

WJWV-FM CHANNEL 215
SPECIAL TEMPORARY
AUTHORITY (STA)
FORT GAINES, GEORGIA
(GEORGIA PUBLIC TELECOMMUNICATIONS COMMISSION)

KESSLER AND GEHMAN ASSOCIATES, INC.
TELECOMMUNICATIONS CONSULTING ENGINEERS

20090130

Prepared by William T. Godfrey, Jr.

KG&A

507 N.W. 60th Street, Suite C
Gainesville, Florida 32607



Kessler and Gehman Associates, Inc.

Telecommunications Consulting Engineers

ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR. OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC., TELECOMMUNICATIONS CONSULTING ENGINEERS IN CONNECTION WITH A SPECIAL TEMPORARY AUTHORITY (STA) REQUESTING AUTHORIZATION TO TEMPORARILY OPERATE THE GEORGIA PUBLIC TELECOMMUNICATIONS COMMISSION (GPTC) NON-COMMERCIAL EDUCATIONAL FM BROADCAST FACILITY, WJWV-FM CHANNEL 215, WITH PARAMETERS THAT DIFFERENTIATE SLIGHTLY FROM THE EXISTING CONSTRUCTION PERMIT (BMPED-20080219AFF).

The firm Kessler and Gehman Associates, Inc. (KGA), has been retained by the Georgia Public Telecommunications Commission (GPTC), Atlanta, Georgia, in order to prepare engineering studies and the engineering portion of a Special Temporary Authority (STA) requesting authorization to temporarily operate the WJWV-FM Channel 215 Class C1 FM broadcast facility (BMPED-20080219AFF) with a slight decrease in power to compensate for a slight change in antenna orientation.

Discussion

The Commission granted a construction permit ((BMPED-20080219AFF) for the WJWV-FM Channel 215 Fort Gaines, GA NCE-FM facility on February 11, 2008 authorizing a vertically polarized ERP of 85 kW and a horizontally polarized ERP of 30 kW using a new Dielectric model DCRC8CHV directional antenna. The new antenna was installed on January 27, 2009; however, at the time of installation, it was determined that the 244° True North (TN) antenna orientation, which the existing authorization is based on, would result in guy wire obstruction. Therefore, the antenna was reoriented by less than three degrees counterclockwise to resolve the obstruction issue (~241° TN). As a result, a license application cannot be filed pursuant to automatic program test authority and GPTC will file a minor modification of construction permit application based on the new antenna orientation once the antenna manufacturer completes the measurements based on the actual antenna orientation. In the mean



time, the WJWV-FM facility is ready to go on the air to serve the Fort Gaines, GA community, however, GPTC needs authorization to temporarily operate the WJWV-FM with slightly adjusted parameters. Accordingly, this STA requests authorization to temporarily operate the WJWV-FM facility with a slightly decreased ERP to compensate for the slight antenna rotation. Since WJWV-FM is authorized to operate with elliptical polarization, the maximum horizontal ERP is 75.0 kW, which is a 10.0 kW reduction, and the maximum circular ERP is 19.3 kW, which is a 2.4 kW reduction.

Exhibit 12 demonstrates that the authorized F(50,50) 1 mV/m (60 dBuV/m) contour (blue) will completely encompass the F(50,50) 1 mV/m contour of the proposed STA facility (red) in all azimuthal directions. Therefore, the proposed STA facility would not cause additional interference to surrounding NCE-FM stations or TV/DTV Channel 6 stations.

Exhibit 13 is a principal community map demonstrating that the F(50,50) 70 dBuV/m contour of the proposed STA facility would completely encompass the licensed community of Fort Gaines, GA in all azimuthal directions.

Exhibit 14 is a distance to contour tabulation of the authorized (CP) WJWV-FM Channel 215 facility. This exhibit depicts the distance, in kilometers, from the transmitter to the authorized (CP) WJWV-FM facility's 1 mV/m contour along all 360 radials. Exhibit 15 is a distance to contour tabulation of the proposed WJWV-FM Channel 215 STA facility. This exhibit depicts the distance, in kilometers, from the transmitter to the proposed (STA) WJWV-FM 1 mV/m contour along all 360 radials. Exhibit 16 is a distance to contour comparison spreadsheet which compares the distance from the transmitter to the 1 mV/m contour of the authorized (CP) WJWV-FM facility (Exhibit 14) and the proposed STA facility (Exhibit 15). Column four in Exhibit 16 depicts "PASS" if the proposed (STA) distance to contour values are less than or equal to the authorized (CP) distance to contour values or "FAIL" if the proposed (STA) distance to contour values are greater than the authorized (CP) distance to contour values. Exhibit 16 demonstrates that the authorized (CP) facility's distance to contour values are greater



than the proposed (STA) distance to contour values in all azimuthal directions. Therefore, the proposed (STA) facility will not expand the 1 mV/m service contour in any direction beyond that authorized.

Exhibits

The following list is an index of enclosed figures produced by calculations and engineering studies of the proposed WJWV-FM Channel 215 STA facility.

- 1) Proposed Engineering Specifications (Exhibit 1).
- 2) Antenna Data (Exhibit 2).
- 3) Support Structure Profile/Elevation View of Antenna System (Exhibit 3).
- 4) Antenna Azimuth Pattern: H-pol and V-pol (Exhibit 4)
- 5) Antenna Azimuth Pattern Tabulation: H-pol (Exhibit 5)
- 6) Antenna Azimuth Pattern Tabulation: V-pol (Exhibit 6)
- 7) Composite Antenna Azimuth Pattern (Exhibit 7)
- 8) Composite Antenna Azimuth Pattern Tabulation (Exhibit 8)
- 9) Antenna Elevation Pattern: 0° - 90° (Exhibit 9)
- 10) Antenna Elevation Pattern Tabulation (Exhibit 10)
- 11) USGS 7.5-Minute Topographic Quadrangle Map Depicting The Proposed Transmitter Location And Coordinate Lines (Exhibit 11).
- 12) Authorized (CP) WJWV-FM 1 mV/m Contour (Blue) vs. Proposed (STA) WJWV-FM 1 mV/m Contour (Red) – Exhibit 12
- 13) Proposed (STA) 70 dBuV/m Community of License Contour (Exhibit 13).
- 14) Distance to contour tabulation of the authorized (CP) WJWV-FM facility (Exhibit 14).
- 15) Distance to contour tabulation of the proposed (STA) WJWV-FM facility (Exhibit 15).



- 16) Distance to contour comparison tabulation spreadsheet between the authorized (CP) WJWV-FM facility and the proposed (STA) WJWV-FM facility (Exhibit 16).

Environmental Impact

The proposed WJWV-FM Channel 215 STA facility will have no significant environmental impact as defined in §1.1307 of the FCC Rules. The FM transmitter, transmission line and antenna system will produce an ERP of 75 kW (vertical) and 19.3 kW (horizontal). It was determined that the maximum lobe of radiation from the base of the tower will occur at approximately 44.4 feet from the base of the tower (160.9-foot radial distance from the antenna center). At approximately 44.4 feet from the base of the tower, the depression angle of the main lobe will be approximately 74° below the horizontal. At that point, the relative field will be 0.242 and the power density six feet above the ground will be 0.0767 mW/cm². This will be 7.67% of the maximum permissible exposure (“MPE”) limits for Occupational/Controlled Exposure and 38.34% of the MPE limits for General Population/Uncontrolled Exposure authorized by the American National Standards Institute (“ANSI”). Since the operation of the proposed WJWV-FM Channel 215 STA facility will exceed 5.0% of the MPE limit for Occupational/Controlled Exposure and General Population/Uncontrolled Exposure at various points on the ground, the WJWV-FM STA facility will be considered a “contributor” to the RF exposure environment pursuant to OET Bulletin 65, Edition 97-01. Therefore, all broadcast antennas on the WJWV-FM tower must be analyzed and a composite study must be prepared to demonstrate that the total power density of all broadcast antennas mounted on the tower would not exceed 100% of the MPE allowable.

Since the only broadcast antenna mounted on the WJWV-FM support structure is the WJWV-FM antenna, the composite power density on the support structure is equal to the power density produced by the WJWV-FM facility. Therefore, the total RF energy emanating from the single antenna mounted on the WJWV-FM support structure will be 7.67% of the MPE limits for Occupational/Controlled Exposure and 38.34% of the MPE limits for General



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Telecommunications Consulting Engineers

Population/Uncontrolled Exposure. Accordingly, the total exposure, which will be generated by the proposed WJWV-FM STA facility alone, will result in exposure levels well below the allowable exposure threshold authorized by the ANSI and the FCC. It is safe to conclude that the emissions will be insignificant and well within the maximum allowable requirements.


