

WCIQ-DT CHANNEL 56 MINOR MODIFICATION
OF CONSTRUCTION PERMIT APPLICATION TO
CHANGE THE FOLLOWING: 1) ANTENNA
SYSTEM; AND 2) EFFECTIVE RADIATED POWER
MOUNT CHEAHA, ALABAMA
(ALABAMA EDUCATIONAL TELEVISION COMMISSION)

KESSLER AND GEHMAN ASSOCIATES, INC.
TELECOMMUNICATIONS CONSULTING ENGINEERS

20060609

Prepared by William T. Godfrey, Jr.

KG&A

507 N.W. 60th Street, Suite C
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**ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR
WITH THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC., TELECOMMUNICATIONS
CONSULTING ENGINEERS IN CONNECTION WITH A MINOR MODIFICATION OF
CONSTRUCTION PERMIT APPLICATION TO MAKE CHANGES TO THE ALABAMA
EDUCATIONAL TELEVISION COMMISSION (AETC) DIGITAL BROADCAST FACILITY,
WCIQ-DT CHANNEL 56 (BMPEDT-20021122AAW), MOUNT CHEAHA, ALABAMA.**

The firm Kessler and Gehman Associates, Inc. has been retained by the Alabama Educational Television Commission (AETC), Birmingham, Alabama in order to prepare engineering studies and the engineering portion of a minor modification of construction permit application for the WCIQ-DT Channel 56 digital television broadcast facility for the purpose of requesting authorization to make changes to the following: 1) antenna system; and 2) effective radiated power (ERP).

Discussion

The WCIQ-DT Channel 56 facility currently operates under an STA (BDSTA-20031017AER) with an ERP of 60.9 kW and an antenna height radiation center of 148 meters above ground level (AGL) using a nondirectional antenna. AETC is authorized to operate the WCIQ-DT facility on digital Channel 56 with an ERP of 891 kW and an antenna height radiation center of 148 meters AGL using a Dielectric model TFU-18GTH 04 nondirectional antenna (BPEDT-20010221ABH).

AETC filed an application for construction permit in 2001 to operate the WCIQ-DT facility with an ERP of 891 kW using a Dielectric model TFU-GTH 04 high-power UHF pylon antenna. Due to a lack of financial resources, AETC must operate the WCIQ-DT facility at reduced power. Therefore, AETC proposes to modify the existing WCIQ-DT Channel 56 construction permit by replacing the authorized Dielectric model TFU-18GTH 04 nondirectional, high-power antenna with a new Dielectric model TLP-24A (C) nondirectional, low-power antenna. The change in antenna systems will result in an omni-for-omni swap; and it is proposed to decrease the ERP

from the authorized 891 kW to 61 kW. Since an ERP reduction and omni-for-omni antenna swap are the only changes requested in the application, the proposed F(50,90) 41.0 dBuV/m protected noise limited contour will not exceed the authorized F(50,90) 41.0 dBuV/m protected noise limited contour in any azimuthal direction (Exhibits 7-11).

Accordingly, this minor modification of construction permit application requests authorization to make the following changes: 1) change antennas from the authorized Dielectric model TFU-18GTH 04 nondirectional, high-power antenna to the proposed Dielectric model TLP-24A (C) nondirectional, low-power antenna; and 2) decrease the ERP from the authorized 891 kW to the proposed 61 kW.

Exhibit 7 is a contour map depicting the authorized F(50,90) 41.0 dBuV/m protected noise limited contour (blue) and the proposed F(50,90) 41.0 dBuV/m protected noise limited contour (red). Referring to Exhibit 7 it can be seen that the proposed F(50,90) 41.0 dBuV/m noise limited contour would be completely encompassed by the authorized F(50,90) 41.0 dBuV/m noise limited contour in all azimuthal directions. Since the authorized F(50,90) 41.0 dBuV/m noise limited contour fully encompasses the proposed F(50,90) 41.0 dBuV/m noise limited contour, it is not required to perform interference studies considering that the proposed facility's potential for causing interference is reduced in all directions and will only improve the overall picture with respect to incoming interference to other stations. For the same reason, a freeze waiver is not required since this proposal would not violate the filing freeze that is currently in effect.

Exhibit 8 is a distance to contour tabulation sheet depicting the distance in kilometers from the WCIQ-DT transmitter site to the edge of the authorized F(50,90) 41.0 dBuV/m contour in one-degree increments.

Exhibit 9 is a distance to contour tabulation sheet depicting the distance in kilometers from the WCIQ-DT transmitter site to the edge of the proposed F(50,90) 41.0 dBuV/m contour in one-degree increments.

Exhibit 10 depicts the data extracted from Exhibits 8 and 9 and compares the distances. The second column from the left in Exhibit 10 depicts the distances to the authorized F(50,90) 41.0 dBuV/m contour and the third column from the left depicts the distances to the proposed F(50,90) 41.0 dBuV/m contour. The second column from the right is a “PASS/FAIL” column where “PASS” is depicted if the distance to the authorized F(50,90) 41.0 dBuV/m contour for each particular radial is greater than or equal to the distance to the proposed F(50,90) 41.0 dBuV/m contour. The word “FAIL” is depicted if the distance to the proposed F(50,90) 41.0 dBuV/m contour exceeds the distance to the authorized F(50,90) 41.0 dBuV/m contour. Finally, the last column to the right displays the difference in kilometers between the two facilities. Exhibit 10 demonstrates that the proposed F(50,90) 41.0 dBuV/m contour would be completely encompassed by the authorized F(50,90) 41.0 dBuV/m contour in all azimuthal directions.

Exhibit 11 is a chart, created from the tabulation depicted in Exhibit 10, demonstrating pictorially that the distance from the transmitter site to the proposed F(50,90) 41.0 dBuV/m contour (red) is less than the distance from the transmitter site to the authorized F(50,90) 41.0 dBuV/m contour (blue) along all radials.

Exhibit 12 is a principal community contour map demonstrating that the proposed F(50,90) 48.0 dBuV/m Principal Community contour would completely encompass the entire community of Mount Cheaha, AL.

Interference Studies

The authorized F(50,90) 41.0 dBuV/m noise limited contour fully encompasses the proposed F(50,90) 41.0 dBuV/m noise limited contour; therefore, it is not required to perform interference

studies. The proposed facility's potential for causing interference is reduced in all directions and will only improve the overall picture with respect to incoming interference to other stations. A freeze waiver is not required since this proposal would not violate the filing freeze that is currently in effect.

Transmitter Site

The proposed WCIQ-DT antenna is a side-mount Dielectric model TLP-24A (C) nondirectional, low-power antenna. The tower is registered with the FCC and the registration number is 1036421. The support structure is located 3.8 miles southeast of Munford, AL. The proposed antenna height radiation center is 148.0 meters AGL.

Exhibits

Exhibits 1 and 2 represent WCIQ-DT's administration data, antenna and antenna structure specifications.

Exhibit 3 depicts the profile view of the proposed antenna on the antenna structure with all the appropriate elevations.

Exhibits 4 and 5 display the antenna elevation pattern and antenna elevation pattern tabulation respectively.

Exhibit 6 depicts the location of the WCIQ-DT site on a 7.5-Minute (Series) Topographic map.

Exhibit 7 depicts the WCIQ-DT Channel 56 authorized and proposed F(50,90) 41.0 dBuV/m protected noise limited contours and demonstrates that the authorized F(50,90) 41.0 dBuV/m protected noise limited contour would encompass the proposed F(50,90) 41.0 dBuV/m protected noise limited contour in all azimuthal directions.

Exhibit 8 is a distance to contour tabulation sheet depicting the distance in kilometers from the WCIQ-DT transmitter site to the edge of the authorized F(50,90) 41.0 dBuV/m protected noise limited contour in one-degree increments.

Exhibit 9 is a distance to contour tabulation sheet depicting the distance in kilometers from the WCIQ-DT transmitter site to the edge of the proposed F(50,90) 41.0 dBuV/m protected noise limited contour in one-degree increments.

Exhibit 10 depicts the data extracted from Exhibits 8 and 9, compares the distances and demonstrates that the proposed F(50,90) 41.0 dBuV/m protected noise limited contour would be completely encompassed by the authorized F(50,90) 41.0 dBuV/m protected noise limited contour in all azimuthal directions.

Exhibit 11 is a chart, created from the tabulation depicted in Exhibit 10, demonstrating pictorially that the distance from the transmitter site to the proposed F(50,90) 41.0 dBuV/m contour (red) is less than the distance from the transmitter site to the authorized F(50,90) 41.0 dBuV/m contour (blue) along all radials.

Exhibit 12 depicts the proposed WCIQ-DT F(50,90) 48.0 dBuV/m Principal Community contour, boundaries of the principal community to be served, and the transmitting location with radials every 45°.

Environmental Impact

The proposed construction would have no significant environmental impact as defined in §1.1307 of the FCC Rules. The DTV transmitter, 1-5/8 inch (50-ohm) transmission line and antenna system would produce an ERP of 61 kW. It was determined that the maximum lobe of radiation from the base of the tower out to approximately 1.3 miles occurs at approximately

1,028.5 feet from the base of the tower (1,134.8-foot radial distance from the antenna center). At approximately 1,028.5 feet from the base of the tower, the depression angle of the main lobe is 25.0° below the horizontal. At that point, the relative field is 0.193 and the power density six feet above the ground is 0.0006 mW/cm². This is only 0.03% of the Maximum Permissible Exposure (“MPE”) limits for Occupational/Controlled Exposure and only 0.13% of the MPE limits for General Population/Uncontrolled Exposure authorized by the American National Standards Institute (“ANSI”). Since the proposed operation of WCIQ-DT Channel 56 would not exceed 5.0% of the MPE limit for Occupational/Controlled Exposure or General Population/Uncontrolled Exposure at any point on the ground, WCIQ-DT would not be considered a “significant contributor” to the RF exposure environment pursuant to OET Bulletin 65, Edition 97-01. Therefore, contributions of exposure from other sources were not accounted for in this analysis. It is safe to conclude that the emissions would be insignificant and well within the maximum allowable requirements.


If other antennas are placed on the tower in the future, the applicant will cooperate with those users by reducing or completely terminating the power to the antenna when maintenance workers are in danger from the electromagnetic radiation emanating from the antenna.

It is understood that additional “future” antennas mounted on the support structure could increase the overall RF exposure levels and it is the responsibility of each licensee to ensure that the total RF exposure resulting from the operation of all antennas on the support structure do not exceed the maximum permissible exposure level at any point on the ground.

Certification

This technical statement was prepared by William T. Godfrey, Jr., Telecommunications Technical Consultant with Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and has been working in the field of radio and television broadcast consulting since 1998. He graduated from the University of North Florida with a Bachelor of Arts degree in Criminal

Justice and a minor in Mathematics in 1993. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.



