

Exhibit 45 – Statement A (Amended)
NATURE OF THE PROPOSAL
PROPOSED DIRECTIONAL ANTENNA

prepared for
TV Alabama, Inc.
WCFT-TV Tuscaloosa, Alabama
Facility ID 21258
Ch. 33 300 kW (MAX-DA) 659 m

TV Alabama, Inc. (“*TV Alabama*”) is the licensee of analog station WCFT-TV, Channel 33, Tuscaloosa, Alabama (see BLCT-19961025KE). *TV Alabama* is authorized in the construction permit (“CP”), BMPCDT-20080620AHJ¹, to construct the post-transition facility for WCFT-DT on Channel 33. Since the analog pre-transition antenna must be removed to install the digital post-transition antenna, *TV Alabama* has requested and been granted a “phased” transition in order to continue digital operation on its pre-transition Channel 5² during the construction of the post-transition WCFT-DT facility. The instant amended provides additional information related to compliance with Section 73.622 of the Commission’s Rules as requested by Commission Staff.

In working towards the construction of the new post-transition facility, it has become necessary to change the antenna specification and the associated directional pattern. Thus, the instant application requests permission to modify the authorized post-transition facility. Other necessary changes to the site parameters are specified herein. Since work on the facility is currently underway, changes to the antenna pattern must be made in the next few weeks. Therefore, ***expedited processing of the instant application is hereby respectfully requested on behalf of the applicant.***

The proposed, revised top mounted antenna is an ERI ATW30H3-ETC1-33H which is directional in the horizontal plane with 0.75° of electrical beam tilt. The proposed antenna is elliptically polarized with 25% vertical polarization. The maximum horizontally polarized (“Hpol”) effective radiated power (“ERP”) is 300 kW and the maximum vertically polarized (“Vpol”) ERP is 75 kW. The vertically polarized component of the proposed antenna will not exceed that of the horizontally polarized component. The Hpol component of the horizontal plane pattern is provided in the attached **Exhibit 45-Figure 1A**. Likewise, the Vpol component of the horizontal plane pattern is provided in **Exhibit 45-Figure 1B**. Plots providing the antenna

¹ The underlying construction permit application originally specified a Dielectric Model TFU-26GTH-R CT-150 directional antenna operating at 278 KW ERP at 657 meters HAAT.

² See BDSTA-20080818ACB

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vertical plane (elevation) relative field patterns (both Hpol and Vpol) are provided in **Exhibits 45-Figures 2A and 2B**.

Exhibit 45-Figure 3 provides a map depicting the service contour for the proposed facility along with principal community coverage contour. As demonstrated therein, the principal community of Tuscaloosa, Alabama is predicted to receive the enhanced signal level as required in §73.625(a) of the Commission’s Rules. The proposed facility is predicted to provide interference free service to 1,424,411 persons, which is *105 percent* of the 1,357,000 persons that are predicted to receive interference free service from the Appendix B facility³.

The attached **Exhibit 45-Figure 4** provides a comparison of the analog Grade B contour along with service contours for the digital CP and proposed digital facility. The Commission’s standard propagation method (“curves”), which is employed to determine the extent of a station’s contours, only considers the terrain features between 2 and 10 miles from the transmitter site. Variations in terrain outside this annulus are not considered and can cause the coverage prediction to either be under or overstated. Throughout the transition to digital television, the Commission has relied on an alternate propagation method that considers terrain features up to the “curves” defined contour. The measure of a proposal’s viability has been to determine how many persons will receive “*interference-free*” service.

The typical OET-69 study provides pertinent population data within the bounds of the respective facility service contours. The “*interference-free*” population data is as follows:

<u>Facility</u>	<u>Interference-Free Population (2000 Census)</u>	<u>Percent Match to Appendix B Facility</u>	<u>Percent Match to Analog Facility</u>
WCFT-DT Appendix B Reference Facility	1,357,000	--	--
WCFT-TV Licensed Analog Facility (BLCT-19961025KE) pre-transition	1,348,124	99.3%	--
WCFT-DT Authorized CP Facility (BMPCDT-20080620AHJ) post-transition	1,419,421	104.6%	105.3%
WCFT-DT Proposed Facility post-transition	1,424,411	105.0%	105.7%

³ See *Memorandum Opinion And Order On Reconsideration of the Seventh Report and Order and Eighth Report And Order, Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, FCC 08-72, Released March 6, 2008

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As shown above, the proposed WCFT-DT facility will provide more persons with “*interference free*” service than the current analog operation. Over 67,000 additional people are predicted to receive “*interference-free*” coverage when compared to the Appendix B population. 76,000 additional people are predicted to receive “*interference-free*” coverage when compared to the “*interference-free*” coverage of the current analog operation. Accordingly, since the population coverage is in excess of 95% of the Appendix B population, FCC Form 301, Section III-D, Question 1(e) has been answered “yes”. Based on this analysis, coverage from the proposed digital operation *exceeds* that of the analog facility.

Even though the instant proposal provides “*interference-free*” service to more people than the analog facility, concerns have recently been raised by Commission Staff regarding differences in the “curves” predicted coverage between a station’s analog operation and its proposed post-transition digital facilities. **Exhibit 45-Figure 5** depicts the coverage contours of the licensed WCFT-TV analog facility, the proposed WCFT-DT facility. The gain area is depicted with red colored tinting. The loss area between the WCFT-TV analog Grade B contour and the service contour of the proposed WCFT-DT facility is depicted with cyan colored tinting.