If other antennas are placed on the tower in the future, the licensee 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 also understood that additional antennas 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.



KESSLER AND GEHMAN ASSOCIATES, INC.


WILLIAM T. GODFREY, JR.
Telecommunications Technical Consultant

30 January, 2009

WJWV-FM CHANNEL 215 STA

FORT GAINES, GEORGIA

ENGINEERING SPECIFICATIONS

A. *Transmitter Site*

Geographic coordinates (NAD27): North Latitude 31° 36' 16"
West Longitude 85° 02' 02"

Location: 1.37 km SE (112') of Fort Gaines, GA

B. *Licensee*

Mailing Address 260 14th Street N.W. Atlanta, Georgia 30318

C. *Proposed Facility*

FM Channel Number: 215
Frequency: 90.9 MHz
Class: C1

D. *Antenna Height*

Height of Site Above Mean Sea Level (AMSL): 117.0 M
Overall Height of Structure Above Ground: 59.0 M
(including all appurtenances)
Overall Height of Structure Above Mean Sea Level: 176.0 M
(including all appurtenances)
Height of Site Above Average Terrain: 28.5 M
Antenna Height Radiation Center (R/C) Above Ground: 49.0 M
Antenna Height R/C Above Mean Sea Level: 166.0 M
Antenna Height R/C Above Average Terrain: 77.5 M
Average of All Non-Odd Radials: 88.5 M

E. *System Parameters – Elliptical Polarization:*

Transmitter Power Required: 6.0 kW
Maximum Power Input to Antenna: 5.4 kW
Transmission Line Loss: 0.40 dB
Transmission Line Efficiency: 91.20%
Peak Directional Gain (V-POL): 11.40 dB
Peak Directional Gain (H-POL): 5.47 dB
Peak Directional Gain at Horizontal (V-POL): 11.40 dB
Peak Directional Gain at Horizontal (H-POL): 5.47 dB
Maximum Effective Radiated Power (V-POL): 18.75 dBk
In Beam Maximum (V-POL): 75.00 kW
Maximum Effective Radiated Power (H-POL): 12.85 dBk
In Beam Maximum (H-POL): 19.3 kW

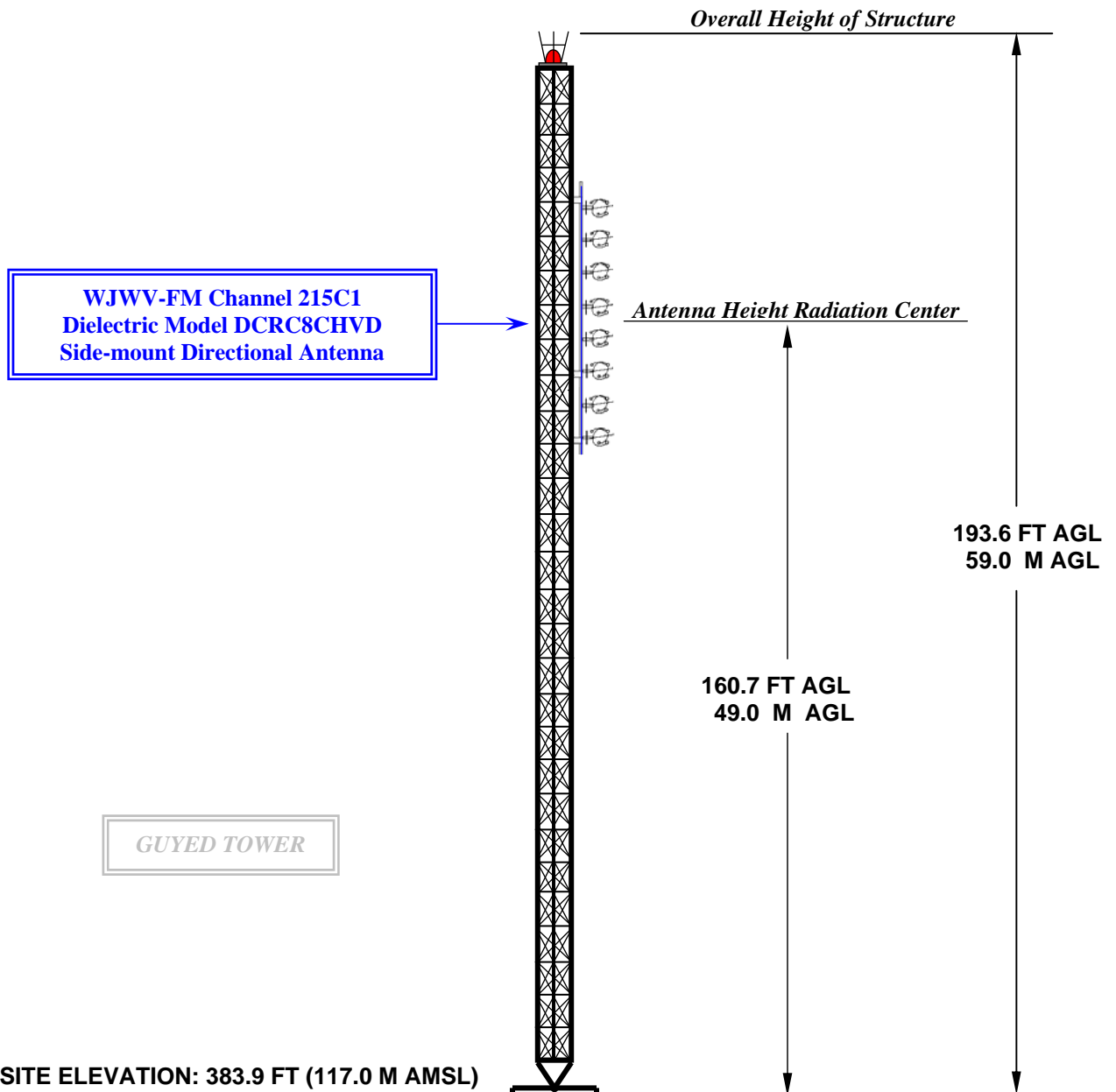
WJWV-FM CHANNEL 215 STA
FORT GAINES, GEORGIA

DATA FOR AUTHORIZED
DIRECTIONAL TRANSMITTING ANTENNA

- A. **Antenna:** Dielectric Model DCRC8CHVD Elliptically Polarized Side-Mount FM Antenna.
- B. **Electrical Beam Tilt:** None
- C. **Mechanical Beam Tilt:** None
- D.

<u>Peak Directional Gain</u>	<u>Elliptical Polarization</u>
Main Lobe V-pol:	13.80 (11.40 dB)
Main Lobe H-pol:	3.52 (5.47 dB)
- E. **Length:** 78.0 feet (23.8 meters) – without lightning protector
- F. **Transmitter Power Output (TPO):** 6.0 kW
- G. **Transmission Line:** 1-5/8" (50 ohm) FLEXLine
- H. **Transmission Line Efficiency:** 91.2%
- I. **Transmission Line Length:** 200 feet
- J. **Transmission Line Loss:** 0.200 dB/100 ft
- K. **Transmission Line Attenuation:** 0.40 dB

WJWV-FM STA ELEVATION VIEW



OVERALL HEIGHT AGL:	59.0 M
OVERALL HEIGHT AMSL:	176.0 M
RADIATION CENTER AGL:	49.0 M
RADIATION CENTER AMSL:	166.0 M
RADIATION CENTER HAAT:	77.5 M
AVG OF ALL NON-ODD RADIALS:	88.5 M
SITE HAAT:	28.5 M

COORDINATES (NAD 27):

N. LATITUDE	31° 36' 16"
W. LONGITUDE	85° 02' 02"

Antenna Structure Registration Number:
N/A

NOTE: NOT TO SCALE

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WJWV-FM CHANNEL 215C1 STA
FORT GAINES, GEORGIA

