

## **ENGINEERING EXHIBIT**

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

prepared for

### **Wilderness Communications, LLC**

KBCA-DT Alexandria, LA

Facility ID 16940

Ch. 41 1000 kW 303 m

*Wilderness Communications, LLC (“Wilderness”)* is the licensee of television station KBCA(TV), analog Channel 41, Alexandria, LA. A Construction Permit (“CP”, BPCDT-20080502AAI) authorizes construction of the KBCA-DT post-transition digital facility on Channel 41, as established in Appendix B of the Seventh Report and Order in MB Docket 87-278. *Wilderness* herein seeks to modify the CP to expand the KBCA-DT post-transition Channel 41 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 210 kW at 303 meters antenna height above average terrain (“HAAT”), with a directional antenna. An increase in ERP to 1000 kW is proposed herein. No other changes are proposed.

The proposed digital Channel 41 operation will employ the existing directional antenna system licensed for KBCA’s analog Channel 41. The antenna is top-mounted on the existing KBCA antenna supporting structure, having FCC Antenna Structure Registration (“ASR”) number 1231316. 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.

The proposed KBCA-DT antenna system is an ERI model ATW30H3-HTC4-41H. The directional antenna’s azimuthal pattern is depicted in **Figure 1**. **Figures 2** and **2A** provide the theoretical vertical plane (elevation) pattern<sup>2</sup>.

A map is supplied as **Figure 3**, which depicts the standard predicted coverage contours. This map includes the boundaries of Alexandria, KBCA-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 KBCA-DT facility’s predicted service population provides a 123.7 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	368,631	455,839
Not affected by terrain losses	368,631	455,819
Lost to all interference	2	0
Net DTV Service	<b>368,629</b>	<b>455,819</b>
Match of Appendix B	---	<b>123.65%</b>

A detailed interference study per OET Bulletin 69<sup>3</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. 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 640 km distant at Kingsville, TX. 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

<sup>2</sup> These patterns are supplied in terms of relative field. In recent years, FCC Staff have not required pattern data in dBk format however such patterns are available upon request.

<sup>3</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 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.

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.

### **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  $3.8 \mu\text{W}/\text{cm}^2$ , which is 0.9 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.

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 14, 2008

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

### List of Attachments

Figure 1      Antenna Horizontal Plane Pattern  
Figure 2, 2A    Antenna Vertical Plane (Elevation) Pattern  
Figure 3      Proposed Coverage Contours  
Table 1        OET Bulletin 69 Interference Study  
Form 301       Saved Version of Engineering Sections from FCC Form at Time of Upload