WILLIAM T. GODFREY, JR.
Telecommunications Technical Consultant

09 June, 2006

WCIQ-DT
MOUNT CHEAHA, AL

ENGINEERING SPECIFICATIONS

A. Transmitter Site:

Geographic coordinates: **NAD27**

North Latitude	33° 29' 06"
West Longitude	85° 48' 32"

Transmitter Site Location: **Cheaha Mountain, 8.3 miles southeast of Munford, AL**

B. Main Studio Site Address: **2112 11th Avenue South, Suite 400,
Birmingham, AL 35205**

C. Existing Facility:

DTV Channel	Number	56
	Frequency	722-728 MHz
	Offset	N/A

D. Antenna Height:

Height of Site Above Mean Sea Level (AMSL)	715.9 M
Overall Height of Structure Above Ground	176.1 M
(including all appurtenances)	
Overall Height of Structure Above Mean Sea Level	892.0 M
(including all appurtenances)	
Height of Site Above Average Terrain	413.6 M
Antenna Height Radiation Center (R/C) Above Ground	148.0 M
Antenna Height R/C Above Mean Sea Level	863.9 M
Average of All Non-Odd Radials	302.3 M
Antenna Height R/C Above Average Terrain	561.6 M

E. System Parameters – Horizontal Polarization:

Transmitter Power Required:	5.5 kW
Maximum Power Input to Antenna:	2.7 kW
Transmission Line Loss:	3.17 dB
Combiner & Splitter Loss:	N/A
Total System Loss:	3.17 dB
Transmission Line Efficiency:	48.2%
Combiner & Splitter Efficiency:	N/A
Total System Efficiency:	48.2%
Maximum Antenna Gain in Beam Maximum	13.62 dB
Maximum Antenna Gain in Horizontal Plane	12.79 dB
Maximum Effective Radiated Power	17.85 dBk
In Beam Maximum	61.0 kW
Maximum Effective Radiated Power	17.02 dBk
In Horizontal Plane	50.4 kW

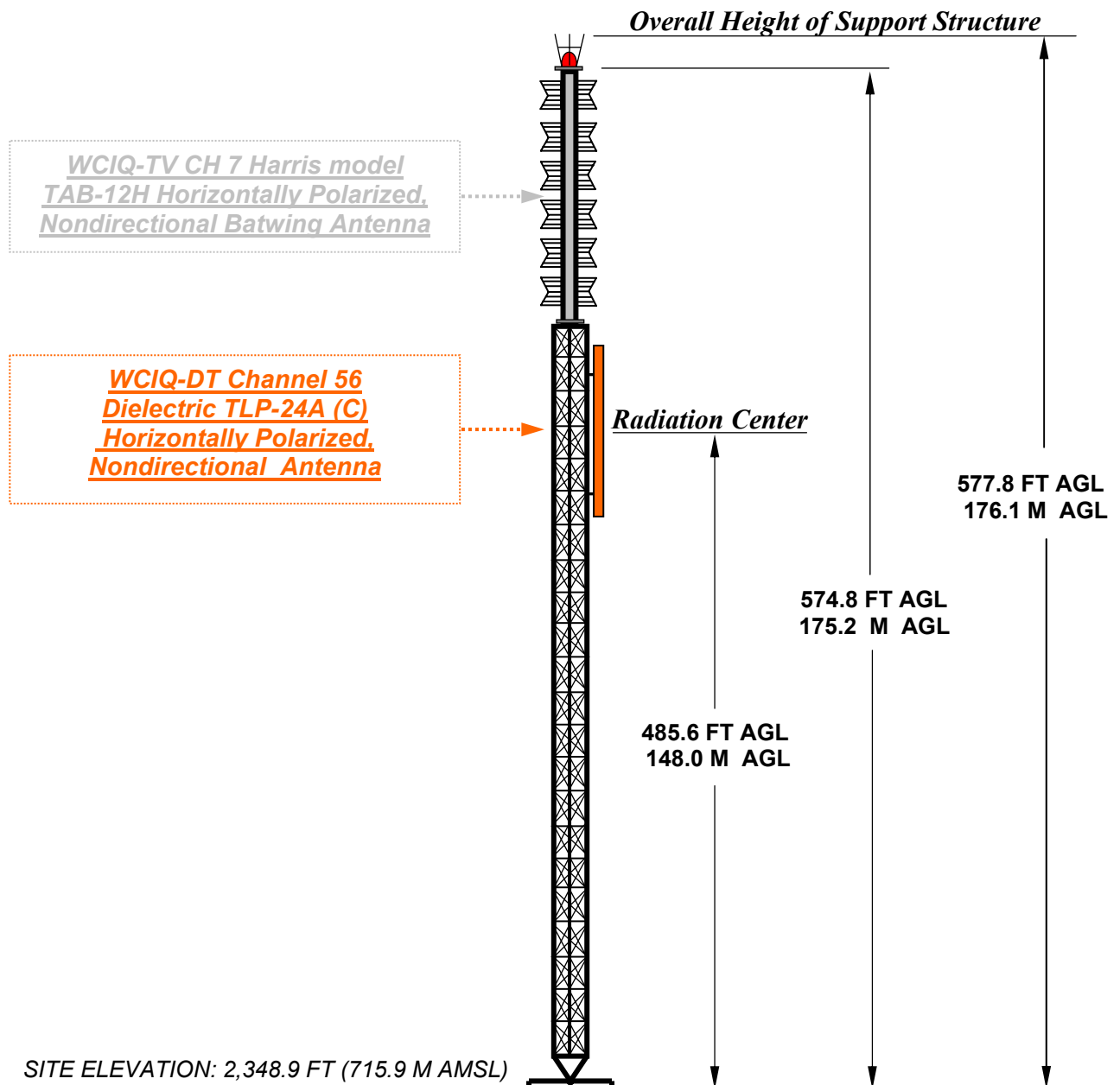
WCIQ-DT
MOUNT CHEAHA, ALABAMA

DATA FOR PROPOSED NONDIRECTIONAL
TRANSMITTING ANTENNA

- A. **Antenna:** Dielectric Model TLP-24A (C), Horizontally Polarized, Nondirectional Antenna.
- B. **Electrical Beam Tilt:** 0.50°
- C. **Mechanical Beam Tilt:** None
- D.

<u>Maximum Power Gain</u>	<u>Horizontal Polarization</u>
Maximum:	23.0 (13.62 dB)
Horizontal:	19.0 (12.79 dB)
- E. **Length:** 38.3 feet (11.7 meters) not including lightning protector.
- F. **Transmitter Power Output:** 5.5 kW
- G. **Null Fill:** 15.2%
- H. **Transmission Line:** 1-5/8" 50-ohm Heliax
- I. **Transmission Line Loss:** 0.577 dB/100-feet
- J. **Total Transmission Line:** 550 feet (167.6 meters)
- K. **Transmission Line Attenuation:** 3.17 dB
- L. **Combiner & Splitter Loss:** N/A
- M. **Total Antenna System Loss:** 3.17 dB

ANTENNA STRUCTURE ELEVATION VIEW



OVERALL HEIGHT AGL: _____ 176.1 M
OVERALL HEIGHT AMSL: _____ 892.0 M
RADIATION CENTER AGL: _____ 148.0 M
RADIATION CENTER AMSL: _____ 863.9 M
RADIATION CENTER HAAT: _____ 561.6 M
AVG OF ALL NON-ODD RADIALS: _____ 302.3 M
SITE HAAT: _____ 413.6 M

COORDINATES (NAD27):
N. LATITUDE 33° 29' 06"
W. LONGITUDE 85° 48' 32"
TOWER REGISTRATION NUMBER:
1036421
FAA STUDY NUMBER:
98-ASO-0010-OE

NOTE: NOT TO SCALE

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WCIQ-DT CHANNEL 56
MOUNT CHEAHA, ALABAMA

20060608

EXHIBIT 3

Dielectric

Date
Call Letters
Location
Customer
Antenna Type

19 Nov 2001

WBIQ-DT

Channel

53

Birmingham, AL

APT

TLP-24A (C)

ELEVATION PATTERN

RMS Gain at Main Lobe
RMS Gain at Horizontal
Calculated / Measured

23.0 (13.62 dB)

19.0 (12.79 dB)

Calculated

Beam Tilt

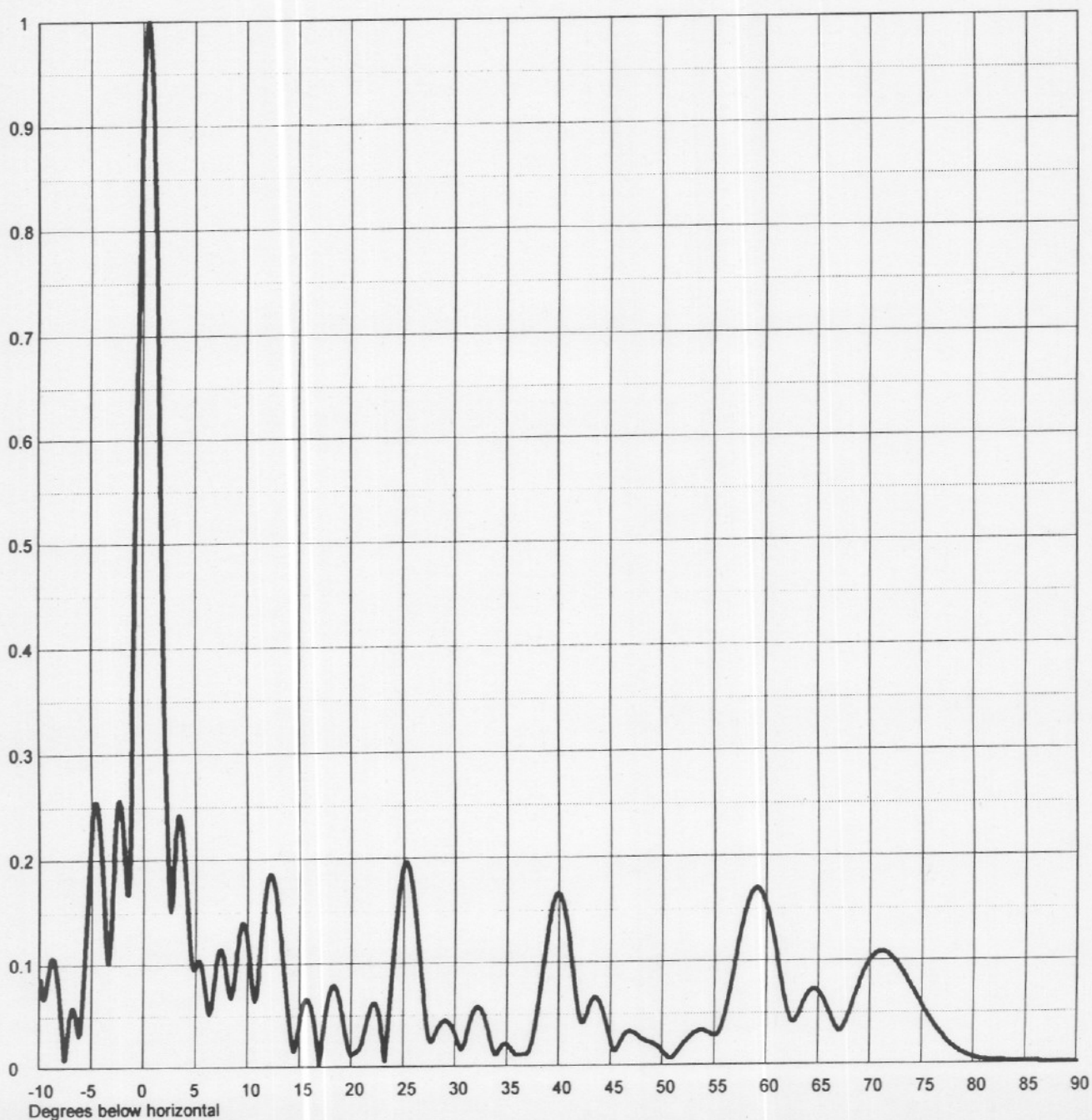
0.50 Degrees

Frequency

707.00 MHz

Drawing #

24L230050-90



Remarks:

Exhibit 4

Dielectric

Date
Call Letters
Location
Customer
Antenna Type

19 Nov 2001

WBIQ-DT

Channel 53

Birmingham, AL

APT

TLP-24A (C)

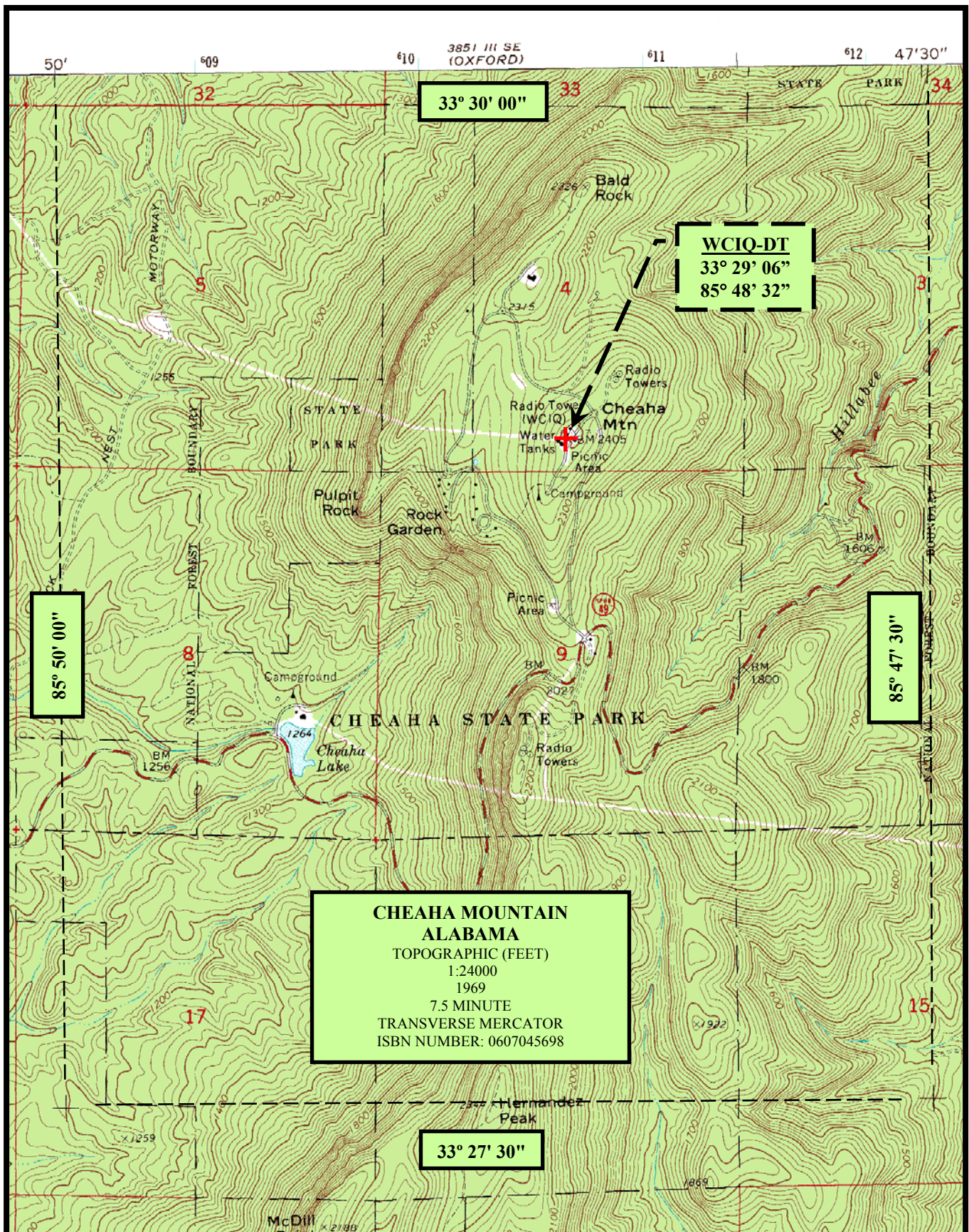
TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # 24L230050-90

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.098	2.4	0.178	10.6	0.066	30.5	0.017	51.0	0.007	71.5	0.107
-9.5	0.069	2.6	0.152	10.8	0.067	31.0	0.025	51.5	0.013	72.0	0.103
-9.0	0.100	2.8	0.173	11.0	0.084	31.5	0.044	52.0	0.020	72.5	0.098
-8.5	0.101	3.0	0.206	11.5	0.145	32.0	0.056	52.5	0.025	73.0	0.091
-8.0	0.057	3.2	0.232	12.0	0.182	32.5	0.055	53.0	0.030	73.5	0.083
-7.5	0.008	3.4	0.242	12.5	0.178	33.0	0.041	53.5	0.033	74.0	0.074
-7.0	0.053	3.6	0.236	13.0	0.142	33.5	0.022	54.0	0.033	74.5	0.065
-6.5	0.049	3.8	0.217	13.5	0.093	34.0	0.011	54.5	0.031	75.0	0.056
-6.0	0.043	4.0	0.189	14.0	0.044	34.5	0.019	55.0	0.028	75.5	0.048
-5.5	0.138	4.2	0.156	14.5	0.015	35.0	0.021	55.5	0.032	76.0	0.040
-5.0	0.227	4.4	0.125	15.0	0.043	35.5	0.015	56.0	0.048	76.5	0.033
-4.5	0.254	4.6	0.103	15.5	0.063	36.0	0.010	56.5	0.072	77.0	0.027
-4.0	0.196	4.8	0.095	16.0	0.061	36.5	0.011	57.0	0.099	77.5	0.021
-3.5	0.105	5.0	0.097	16.5	0.035	37.0	0.012	57.5	0.126	78.0	0.017
-3.0	0.165	5.2	0.102	17.0	0.007	37.5	0.026	58.0	0.148	78.5	0.013
-2.8	0.207	5.4	0.103	17.5	0.049	38.0	0.058	58.5	0.163	79.0	0.010
-2.6	0.239	5.6	0.097	18.0	0.075	38.5	0.097	59.0	0.169	79.5	0.007
-2.4	0.255	5.8	0.085	18.5	0.076	39.0	0.133	59.5	0.165	80.0	0.005
-2.2	0.252	6.0	0.069	19.0	0.056	39.5	0.158	60.0	0.153	80.5	0.004
-2.0	0.230	6.2	0.055	19.5	0.028	40.0	0.165	60.5	0.132	81.0	0.003
-1.8	0.196	6.4	0.053	20.0	0.011	40.5	0.151	61.0	0.107	81.5	0.002
-1.6	0.167	6.6	0.065	20.5	0.014	41.0	0.120	61.5	0.079	82.0	0.002
-1.4	0.181	6.8	0.083	21.0	0.022	41.5	0.081	62.0	0.054	82.5	0.002
-1.2	0.252	7.0	0.099	21.5	0.043	42.0	0.047	62.5	0.041	83.0	0.002
-1.0	0.359	7.2	0.111	22.0	0.060	42.5	0.044	63.0	0.046	83.5	0.001
-0.8	0.481	7.4	0.114	22.5	0.056	43.0	0.059	63.5	0.058	84.0	0.001
-0.6	0.605	7.6	0.111	23.0	0.023	43.5	0.066	64.0	0.068	84.5	0.001
-0.4	0.723	7.8	0.101	23.5	0.034	44.0	0.060	64.5	0.072	85.0	0.001
-0.2	0.826	8.0	0.086	24.0	0.101	44.5	0.043	65.0	0.070	85.5	0.001
0.0	0.909	8.2	0.073	24.5	0.160	45.0	0.023	65.5	0.063	86.0	0.001
0.2	0.967	8.4	0.067	25.0	0.193	45.5	0.014	66.0	0.052	86.5	0.000
0.4	0.997	8.6	0.075	25.5	0.192	46.0	0.023	66.5	0.040	87.0	0.000
0.6	0.996	8.8	0.092	26.0	0.162	46.5	0.031	67.0	0.032	87.5	0.000
0.8	0.965	9.0	0.111	26.5	0.112	47.0	0.032	67.5	0.037	88.0	0.000
1.0	0.906	9.2	0.127	27.0	0.061	47.5	0.030	68.0	0.049	88.5	0.000
1.2	0.823	9.4	0.137	27.5	0.026	48.0	0.025	68.5	0.065	89.0	0.000
1.4	0.721	9.6	0.139	28.0	0.029	48.5	0.023	69.0	0.079	89.5	0.000
1.6	0.605	9.8	0.133	28.5	0.039	49.0	0.021	69.5	0.091	90.0	0.000
1.8	0.483	10.0	0.120	29.0	0.044	49.5	0.018	70.0	0.100		
2.0	0.363	10.2	0.102	29.5	0.041	50.0	0.013	70.5	0.105		
2.2	0.256	10.4	0.081	30.0	0.031	50.5	0.007	71.0	0.107		

Remarks:

Exhibit 5



KESSLER AND GEHMAN

TELECOMMUNICATIONS CONSULTING ENGINEERS

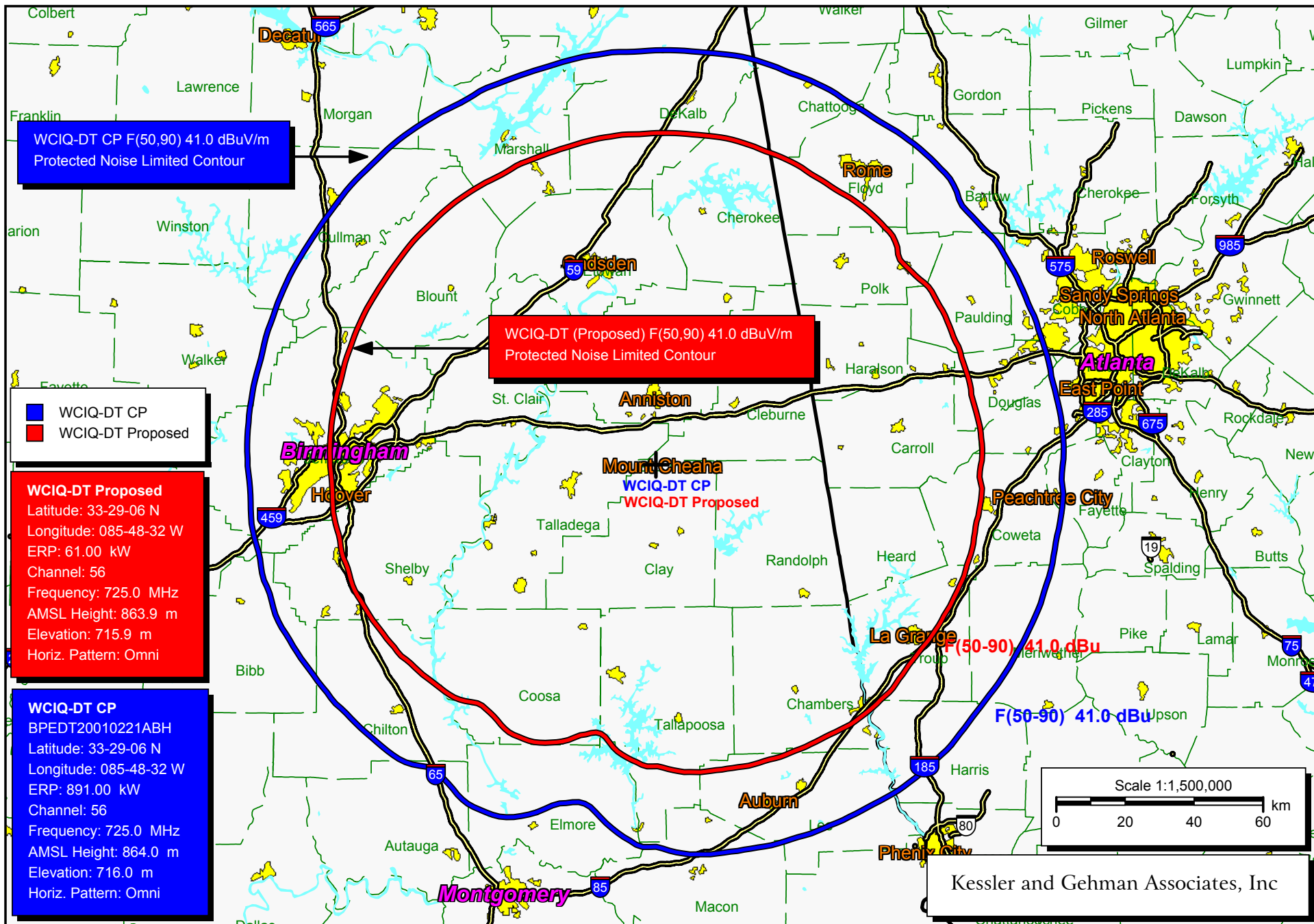
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WCIQ-DT CHANNEL 56

MOUNT CHEAHA, ALABAMA

20060609

EXHIBIT 6



WCIQ-DT CP F(50,90) 41.0 dBuV/m (blue) vs. WCIQ-DT Proposed F(50,90) 41.0 dBuV/m (red)

WCIQ-DT Channel 56 (CP) Distance to Contour Tabulation

Call Letters: WCIQ-DT CP
 File Number: BPEDT20010221ABH
 Latitude: 33-29-06 N
 Longitude: 085-48-32 W
 ERP: 891.00 kW
 Channel: 56
 Frequency: 725.0 MHz
 AMSL Height: 864.0 m
 Elevation: 716.0 m
 Horiz. Antenna Pattern: Omni
 Type of contour: FCC
 Location Variability: 50.0 %
 Time Variability: 90.0 %
 # of Radials Calculated: 360
 Field Strength: 41.00 dBuV/m
 Primary Terrain: 3 Second US Terrain

Bearing (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	120.6	617.5
1.0	120.6	617.8
2.0	120.6	617.7
3.0	120.6	617.4
4.0	120.5	616.4
5.0	120.5	616.4
6.0	120.5	616.8
7.0	120.6	617.9
8.0	120.7	619.4
9.0	120.8	620.9
10.0	120.8	622.5
11.0	120.9	623.3
12.0	120.8	621.9
13.0	120.7	619.9
14.0	120.5	616.8
15.0	120.4	613.7
16.0	120.2	611.2
17.0	120.0	606.4
18.0	119.8	602.6
19.0	119.8	602.5
20.0	119.7	601.9
21.0	119.7	601.0
22.0	119.5	598.5
23.0	119.4	596.3
24.0	119.3	593.9
25.0	119.1	590.1
26.0	118.7	583.6
27.0	118.4	579.1
28.0	118.4	578.0
29.0	118.3	577.2
30.0	118.2	575.8
31.0	118.1	573.0
32.0	118.0	572.5
33.0	118.1	573.4
34.0	118.2	575.5
35.0	118.4	578.0
36.0	118.4	578.3

WCIQ-DT Channel 56 (CP) Distance to Contour Tabulation

37.0	118.4	578.3
38.0	118.4	579.2
39.0	118.4	578.6
40.0	118.3	577.3
41.0	118.3	576.3
42.0	118.1	574.3
43.0	118.0	571.6
44.0	118.0	571.3
45.0	117.8	567.9
46.0	117.2	558.6
47.0	116.6	548.3
48.0	115.5	532.0
49.0	115.0	524.0
50.0	115.1	524.5
51.0	115.2	527.0
52.0	115.4	529.5
53.0	115.6	532.3
54.0	115.8	536.4
55.0	116.2	542.6
56.0	116.5	547.3
57.0	116.5	547.8
58.0	116.4	546.1
59.0	116.4	544.9
60.0	116.3	544.5
61.0	116.4	545.4
62.0	116.4	545.0
63.0	116.2	542.5
64.0	116.1	541.5
65.0	116.0	539.8
66.0	115.9	537.9
67.0	115.9	538.3
68.0	116.1	540.8
69.0	116.0	540.0
70.0	115.9	537.1
71.0	115.8	536.8
72.0	115.9	537.2
73.0	115.9	537.1
74.0	115.9	538.1
75.0	115.9	537.2
76.0	115.8	536.1
77.0	115.6	532.7
78.0	115.6	533.7
79.0	115.8	535.6
80.0	115.9	537.2
81.0	116.0	539.5
82.0	116.1	541.4
83.0	116.3	543.4
84.0	116.3	544.0
85.0	116.3	543.9
86.0	116.4	544.9
87.0	116.3	544.8
88.0	116.3	543.5
89.0	116.2	541.7
90.0	115.9	537.2
91.0	115.7	534.4
92.0	115.6	533.7

WCIQ-DT Channel 56 (CP) Distance to Contour Tabulation

93.0	116.0	539.1
94.0	116.4	545.6
95.0	116.4	545.4
96.0	116.4	545.5
97.0	116.3	544.3
98.0	116.3	543.5
99.0	116.2	542.9
100.0	116.1	540.1
101.0	116.0	539.9
102.0	116.2	541.9
103.0	116.2	542.8
104.0	116.4	545.8
105.0	116.4	546.4
106.0	116.5	546.8
107.0	116.4	545.4
108.0	116.4	545.1
109.0	116.4	546.1
110.0	116.5	548.0
111.0	116.5	547.1
112.0	116.4	545.7
113.0	116.4	545.1
114.0	116.3	543.7
115.0	116.3	543.5
116.0	116.2	543.3
117.0	116.1	541.3
118.0	116.0	539.5
119.0	116.0	540.0
120.0	116.1	540.1
121.0	116.0	538.7
122.0	115.9	537.7
123.0	115.9	537.3
124.0	115.7	535.3
125.0	115.6	533.1
126.0	115.6	532.4
127.0	115.6	532.3
128.0	115.5	531.8
129.0	115.6	532.3
130.0	115.7	534.3
131.0	115.8	536.6
132.0	115.9	537.9
133.0	116.1	541.3
134.0	116.3	544.7
135.0	116.4	545.5
136.0	116.3	544.4
137.0	116.3	543.7
138.0	116.3	544.9
139.0	116.4	545.3
140.0	116.3	544.8
141.0	116.3	544.4
142.0	116.3	543.7
143.0	116.3	543.6
144.0	116.2	542.9
145.0	116.0	540.1
146.0	115.9	537.1
147.0	115.7	534.8
148.0	115.5	531.5

WCIQ-DT Channel 56 (CP) Distance to Contour Tabulation

149.0	115.4	529.7
150.0	115.3	528.8
151.0	115.3	527.8
152.0	115.2	526.4
153.0	115.2	526.4
154.0	115.1	525.0
155.0	114.9	522.6
156.0	114.9	522.2
157.0	114.9	522.0
158.0	114.9	521.5
159.0	114.7	518.8
160.0	114.5	515.9
161.0	114.4	514.7
162.0	114.4	515.0
163.0	114.4	514.5
164.0	114.4	513.9
165.0	114.2	511.0
166.0	114.0	508.1
167.0	113.8	506.1
168.0	113.7	504.1
169.0	113.7	503.7
170.0	113.5	501.4
171.0	113.5	500.7
172.0	113.4	500.2
173.0	113.4	500.1
174.0	113.2	496.7
175.0	113.0	494.3
176.0	112.9	492.8
177.0	112.5	487.2
178.0	112.1	481.9
179.0	111.5	475.2
180.0	110.9	467.7
181.0	110.4	461.7
182.0	110.5	463.2
183.0	110.6	464.0
184.0	110.1	458.0
185.0	109.0	445.4
186.0	108.2	435.5
187.0	107.1	423.7
188.0	106.0	411.0
189.0	104.8	398.0
190.0	103.5	382.5
191.0	102.2	365.8
192.0	101.0	352.1
193.0	100.5	345.7
194.0	100.4	344.9
195.0	100.9	350.4
196.0	101.6	359.3
197.0	102.3	367.0
198.0	103.5	381.8
199.0	105.2	401.5
200.0	106.8	420.3
201.0	108.2	436.0
202.0	109.4	450.3
203.0	110.6	463.8
204.0	111.4	474.2