20090130

EXHIBIT 3

Rotation**3 deg CCW**

Proposal Number

C-00696

Date

Feb 8, 2008

Call Letters

WJWV

Location

Fort Gaines, GA

Customer

GA Public

Antenna Type

DCRC8CHVD

AZIMUTH PATTERN

87.3% Ccov - 38.0 Hrms - 62.0% Vrms

Gain

1.52 (1.82) HPOL 2.17 (3.36) VPOL

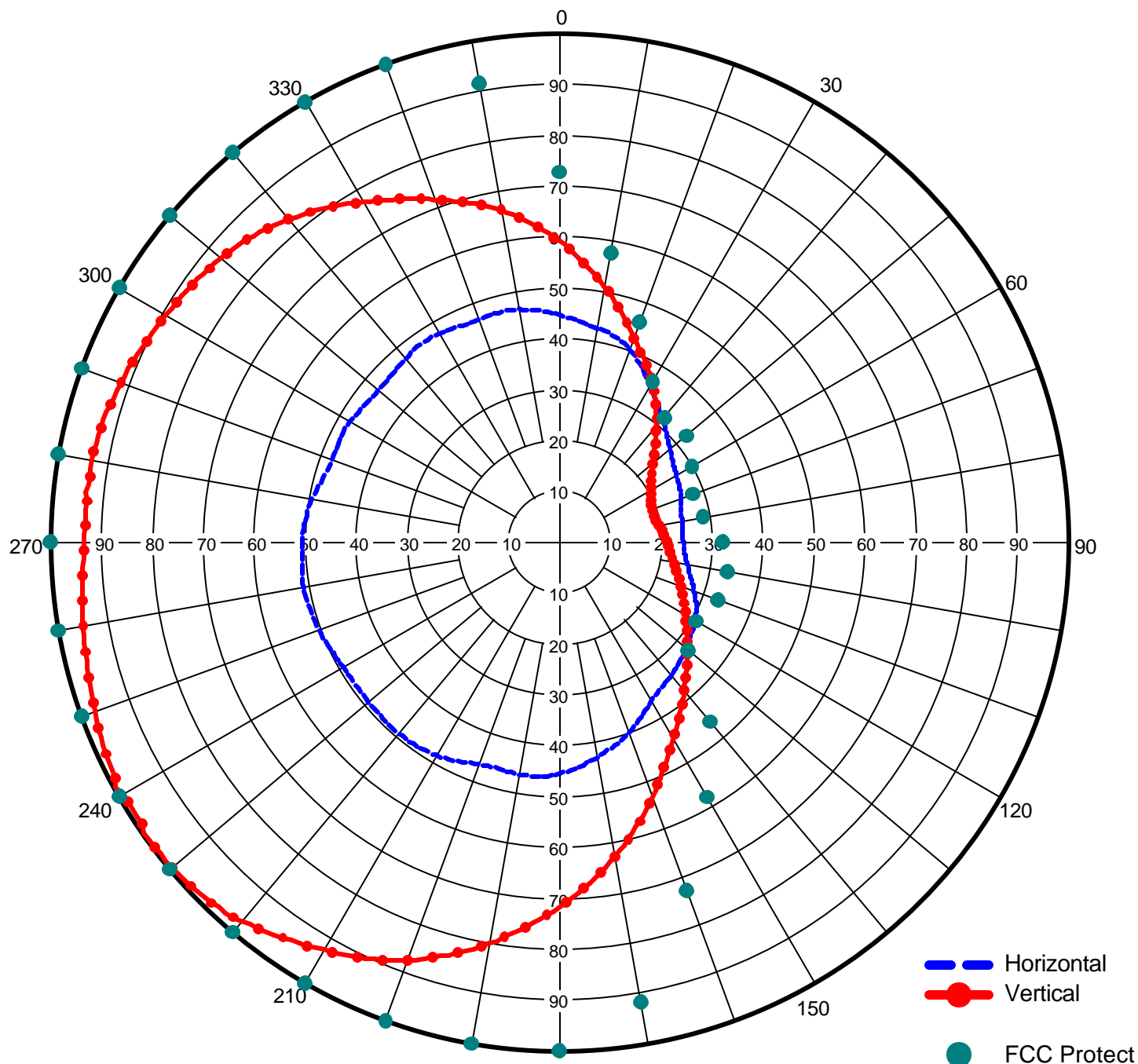
Frequency

90.9 MHz

Calculated / Measured

Measured

Drawing #

10

Remarks:

Antenna with vertical and horizontal parasitics



Proposal Number C-00696
Date 8-Feb-08
Call Letters WJWV
Location Fort Gaines, GA
Customer GA Public
Antenna Type DCRC8CHVD
Frequency 90.90 MHz
Drawing #: 10

TABULATION OF HORIZONTAL AZIMUTH PATTERN

Rotation: 3 degrees CCW

Angle	Field	dBk	ERP kW
0	0.447	12.300	16.984
10	0.427	11.903	15.498
20	0.403	11.400	13.805
30	0.356	10.323	10.773
40	0.315	9.260	8.434
50	0.283	8.330	6.808
60	0.265	7.759	5.969
70	0.254	7.391	5.484
80	0.244	7.042	5.061
90	0.243	7.006	5.019
100	0.255	7.425	5.527
110	0.281	8.268	6.712
120	0.307	9.037	8.011
130	0.324	9.505	8.923
140	0.342	9.975	9.942
150	0.361	10.444	11.077
160	0.399	11.314	13.532
170	0.429	11.943	15.643
180	0.454	12.435	17.520
190	0.463	12.606	18.221
200	0.464	12.625	18.300
210	0.484	12.991	19.912
220	0.491	13.116	20.492
230	0.490	13.098	20.409
240	0.491	13.116	20.492
250	0.503	13.326	21.506
260	0.510	13.446	22.109
270	0.506	13.377	21.763
280	0.493	13.151	20.659
290	0.476	12.846	19.259
300	0.476	12.846	19.259
310	0.465	12.643	18.379
320	0.471	12.755	18.856
330	0.474	12.810	19.097
340	0.465	12.643	18.379
350	0.465	12.643	18.379



Proposal Number	C-00696
Date	8-Feb-08
Call Letters	WJWV
Location	Fort Gaines, GA
Customer	GA Public
Antenna Type	DCRC8CHVD
Frequency	90.90 MHz
Drawing #:	10

TABULATION OF VERTICAL AZIMUTH PATTERN

Rotation: 3 degrees CCW

Angle	Field	dBk	ERP kW
0	0.592	14.741	29.789
10	0.510	13.446	22.109
20	0.428	11.923	15.571
30	0.363	10.492	11.200
40	0.296	8.720	7.447
50	0.239	6.862	4.855
60	0.208	5.655	3.677
70	0.193	5.005	3.166
80	0.198	5.227	3.332
90	0.211	5.780	3.784
100	0.228	6.453	4.419
110	0.254	7.391	5.484
120	0.283	8.330	6.808
130	0.329	9.638	9.200
140	0.378	10.844	12.145
150	0.447	12.300	16.984
160	0.534	13.845	24.238
170	0.627	15.240	33.416
180	0.716	16.392	43.576
190	0.800	17.356	54.400
200	0.873	18.114	64.781
210	0.925	18.617	72.728
220	0.972	19.048	80.307
230	0.993	19.233	83.814
240	0.991	19.216	83.477
250	0.972	19.048	80.307
260	0.951	18.858	76.874
270	0.934	18.701	74.150
280	0.932	18.683	73.833
290	0.917	18.542	71.476
300	0.893	18.311	67.783
310	0.868	18.065	64.041
320	0.829	17.665	58.415
330	0.773	17.058	50.790
340	0.716	16.392	43.576
350	0.663	15.724	37.363



