

*Before the Federal Communications Commission  
Washington, D.C. 20554*

In the Matter of: )  
 )  
Advanced Television Services and ) MB Docket No. 87-268  
Their Impact upon the Existing )  
Television Broadcast Service )

Directed to: The Commission

**COMMENTS**

The Board of Trustees of The University of Alabama (“University”), licensee of Television Station WUOA(TV), Channel 23, Tuscaloosa, Alabama, by its attorneys, hereby respectfully submits its Comments in response to the Commission’s *Seventh Report and Order and Eighth Further Notice of Proposed Rule Making*, FCC 07-138, released August 6, 2007 (“*Eighth Further Notice*”). With respect thereto, the following is stated:

1. WUOA is currently licensed to operate on analog Channel 23, and, as previously noted, it has no assigned companion digital channel. In response to the Commission’s *Seventh Further Notice of Proposed Rule Making*, FCC 06-150, released October 20, 2006 (“*SFNPRM*”), University submitted “Comments” on February 26, 2007, and a “Supplement to Comments” on June 1, 2007. In its “Supplement to Comments,” University demonstrated that the allotment of Channel 4 or Channel 6 as WUOA’s post-transition DTV channel rather than the currently allotted Channel 23 would serve the public interest.

2. In the *Eighth Further Notice*, in response to University’s request, the Commission proposed replication facilities on Channel 6 as WUOA’s post-transition digital channel. University hereby states its support for this proposed change to Channel 6. As set forth in the

attached Engineering Statement, however, it appears that the antenna pattern specified at Appendix G to the *Eighth Further Notice* is erroneous, in that it unnecessarily creates a deep suppression. Since a simple transposition of numbers would explain the oddity, it is apparent that the specification is in error and should be corrected as set forth in the attached Engineering Statement.

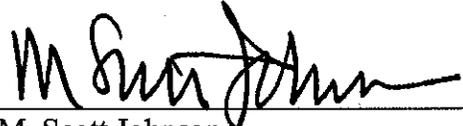
3. Moreover, as also demonstrated in the Engineering Statement, it is unnecessary to make use of any directional pattern. Rather, an omnidirectional antenna with an effective radiated power of 1.0 kW would create no objectionable interference. Use of the nondirectional antenna would provide substantial benefits, including avoiding the practical difficulties often inherent in creating a directional antenna for a VHF channel.

4. If Channel 6 is allotted as WUOA's post-transition channel, University will file an application for construction permit for this facility at the time to be designated and will promptly construct Channel 6 facilities upon their authorization in accordance with the Commission's policies. University's previous filings have demonstrated that the proposed change in channel will serve the public interest by conserving University's limited resources and by enabling University to provide superior service to its viewers. Furthermore, there would be no offsetting detriment to the public interest, as the proposed change in channel will not cause any additional interference.

5. Accordingly, given the substantial benefits to be realized, University hereby requests that Channel 6 be allotted as its post-transition DTV channel as proposed by the *Eighth Further Notice* and with technical parameters as set forth in the attached Engineering Statement.

Respectfully submitted,

THE BOARD OF TRUSTEES OF THE  
UNIVERSITY OF ALABAMA

By:   
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October 10, 2007

ENGINEERING STATEMENT  
ON BEHALF  
**WUOA, TUSCALOOSA, ALABAMA**  
IN SUPPORT OF ITS COMMENTS IN  
EIGHTH FURTHER NOTICE OF PROPOSED RULE MAKING  
MB DOCKET NO. 87-268  
OCTOBER 2007

This engineering statement has been prepared on behalf of The Board of Trustees of the University of Alabama, (“BOTUOA”) licensee of TV station WUOA, Tuscaloosa, Alabama, in support of its comments in the Eighth Further Notice of Rule Making in MB Docket No. 87-268.