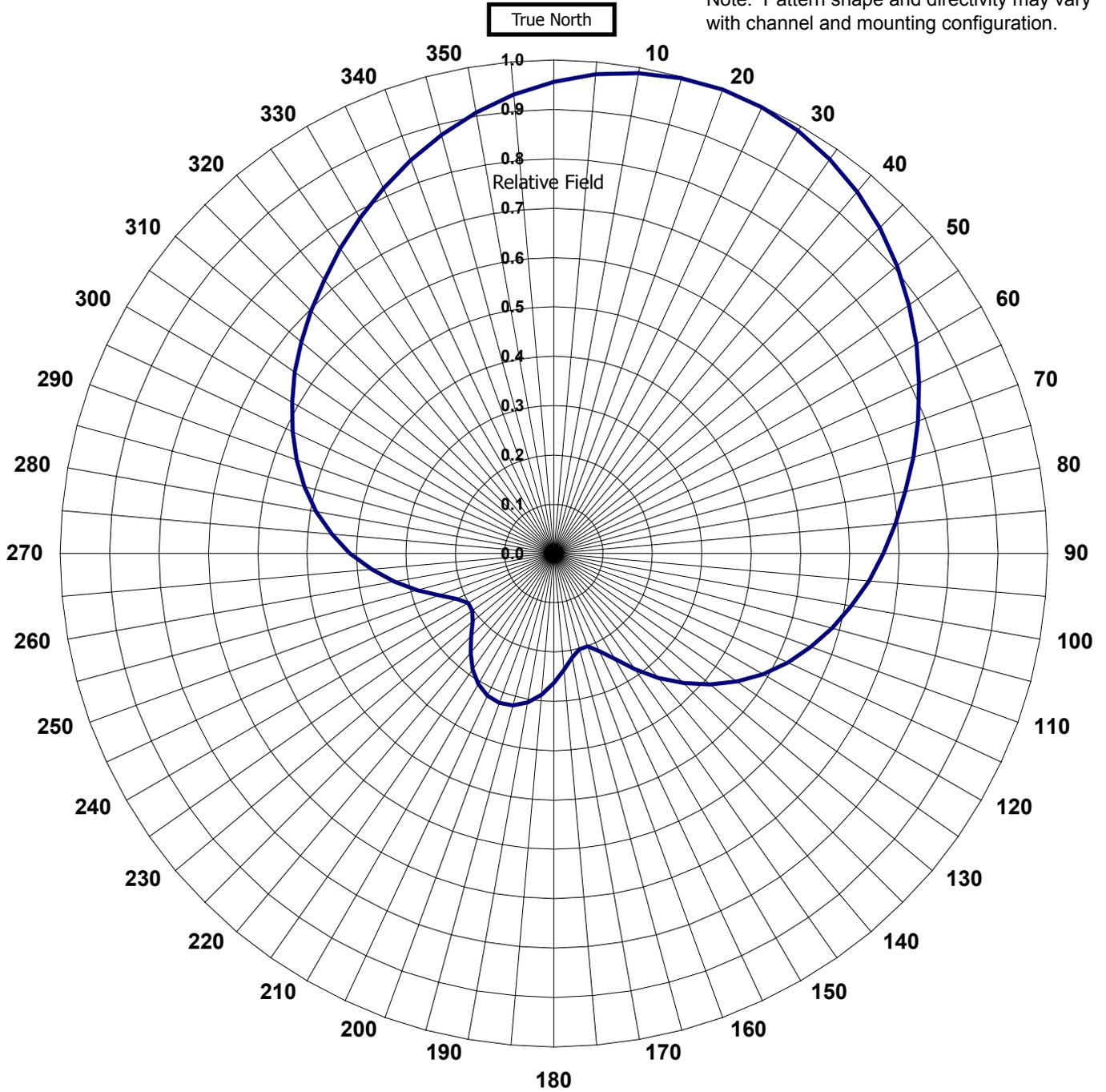
*This material was entered June 14, 2008 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.*

**AZIMUTH PATTERN**

<b>TYPE:</b>	<b>CH41HAZ-C4</b>	
	<b>Numeric</b>	<b>dB</b>
<b>Directivity:</b>	<b>2.54</b>	<b>4.05</b>
<b>Peak(s) at:</b>		
<b>Polarization:</b>	<b>Horizontal</b>	
<b>Frequency:</b>	<b>41(Analog)</b>	
<b>Location:</b>	<b>Alexandria, LA</b>	