WCFT-TV is an ABC network affiliate. The map also depicts the coverage in the predicted loss area of the digital facilities for WJSU-TV⁴, WAAY-TV⁵, and WKDH(TV)⁶. These ABC affiliates provide coverage in the loss area. There is a small “white” area where no ABC coverage is predicted. The total population within this defined area is 6,068 persons (2000 Census). However, when low signal levels and interference are considered, this small area contains only 5,149 persons who are predicted to receive “*interference-free*” coverage from the WCFT-TV analog facility or 0.36% of the total “*interference-free*” coverage for the digital facility proposed herein. The Commission’s own rules consider a loss of service to up to 7,122 persons or 0.5% to be acceptable.

⁴ WJSU-TV, Facility Id: 56642, Anniston, Alabama, BLCDDT-20050222ACG.

⁵ WAAY-TV, Facility Id: 57292, Huntsville, Alabama, BLCDDT-20050701ABO.

⁶ WKDH(TV), Facility Id: 83310, Houston, Mississippi, BPCDDT-20060519ABE (license application filed, see BLCDDT-20070205ADK).

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However, using the results from an expanded OET-69 digital study that considers reception beyond the service contour within the same “white” area, the proposed facility will provide “*interference-free*” coverage to 5,208 persons⁷. Thus, 59 persons who do not now receive coverage from the WCFT-TV analog facility will receive coverage from the proposed WCFT-DT facility within the “white” area. In actual practice there is no “white” area created by this proposal.

The proposed 300 kW ERP exceeds the maximum ERP permitted for an antenna HAAT of 659 meters as specified in Section 73.622(f)(8)(i). However, Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the station having the largest coverage area within the same market. In this case, the largest service area is that of the licensed facility for WCFT-DT’s pre-transition facility⁸ (digital Ch. 5, Tuscaloosa, Alabama, 9.5 kW ERP / 625.4 meters HAAT, BLCDT-20040423AAA). The area within the proposed WCFT 41 dB μ digital service contour is 35,024.9 square kilometers, which does not exceed the 45,021.8 square kilometers of area within the WCFT-DT Channel 5 licensed facility 28 dB μ digital service contour. Thus, the ERP specified herein is in compliance with §73.622(f)(5) of the Commission’s Rules.

An interference study, in accordance with OET-69, was performed to determine compliance with the currently stated interference limit of 0.5%. A summary of the OET-69 study results for the proposed WCFT-DT facility is provided in the attached **Exhibit 45-Table I**. As demonstrated therein, new interference does not exceed the Commission’s 0.5 percent interference limit. Thus, the instant proposal complies with the Commission’s interference limits.

The proposed WCFT-DT site is located more than 400 km from the nearest points on the Canadian and Mexican borders and does not require international coordination. The nearest FCC

⁷ Signal coverage does not stop at the digital service contour. A larger area outside the proposed WCFT-DT service contour was studied to provide this comparison.

⁸ WCFT elected a “phase” transition in accordance with the procedure in the *Third Periodic Review* and is currently operating its pre-transition facility at reduced power under a Special Temporary Authorization (see BDSTA-20080818ACB). The Channel 5 STA facility covers 44,201.8 sq. km.

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monitoring station is at Powder Springs, Georgia, at a distance of 254.6 km from the proposed site. This far exceeds the distance that would require consideration of the monitoring station. The proposed site is also located outside the area specified in §73.1030(a)(1). Thus, notification of the instant proposal to the National Radio Astronomy Observatory at Green Bank, West Virginia, is not required. There are no AM broadcast stations located within 3.2 km from the proposed site according to the Commission's engineering database.

Thus, this proposal is believed to be in compliance with the current Commission's Rules and policy with respect to allocation matters.