Station WUOA, Facility ID Number 77496, currently operates on analog TV Channel 23 (524-530 MHz) with 890 kW effective radiated power (ERP) and 266 meters antenna height above average terrain (HAAT). In the Eighth Further Notice of Rule Making in MB Docket No. 87-268, the Commission has proposed allotment of Channel 6 (82-88 MHz) for WUOA’s digital TV (DTV) operation. The proposed DTV operation is with 1 kW ERP, 266 meters HAAT and directional TV antenna (ID No. 80096).

A review of the proposed directional TV antenna pattern (ID No. 80096) for WUOA-DT indicates there is apparent error in the specified relative field at azimuth N 100° E. The attached Figure 1 shows at N 100° E azimuth the proposed directional radiation pattern of WUOA-DT has a much deeper suppression (relative field of 0.171) than the adjacent azimuths. There is apparently no reason for such a deep depression. Figure 2 is a computed coverage contour map based on the proposed FCC allotment parameters for WDTV-DT with the directional TV antenna (ID No. 80096). The BOTUOA believes the antenna relative field at N 100 E azimuth should be 0.711 resulting in a directional pattern as depicted on Figure 3 and coverage contour shown on Figure 4.

An electromagnetic interference study, according to the FCC OET Bulletin 69, has been conducted (see attached Table I) for the Channel 6 DTV allotment with 1 kW

ERP, 266 meters HAAT and a non-directional TV antenna. Table I indicates the proposed operation of WUOA with 1 kW ERP, 266 meters HAAT and a non-directional TV antenna would not cause any interference to any DTV stations or proposed allotment. The attached map (Figure 5) shows the computed coverage contour for the proposed 1 kW non-directional operation of WUOA-DT.

Therefore, BOTUOA requests the Commission to allot 1 kW ERP at 266 meters HAAT with a non-directional TV antenna for the WUOA's digital operation.

Under penalty of perjury the undersigned states that the foregoing statement has been prepared by him or under his supervision and that the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts, he believes them to be true.

10 October 2007



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TABLE I

Census data selected 2000

Post Transition Data Base Selected  
/space/software/cdbs/tvdb.sff\_G  
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 10-09-2007 Time: 17:24:27

Record Selected for Analysis

WOUA USERRECORD-01 TUSCALOOSA AL US  
Channel 06 ERP 1. kW HAAT 263. m RCAMSL 00339 m  
Latitude 033-03-15 Longitude 0087-32-57  
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)	28.0 dBu F(50,90) (km)
0.0	1.000	274.7	84.6
45.0	1.000	234.6	81.2
90.0	1.000	252.4	82.6
135.0	1.000	227.6	80.7
180.0	1.000	229.2	80.8
225.0	1.000	281.6	85.2
270.0	1.000	293.1	86.2
315.0	1.000	307.0	87.2

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 quite 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

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Start of Interference Analysis

	Proposed Station			
Channel	Call	City/State	ARN	
06	WOUA	TUSCALOOSA AL	USERRECORD01	

Stations Potentially Affected by Proposed Station

Chan No.	Call	City/State	Dist(km)	Status	Application	Ref.
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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application Ref. No.
06	WOUA	TUSCALOOSA AL	USERRECORD-01

Stations Potentially Affecting This Station

Chan No.	Call	City/State	Dist(km)	Status	Application	Ref.
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Total scenarios = 1

Result key: 1  
Scenario 1 Affected station 1  
Before Analysis

Results for: 6A AL TUSCALOOSA USERRECORD01 APP  
HAAT 263.0 m, ATV ERP 1.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	670583	21953.9
not affected by terrain losses	639159	21602.1
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