**Figure 1  
Antenna Horizontal  
Plane Pattern**

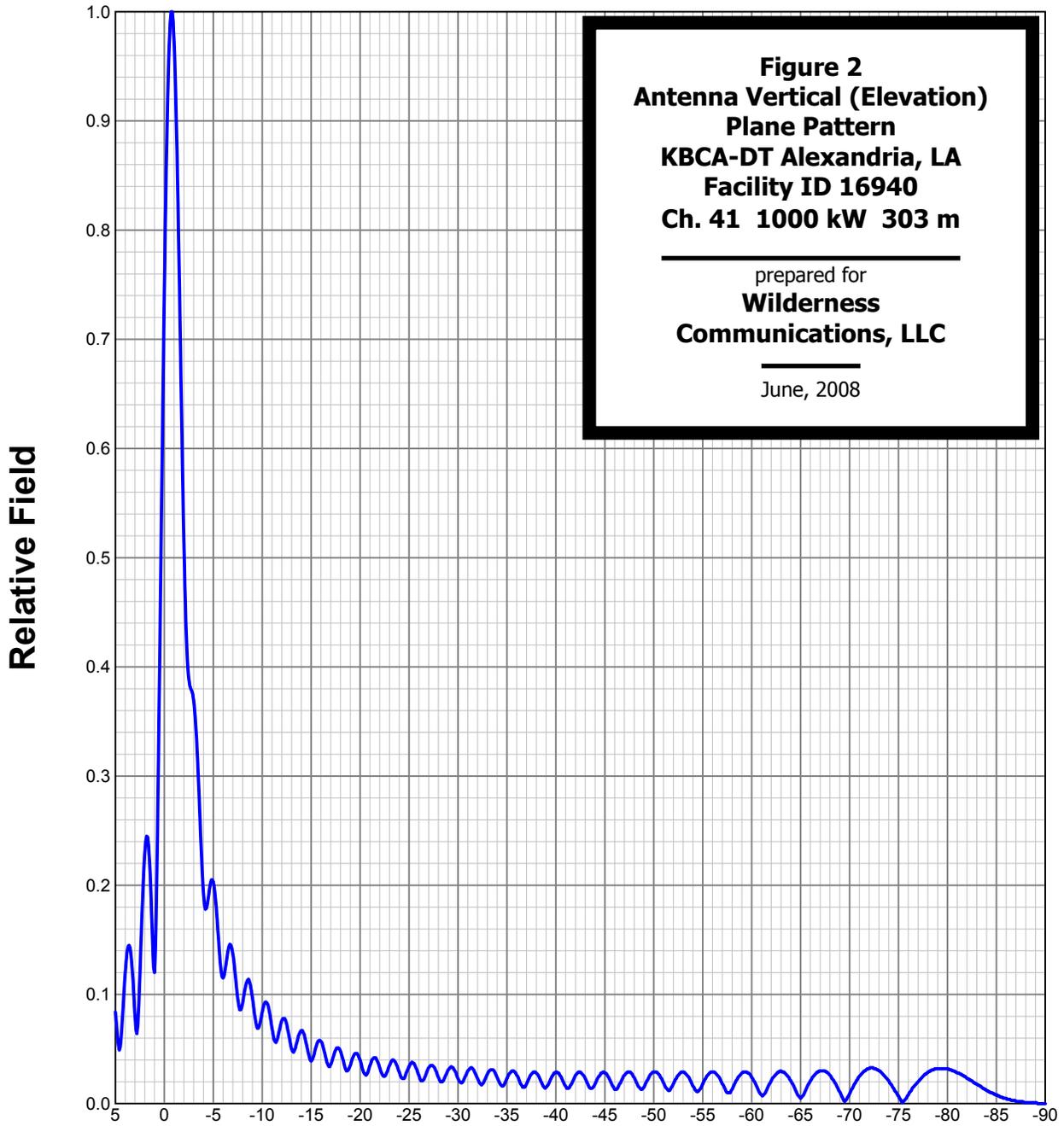
Note: Pattern shape and directivity may vary with channel and mounting configuration.



### ELEVATION PATTERN

Type: ATW30H3H  
Directivity: Numeric dBd  
Main Lobe: 30.00 14.77  
Horizontal: 16.52 12.18

Channel: 41  
Location: Alexandria, LA  
Beam Tilt: -0.75  
Polarization: Horizontal