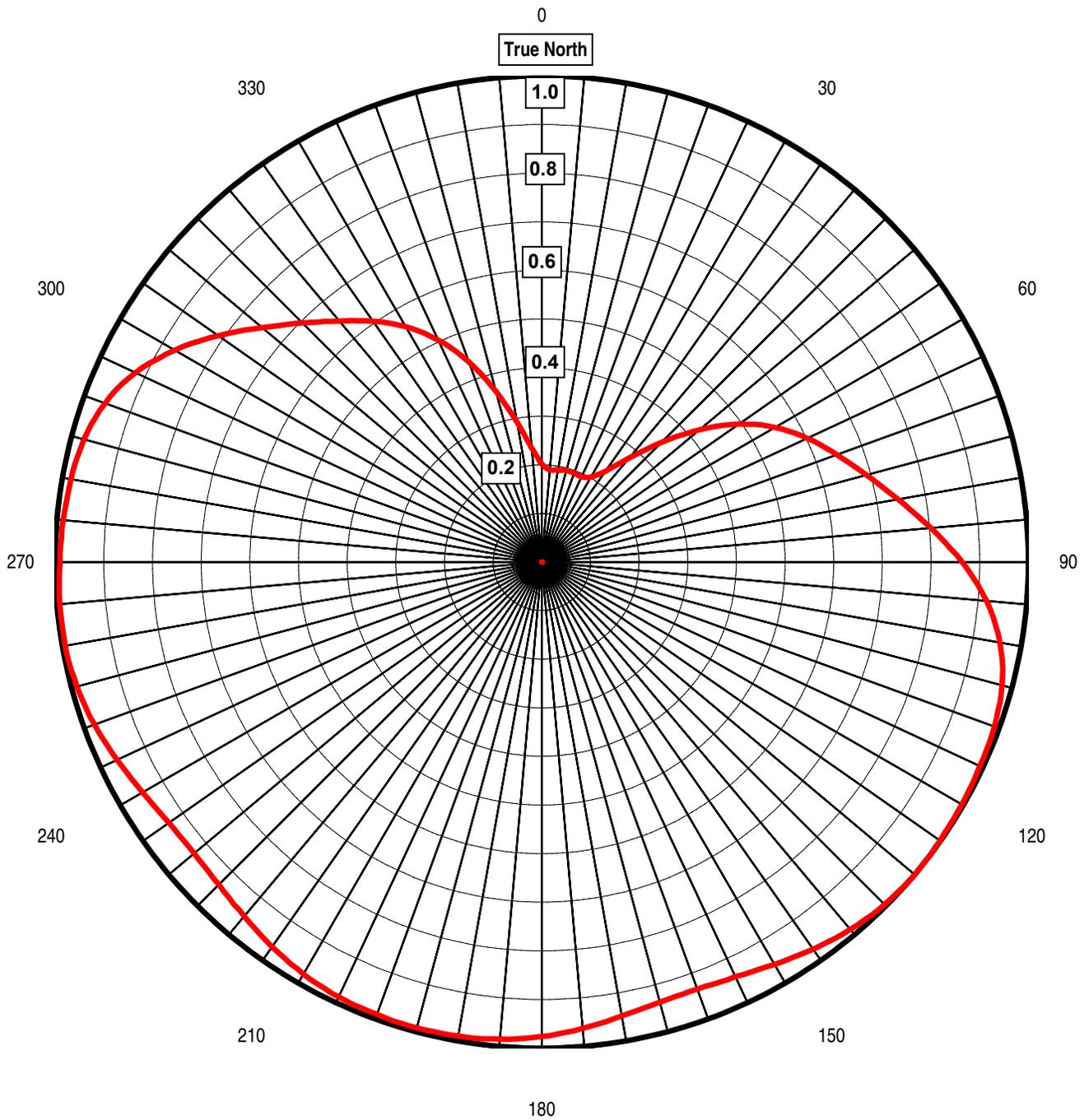


Exhibit 45 - Figure 1A (Amended)
ANTENNA HORIZONTAL PLANE (HPOL)
RELATIVE FIELD RADIATION PATTERN

prepared August 2009 for

TV Alabama, Inc.