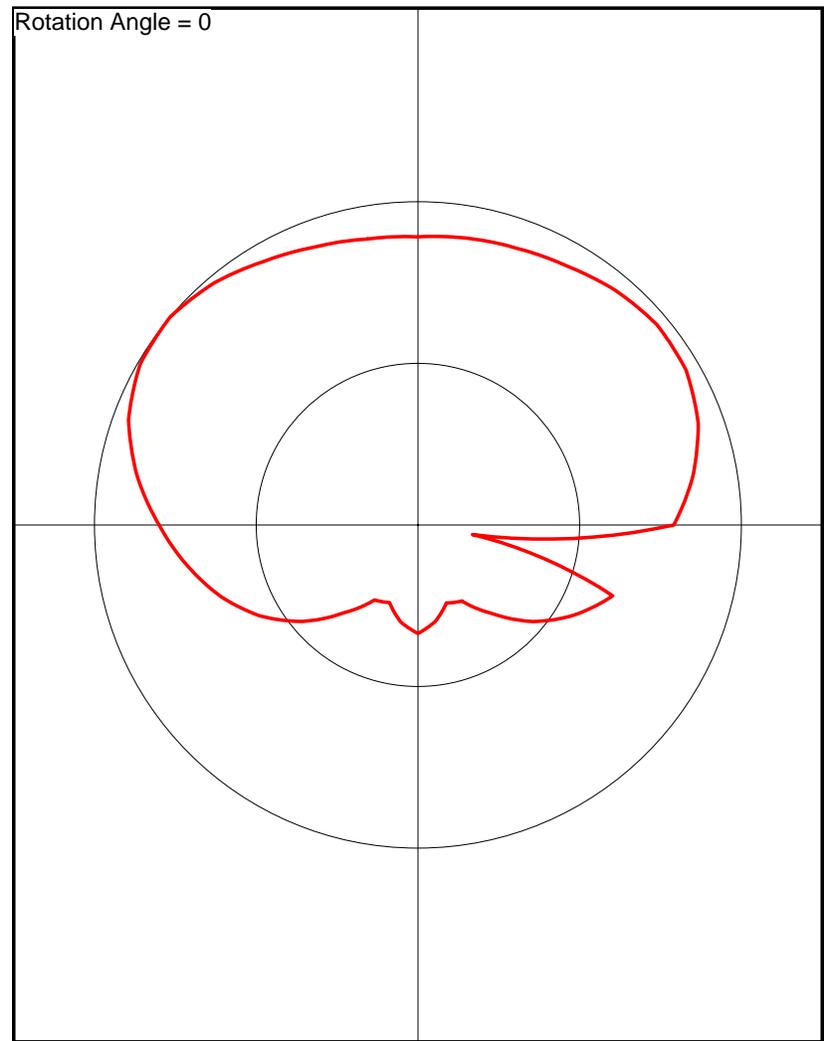
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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