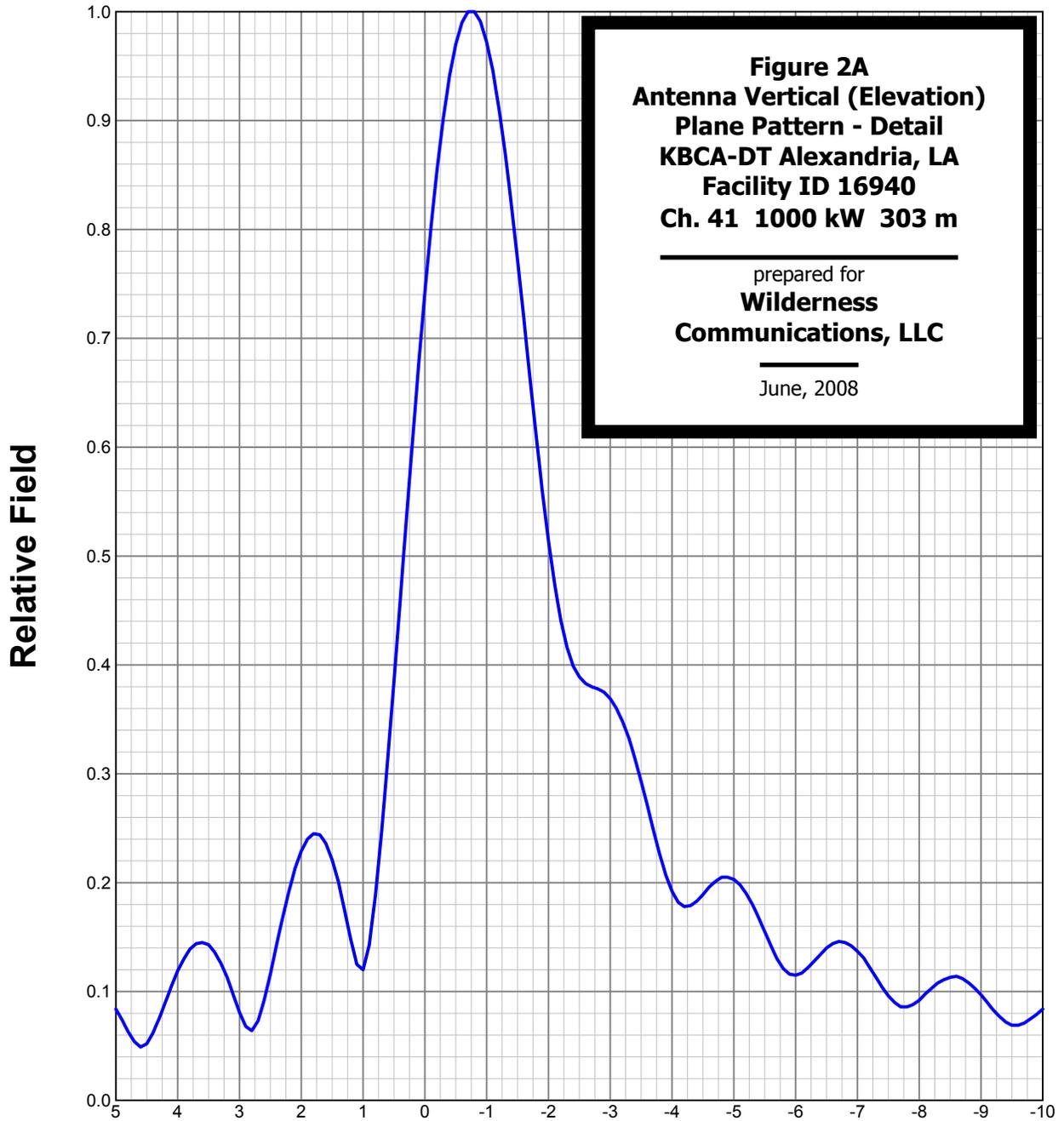


*Preliminary, subject to final design and review.*

### ELEVATION PATTERN

Type: ATW30H3H  
Directivity: Numeric dBd  
Main Lobe: 30.00 14.77  
Horizontal: 16.52 12.18

Channel: 41  
Location: Alexandria, LA  
Beam Tilt: -0.75  
Polarization: Horizontal



Preliminary, subject to final design and review.

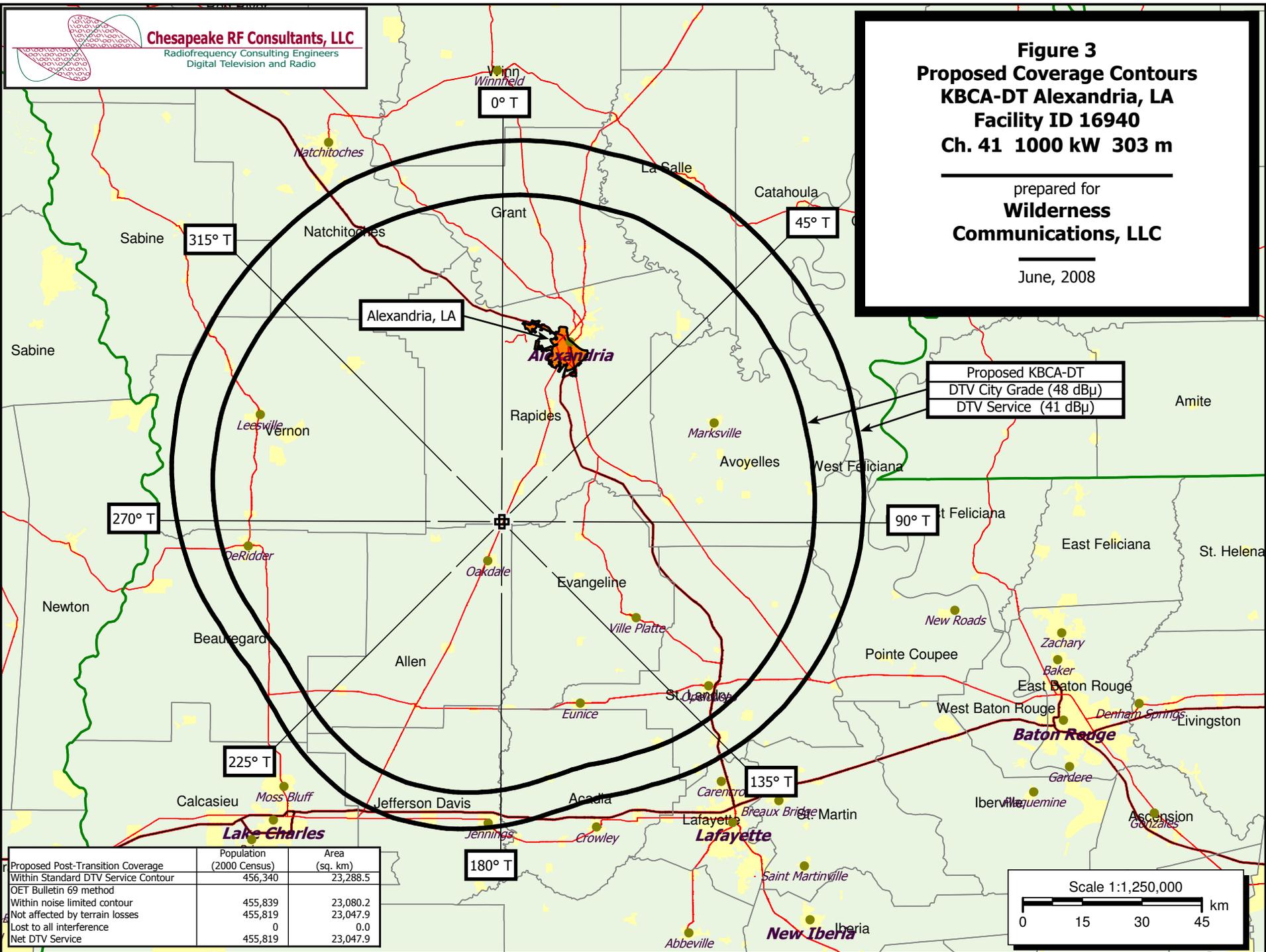
**Figure 3**  
**Proposed Coverage Contours**  
**KBCA-DT Alexandria, LA**  
**Facility ID 16940**  
**Ch. 41 1000 kW 303 m**