WCFT-TV Tuscaloosa, Alabama

Facility ID 21258

Ch. 33 300 kW (MAX-DA) 659 m

Cavell, Mertz & Associates, Inc.
 Manassas, Virginia

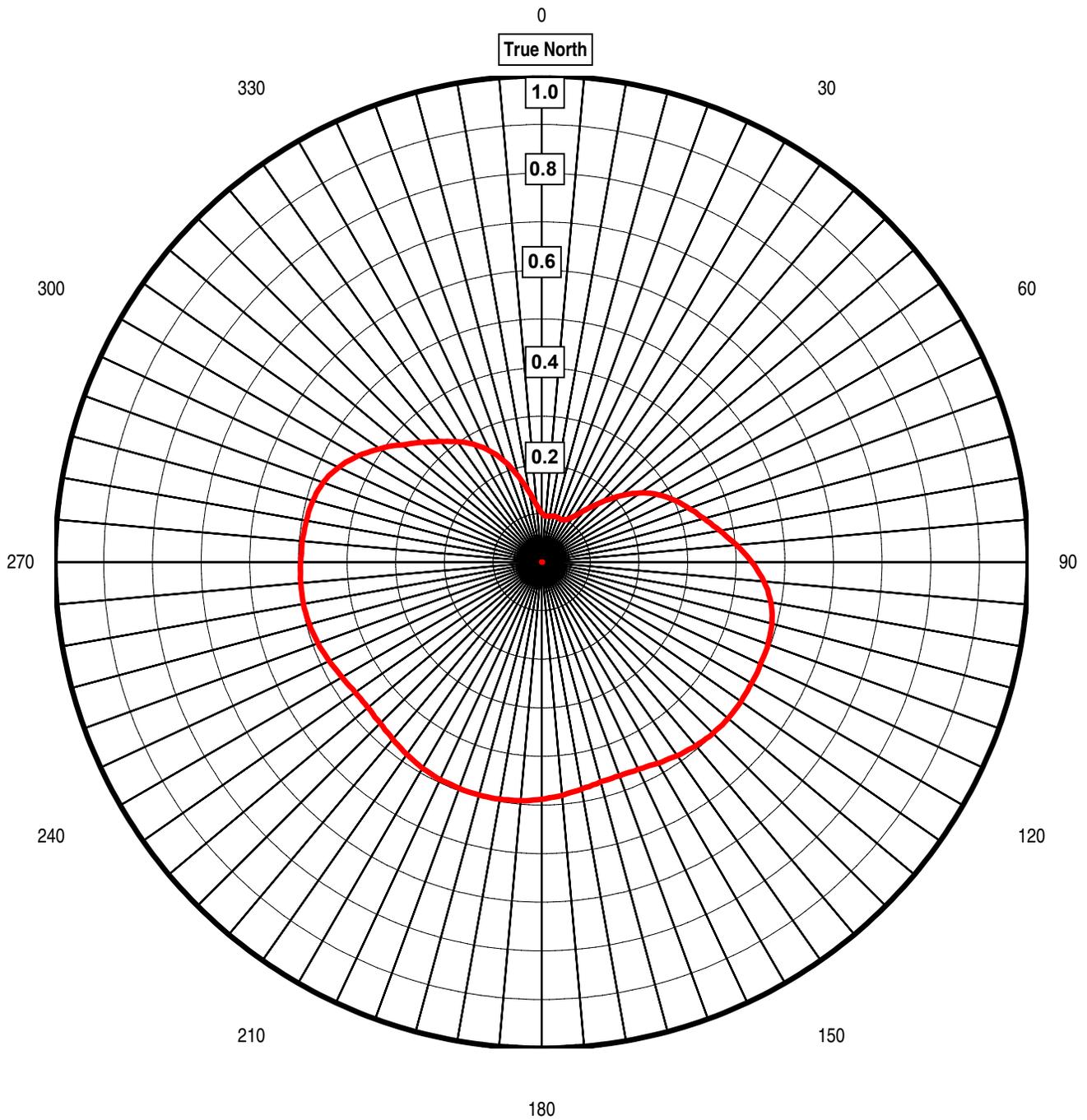


Exhibit 45 - Figure 1B (Amended)
ANTENNA HORIZONTAL PLANE (VPOL)
RELATIVE FIELD RADIATION PATTERN

prepared August 2009 for

TV Alabama, Inc.