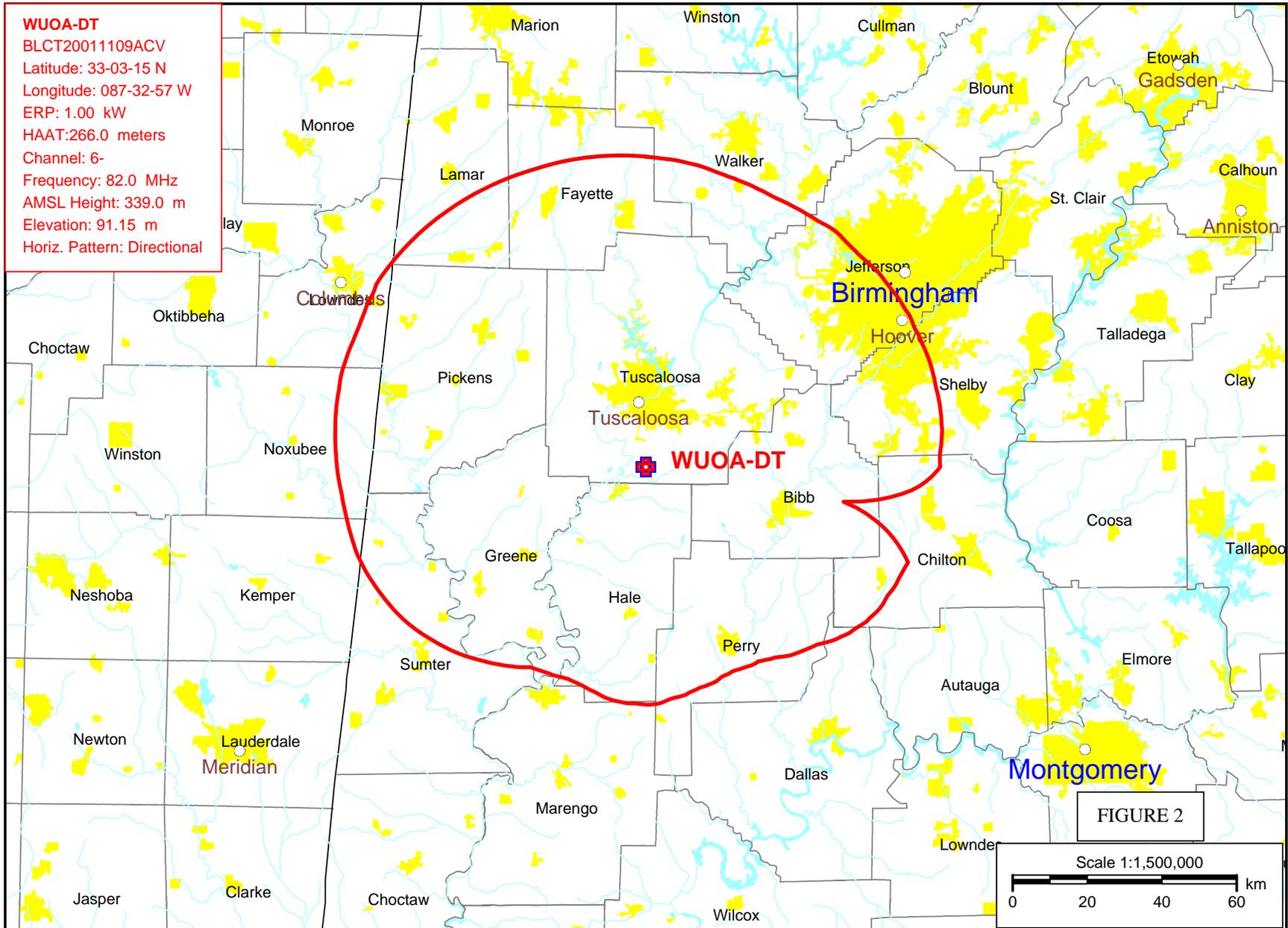
# WUOA-DT PROPOSED ANTENNA PATTERN

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Effective Field
0.0	0.891
10.0	0.900
20.0	0.909
30.0	0.924
40.0	0.948
50.0	0.964
60.0	0.957
70.0	0.922
80.0	0.863
90.0	0.791
100.0	0.171
110.0	0.641
120.0	0.558
130.0	0.465
140.0	0.358
150.0	0.272
160.0	0.257
170.0	0.304
180.0	0.336
190.0	0.305
200.0	0.256
210.0	0.268
220.0	0.354
230.0	0.464
240.0	0.563
250.0	0.648
260.0	0.724
270.0	0.800
280.0	0.882
290.0	0.952
300.0	0.992
310.0	1.000
320.0	0.978
330.0	0.943
340.0	0.916
350.0	0.898