WCIQ-DT Channel 56 (CP) Distance to Contour Tabulation

205.0	112.1	482.7
206.0	112.5	487.5
207.0	112.7	490.2
208.0	112.9	492.3
209.0	113.0	494.9
210.0	113.1	495.0
211.0	112.8	491.4
212.0	112.3	485.2
213.0	111.6	476.4
214.0	111.1	469.9
215.0	110.7	465.2
216.0	110.5	462.5
217.0	110.3	460.2
218.0	110.7	465.2
219.0	111.8	479.1
220.0	112.9	493.1
221.0	113.7	504.5
222.0	114.3	512.5
223.0	114.6	517.4
224.0	114.8	521.1
225.0	115.0	523.7
226.0	115.2	526.5
227.0	115.4	529.7
228.0	115.6	533.2
229.0	115.9	537.7
230.0	116.1	540.3
231.0	116.2	543.2
232.0	116.4	546.0
233.0	116.7	551.1
234.0	117.2	558.7
235.0	117.4	561.3
236.0	117.4	561.4
237.0	117.6	565.2
238.0	117.8	569.3
239.0	118.0	571.2
240.0	118.2	574.7
241.0	118.4	579.3
242.0	118.7	584.6
243.0	118.9	587.9
244.0	119.2	591.6
245.0	119.3	594.4
246.0	119.6	598.8
247.0	119.9	605.6
248.0	120.2	609.6
249.0	120.2	611.2
250.0	120.1	608.8
251.0	119.9	605.0
252.0	119.8	602.5
253.0	119.9	605.2
254.0	120.3	611.5
255.0	120.2	610.6
256.0	120.0	607.1
257.0	119.8	602.6
258.0	119.7	602.2
259.0	120.0	606.0
260.0	120.1	609.5

WCIQ-DT Channel 56 (CP) Distance to Contour Tabulation

261.0	120.2	611.3
262.0	120.3	613.2
263.0	120.2	610.5
264.0	120.0	607.6
265.0	119.9	604.8
266.0	119.8	603.1
267.0	119.8	603.0
268.0	119.9	604.4
269.0	120.1	608.1
270.0	120.3	612.5
271.0	120.3	613.2
272.0	120.5	616.1
273.0	120.6	617.8
274.0	120.7	619.4
275.0	120.7	619.8
276.0	120.7	619.7
277.0	120.8	621.5
278.0	120.8	621.9
279.0	120.8	621.0
280.0	120.8	621.4
281.0	120.8	621.9
282.0	120.8	621.2
283.0	120.7	619.5
284.0	120.6	617.6
285.0	120.6	617.1
286.0	120.6	618.5
287.0	120.8	621.4
288.0	120.9	624.4
289.0	121.0	625.1
290.0	120.9	624.3
291.0	121.0	624.5
292.0	121.1	626.5
293.0	121.2	628.7
294.0	121.2	629.4
295.0	121.3	630.1
296.0	121.3	631.0
297.0	121.4	632.0
298.0	121.3	631.7
299.0	121.3	630.8
300.0	121.2	629.8
301.0	121.2	629.1
302.0	121.2	628.7
303.0	121.2	628.3
304.0	121.2	628.4
305.0	121.2	629.2
306.0	121.2	629.7
307.0	121.3	630.3
308.0	121.3	630.9
309.0	121.4	632.2
310.0	121.5	634.3
311.0	121.6	636.4
312.0	121.6	637.3
313.0	121.6	637.2
314.0	121.6	636.0
315.0	121.5	634.6
316.0	121.5	634.3

WCIQ-DT Channel 56 (CP) Distance to Contour Tabulation

317.0	121.5	634.8
318.0	121.6	635.9
319.0	121.6	637.3
320.0	121.7	637.7
321.0	121.6	637.5
322.0	121.6	636.7
323.0	121.5	635.3
324.0	121.4	633.6
325.0	121.4	632.0
326.0	121.2	629.9
327.0	121.1	627.7
328.0	121.1	626.3
329.0	120.8	621.0
330.0	120.6	618.5
331.0	120.5	616.2
332.0	120.6	617.1
333.0	120.7	619.6
334.0	120.9	624.1
335.0	120.9	624.3
336.0	120.8	621.1
337.0	120.7	619.4
338.0	120.6	618.3
339.0	120.6	617.6
340.0	120.6	617.4
341.0	120.5	616.4
342.0	120.5	616.6
343.0	120.5	615.9
344.0	120.5	616.4
345.0	120.6	617.6
346.0	120.7	619.8
347.0	120.7	620.7
348.0	120.8	621.8
349.0	120.9	623.2
350.0	120.8	622.3
351.0	120.8	620.9
352.0	120.8	621.8
353.0	120.9	622.6
354.0	120.7	620.2
355.0	120.5	616.7
356.0	120.4	614.5
357.0	120.4	614.6
358.0	120.5	616.0
359.0	120.6	617.2

Average HAAT for radials shown: 559.7 m

WCIQ-DT Channel 56 (Proposed) Distance to Contour Tabulation

Call Letters: WCIQ-DT Proposed
 Latitude: 33-29-06 N
 Longitude: 085-48-32 W
 ERP: 61.00 kW
 Channel: 56
 Frequency: 725.0 MHz
 AMSL Height: 863.9 m
 Elevation: 715.9 m
 Horiz. Antenna Pattern: Omni
 Type of contour: FCC
 Location Variability: 50.0 %
 Time Variability: 90.0 %
 # of Radials Calculated: 360
 Field Strength: 41.00 dBuV/m
 Primary Terrain: 3 Second US Terrain

Bearing (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	96.6	617.4
1.0	96.6	617.7
2.0	96.6	617.6
3.0	96.6	617.3
4.0	96.5	616.3
5.0	96.5	616.3
6.0	96.6	616.7
7.0	96.6	617.8
8.0	96.7	619.3
9.0	96.7	620.8
10.0	96.8	622.4
11.0	96.8	623.2
12.0	96.8	621.8
13.0	96.7	619.8
14.0	96.6	616.7
15.0	96.4	613.6
16.0	96.3	611.1
17.0	96.1	606.3
18.0	96.0	602.5
19.0	96.0	602.4
20.0	96.0	601.8
21.0	95.9	600.9
22.0	95.8	598.4
23.0	95.7	596.2
24.0	95.6	593.8
25.0	95.4	590.0
26.0	95.1	583.5
27.0	94.9	579.0
28.0	94.8	577.9
29.0	94.8	577.1
30.0	94.7	575.7
31.0	94.6	572.9
32.0	94.5	572.4
33.0	94.6	573.3
34.0	94.7	575.4
35.0	94.8	577.9
36.0	94.9	578.2
37.0	94.9	578.2
38.0	94.9	579.1

WCIQ-DT Channel 56 (Proposed) Distance to Contour Tabulation

39.0	94.9	578.5
40.0	94.8	577.2
41.0	94.8	576.2
42.0	94.6	574.2
43.0	94.5	571.5
44.0	94.5	571.2
45.0	94.3	567.8
46.0	93.7	558.5
47.0	93.0	548.2
48.0	91.7	531.9
49.0	91.1	523.9
50.0	91.2	524.4
51.0	91.3	526.9
52.0	91.5	529.4
53.0	91.8	532.2
54.0	92.1	536.3
55.0	92.6	542.5
56.0	92.9	547.2
57.0	92.9	547.7
58.0	92.8	546.0
59.0	92.7	544.8
60.0	92.7	544.4
61.0	92.8	545.3
62.0	92.7	544.9
63.0	92.5	542.4
64.0	92.5	541.4
65.0	92.3	539.7
66.0	92.2	537.8
67.0	92.2	538.2
68.0	92.4	540.7
69.0	92.4	539.9
70.0	92.1	537.0
71.0	92.1	536.7
72.0	92.1	537.1
73.0	92.1	537.0
74.0	92.2	538.0
75.0	92.1	537.1
76.0	92.1	536.0
77.0	91.8	532.6
78.0	91.9	533.6
79.0	92.0	535.5
80.0	92.1	537.1
81.0	92.3	539.4
82.0	92.5	541.3
83.0	92.6	543.3
84.0	92.7	543.9
85.0	92.6	543.8
86.0	92.7	544.8
87.0	92.7	544.7
88.0	92.6	543.4
89.0	92.5	541.6
90.0	92.1	537.1
91.0	91.9	534.3
92.0	91.9	533.6
93.0	92.3	539.0
94.0	92.8	545.5
95.0	92.8	545.3

WCIQ-DT Channel 56 (Proposed) Distance to Contour Tabulation

96.0	92.8	545.4
97.0	92.7	544.2
98.0	92.6	543.4
99.0	92.6	542.8
100.0	92.4	540.0
101.0	92.3	539.8
102.0	92.5	541.8
103.0	92.6	542.7
104.0	92.8	545.7
105.0	92.8	546.3
106.0	92.9	546.7
107.0	92.8	545.3
108.0	92.7	545.0
109.0	92.8	546.0
110.0	93.0	547.9
111.0	92.9	547.0
112.0	92.8	545.6
113.0	92.7	545.0
114.0	92.6	543.6
115.0	92.6	543.4
116.0	92.6	543.2
117.0	92.5	541.2
118.0	92.3	539.4
119.0	92.4	539.9
120.0	92.4	540.0
121.0	92.3	538.6
122.0	92.2	537.6
123.0	92.1	537.2
124.0	92.0	535.2
125.0	91.8	533.0
126.0	91.8	532.3
127.0	91.8	532.2
128.0	91.7	531.7
129.0	91.8	532.2
130.0	91.9	534.2
131.0	92.1	536.5
132.0	92.2	537.8
133.0	92.5	541.2
134.0	92.7	544.6
135.0	92.8	545.4
136.0	92.7	544.3
137.0	92.6	543.6
138.0	92.7	544.8
139.0	92.8	545.2
140.0	92.7	544.7
141.0	92.7	544.3
142.0	92.6	543.6
143.0	92.6	543.5
144.0	92.6	542.8
145.0	92.4	540.0
146.0	92.1	537.0
147.0	92.0	534.7
148.0	91.7	531.4
149.0	91.5	529.6
150.0	91.5	528.7
151.0	91.4	527.7
152.0	91.3	526.3

