	COLLEGE STATION TX	224.2	PLN	DTVPLN -DTVP0407
12	KAMU-TV	COLLEGESTATION/BRYAN TX	224.2	LIC	BLEDT -20030319AFB
12	KXII	SHERMAN TX	162.3	PLN	DTVPLN -DTVP0409
12	KXII	SHERMAN TX	162.3	CP	BPCDT -20080401AXO
10	KWTX-DT	WACO TX	143.8	APP	USERRECORD-01

Total scenarios = 96

Result key:	257
Scenario	33 Affected station 8
Before Analysis	

Results for: 11A TX FORT WORTH BPCDT 20080328ACY CP

HAAT 521.0 m, ATV ERP 23.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	5504596	41619.8
not affected by terrain losses	5494183	40916.3

Table 1 KWTX-DT OET Bulletin 69 Interference Study

(worst-case scenarios shown page 10 of 11)

lost to NTSC IX	0	0.0
lost to additional IX by ATV	79088	2657.3
lost to ATV IX only	79088	2657.3
lost to all IX	79088	2657.3

Potential Interfering Stations Included in above Scenario 33

10A TX WACO	DTVPLN	DTVP0298	PLN
11A OK LAWTON	BMPCDT	20030213AAF	CP
11A OK TULSA	BPEDT	20080318ADB	CP
11A TX HOUSTON	DTVPLN	DTVP0349	PLN
11A TX SAN ANGELO	DTVPLN	DTVP0351	PLN
12A TX SHERMAN	DTVPLN	DTVP0409	PLN

After Analysis

Results for: 11A TX FORT WORTH BPCDT 20080328ACY CP

HAAT 521.0 m, ATV ERP 23.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	5504596	41619.8
not affected by terrain losses	5494183	40916.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	83648	2934.7
lost to ATV IX only	83648	2934.7
lost to all IX	83648	2934.7

Potential Interfering Stations Included in above Scenario 33

10A TX WACO	DTVPLN	DTVP0298	PLN
11A OK LAWTON	BMPCDT	20030213AAF	CP
11A OK TULSA	BPEDT	20080318ADB	CP
11A TX HOUSTON	DTVPLN	DTVP0349	PLN
11A TX SAN ANGELO	DTVPLN	DTVP0351	PLN
12A TX SHERMAN	DTVPLN	DTVP0409	PLN
10A TX WACO	USERRECORD01		APP

Percent new IX = 0.0842%

Worst case new IX 0.0842% Scenario 33

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Analysis of Interference to Affected Station 9

Analysis of current record

Channel	Call	City/State	Application Ref. No.
10	KWTX-DT	WACO TX	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
09	KFWD	FORT WORTH TX	144.6	CP	BPCDT -20080312ACF
09	KFWD	FORT WORTH TX	144.6	PLN	DTVPLN -DTVP0224
09	KCEN-TV	TEMPLE TX	10.7	LIC	BLEDT -20021010AAB
09	KCEN-TV	TEMPLE TX	10.7	PLN	DTVPLN -DTVP0228
10	KZTV	CORPUS CHRISTI TX	394.8	PLN	DTVPLN -DTVP0297
10	KZTV	CORPUS CHRISTI TX	402.9	APP	BPCDT -20080324AAT
11	KTVT	FORT WORTH TX	143.8	PLN	DTVPLN -DTVP0348
11	KTVT	FORT WORTH TX	143.8	CP	BPCDT -20080328ACY

Table 1 KWTX-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 11 of 11)

Total scenarios = 16

Result key: 327
Scenario 7 Affected station 9
Before Analysis

Results for: 10A TX WACO USERRECORD01 APP
HAAT 555.0 m, ATV ERP 26.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1474984	43922.1
not affected by terrain losses	1446620	42630.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	28250	1094.1
lost to ATV IX only	28250	1094.1
lost to all IX	28250	1094.1

Potential Interfering Stations Included in above Scenario 7

9A TX FORT WORTH	DTVPLN	DTVP0224	PLN
9A TX TEMPLE	DTVPLN	DTVP0228	PLN
10A TX CORPUS CHRISTI	DTVPLN	DTVP0297	PLN
11A TX FORT WORTH	DTVPLN	DTVP0348	PLN

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

SECTION III-D - DTV Engineering**Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.**

Pre-Transition Certification Checklist: 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.

Post-Transition Expedited Processing. 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.

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 submit the Exhibit 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

SECTION III-D - DTV Engineering**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: DTV 10 Analog TV, if any 10
2.	Zone: <input type="radio"/> I <input checked="" type="radio"/> II <input type="radio"/> III
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 31 Minutes 19 Seconds 19 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 97 Minutes 19 Seconds 2 <input checked="" type="radio"/> West <input type="radio"/> East
4.	Antenna Structure Registration Number: 1046229 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5.	Antenna Location Site Elevation Above Mean Sea Level: 260 meters
6.	Overall Tower Height Above Ground Level: 508.1 meters
7.	Height of Radiation Center Above Ground Level: 496.8 meters
8.	Height of Radiation Center Above Average Terrain : 554.9 meters
9.	Maximum Effective Radiated Power (average power): 26 kW
10.	Antenna Specifications:

a. Manufacturer DIE Model THV-12A10/CP-R 04	
b. Electrical Beam Tilt: 0.75 degrees <input type="checkbox"/> Not Applicable	
c. Mechanical Beam Tilt: degrees toward azimuth degrees True <input checked="" type="checkbox"/> Not Applicable Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).	[Exhibit 42]
d. Polarization: <input type="radio"/> Horizontal <input checked="" type="radio"/> Circular <input type="radio"/> Elliptical	
e. Directional Antenna Relative Field Values: <input checked="" type="checkbox"/> 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]	
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?	<input checked="" type="radio"/> Yes <input type="radio"/> No
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: 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.	[Exhibit 46]
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 6/4/2008	
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).