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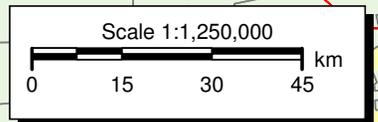
prepared for  
**Wilderness**  
**Communications, LLC**

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June, 2008



Proposed Post-Transition Coverage	Population (2000 Census)	Area (sq. km)
Within Standard DTV Service Contour	456,340	23,288.5
OET Bulletin 69 method		
Within noise limited contour	455,839	23,080.2
Not affected by terrain losses	455,819	23,047.9
Lost to all interference	0	0.0
Net DTV Service	455,819	23,047.9



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

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

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-14-2008 Time: 19:17:46

Record Selected for Analysis

KBCA-DT USERRECORD-01 ALEXANDRIA LA US  
Channel 41 ERP 1000. kW HAAT 303. m RCAMSL 00341 m  
Latitude 030-54-17 Longitude 0092-37-28  
Status APP Zone 3 Border  
Dir Antenna Make CDB Model 00000000086372 Beam tilt N Ref Azimuth 0.  
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)	41.0 dBu F(50,90) (km)
0.0	913.936	296.0	95.5
45.0	867.692	303.7	96.0
90.0	444.889	310.0	90.6
135.0	137.270	308.3	81.2
180.0	68.644	304.8	76.6
225.0	56.644	308.4	75.8
270.0	170.569	297.7	81.5
315.0	483.025	298.0	89.8

Evaluation toward Class A Stations

Contour overlap to Class A station  
KBTR-CA 41 BATON ROUGE LA BLTTA 20041201CAF

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 KBCA-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 2 of 6)

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Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
41	KBCA-DT	ALEXANDRIA LA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
40	KAJN-LP	LAFAYETTE LA	112.6	LIC	BLTTA	-20030508ACV
40	KBTU-TV	PORT ARTHUR TX	113.9	CP MOD	BMPCDT	-20080305ABQ
40	KBTU-TV	PORT ARTHUR TX	154.7	PLN	DTVPLN	-DTVVP1455
41	KBTR-CA	BATON ROUGE LA	151.4	LIC	BLTTA	-20041201CAF
41	WUFZ	VICKSBURG MS	247.1	PLN	DTVPLN	-DTVVP1478
41	KAZH	BAYTOWN TX	314.3	CP	BPCDT	-19991101ADZ
41	KAZH	BAYTOWN TX	314.3	PLN	DTVPLN	-DTVVP1485

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
40	KAJN-LP	LAFAYETTE LA	BLTTA	-20030508ACV