WCIQ-DT Channel 56 (Proposed) Distance to Contour Tabulation

153.0	91.3	526.3
154.0	91.2	524.9
155.0	91.0	522.5
156.0	91.0	522.1
157.0	91.0	521.9
158.0	90.9	521.4
159.0	90.7	518.7
160.0	90.5	515.8
161.0	90.4	514.6
162.0	90.5	514.9
163.0	90.4	514.4
164.0	90.4	513.8
165.0	90.2	510.9
166.0	90.0	508.0
167.0	89.8	506.0
168.0	89.7	504.0
169.0	89.7	503.6
170.0	89.5	501.3
171.0	89.5	500.6
172.0	89.4	500.1
173.0	89.4	500.0
174.0	89.2	496.6
175.0	89.0	494.2
176.0	88.9	492.7
177.0	88.6	487.1
178.0	88.3	481.8
179.0	87.8	475.1
180.0	87.4	467.6
181.0	87.1	461.6
182.0	87.1	463.1
183.0	87.2	463.9
184.0	86.9	457.9
185.0	86.2	445.3
186.0	85.7	435.4
187.0	85.1	423.6
188.0	84.5	410.9
189.0	83.8	397.9
190.0	82.8	382.4
191.0	81.5	365.7
192.0	80.3	352.0
193.0	79.7	345.6
194.0	79.6	344.8
195.0	80.1	350.3
196.0	80.9	359.2
197.0	81.6	366.9
198.0	82.7	381.7
199.0	84.0	401.4
200.0	85.0	420.2
201.0	85.7	435.9
202.0	86.4	450.2
203.0	87.2	463.7
204.0	87.8	474.1
205.0	88.3	482.6
206.0	88.6	487.4
207.0	88.8	490.1
208.0	88.9	492.2
209.0	89.1	494.8

WCIQ-DT Channel 56 (Proposed) Distance to Contour Tabulation

210.0	89.1	494.9
211.0	88.9	491.3
212.0	88.5	485.1
213.0	87.9	476.3
214.0	87.5	469.8
215.0	87.3	465.1
216.0	87.1	462.4
217.0	87.0	460.1
218.0	87.3	465.1
219.0	88.1	479.0
220.0	89.0	493.0
221.0	89.7	504.4
222.0	90.3	512.4
223.0	90.6	517.3
224.0	90.9	521.0
225.0	91.1	523.6
226.0	91.3	526.4
227.0	91.6	529.6
228.0	91.8	533.1
229.0	92.2	537.6
230.0	92.4	540.2
231.0	92.6	543.1
232.0	92.8	545.9
233.0	93.2	551.0
234.0	93.7	558.6
235.0	93.9	561.2
236.0	93.9	561.3
237.0	94.1	565.1
238.0	94.4	569.2
239.0	94.5	571.1
240.0	94.7	574.6
241.0	94.9	579.2
242.0	95.2	584.5
243.0	95.3	587.8
244.0	95.5	591.5
245.0	95.6	594.3
246.0	95.8	598.7
247.0	96.1	605.5
248.0	96.3	609.5
249.0	96.3	611.1
250.0	96.2	608.7
251.0	96.1	604.9
252.0	96.0	602.4
253.0	96.1	605.1
254.0	96.3	611.4
255.0	96.3	610.5
256.0	96.2	607.0
257.0	96.0	602.5
258.0	96.0	602.1
259.0	96.1	605.9
260.0	96.3	609.4
261.0	96.3	611.2
262.0	96.4	613.1
263.0	96.3	610.4
264.0	96.2	607.5
265.0	96.1	604.7
266.0	96.0	603.0

WCIQ-DT Channel 56 (Proposed) Distance to Contour Tabulation

267.0	96.0	602.9
268.0	96.1	604.3
269.0	96.2	608.0
270.0	96.4	612.4
271.0	96.4	613.1
272.0	96.5	616.0
273.0	96.6	617.7
274.0	96.7	619.3
275.0	96.7	619.7
276.0	96.7	619.6
277.0	96.7	621.4
278.0	96.8	621.8
279.0	96.7	620.9
280.0	96.7	621.3
281.0	96.8	621.8
282.0	96.7	621.1
283.0	96.7	619.4
284.0	96.6	617.5
285.0	96.6	617.0
286.0	96.6	618.4
287.0	96.7	621.3
288.0	96.8	624.3
289.0	96.9	625.0
290.0	96.8	624.2
291.0	96.9	624.4
292.0	96.9	626.4
293.0	97.0	628.6
294.0	97.0	629.3
295.0	97.1	630.0
296.0	97.1	630.9
297.0	97.1	631.9
298.0	97.1	631.6
299.0	97.1	630.7
300.0	97.1	629.7
301.0	97.0	629.0
302.0	97.0	628.6
303.0	97.0	628.2
304.0	97.0	628.3
305.0	97.0	629.1
306.0	97.0	629.6
307.0	97.1	630.2
308.0	97.1	630.8
309.0	97.1	632.1
310.0	97.2	634.2
311.0	97.3	636.3
312.0	97.3	637.2
313.0	97.3	637.1
314.0	97.3	635.9
315.0	97.2	634.5
316.0	97.2	634.2
317.0	97.2	634.7
318.0	97.3	635.8
319.0	97.3	637.2
320.0	97.4	637.6
321.0	97.3	637.4
322.0	97.3	636.6
323.0	97.3	635.2

WCIQ-DT Channel 56 (Proposed) Distance to Contour Tabulation

324.0	97.2	633.5
325.0	97.1	631.9
326.0	97.1	629.8
327.0	97.0	627.6
328.0	96.9	626.2
329.0	96.7	620.9
330.0	96.6	618.4
331.0	96.5	616.1
332.0	96.6	617.0
333.0	96.7	619.5
334.0	96.8	624.0
335.0	96.8	624.2
336.0	96.7	621.0
337.0	96.7	619.3
338.0	96.6	618.2
339.0	96.6	617.5
340.0	96.6	617.3
341.0	96.5	616.3
342.0	96.5	616.5
343.0	96.5	615.8
344.0	96.5	616.3
345.0	96.6	617.5
346.0	96.7	619.7
347.0	96.7	620.6
348.0	96.7	621.7
349.0	96.8	623.1
350.0	96.8	622.2
351.0	96.7	620.8
352.0	96.7	621.7
353.0	96.8	622.5
354.0	96.7	620.1
355.0	96.5	616.6
356.0	96.5	614.4
357.0	96.5	614.5
358.0	96.5	615.9
359.0	96.6	617.1

Average HAAT for radials shown: 559.6 m

WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

Radial	WCIQ-DT CP distance to contours (km)	WCIQ-DT Proposed distance to contours (km)	PASS OR FAIL	Difference (km)
0.0	120.6	96.6	PASS	24.0
1.0	120.6	96.6	PASS	24.0
2.0	120.6	96.6	PASS	24.0
3.0	120.6	96.6	PASS	24.0
4.0	120.5	96.5	PASS	24.0
5.0	120.5	96.5	PASS	24.0
6.0	120.5	96.6	PASS	23.9
7.0	120.6	96.6	PASS	24.0
8.0	120.7	96.7	PASS	24.0
9.0	120.8	96.7	PASS	24.1
10.0	120.8	96.8	PASS	24.0
11.0	120.9	96.8	PASS	24.1
12.0	120.8	96.8	PASS	24.0
13.0	120.7	96.7	PASS	24.0
14.0	120.5	96.6	PASS	23.9
15.0	120.4	96.4	PASS	24.0
16.0	120.2	96.3	PASS	23.9
17.0	120.0	96.1	PASS	23.9
18.0	119.8	96.0	PASS	23.8
19.0	119.8	96.0	PASS	23.8
20.0	119.7	96.0	PASS	23.7
21.0	119.7	95.9	PASS	23.8
22.0	119.5	95.8	PASS	23.7
23.0	119.4	95.7	PASS	23.7
24.0	119.3	95.6	PASS	23.7
25.0	119.1	95.4	PASS	23.7
26.0	118.7	95.1	PASS	23.6
27.0	118.4	94.9	PASS	23.5
28.0	118.4	94.8	PASS	23.6
29.0	118.3	94.8	PASS	23.5
30.0	118.2	94.7	PASS	23.5
31.0	118.1	94.6	PASS	23.5
32.0	118.0	94.5	PASS	23.5
33.0	118.1	94.6	PASS	23.5
34.0	118.2	94.7	PASS	23.5
35.0	118.4	94.8	PASS	23.6
36.0	118.4	94.9	PASS	23.5
37.0	118.4	94.9	PASS	23.5
38.0	118.4	94.9	PASS	23.5

WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

39.0	118.4	94.9	PASS	23.5
40.0	118.3	94.8	PASS	23.5
41.0	118.3	94.8	PASS	23.5
42.0	118.1	94.6	PASS	23.5
43.0	118.0	94.5	PASS	23.5
44.0	118.0	94.5	PASS	23.5
45.0	117.8	94.3	PASS	23.5
46.0	117.2	93.7	PASS	23.5
47.0	116.6	93.0	PASS	23.6
48.0	115.5	91.7	PASS	23.8
49.0	115.0	91.1	PASS	23.9
50.0	115.1	91.2	PASS	23.9
51.0	115.2	91.3	PASS	23.9
52.0	115.4	91.5	PASS	23.9
53.0	115.6	91.8	PASS	23.8
54.0	115.8	92.1	PASS	23.7
55.0	116.2	92.6	PASS	23.6
56.0	116.5	92.9	PASS	23.6
57.0	116.5	92.9	PASS	23.6
58.0	116.4	92.8	PASS	23.6
59.0	116.4	92.7	PASS	23.7
60.0	116.3	92.7	PASS	23.6
61.0	116.4	92.8	PASS	23.6
62.0	116.4	92.7	PASS	23.7
63.0	116.2	92.5	PASS	23.7
64.0	116.1	92.5	PASS	23.6
65.0	116.0	92.3	PASS	23.7
66.0	115.9	92.2	PASS	23.7
67.0	115.9	92.2	PASS	23.7
68.0	116.1	92.4	PASS	23.7
69.0	116.0	92.4	PASS	23.6
70.0	115.9	92.1	PASS	23.8
71.0	115.8	92.1	PASS	23.7
72.0	115.9	92.1	PASS	23.8
73.0	115.9	92.1	PASS	23.8
74.0	115.9	92.2	PASS	23.7
75.0	115.9	92.1	PASS	23.8
76.0	115.8	92.1	PASS	23.7
77.0	115.6	91.8	PASS	23.8
78.0	115.6	91.9	PASS	23.7
79.0	115.8	92.0	PASS	23.8
80.0	115.9	92.1	PASS	23.8

WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

81.0	116.0	92.3	PASS	23.7
82.0	116.1	92.5	PASS	23.6
83.0	116.3	92.6	PASS	23.7
84.0	116.3	92.7	PASS	23.6
85.0	116.3	92.6	PASS	23.7
86.0	116.4	92.7	PASS	23.7
87.0	116.3	92.7	PASS	23.6
88.0	116.3	92.6	PASS	23.7
89.0	116.2	92.5	PASS	23.7
90.0	115.9	92.1	PASS	23.8
91.0	115.7	91.9	PASS	23.8
92.0	115.6	91.9	PASS	23.7
93.0	116.0	92.3	PASS	23.7
94.0	116.4	92.8	PASS	23.6
95.0	116.4	92.8	PASS	23.6
96.0	116.4	92.8	PASS	23.6
97.0	116.3	92.7	PASS	23.6
98.0	116.3	92.6	PASS	23.7
99.0	116.2	92.6	PASS	23.6
100.0	116.1	92.4	PASS	23.7
101.0	116.0	92.3	PASS	23.7
102.0	116.2	92.5	PASS	23.7
103.0	116.2	92.6	PASS	23.6
104.0	116.4	92.8	PASS	23.6
105.0	116.4	92.8	PASS	23.6
106.0	116.5	92.9	PASS	23.6
107.0	116.4	92.8	PASS	23.6
108.0	116.4	92.7	PASS	23.7
109.0	116.4	92.8	PASS	23.6
110.0	116.5	93.0	PASS	23.5
111.0	116.5	92.9	PASS	23.6
112.0	116.4	92.8	PASS	23.6
113.0	116.4	92.7	PASS	23.7
114.0	116.3	92.6	PASS	23.7
115.0	116.3	92.6	PASS	23.7
116.0	116.2	92.6	PASS	23.6
117.0	116.1	92.5	PASS	23.6
118.0	116.0	92.3	PASS	23.7
119.0	116.0	92.4	PASS	23.6
120.0	116.1	92.4	PASS	23.7
121.0	116.0	92.3	PASS	23.7
122.0	115.9	92.2	PASS	23.7

WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

123.0	115.9	92.1	PASS	23.8
124.0	115.7	92.0	PASS	23.7
125.0	115.6	91.8	PASS	23.8
126.0	115.6	91.8	PASS	23.8
127.0	115.6	91.8	PASS	23.8
128.0	115.5	91.7	PASS	23.8
129.0	115.6	91.8	PASS	23.8
130.0	115.7	91.9	PASS	23.8
131.0	115.8	92.1	PASS	23.7
132.0	115.9	92.2	PASS	23.7
133.0	116.1	92.5	PASS	23.6
134.0	116.3	92.7	PASS	23.6
135.0	116.4	92.8	PASS	23.6
136.0	116.3	92.7	PASS	23.6
137.0	116.3	92.6	PASS	23.7
138.0	116.3	92.7	PASS	23.6
139.0	116.4	92.8	PASS	23.6
140.0	116.3	92.7	PASS	23.6
141.0	116.3	92.7	PASS	23.6
142.0	116.3	92.6	PASS	23.7
143.0	116.3	92.6	PASS	23.7
144.0	116.2	92.6	PASS	23.6
145.0	116.0	92.4	PASS	23.6
146.0	115.9	92.1	PASS	23.8
147.0	115.7	92.0	PASS	23.7
148.0	115.5	91.7	PASS	23.8
149.0	115.4	91.5	PASS	23.9
150.0	115.3	91.5	PASS	23.8
151.0	115.3	91.4	PASS	23.9
152.0	115.2	91.3	PASS	23.9
153.0	115.2	91.3	PASS	23.9
154.0	115.1	91.2	PASS	23.9
155.0	114.9	91.0	PASS	23.9
156.0	114.9	91.0	PASS	23.9
157.0	114.9	91.0	PASS	23.9
158.0	114.9	90.9	PASS	24.0
159.0	114.7	90.7	PASS	24.0
160.0	114.5	90.5	PASS	24.0
161.0	114.4	90.4	PASS	24.0
162.0	114.4	90.5	PASS	23.9
163.0	114.4	90.4	PASS	24.0
164.0	114.4	90.4	PASS	24.0

WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

165.0	114.2	90.2	PASS	24.0
166.0	114.0	90.0	PASS	24.0
167.0	113.8	89.8	PASS	24.0
168.0	113.7	89.7	PASS	24.0
169.0	113.7	89.7	PASS	24.0
170.0	113.5	89.5	PASS	24.0
171.0	113.5	89.5	PASS	24.0
172.0	113.4	89.4	PASS	24.0
173.0	113.4	89.4	PASS	24.0
174.0	113.2	89.2	PASS	24.0
175.0	113.0	89.0	PASS	24.0
176.0	112.9	88.9	PASS	24.0
177.0	112.5	88.6	PASS	23.9
178.0	112.1	88.3	PASS	23.8
179.0	111.5	87.8	PASS	23.7
180.0	110.9	87.4	PASS	23.5
181.0	110.4	87.1	PASS	23.3
182.0	110.5	87.1	PASS	23.4
183.0	110.6	87.2	PASS	23.4
184.0	110.1	86.9	PASS	23.2
185.0	109.0	86.2	PASS	22.8
186.0	108.2	85.7	PASS	22.5
187.0	107.1	85.1	PASS	22.0
188.0	106.0	84.5	PASS	21.5
189.0	104.8	83.8	PASS	21.0
190.0	103.5	82.8	PASS	20.7
191.0	102.2	81.5	PASS	20.7
192.0	101.0	80.3	PASS	20.7
193.0	100.5	79.7	PASS	20.8
194.0	100.4	79.6	PASS	20.8
195.0	100.9	80.1	PASS	20.8
196.0	101.6	80.9	PASS	20.7
197.0	102.3	81.6	PASS	20.7
198.0	103.5	82.7	PASS	20.8
199.0	105.2	84.0	PASS	21.2
200.0	106.8	85.0	PASS	21.8
201.0	108.2	85.7	PASS	22.5
202.0	109.4	86.4	PASS	23.0
203.0	110.6	87.2	PASS	23.4
204.0	111.4	87.8	PASS	23.6
205.0	112.1	88.3	PASS	23.8
206.0	112.5	88.6	PASS	23.9

WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

207.0	112.7	88.8	PASS	23.9
208.0	112.9	88.9	PASS	24.0
209.0	113.0	89.1	PASS	23.9
210.0	113.1	89.1	PASS	24.0
211.0	112.8	88.9	PASS	23.9
212.0	112.3	88.5	PASS	23.8
213.0	111.6	87.9	PASS	23.7
214.0	111.1	87.5	PASS	23.6
215.0	110.7	87.3	PASS	23.4
216.0	110.5	87.1	PASS	23.4
217.0	110.3	87.0	PASS	23.3
218.0	110.7	87.3	PASS	23.4
219.0	111.8	88.1	PASS	23.7
220.0	112.9	89.0	PASS	23.9
221.0	113.7	89.7	PASS	24.0
222.0	114.3	90.3	PASS	24.0
223.0	114.6	90.6	PASS	24.0
224.0	114.8	90.9	PASS	23.9
225.0	115.0	91.1	PASS	23.9
226.0	115.2	91.3	PASS	23.9
227.0	115.4	91.6	PASS	23.8
228.0	115.6	91.8	PASS	23.8
229.0	115.9	92.2	PASS	23.7
230.0	116.1	92.4	PASS	23.7
231.0	116.2	92.6	PASS	23.6
232.0	116.4	92.8	PASS	23.6
233.0	116.7	93.2	PASS	23.5
234.0	117.2	93.7	PASS	23.5
235.0	117.4	93.9	PASS	23.5
236.0	117.4	93.9	PASS	23.5
237.0	117.6	94.1	PASS	23.5
238.0	117.8	94.4	PASS	23.4
239.0	118.0	94.5	PASS	23.5
240.0	118.2	94.7	PASS	23.5
241.0	118.4	94.9	PASS	23.5
242.0	118.7	95.2	PASS	23.5
243.0	118.9	95.3	PASS	23.6
244.0	119.2	95.5	PASS	23.7
245.0	119.3	95.6	PASS	23.7
246.0	119.6	95.8	PASS	23.8
247.0	119.9	96.1	PASS	23.8
248.0	120.2	96.3	PASS	23.9

WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

249.0	120.2	96.3	PASS	23.9
250.0	120.1	96.2	PASS	23.9
251.0	119.9	96.1	PASS	23.8
252.0	119.8	96.0	PASS	23.8
253.0	119.9	96.1	PASS	23.8
254.0	120.3	96.3	PASS	24.0
255.0	120.2	96.3	PASS	23.9
256.0	120.0	96.2	PASS	23.8
257.0	119.8	96.0	PASS	23.8
258.0	119.7	96.0	PASS	23.7
259.0	120.0	96.1	PASS	23.9
260.0	120.1	96.3	PASS	23.8
261.0	120.2	96.3	PASS	23.9
262.0	120.3	96.4	PASS	23.9
263.0	120.2	96.3	PASS	23.9
264.0	120.0	96.2	PASS	23.8
265.0	119.9	96.1	PASS	23.8
266.0	119.8	96.0	PASS	23.8
267.0	119.8	96.0	PASS	23.8
268.0	119.9	96.1	PASS	23.8
269.0	120.1	96.2	PASS	23.9
270.0	120.3	96.4	PASS	23.9
271.0	120.3	96.4	PASS	23.9
272.0	120.5	96.5	PASS	24.0
273.0	120.6	96.6	PASS	24.0
274.0	120.7	96.7	PASS	24.0
275.0	120.7	96.7	PASS	24.0
276.0	120.7	96.7	PASS	24.0
277.0	120.8	96.7	PASS	24.1
278.0	120.8	96.8	PASS	24.0
279.0	120.8	96.7	PASS	24.1
280.0	120.8	96.7	PASS	24.1
281.0	120.8	96.8	PASS	24.0
282.0	120.8	96.7	PASS	24.1
283.0	120.7	96.7	PASS	24.0
284.0	120.6	96.6	PASS	24.0
285.0	120.6	96.6	PASS	24.0
286.0	120.6	96.6	PASS	24.0
287.0	120.8	96.7	PASS	24.1
288.0	120.9	96.8	PASS	24.1
289.0	121.0	96.9	PASS	24.1
290.0	120.9	96.8	PASS	24.1