WCFT-TV Tuscaloosa, Alabama

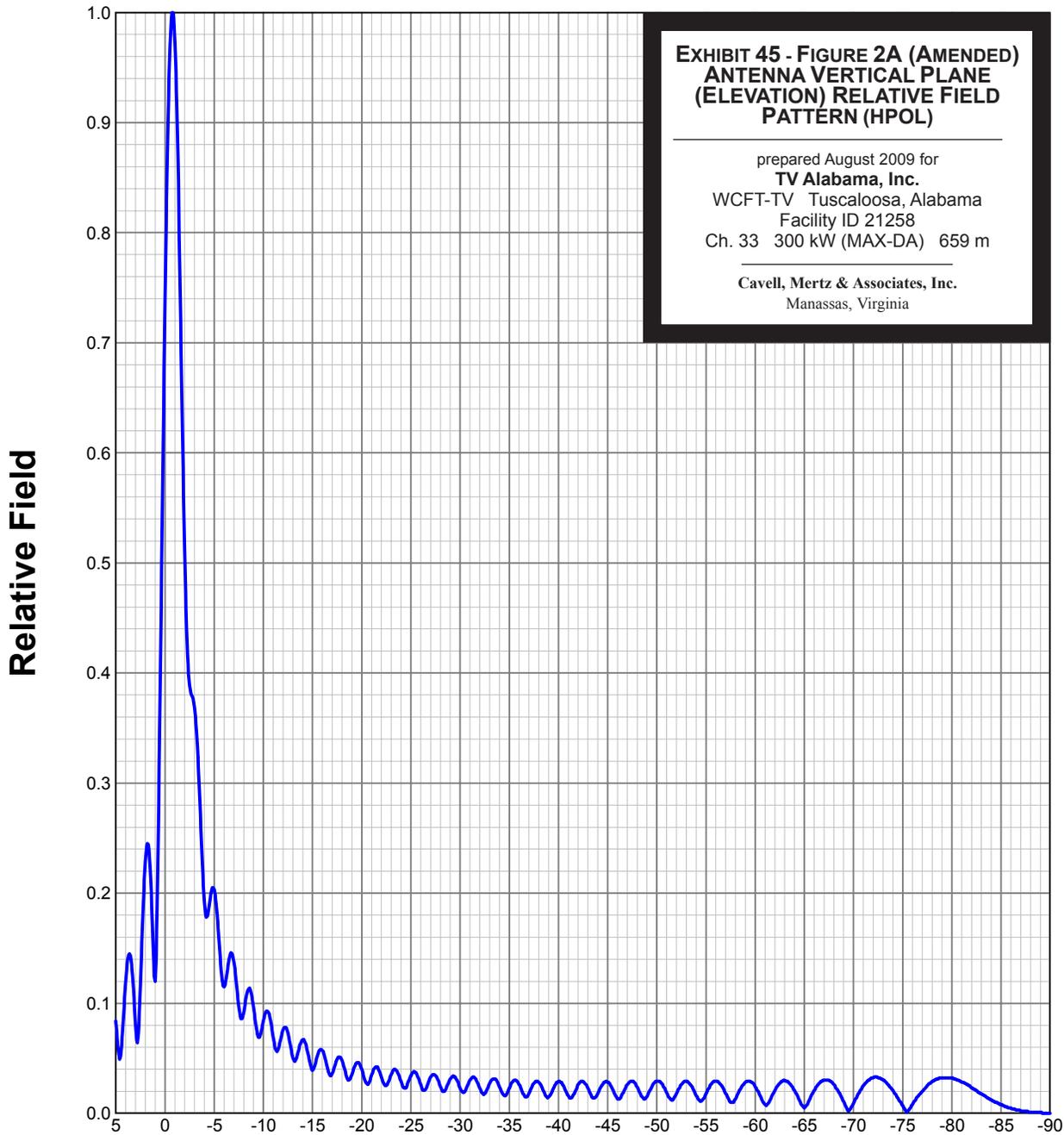
Facility ID 21258

Ch. 33 300 kW (MAX-DA) 659 m

Cavell, Mertz & Associates, Inc.
 Manassas, Virginia

ELEVATION PATTERN

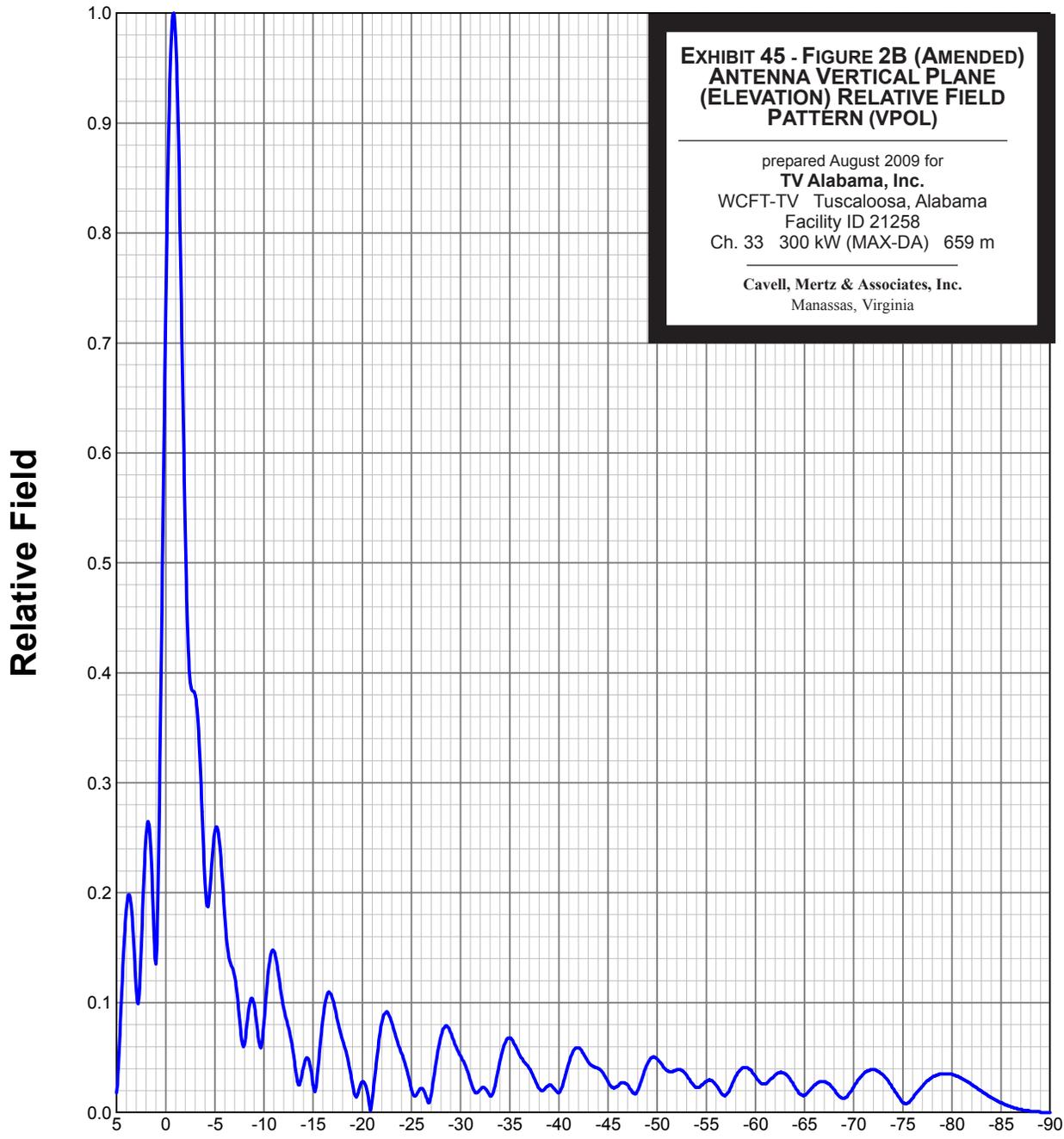
Type:	<u>ATW30H3H</u>		Channel:	<u>33</u>
Directivity:	Numeric	<u>dBd</u>	Location:	<u> </u>
Main Lobe:	<u>30.00</u>	<u>14.77</u>	Beam Tilt:	<u>-0.75</u>
Horizontal:	<u>16.52</u>	<u>12.18</u>	Polarization:	<u>Horizontal</u>