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
33	WVLA	BATON ROUGE LA	75.8	LIC	BLCT	-19871224KH
40	WDBD	JACKSON MS	285.5	CP	BPCDT	-20080401ATJ
40	WDBD	JACKSON MS	285.5	PLN	DTVPLN	-DTVVP1443
40	WDBD	JACKSON MS	285.5	CP MOD	BMPCT	-20020429ABF
40	KBTU-TV	PORT ARTHUR TX	154.1	CP MOD	BMPCDT	-20080305ABQ
40	KBTU-TV	PORT ARTHUR TX	191.6	PLN	DTVPLN	-DTVVP1455
41	KBCA	ALEXANDRIA LA	112.5	PLN	DTVPLN	-DTVVP1473
41	KBCA	ALEXANDRIA LA	112.6	CP	BPCDT	-20080502AAI
41	KBCA	ALEXANDRIA LA	112.6	LIC	BLCT	-20050728AMI
44	WGMB	BATON ROUGE LA	75.8	LIC	BLCT	-19910813KF
55	K54FT	NEW IBERIA LA	25.8	LIC	BLTT	-19951020IIM
41	KBCA-DT	ALEXANDRIA LA	112.6	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.
40	KBTU-TV	PORT ARTHUR TX	BMPCDT	-20080305ABQ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
40	WDBD	JACKSON MS	371.3	CP	BPCDT	-20080401ATJ
40	WDBD	JACKSON MS	371.3	PLN	DTVPLN	-DTVVP1443

**Table 1 KBCA-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 3 of 6)

40	KXTX-TV	DALLAS TX	410.6	LIC	BLCDDT	-20021106ABR
40	KXTX-TV	DALLAS TX	410.6	PLN	DTVPLN	-DTVPI453
41	KBCA	ALEXANDRIA LA	114.2	PLN	DTVPLN	-DTVPI473
41	KBCA	ALEXANDRIA LA	113.9	CP	BPCDDT	-20080502AAI
41	KAZH	BAYTOWN TX	202.7	CP	BPCDDT	-19991101ADZ
41	KAZH	BAYTOWN TX	202.7	PLN	DTVPLN	-DTVPI485
41	KBCA-DT	ALEXANDRIA LA	113.9	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.
40	KBTV-TV	PORT ARTHUR TX	DTVPLN -DTVPI455

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
40	WBBD	JACKSON MS	412.0	CP	BPCDDT -20080401ATJ
40	WBBD	JACKSON MS	412.0	PLN	DTVPLN -DTVPI443
40	KXTX-TV	DALLAS TX	391.2	LIC	BLCDDT -20021106ABR
40	KXTX-TV	DALLAS TX	391.2	PLN	DTVPLN -DTVPI453
41	KBCA	ALEXANDRIA LA	155.0	PLN	DTVPLN -DTVPI473
41	KBCA	ALEXANDRIA LA	154.7	CP	BPCDDT -20080502AAI
41	KAZH	BAYTOWN TX	160.6	CP	BPCDDT -19991101ADZ
41	KAZH	BAYTOWN TX	160.6	PLN	DTVPLN -DTVPI485
41	KBCA-DT	ALEXANDRIA LA	154.7	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
41	KBTR-CA	BATON ROUGE LA	BLTTA -20041201CAF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
34	WVLA	BATON ROUGE LA	19.5	LIC	BLCDDT -20051221A00
34	WVLA	BATON ROUGE LA	19.5	PLN	DTVPLN -DTVPI253
41	WIIQ	DEMOPOLIS AL	375.6	LIC	BLEDT -20040120ACY
41	WEIQ	MOBILE AL	310.9	LIC	BLEDT -20030430AAX
41	WEIQ	MOBILE AL	310.9	PLN	DTVPLN -DTVPI461
41	KBCA	ALEXANDRIA LA	151.1	PLN	DTVPLN -DTVPI473
41	KBCA	ALEXANDRIA LA	151.4	CP	BPCDDT -20080502AAI
41	KBCA	ALEXANDRIA LA	151.4	LIC	BLCT -20050728AMI
41	WUFEX	VICKSBURG MS	214.2	PLN	DTVPLN -DTVPI478
42	KGLA-DT	HAMMOND LA	125.9	LIC	BLCDDT -20070605ABE
42	KGLA-DT	HAMMOND LA	125.9	PLN	DTVPLN -DTVPI505
43	WDSU	NEW ORLEANS LA	125.7	PLN	DTVPLN -DTVPI538
43	WDSU	NEW ORLEANS LA	125.7	CP MOD	BMPCCDT -20080207AAP
45	WGMB	BATON ROUGE LA	19.5	LIC	BLCDDT -20060103ACW
45	WGMB	BATON ROUGE LA	19.5	PLN	DTVPLN -DTVPI615
49	WNTZ	NATCHEZ MS	145.6	LIC	BLCDDT -20060630AAV