Rotation

Proposal Number
Date
Call Letters
Location
Customer
Antenna Type

3 deg CCW

C-00696
Feb 08, 2008
WJWV
Fort Gaines, GA
GA Public
DCRC8CHVD

Revision: 1

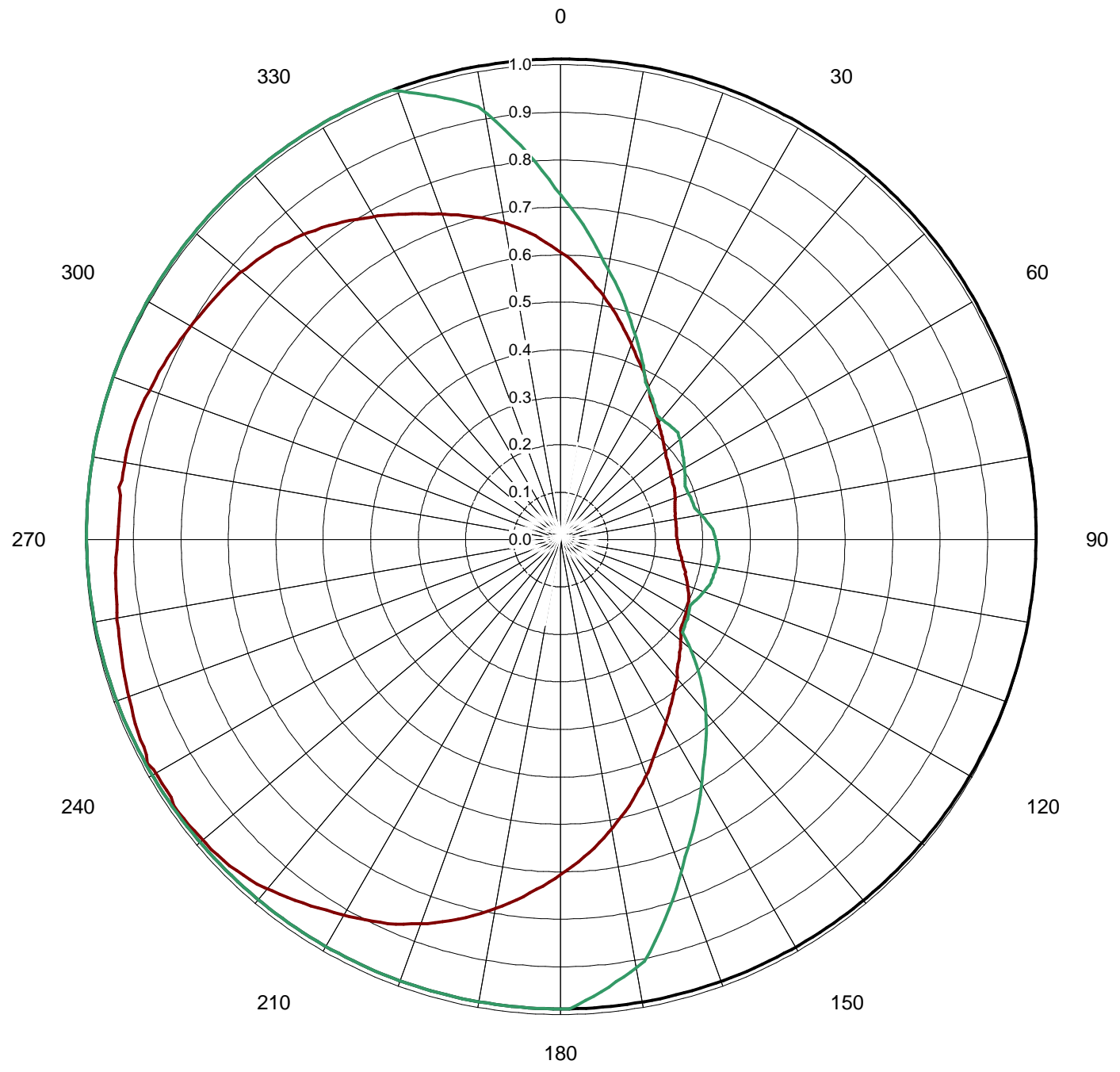
COMPOSITE AZIMUTH PATTERN

Calculated / Measured

Measured

Frequency
Drawing #

90.90 MHz
10





Proposal Number	C-00696
Date	8-Feb-08
Call Letters	WJWV
Location	Fort Gaines, GA
Customer	GA Public
Antenna Type	DCRC8CHVD
Frequency	90.90 MHz
Drawing #:	10

TABULATION OF COMPOSITE AZIMUTH PATTERN

Rotation: 3 degrees CCW

Angle	Field	dBk	Power kW	Input Power
0	0.592	14.741	29.789	85.000
10	0.510	13.446	22.109	85.000
20	0.428	11.923	15.571	85.000
30	0.363	10.492	11.200	85.000
40	0.315	9.260	8.434	85.000
50	0.283	8.330	6.808	85.000
60	0.265	7.759	5.969	85.000
70	0.254	7.391	5.484	85.000
80	0.244	7.042	5.061	85.000
90	0.243	7.006	5.019	85.000
100	0.255	7.425	5.527	85.000
110	0.281	8.268	6.712	85.000
120	0.307	9.037	8.011	85.000
130	0.329	9.638	9.200	85.000
140	0.378	10.844	12.145	85.000
150	0.447	12.300	16.984	85.000
160	0.534	13.845	24.238	85.000
170	0.627	15.240	33.416	85.000
180	0.716	16.392	43.576	85.000
190	0.800	17.356	54.400	85.000
200	0.873	18.114	64.781	85.000
210	0.925	18.617	72.728	85.000
220	0.972	19.048	80.307	85.000
230	0.993	19.233	83.814	85.000
240	0.991	19.216	83.477	85.000
250	0.972	19.048	80.307	85.000
260	0.951	18.858	76.874	85.000
270	0.934	18.701	74.150	85.000
280	0.932	18.683	73.833	85.000
290	0.917	18.542	71.476	85.000
300	0.893	18.311	67.783	85.000
310	0.868	18.065	64.041	85.000
320	0.829	17.665	58.415	85.000
330	0.773	17.058	50.790	85.000
340	0.716	16.392	43.576	85.000
350	0.663	15.724	37.363	85.000

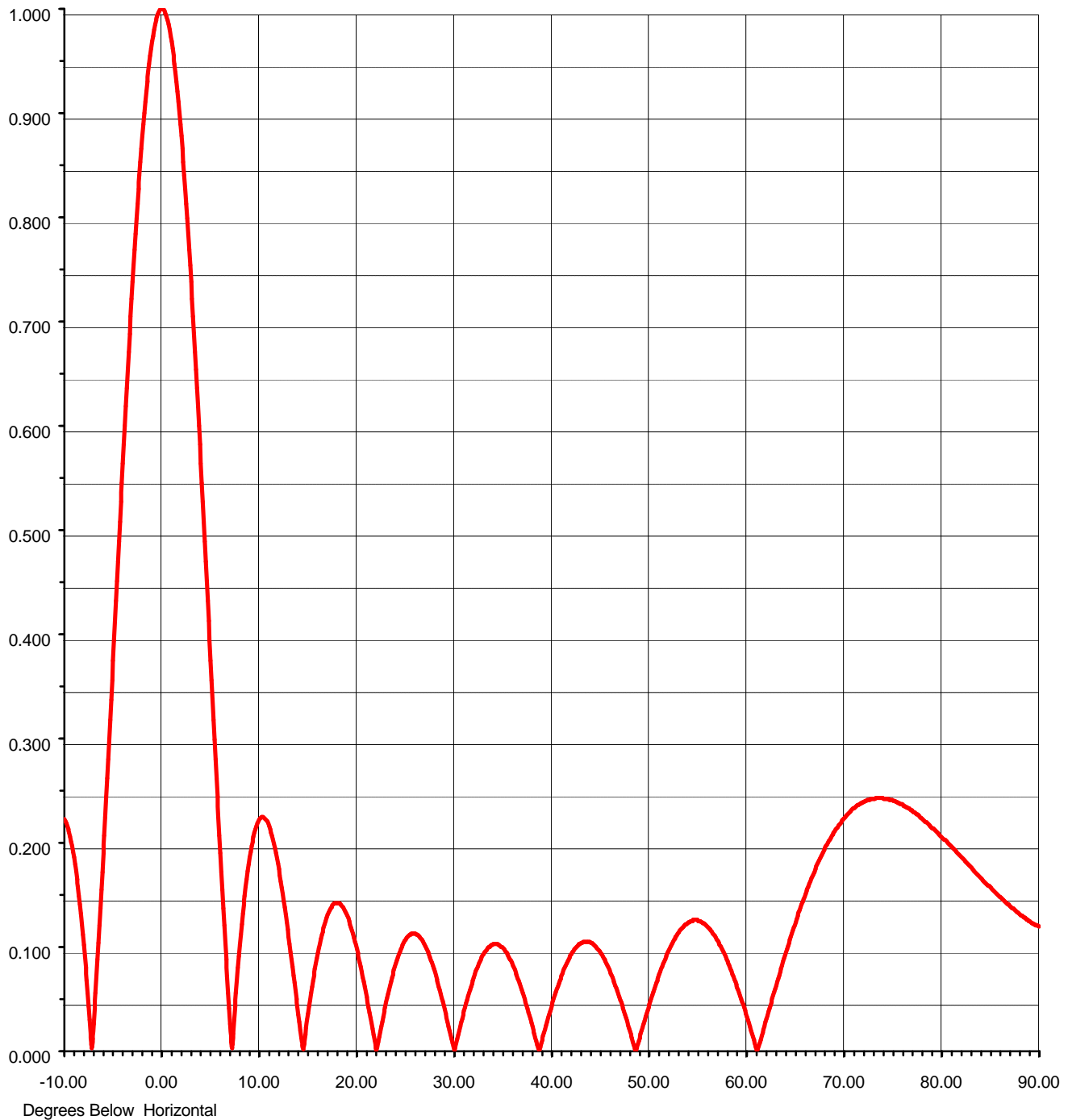


Proposal Number **C-00696**
Date **8-Feb-08**
Call Letters **WJWV**
Location **Fort Gaines, GA**
Customer **GA Public**
Antenna Type **DCRC8CHVD**
Drawing #