Rotation Angle = 0





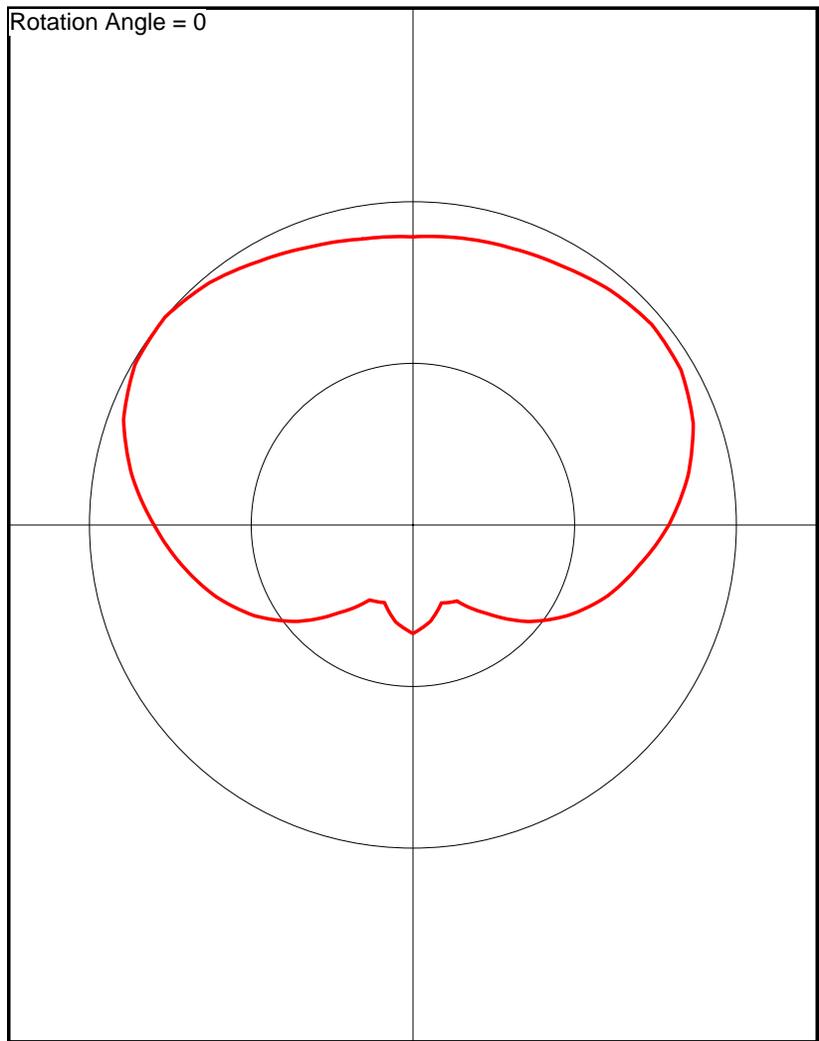
COMPUTED COVERAGE CONTOUR (28 dBu) BASED ON THE FCC ALLOTTED PARAMETERS FOR CH. 6 DTV OPERATION OF WUOA