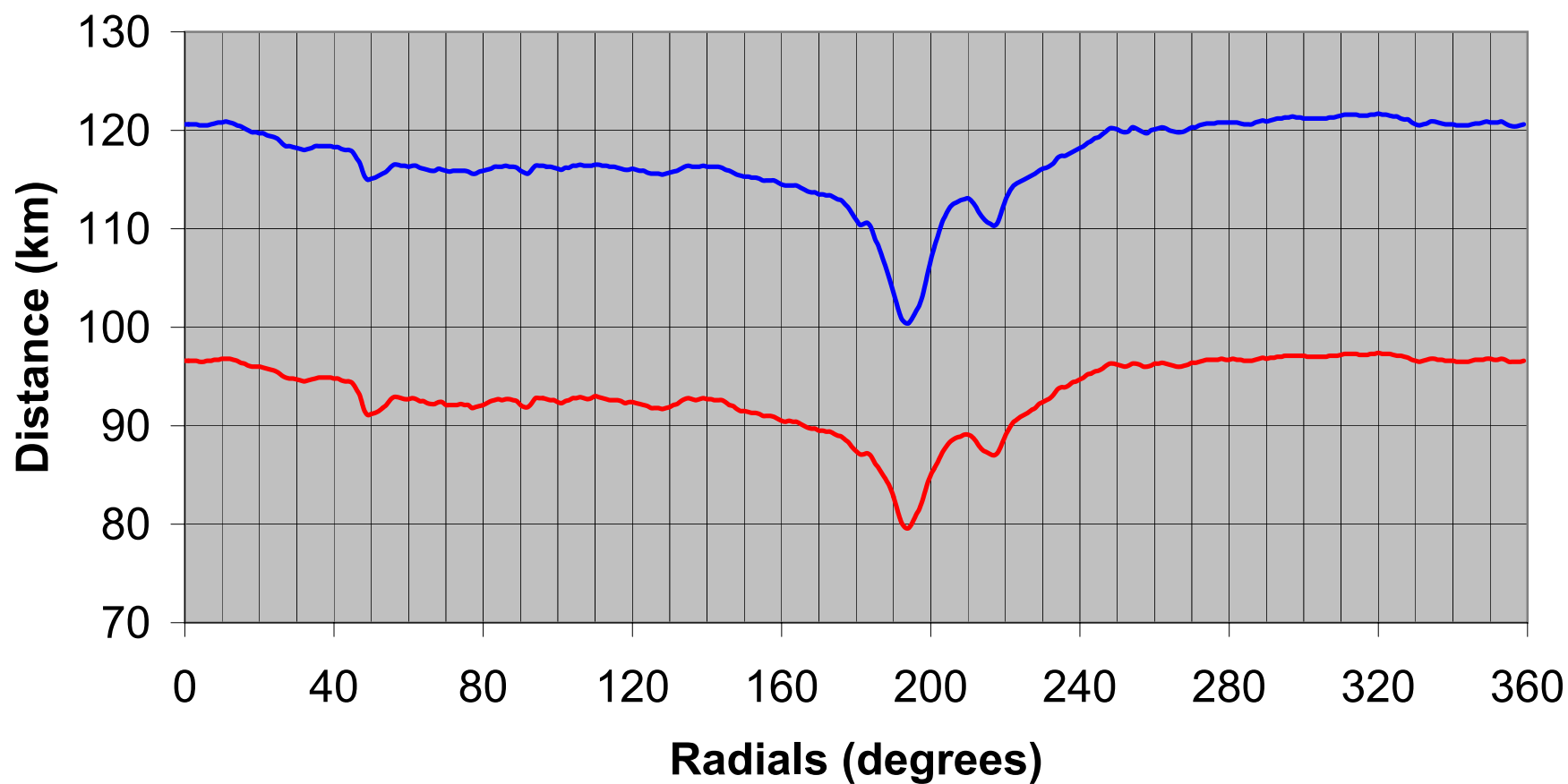
WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

291.0	121.0	96.9	PASS	24.1
292.0	121.1	96.9	PASS	24.2
293.0	121.2	97.0	PASS	24.2
294.0	121.2	97.0	PASS	24.2
295.0	121.3	97.1	PASS	24.2
296.0	121.3	97.1	PASS	24.2
297.0	121.4	97.1	PASS	24.3
298.0	121.3	97.1	PASS	24.2
299.0	121.3	97.1	PASS	24.2
300.0	121.2	97.1	PASS	24.1
301.0	121.2	97.0	PASS	24.2
302.0	121.2	97.0	PASS	24.2
303.0	121.2	97.0	PASS	24.2
304.0	121.2	97.0	PASS	24.2
305.0	121.2	97.0	PASS	24.2
306.0	121.2	97.0	PASS	24.2
307.0	121.3	97.1	PASS	24.2
308.0	121.3	97.1	PASS	24.2
309.0	121.4	97.1	PASS	24.3
310.0	121.5	97.2	PASS	24.3
311.0	121.6	97.3	PASS	24.3
312.0	121.6	97.3	PASS	24.3
313.0	121.6	97.3	PASS	24.3
314.0	121.6	97.3	PASS	24.3
315.0	121.5	97.2	PASS	24.3
316.0	121.5	97.2	PASS	24.3
317.0	121.5	97.2	PASS	24.3
318.0	121.6	97.3	PASS	24.3
319.0	121.6	97.3	PASS	24.3
320.0	121.7	97.4	PASS	24.3
321.0	121.6	97.3	PASS	24.3
322.0	121.6	97.3	PASS	24.3
323.0	121.5	97.3	PASS	24.2
324.0	121.4	97.2	PASS	24.2
325.0	121.4	97.1	PASS	24.3
326.0	121.2	97.1	PASS	24.1
327.0	121.1	97.0	PASS	24.1
328.0	121.1	96.9	PASS	24.2
329.0	120.8	96.7	PASS	24.1
330.0	120.6	96.6	PASS	24.0
331.0	120.5	96.5	PASS	24.0
332.0	120.6	96.6	PASS	24.0

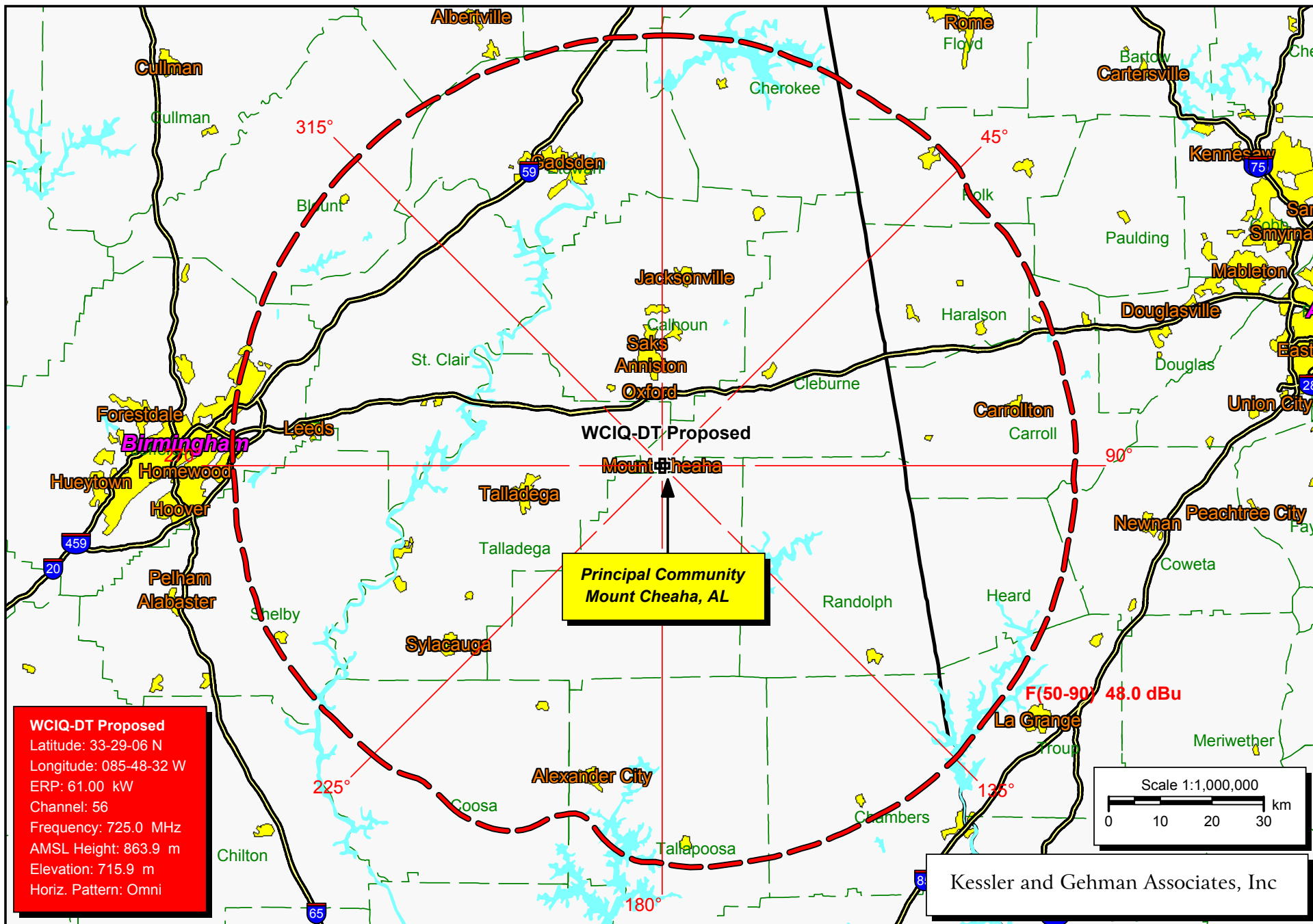
WCIQ-DT (CP vs. Proposed) Distance to Contour Comparison Spreadsheet

333.0	120.7	96.7	PASS	24.0
334.0	120.9	96.8	PASS	24.1
335.0	120.9	96.8	PASS	24.1
336.0	120.8	96.7	PASS	24.1
337.0	120.7	96.7	PASS	24.0
338.0	120.6	96.6	PASS	24.0
339.0	120.6	96.6	PASS	24.0
340.0	120.6	96.6	PASS	24.0
341.0	120.5	96.5	PASS	24.0
342.0	120.5	96.5	PASS	24.0
343.0	120.5	96.5	PASS	24.0
344.0	120.5	96.5	PASS	24.0
345.0	120.6	96.6	PASS	24.0
346.0	120.7	96.7	PASS	24.0
347.0	120.7	96.7	PASS	24.0
348.0	120.8	96.7	PASS	24.1
349.0	120.9	96.8	PASS	24.1
350.0	120.8	96.8	PASS	24.0
351.0	120.8	96.7	PASS	24.1
352.0	120.8	96.7	PASS	24.1
353.0	120.9	96.8	PASS	24.1
354.0	120.7	96.7	PASS	24.0
355.0	120.5	96.5	PASS	24.0
356.0	120.4	96.5	PASS	23.9
357.0	120.4	96.5	PASS	23.9
358.0	120.5	96.5	PASS	24.0
359.0	120.6	96.6	PASS	24.0

Distance to Contour Comparison Chart



- WCIQ-DT CP distance to contours (km)
- WCIQ-DT Proposed distance to contours (km)



WCIQ-DT Proposed F(50,90) 48.0 dBuV/m Principal Community Contour