ELEVATION PATTERN

RMS Gain at VPOL **6.36 (8.03 dB)**
RMS Gain at HPOL **2.32 (3.65 dB)**
Calculated / Measured **Calculated**

Beam Tilt **0.00 deg**
Frequency **90.90 MHz**





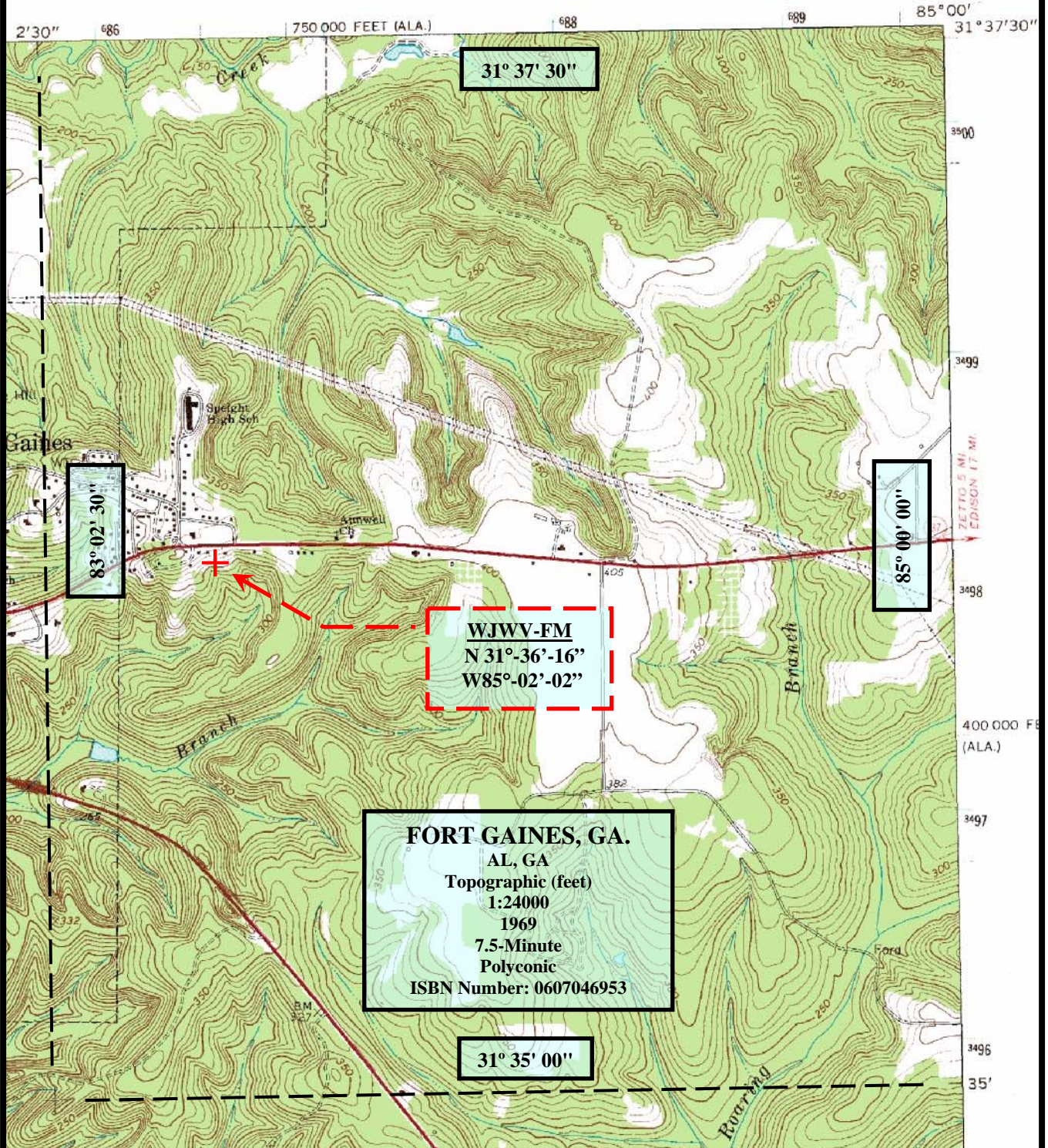
Proposal Number **C-00696**
 Date **12-Feb-08**
 Call Letters **WJWV**
 Location **Fort Gaines, GA**
 Customer **GA Public**
 Antenna Type **DCRC8CHVD**
 Frequency **90.90 MHz**

10

TABULATION OF ELEVATION PATTERN

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.223	10.5	0.224	31.0	0.039	51.5	0.086	72.0	0.239
-9.5	0.210	11.0	0.216	31.5	0.056	52.0	0.097	72.5	0.241
-9.0	0.186	11.5	0.199	32.0	0.071	52.5	0.107	73.0	0.242
-8.5	0.149	12.0	0.175	32.5	0.084	53.0	0.114	73.5	0.243
-8.0	0.102	12.5	0.144	33.0	0.093	53.5	0.120	74.0	0.242
-7.5	0.043	13.0	0.110	33.5	0.100	54.0	0.124	74.5	0.242
-7.0	0.026	13.5	0.073	34.0	0.103	54.5	0.126	75.0	0.240
-6.5	0.104	14.0	0.035	34.5	0.102	55.0	0.125	75.5	0.238
-6.0	0.190	14.5	0.002	35.0	0.099	55.5	0.123	76.0	0.236
-5.5	0.280	15.0	0.036	35.5	0.092	56.0	0.119	76.5	0.233
-5.0	0.375	15.5	0.068	36.0	0.082	56.5	0.113	77.0	0.230
-4.5	0.470	16.0	0.094	36.5	0.070	57.0	0.106	77.5	0.227
-4.0	0.564	16.5	0.115	37.0	0.056	57.5	0.097	78.0	0.223
-3.5	0.654	17.0	0.131	37.5	0.041	58.0	0.086	78.5	0.219
-3.0	0.738	17.5	0.140	38.0	0.024	58.5	0.074	79.0	0.214
-2.5	0.813	18.0	0.142	38.5	0.006	59.0	0.061	79.5	0.210
-2.0	0.878	18.5	0.139	39.0	0.011	59.5	0.047	80.0	0.205
-1.5	0.930	19.0	0.130	39.5	0.028	60.0	0.033	80.5	0.201
-1.0	0.969	19.5	0.116	40.0	0.045	60.5	0.017	81.0	0.196
-0.5	0.992	20.0	0.098	40.5	0.060	61.0	0.001	81.5	0.191
0.0	1.000	20.5	0.076	41.0	0.073	61.5	0.015	82.0	0.186
0.5	0.992	21.0	0.052	41.5	0.084	62.0	0.031	82.5	0.181
1.0	0.969	21.5	0.027	42.0	0.093	62.5	0.047	83.0	0.176
1.5	0.930	22.0	0.001	42.5	0.100	63.0	0.063	83.5	0.171
2.0	0.878	22.5	0.024	43.0	0.104	63.5	0.079	84.0	0.166
2.5	0.813	23.0	0.047	43.5	0.105	64.0	0.095	84.5	0.161
3.0	0.738	23.5	0.067	44.0	0.104	64.5	0.110	85.0	0.157
3.5	0.654	24.0	0.084	44.5	0.100	65.0	0.124	85.5	0.152
4.0	0.564	24.5	0.098	45.0	0.094	65.5	0.138	86.0	0.148
4.5	0.470	25.0	0.107	45.5	0.086	66.0	0.151	86.5	0.143
5.0	0.375	25.5	0.112	46.0	0.075	66.5	0.163	87.0	0.139
5.5	0.280	26.0	0.113	46.5	0.063	67.0	0.175	87.5	0.135
6.0	0.190	26.5	0.109	47.0	0.049	67.5	0.185	88.0	0.131
6.5	0.104	27.0	0.101	47.5	0.035	68.0	0.195	88.5	0.128
7.0	0.026	27.5	0.090	48.0	0.019	68.5	0.203	89.0	0.125
7.5	0.043	28.0	0.076	48.5	0.003	69.0	0.211	89.5	0.122
8.0	0.102	28.5	0.059	49.0	0.013	69.5	0.218	90.0	0.120
8.5	0.149	29.0	0.040	49.5	0.029	70.0	0.224		
9.0	0.186	29.5	0.020	50.0	0.045	70.5	0.229		
9.5	0.210	30.0	0.000	50.5	0.060	71.0	0.233		
10.0	0.223	30.5	0.020	51.0	0.074	71.5	0.237		

FORT GAINES QUADRANGLE
ALABAMA-GEORGIA
7.5 MINUTE SERIES (TOPOGRAPHIC)