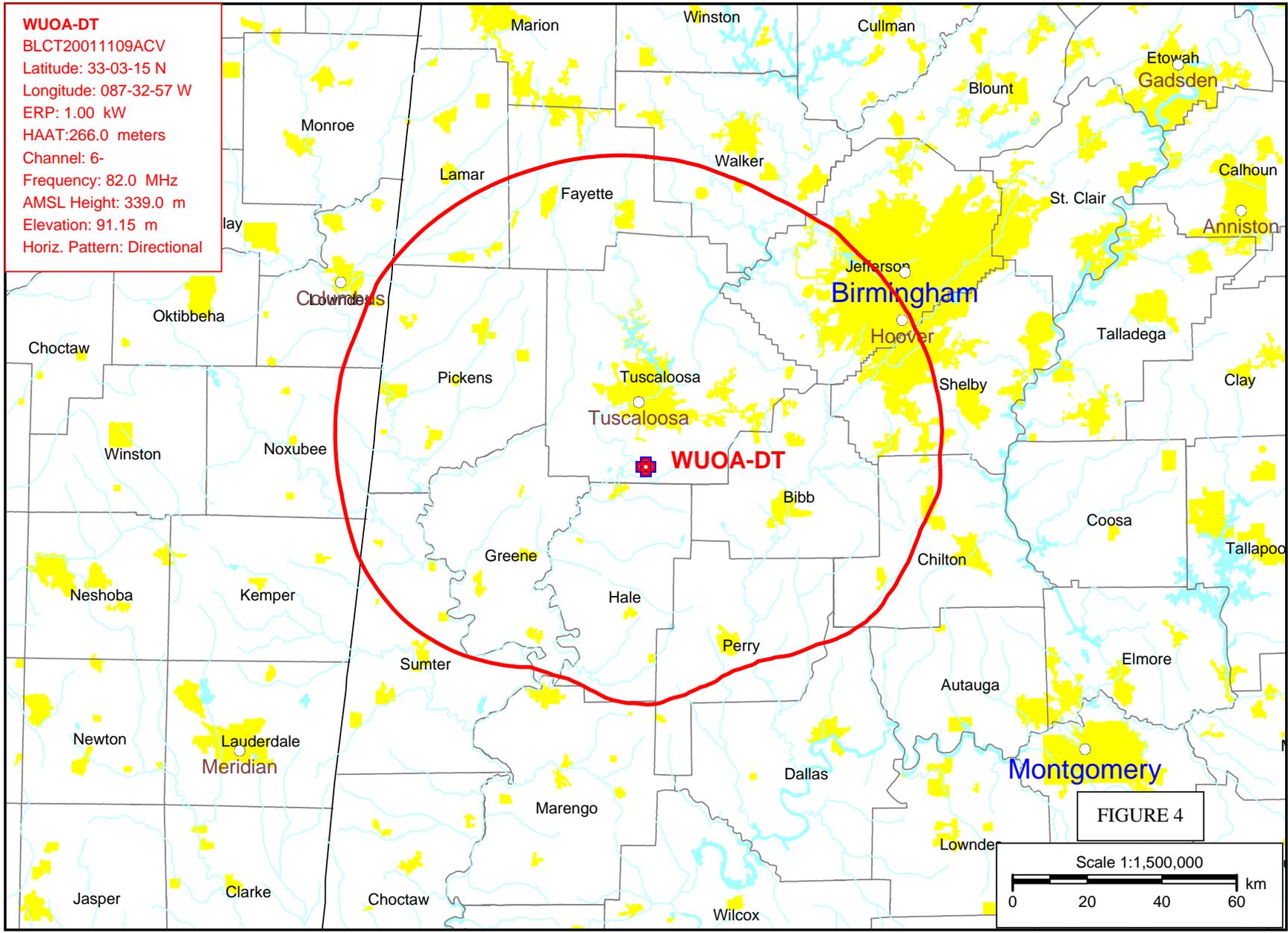
# WUOA-DT REVISED ANTENNA PATTERN

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Effective Field
0.0	0.891
10.0	0.900
20.0	0.909
30.0	0.924
40.0	0.948
50.0	0.964
60.0	0.957
70.0	0.922
80.0	0.863
90.0	0.791
100.0	0.711
110.0	0.641
120.0	0.558
130.0	0.465
140.0	0.358
150.0	0.272
160.0	0.257
170.0	0.304
180.0	0.336
190.0	0.305
200.0	0.256
210.0	0.268
220.0	0.354
230.0	0.464
240.0	0.563
250.0	0.648
260.0	0.724
270.0	0.800
280.0	0.882
290.0	0.952
300.0	0.992
310.0	1.000
320.0	0.978
330.0	0.943
340.0	0.916
350.0	0.898