**Table 1 KBCA-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 4 of 6)

49	WNTZ	NATCHEZ MS	145.6	PLN	DTVPLN	-DTVPI744
41	KBCA-DT	ALEXANDRIA LA	151.4	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
41	WUFEX	VICKSBURG MS	DTVPLN -DTVPI478

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
40	WBBD	JACKSON MS	25.4	CP	BPCDDT -20080401ATJ
40	WBBD	JACKSON MS	25.4	PLN	DTVPLN -DTVPI443
41	WEIQ	MOBILE AL	317.9	LIC	BLEDT -20030430AAX
41	WEIQ	MOBILE AL	317.9	PLN	DTVPLN -DTVPI461
41	KBCA	ALEXANDRIA LA	246.8	PLN	DTVPLN -DTVPI473
41	KBCA	ALEXANDRIA LA	247.1	CP	BPCDDT -20080502AAI
41	WBUY-TV	HOLLY SPRINGS MS	308.2	CP	BPCDDT -20080307ACA
41	WBUY-TV	HOLLY SPRINGS MS	308.2	PLN	DTVPLN -DTVPI477
41	WBUY-TV	HOLLY SPRINGS MS	308.2	LIC	BLCDDT -20060320AEN
41	KBCA-DT	ALEXANDRIA LA	247.1	APP	USERRECORD-01

Total scenarios = 24

Result key:

Scenario	1	Affected station	5
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Before Analysis

Results for: 41A MS VICKSBURG DTVPLN DTVP1478 PLN

HAAT	253.0 m, ATV ERP	208.7 kW
within Noise Limited Contour	POPULATION	AREA (sq km)
not affected by terrain losses	532061	14830.1
lost to NTSC IX	531917	14797.8
lost to additional IX by ATV	0	0.0
lost to ATV IX only	85983	2962.8
lost to all IX	85983	2962.8

Potential Interfering Stations Included in above Scenario 1

40A MS JACKSON	BPCDDT	20080401ATJ	CP
41A AL MOBILE	BLEDT	20030430AAX	LIC
41A LA ALEXANDRIA	DTVPLN	DTVPI473	PLN
41A MS HOLLY SPRINGS	BPCDDT	20080307ACA	CP

After Analysis

Results for: 41A MS VICKSBURG DTVPLN DTVP1478 PLN

HAAT	253.0 m, ATV ERP	208.7 kW
within Noise Limited Contour	POPULATION	AREA (sq km)
not affected by terrain losses	532061	14830.1
lost to NTSC IX	531917	14797.8
lost to additional IX by ATV	0	0.0
lost to ATV IX only	86161	2995.1
lost to all IX	86161	2995.1

**Table 1 KBCA-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 5 of 6)

lost to all IX 86161 2995.1

Potential Interfering Stations Included in above Scenario 1

40A MS JACKSON	BPCDT	20080401ATJ	CP
41A AL MOBILE	BLEDT	20030430AAX	LIC
41A LA ALEXANDRIA	DTVPLN	DTVP1473	PLN
41A MS HOLLY SPRINGS	BPCDT	20080307ACA	CP
41A LA ALEXANDRIA	USERRECORD01		APP

Percent new IX = 0.0399%

Worst case new IX 0.0399% Scenario 1

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
41	KAZH	BAYTOWN TX	BPCDT -19991101ADZ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
40	KBTU-TV	PORT ARTHUR TX	202.7	CP MOD	BMPCDT -20080305ABQ
40	KBTU-TV	PORT ARTHUR TX	160.6	PLN	DTVPLN -DTVP1455
41	KBCA	ALEXANDRIA LA	314.6	PLN	DTVPLN -DTVP1473
41	KBCA	ALEXANDRIA LA	314.3	CP	BPCDT -20080502AAI
41	KXAS-TV	FORT WORTH TX	362.7	LIC	BLCDT -19981125KG
41	KXAS-TV	FORT WORTH TX	362.8	PLN	DTVPLN -DTVP1486
41	KWEX-TV	SAN ANTONIO TX	267.8	CP	BPCDT -20080313ACM
41	KWEX-TV	SAN ANTONIO TX	267.8	PLN	DTVPLN -DTVP1487
42	KTBU	CONROE TX	1.0	LIC	BLCDT -20050103AJA
42	KTBU	CONROE TX	1.0	PLN	DTVPLN -DTVP1518
41	KBCA-DT	ALEXANDRIA LA	314.3	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application Ref. No.
41	KAZH	BAYTOWN TX	DTVPLN -DTVP1485