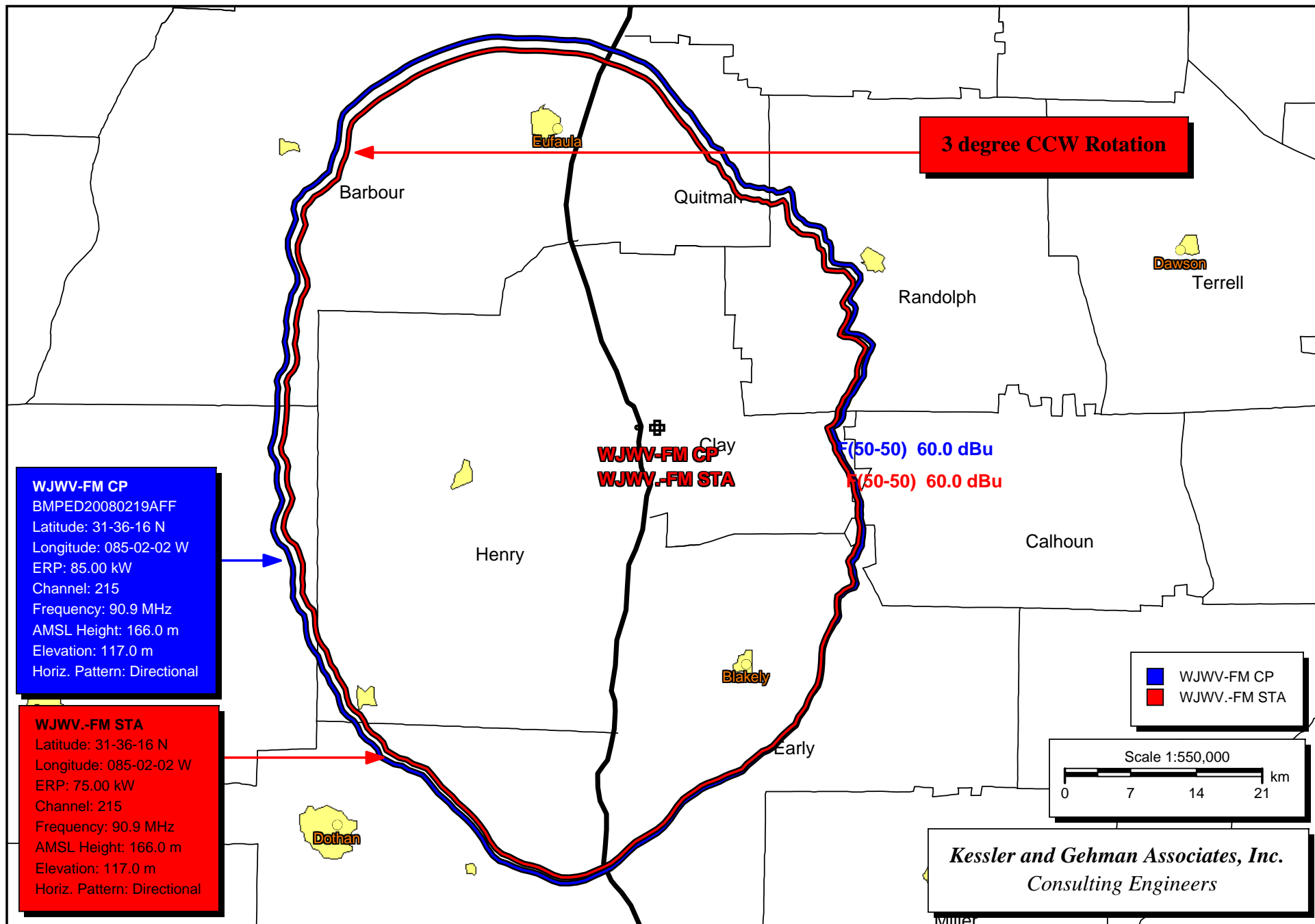


KESSLER AND GEHMAN
TELECOMMUNICATIONS CONSULTING ENGINEERS
507 N.W. 60th Street, Suite C
Gainesville, Florida 32607

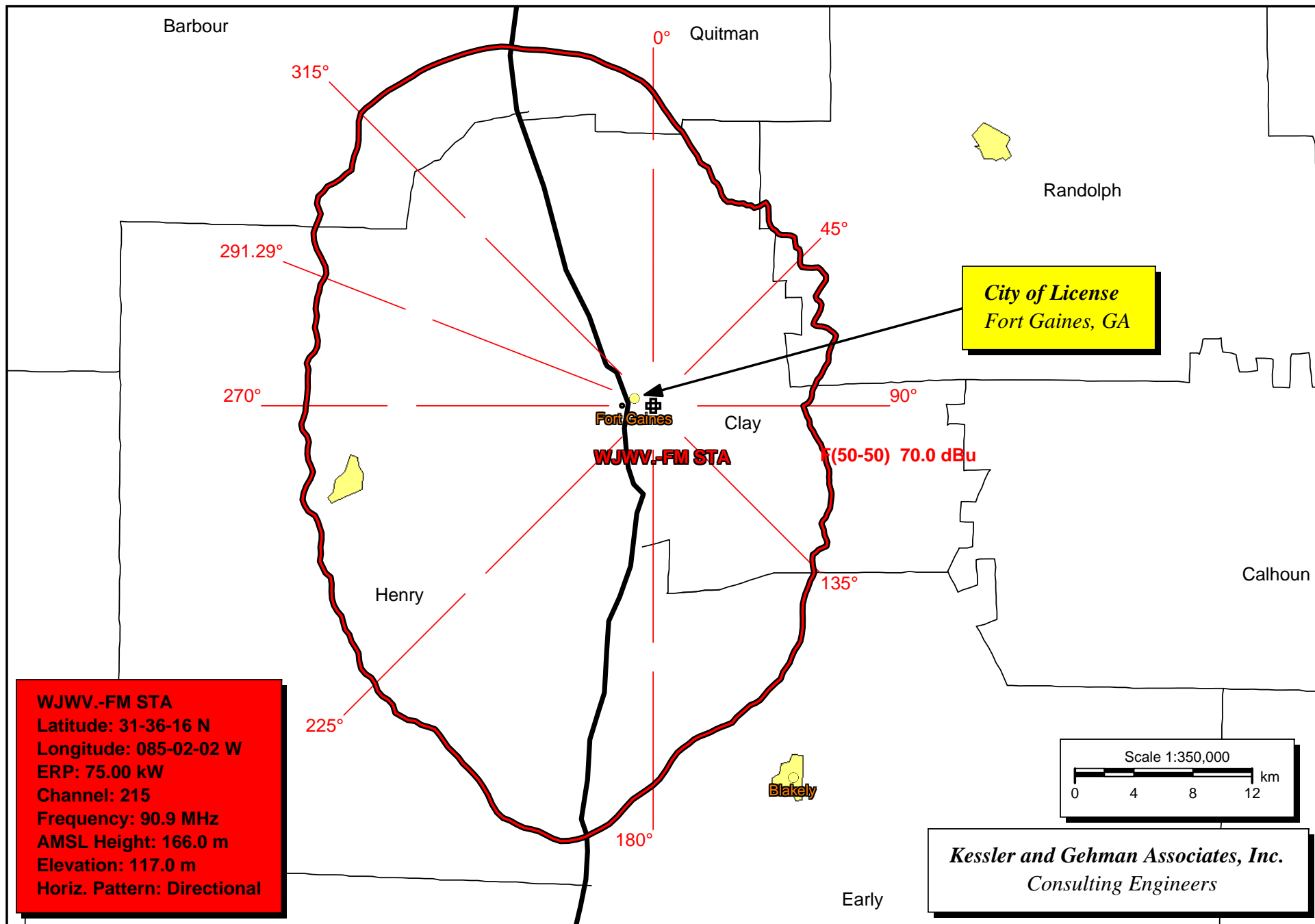
WJWV-FM CHANNEL 215 STA
FORT GAINES, GEORGIA

20090130

EXHIBIT 11



WJWV-FM (CP) vs. WJWV-FM (STA) F(50,50) 60 dBu Contours



WJWV-FM STA F(50,50) 70 dBuV/m Principal Community Contour

Distance to Contour Values for WJWV-FM Channel 215 CP Facility

Call Letters: WJWV-FM CP
File Number: BMPED20080219AFF
Latitude: 31-36-16 N
Longitude: 085-02-02 W
ERP: 85.00 kW
Channel: 215
Frequency: 90.9 MHz
AMSL Height: 166.0 m
Elevation: 117.0 m
HAAT: 77.5 m
Horiz. Antenna Pattern: Directional

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
of Radials Calculated: 360
FCC Matching HAAT Calculation Used
Field Strength: 60.00 dBuV/m