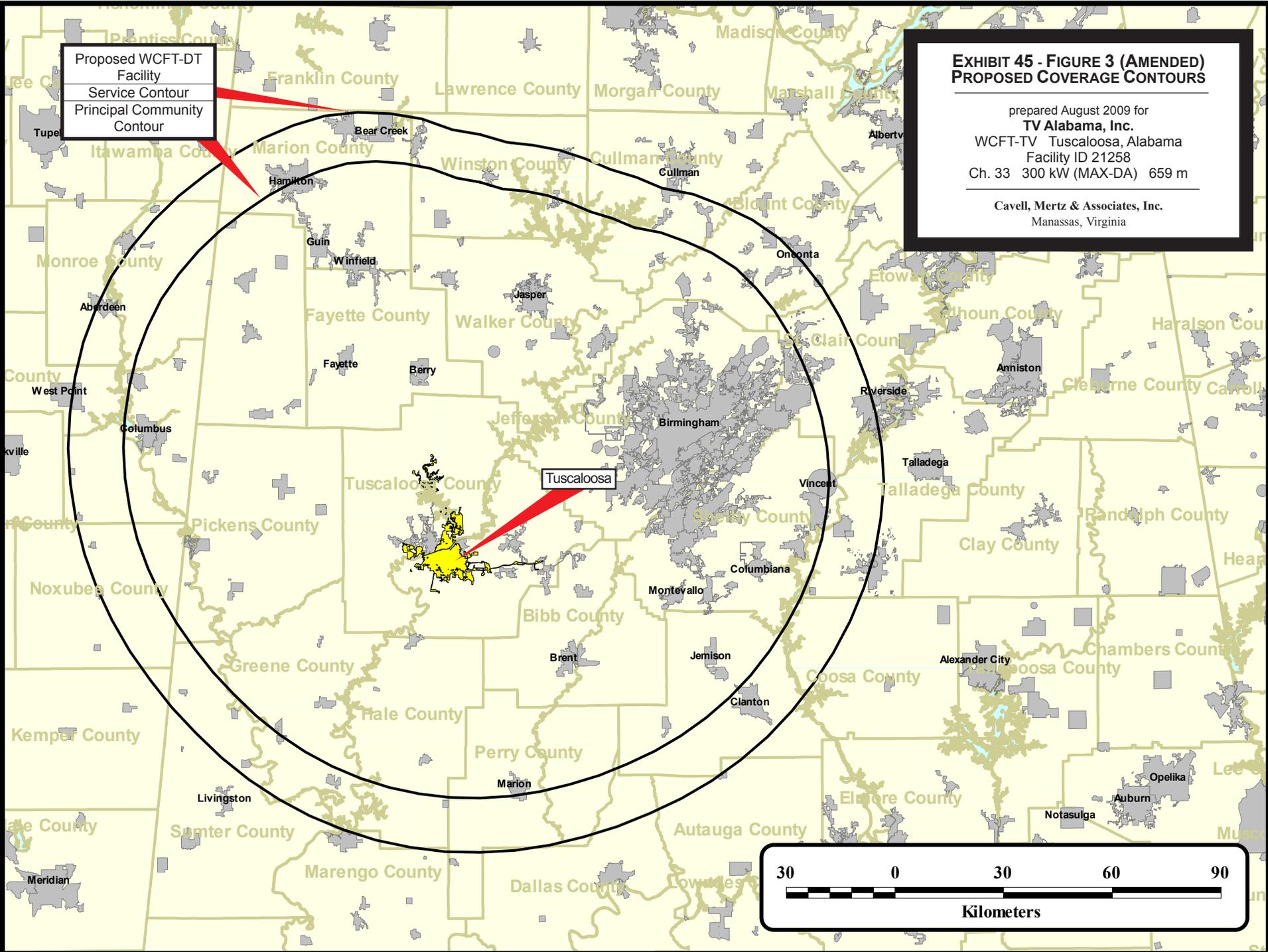
Preliminary, subject to final design and review.

ELEVATION PATTERN

Type:	<u>ATW27H3V</u>		Channel:	<u>33</u>
Directivity:	Numeric	dBd	Location:	<u> </u>
Main Lobe:	<u>27.00</u>	<u>14.31</u>	Beam Tilt:	<u>-0.75</u>
Horizontal:	<u>14.59</u>	<u>11.64</u>	Polarization:	<u>Vertical</u>



Preliminary, subject to final design and review.