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
40	KBTU-TV	PORT ARTHUR TX	202.7	CP MOD	BMPCDT -20080305ABQ
40	KBTU-TV	PORT ARTHUR TX	160.6	PLN	DTVPLN -DTVP1455
41	KBCA	ALEXANDRIA LA	314.6	PLN	DTVPLN -DTVP1473
41	KBCA	ALEXANDRIA LA	314.3	CP	BPCDT -20080502AAI
41	KXAS-TV	FORT WORTH TX	362.7	LIC	BLCDT -19981125KG
41	KXAS-TV	FORT WORTH TX	362.8	PLN	DTVPLN -DTVP1486
41	KWEX-TV	SAN ANTONIO TX	267.8	CP	BPCDT -20080313ACM
41	KWEX-TV	SAN ANTONIO TX	267.8	PLN	DTVPLN -DTVP1487
42	KTBU	CONROE TX	1.0	LIC	BLCDT -20050103AJA

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

42	KTBU	CONROE TX	1.0	PLN	DTVPLN	-DTVP1518
41	KBCA-DT	ALEXANDRIA LA	314.3	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application Ref. No.
41	KBCA-DT	ALEXANDRIA LA	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
40	KBTU-TV	PORT ARTHUR TX	113.9	CP MOD	BMPCDT -20080305ABQ
40	KBTU-TV	PORT ARTHUR TX	154.7	PLN	DTVPLN -DTVP1455
41	WUFX	VICKSBURG MS	247.1	PLN	DTVPLN -DTVP1478
41	KAZH	BAYTOWN TX	314.3	CP	BPCDT -19991101ADZ
41	KAZH	BAYTOWN TX	314.3	PLN	DTVPLN -DTVP1485

Total scenarios = 1

Result key: 25  
Scenario 1 Affected station 8  
Before Analysis

Results for: 41A LA ALEXANDRIA USERRECORD01 APP  
HAAT 303.0 m, ATV ERP 1000.0 kw

within Noise Limited Contour	POPULATION	AREA (sq km)
not affected by terrain losses	455839	23080.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

SECTION III-D - DTV Engineering	
<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 checked="" 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 checked="" 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

SECTION III-D - DTV Engineering	
<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 41 Analog TV, if any 41
2. Zone:	<input type="radio"/> I <input type="radio"/> II <input checked="" type="radio"/> III
3. Antenna Location Coordinates: (NAD 27)	Latitude: Degrees 30 Minutes 54 Seconds 17 <input checked="" type="radio"/> North <input type="radio"/> South  Longitude: Degrees 92 Minutes 37 Seconds 28 <input checked="" type="radio"/> West <input type="radio"/> East
4. Antenna Structure Registration Number: 1231316	<input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level:	43.3 meters
6. Overall Tower Height Above Ground Level:	304.8 meters
7. Height of Radiation Center Above Ground Level:	297.2 meters
8. Height of Radiation Center Above Average Terrain :	302.7 meters

9. Maximum Effective Radiated Power (average power): 1000 kW

10. Antenna Specifications:

a. Manufacturer ERI Model ATW30H3-HTC4-41H

b. Electrical Beam Tilt:  
0.75 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]

**10e. Directional Antenna Relative Field Values**

[Fill in this subform for a composite directional (not off-the-shelf) antenna, only.]

e. Directional Antenna Relative Field Values:  
Rotation (Degrees): 0  No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	0.956	10	0.989	20	1	30	0.989	40	0.956	50	0.907
60	0.848	70	0.785	80	0.723	90	0.667	100	0.612	110	0.554
120	0.489	130	0.413	140	0.328	150	0.247	160	0.2	170	0.214
180	0.262	190	0.306	200	0.322	210	0.306	220	0.262	230	0.214
240	0.2	250	0.247	260	0.328	270	0.413	280	0.489	290	0.554
300	0.612	310	0.667	320	0.723	330	0.785	340	0.848	350	0.907
Additional Azimuths											

[Relative Field Polar Plot](#)

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 6/14/2008	
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).

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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.