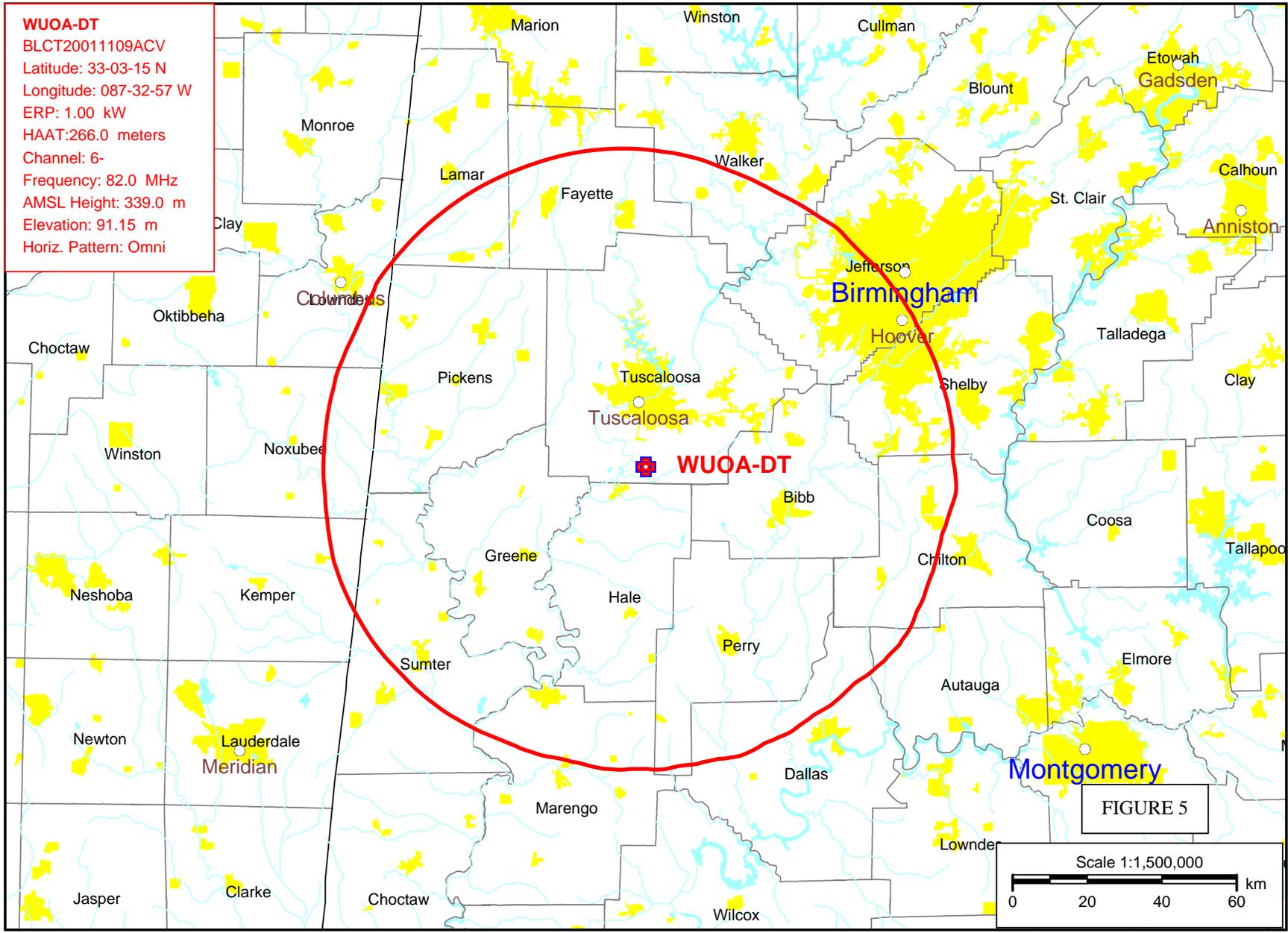
Rotation Angle = 0





COMPUTED COVERAGE CONTOUR (28 dBu) BASED ON THE REVISED PARAMETERS FOR CH. 6 DTV OPERATION OF WUOA

**WUOA-DT**  
BLCT20011109ACV  
Latitude: 33-03-15 N  
Longitude: 087-32-57 W  
ERP: 1.00 kW  
HAAT:266.0 meters  
Channel: 6-  
Frequency: 82.0 MHz  
AMSL Height: 339.0 m  
Elevation: 91.15 m  
Horiz. Pattern: Omni



COMPUTED COVERAGE CONTOUR (28 dBu) BASED ON NON-DIRECTIONAL 1 KW OPERATION FOR WUOA-DT ON CH. 6