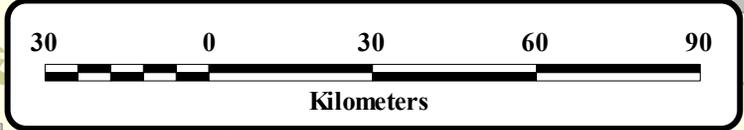


Proposed WCFT-DT
Facility
Service Contour
Principal Community
Contour

**EXHIBIT 45 - FIGURE 3 (AMENDED)
PROPOSED COVERAGE CONTOURS**

prepared August 2009 for
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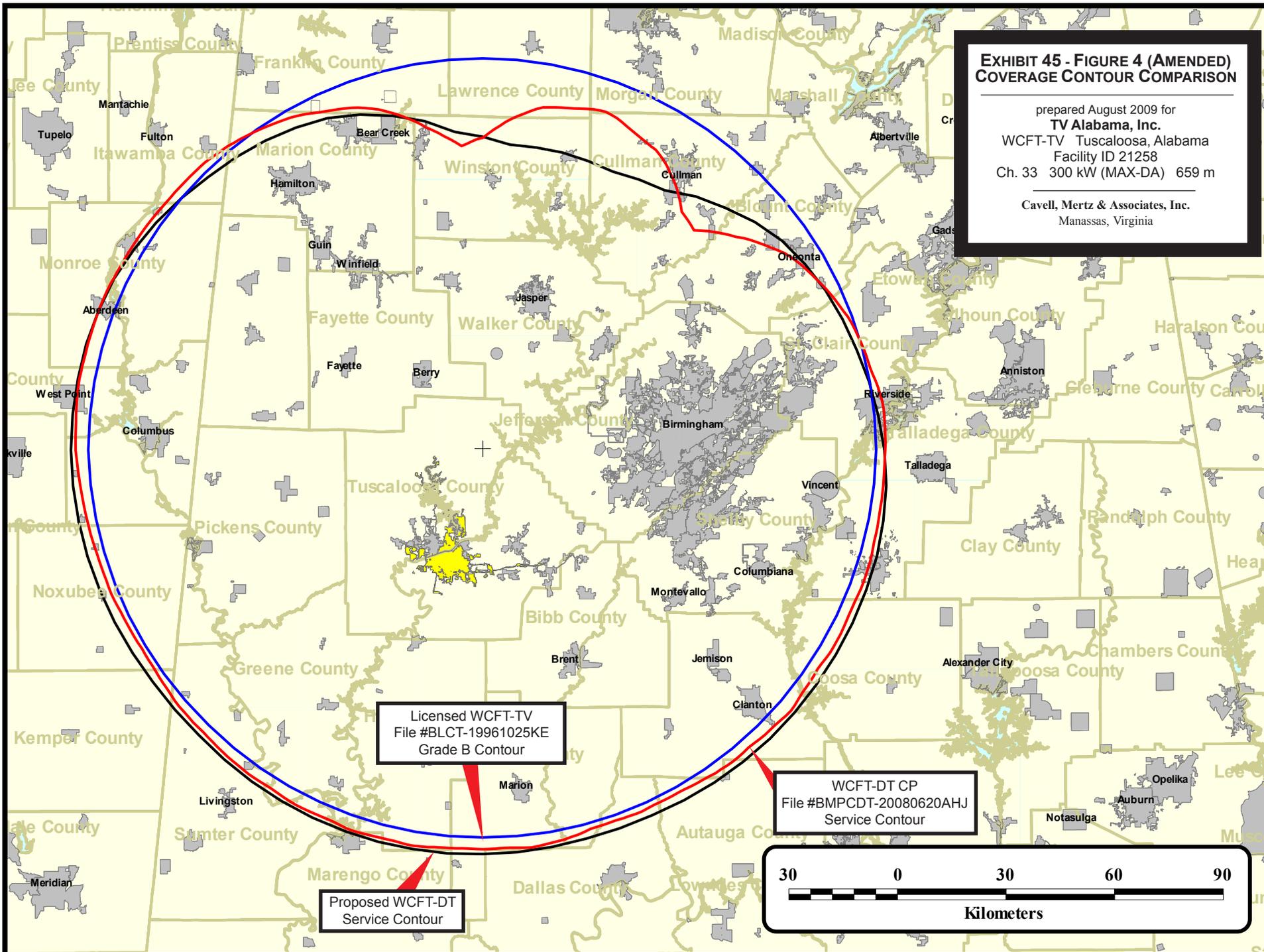
Cavell, Mertz & Associates, Inc.
Manassas, Virginia



**EXHIBIT 45 - FIGURE 4 (AMENDED)
COVERAGE CONTOUR COMPARISON**

prepared August 2009 for
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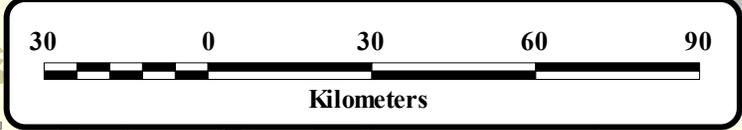
Cavell, Mertz & Associates, Inc.
Manassas, Virginia