Primary Terrain: 3 Second US Terrain

Bearing (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	37.7	84.6
1.0	36.9	81.6
2.0	36.0	78.5
3.0	35.4	76.3
4.0	34.7	74.1
5.0	34.1	72.5
6.0	33.7	71.8
7.0	33.0	69.8
8.0	32.3	67.8
9.0	31.8	66.4
10.0	31.3	65.3
11.0	30.6	63.2
12.0	30.4	63.5
13.0	30.3	64.2
14.0	29.7	62.3
15.0	29.2	60.6
16.0	29.0	61.2
17.0	28.6	60.3
18.0	27.9	58.1
19.0	27.6	57.3
20.0	27.4	57.5
21.0	27.6	59.4
22.0	27.6	60.6
23.0	27.7	62.2
24.0	27.9	64.7
25.0	27.9	65.5
26.0	28.1	68.0
27.0	28.0	68.7
28.0	28.4	71.9
29.0	29.0	77.0
30.0	28.8	76.8
31.0	28.1	74.0
32.0	27.5	71.1
33.0	27.1	70.0

Distance to Contour Values for WJWV-FM Channel 215 CP Facility

34.0	27.0	70.1
35.0	27.0	71.4
36.0	26.9	71.7
37.0	27.0	73.5
38.0	27.3	76.3
39.0	27.5	78.9
40.0	27.5	80.3
41.0	27.1	78.6
42.0	26.8	77.1
43.0	26.9	78.8
44.0	26.6	77.8
45.0	26.2	75.6
46.0	25.8	73.7
47.0	25.7	74.0
48.0	26.0	76.9
49.0	26.4	80.4
50.0	26.9	84.7
51.0	27.0	85.8
52.0	27.0	86.2
53.0	27.0	87.1
54.0	26.7	85.5
55.0	25.6	78.3
56.0	24.6	72.6
57.0	24.5	72.4
58.0	24.7	74.1
59.0	24.7	74.2
60.0	24.3	72.0
61.0	23.7	68.6
62.0	23.0	64.1
63.0	22.6	61.7
64.0	22.8	63.7
65.0	23.5	68.7
66.0	24.0	71.9
67.0	24.2	73.8
68.0	24.4	75.8
69.0	24.6	77.1
70.0	24.2	74.9
71.0	23.7	71.7
72.0	23.4	70.0
73.0	23.1	68.2
74.0	22.9	67.0
75.0	22.8	66.6
76.0	22.7	66.1
77.0	22.2	63.3
78.0	21.8	61.1
79.0	21.5	59.4
80.0	21.2	57.5
81.0	20.7	55.0
82.0	20.5	53.9
83.0	20.3	52.9
84.0	20.0	51.5
85.0	19.9	50.9
86.0	19.9	50.7
87.0	19.8	50.3
88.0	19.5	49.2
89.0	19.2	47.7
90.0	18.5	44.7

Distance to Contour Values for WJWV-FM Channel 215 CP Facility

91.0	18.7	45.0
92.0	18.8	45.5
93.0	18.9	45.8
94.0	19.1	46.3
95.0	19.3	47.3
96.0	19.5	47.6
97.0	19.5	47.6
98.0	19.7	48.1
99.0	20.0	49.2
100.0	20.1	49.8
101.0	20.5	50.9
102.0	20.8	52.1
103.0	21.2	53.5
104.0	21.4	54.1
105.0	21.8	55.6
106.0	22.1	56.6
107.0	22.2	56.8
108.0	22.4	57.3
109.0	22.7	58.4
110.0	23.1	60.0
111.0	23.2	60.6
112.0	23.3	60.6
113.0	23.5	61.3
114.0	23.7	61.7
115.0	24.1	63.3
116.0	24.4	64.9
117.0	24.6	65.5
118.0	24.8	66.0
119.0	24.9	66.4
120.0	25.1	67.1
121.0	25.1	66.7
122.0	25.2	66.5
123.0	25.3	66.6
124.0	25.2	65.5
125.0	25.3	65.4
126.0	25.9	68.8
127.0	26.3	70.8
128.0	26.9	74.2
129.0	27.0	74.4
130.0	26.7	71.9
131.0	26.5	69.7
132.0	26.5	68.6
133.0	26.4	67.1
134.0	26.8	68.1
135.0	27.3	69.9
136.0	27.9	72.5
137.0	28.1	72.6
138.0	28.1	72.0
139.0	28.3	72.0
140.0	28.4	72.0
141.0	28.7	71.9
142.0	29.0	72.3
143.0	29.3	73.0
144.0	29.9	74.8
145.0	30.6	77.2
146.0	31.3	79.5
147.0	31.9	81.3

Distance to Contour Values for WJWV-FM Channel 215 CP Facility

148.0	32.3	82.5
149.0	32.6	82.5
150.0	32.8	82.3
151.0	33.2	82.8
152.0	33.7	84.0
153.0	34.0	84.0
154.0	34.3	84.1
155.0	34.9	85.6
156.0	35.1	85.0
157.0	35.3	84.7
158.0	35.5	84.5
159.0	35.8	84.8
160.0	36.2	85.1
161.0	36.3	84.5
162.0	36.3	83.3
163.0	36.6	83.3
164.0	36.9	83.5
165.0	37.2	83.6
166.0	37.6	84.6
167.0	37.8	84.0
168.0	37.9	83.2
169.0	38.0	82.7
170.0	38.2	82.6
171.0	38.4	82.2
172.0	38.5	81.7
173.0	38.7	81.8
174.0	39.1	82.7
175.0	39.5	83.5
176.0	39.9	84.6
177.0	40.7	87.3
178.0	41.6	91.4
179.0	42.5	94.9
180.0	43.1	97.2
181.0	43.6	98.8
182.0	44.1	100.4
183.0	44.5	102.1
184.0	45.4	105.9
185.0	46.3	110.4
186.0	47.1	114.2
187.0	47.6	116.4
188.0	48.2	118.6
189.0	48.7	121.1
190.0	49.1	122.3
191.0	49.4	123.1
192.0	49.5	123.1
193.0	49.4	121.4
194.0	49.3	119.0
195.0	49.1	116.8
196.0	49.1	115.8
197.0	49.1	115.2
198.0	49.1	113.9
199.0	49.0	112.3
200.0	49.0	111.5
201.0	48.7	109.2
202.0	48.2	105.5
203.0	47.5	101.2
204.0	47.0	97.9

Distance to Contour Values for WJWV-FM Channel 215 CP Facility

205.0	46.6	95.2
206.0	46.3	93.2
207.0	46.1	91.5
208.0	45.9	90.2
209.0	45.6	88.1
210.0	45.5	86.8
211.0	45.3	85.7
212.0	45.0	83.8
213.0	44.7	82.1
214.0	44.5	80.8
215.0	44.7	81.3
216.0	45.0	82.0
217.0	45.0	81.8
218.0	45.4	83.3
219.0	45.6	83.6
220.0	45.7	84.0
221.0	45.3	81.8
222.0	45.2	81.3
223.0	45.4	81.8
224.0	45.3	81.4
225.0	45.0	79.6
226.0	44.8	78.8
227.0	45.0	79.4
228.0	45.0	79.2
229.0	44.7	77.7
230.0	44.3	75.6
231.0	44.2	75.2
232.0	44.1	74.9
233.0	43.9	73.8
234.0	43.9	74.0
235.0	43.7	73.0
236.0	43.4	72.0
237.0	43.5	72.3
238.0	43.5	72.4
239.0	43.4	71.7
240.0	43.1	70.5
241.0	42.7	68.9
242.0	42.5	68.1
243.0	42.7	69.3
244.0	42.7	69.4
245.0	42.7	69.6
246.0	42.3	67.9
247.0	42.1	67.1
248.0	41.7	65.6
249.0	41.5	64.7
250.0	41.4	64.7
251.0	41.4	64.8
252.0	41.5	65.3
253.0	42.0	67.7
254.0	42.2	68.6
255.0	42.3	69.0
256.0	42.0	68.0
257.0	41.5	66.2
258.0	41.0	63.9
259.0	40.6	62.4
260.0	40.7	63.0
261.0	40.8	63.8