Licensed WCFT-TV
File #BLCT-19961025KE
Grade B Contour

WCFT-DT CP
File #BMPCDT-20080620AHJ
Service Contour

Proposed WCFT-DT
Service Contour



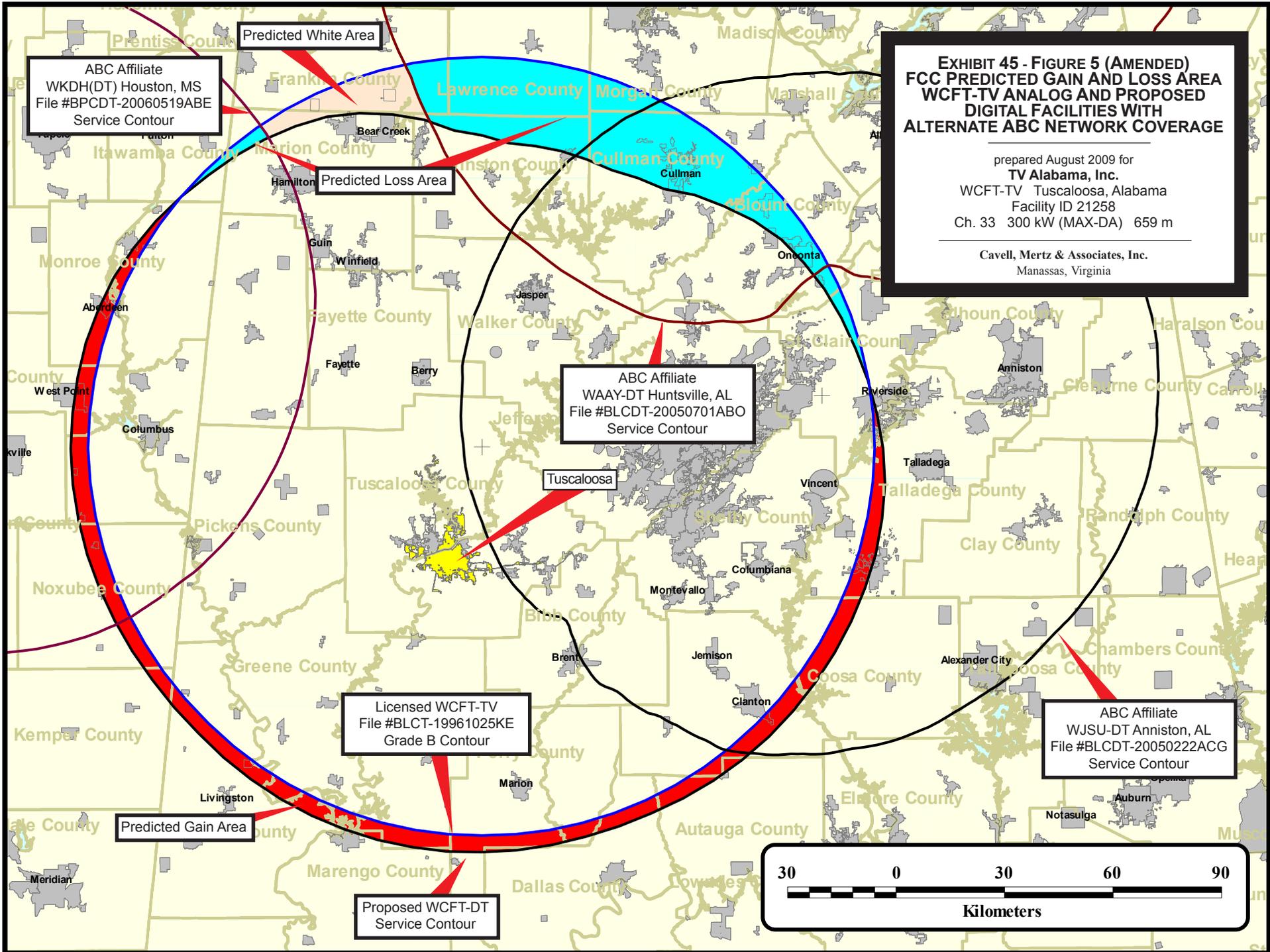


EXHIBIT 45 - FIGURE 5 (AMENDED)
FCC PREDICTED GAIN AND LOSS AREA
WCFT-TV ANALOG AND PROPOSED
DIGITAL FACILITIES WITH
ALTERNATE ABC NETWORK COVERAGE

prepared August 2009 for
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 WCFT-TV Tuscaloosa, Alabama
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Cavell, Mertz & Associates, Inc.
 Manassas, Virginia

ABC Affiliate
 WKDH(DT) Houston, MS
 File #BPCDT-20060519ABE
 Service Contour

Predicted White Area

Predicted Loss Area

ABC Affiliate
 WAAY-DT Huntsville, AL
 File #BLCDT-20050701ABO
 Service Contour

Licensed WCFT-TV
 File #BLCT-19961025KE
 Grade B Contour

ABC Affiliate
 WJSU-DT Anniston, AL
 File #BLCDT-20050222ACG
 Service Contour

Predicted Gain Area

Proposed WCFT-DT
 Service Contour

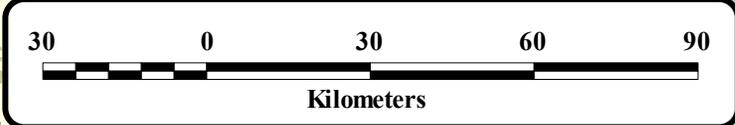


Exhibit 45 - Table I (Amended)
INTERFERENCE STUDY RESULTS

prepared for

TV Alabama, Inc.

WCFT-TV Tuscaloosa, Alabama

Facility Id: 21258

Ch. 33 300 kW (MAX-DA) 659 m

<u>Channel</u>	<u>Affected Station</u>	<u>City, State</u>	<u>File Number</u>	<u>7th R&O Table Baseline (2000 Census)</u>	<u>Calculated Baseline (2000 Census)</u>	<u>Interference Population without Proposal (2000 Census)</u>	<u>Interference Population with Proposal (2000 Census)</u>	<u>New Interference</u>	
								<u>Population</u>	<u>Percentage</u>
19	WOTM-LP	Montevallo, AL	BLTTL-19970514JI						
25	WJMY-CA	Demopolis, AL	BLTTA-20050404ADB						
25	WJMY-CA	Demopolis, AL	BSTA-20060928AEP						
32	WAAY-TV	Huntsville, AL	BLCDDT-20050701ABO	1,301,000	1,297,601	15,852	18,421	2,569	0.198 %
32	WAAY-TV	Huntsville, AL	Reference	1,301,000	1,297,601	15,852	18,421	2,569	0.198 %
32	WNCB(TV)	Montgomery, AL	BMPCDT-20080619AHK	579,000	547,956	2,492	2,786	294	0.054 %
32	WNCB(TV)	Montgomery, AL	Reference	579,000	578,486	4,619	5,132	513	0.089 %
33	WDFX-TV	Ozark, AL	BPCDDT-20080620AGU	244,000	348,854	105	135	30	0.009 %
33	WDFX-TV	Ozark, AL	Reference	244,000	244,211	72	80	8	0.003 %
33	WDFX-TV	Ozark, AL	BLCDDT-20050915APH	244,000	244,211	72	80	8	0.003 %
33	WNGH-TV	Chatsworth, GA	BPEDT-20000425AAP	2,782,000	2,773,426	43,101	43,302	201	0.007 %
33	WNGH-TV	Chatsworth, GA	Reference	2,782,000	2,773,426	43,101	43,302	201	0.007 %
33	WCAG-LP	La Grange, GA	BLTTL-19891128JR						
33	WDYR-CA	Dyersburg, TN	BLTTA-20011221ABF						
33	WPGD-TV	Hendersonville, TN	BPCDDT-20090202BBP		1,957,444	4,983	4,983	0	0.000 %
33	WPGD-TV	Hendersonville, TN	Reference		1,959,329	5,347	5,347	0	0.000 %
33	WPGD-DR	Hendersonville, TN	BPRM-20080620AIV		145,104	1,819,572	1,819,572	0	0.000 %