Distance to Contour Values for WJWV-FM Channel 215 CP Facility

262.0	40.8	64.0
263.0	40.7	63.6
264.0	40.5	62.9
265.0	40.7	63.5
266.0	41.1	65.5
267.0	41.2	66.0
268.0	40.9	64.9
269.0	40.7	64.0
270.0	40.6	63.8
271.0	40.5	63.4
272.0	40.4	63.2
273.0	40.4	63.2
274.0	40.5	63.4
275.0	40.5	63.6
276.0	40.5	63.5
277.0	40.7	64.6
278.0	40.6	64.0
279.0	40.2	62.2
280.0	40.0	61.5
281.0	40.0	61.8
282.0	40.3	63.1
283.0	40.6	64.6
284.0	40.7	64.7
285.0	40.7	65.2
286.0	41.0	66.6
287.0	41.1	67.2
288.0	41.2	67.7
289.0	41.3	67.9
290.0	41.4	68.6
291.0	41.2	68.2
292.0	41.2	68.2
293.0	41.6	69.9
294.0	42.3	73.4
295.0	43.1	77.3
296.0	43.7	80.3
297.0	44.0	82.2
298.0	44.1	82.9
299.0	44.2	83.4
300.0	44.3	84.2
301.0	45.1	88.4
302.0	45.4	89.9
303.0	45.2	89.2
304.0	45.2	89.3
305.0	44.8	87.6
306.0	44.5	86.6
307.0	44.4	86.3
308.0	44.2	85.6
309.0	44.6	87.9
310.0	45.0	89.8
311.0	45.2	91.3
312.0	45.6	93.8
313.0	46.2	97.4
314.0	46.8	101.3
315.0	47.2	104.0
316.0	47.2	104.6
317.0	47.2	104.7
318.0	47.2	105.2

Distance to Contour Values for WJWV-FM Channel 215 CP Facility

319.0	47.2	105.7
320.0	47.2	106.1
321.0	47.0	106.1
322.0	46.9	106.2
323.0	46.9	106.5
324.0	46.8	106.8
325.0	46.8	107.5
326.0	46.7	107.8
327.0	46.6	107.9
328.0	46.5	107.9
329.0	46.4	107.9
330.0	46.2	107.9
331.0	46.1	107.9
332.0	46.0	107.9
333.0	45.8	107.9
334.0	45.7	107.8
335.0	45.5	107.6
336.0	45.3	107.2
337.0	45.1	106.7
338.0	44.8	105.7
339.0	44.4	104.1
340.0	44.1	102.7
341.0	43.8	101.8
342.0	43.5	101.1
343.0	43.3	100.4
344.0	43.0	99.6
345.0	42.8	98.8
346.0	42.5	97.9
347.0	42.3	97.5
348.0	42.1	97.3
349.0	41.9	96.7
350.0	41.7	96.1
351.0	41.2	94.7
352.0	40.8	93.3
353.0	40.5	92.5
354.0	40.2	91.8
355.0	39.9	91.0
356.0	39.5	89.9
357.0	39.1	89.1
358.0	38.8	88.4
359.0	38.3	86.9

Distance to Contour Values for Proposed WJWV-FM Channel 215 STA Facility

Call Letters: WJWV.-FM STA
Latitude: 31-36-16 N
Longitude: 085-02-02 W
ERP: 75.00 kW
Channel: 215
Frequency: 90.9 MHz
AMSL Height: 166.0 m
Elevation: 117.0 m
HAAT: 77.5 m
Horiz. Antenna Pattern: Directional

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
of Radials Calculated: 360
FCC Matching HAAT Calculation Used
Field Strength: 60.00 dBuV/m

Primary Terrain: 3 Second US Terrain

Bearing (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	36.0	84.6
1.0	35.2	81.6
2.0	34.4	78.5
3.0	33.7	76.3
4.0	33.0	74.1
5.0	32.4	72.5
6.0	32.0	71.8
7.0	31.3	69.8
8.0	30.6	67.8
9.0	30.1	66.4
10.0	29.7	65.3
11.0	29.1	63.2
12.0	28.9	63.5
13.0	28.8	64.2
14.0	28.2	62.3
15.0	27.7	60.6
16.0	27.5	61.2
17.0	27.1	60.3
18.0	26.5	58.1
19.0	26.2	57.3
20.0	26.1	57.5
21.0	26.2	59.4
22.0	26.2	60.6
23.0	26.3	62.2
24.0	26.6	64.7
25.0	26.5	65.5
26.0	26.7	68.0
27.0	26.6	68.7
28.0	27.0	71.9
29.0	27.7	77.0
30.0	27.5	76.8
31.0	26.8	74.0
32.0	26.2	71.1
33.0	25.9	70.0
34.0	25.7	70.1

Distance to Contour Values for Proposed WJWV-FM Channel 215 STA Facility

35.0	25.7	71.4
36.0	25.6	71.7
37.0	25.7	73.5
38.0	26.0	76.3
39.0	26.3	78.9
40.0	26.4	80.3
41.0	26.0	78.6
42.0	25.7	77.1
43.0	25.8	78.8
44.0	25.5	77.8
45.0	25.1	75.6
46.0	24.7	73.7
47.0	24.6	74.0
48.0	25.0	76.9
49.0	25.4	80.4
50.0	25.9	84.7
51.0	26.0	85.8
52.0	26.0	86.2
53.0	26.1	87.1
54.0	25.8	85.5
55.0	24.6	78.3
56.0	23.7	72.6
57.0	23.6	72.4
58.0	23.8	74.1
59.0	23.8	74.2
60.0	23.4	72.0
61.0	22.9	68.6
62.0	22.2	64.1
63.0	21.8	61.7
64.0	22.0	63.7
65.0	22.7	68.7
66.0	23.2	71.9
67.0	23.4	73.8
68.0	23.6	75.8
69.0	23.8	77.1
70.0	23.4	74.9
71.0	22.9	71.7
72.0	22.6	70.0
73.0	22.3	68.2
74.0	22.1	67.0
75.0	22.0	66.6
76.0	21.9	66.1
77.0	21.4	63.3
78.0	21.1	61.1
79.0	20.8	59.4
80.0	20.5	57.5
81.0	20.1	55.0
82.0	19.9	53.9
83.0	19.7	52.9
84.0	19.4	51.5
85.0	19.3	50.9
86.0	19.2	50.7
87.0	19.1	50.3
88.0	19.0	49.2
89.0	18.7	47.7
90.0	18.1	44.7
91.0	18.2	45.0

Distance to Contour Values for Proposed WJVV-FM Channel 215 STA Facility

92.0	18.3	45.5
93.0	18.5	45.8
94.0	18.6	46.3
95.0	18.9	47.3
96.0	19.0	47.6
97.0	19.0	47.6
98.0	19.3	48.1
99.0	19.6	49.2
100.0	19.8	49.8
101.0	20.1	50.9
102.0	20.5	52.1
103.0	20.9	53.5
104.0	21.1	54.1
105.0	21.4	55.6
106.0	21.7	56.6
107.0	21.8	56.8
108.0	22.0	57.3
109.0	22.3	58.4
110.0	22.7	60.0
111.0	22.9	60.6
112.0	23.0	60.6
113.0	23.2	61.3
114.0	23.3	61.7
115.0	23.7	63.3
116.0	24.0	64.9
117.0	24.2	65.5
118.0	24.3	66.0
119.0	24.5	66.4
120.0	24.7	67.1
121.0	24.7	66.7
122.0	24.7	66.5
123.0	24.8	66.6
124.0	24.7	65.5
125.0	24.8	65.4
126.0	25.4	68.8
127.0	25.8	70.8
128.0	26.5	74.2
129.0	26.7	74.4
130.0	26.5	71.9
131.0	26.3	69.7
132.0	26.3	68.6
133.0	26.2	67.1
134.0	26.5	68.1
135.0	27.0	69.9
136.0	27.6	72.5
137.0	27.8	72.6
138.0	27.9	72.0
139.0	28.1	72.0
140.0	28.3	72.0
141.0	28.5	71.9
142.0	28.8	72.3
143.0	29.2	73.0
144.0	29.7	74.8
145.0	30.4	77.2
146.0	31.0	79.5
147.0	31.6	81.3
148.0	32.2	82.5

Distance to Contour Values for Proposed WJWV-FM Channel 215 STA Facility

149.0	32.5	82.5
150.0	32.7	82.3
151.0	33.1	82.8
152.0	33.6	84.0
153.0	33.9	84.0
154.0	34.2	84.1
155.0	34.8	85.6
156.0	34.9	85.0
157.0	35.1	84.7
158.0	35.3	84.5
159.0	35.6	84.8
160.0	36.0	85.1
161.0	36.1	84.5
162.0	36.1	83.3
163.0	36.4	83.3
164.0	36.7	83.5
165.0	37.0	83.6
166.0	37.4	84.6
167.0	37.5	84.0
168.0	37.6	83.2
169.0	37.7	82.7
170.0	37.9	82.6
171.0	38.0	82.2
172.0	38.2	81.7
173.0	38.4	81.8
174.0	38.8	82.7
175.0	39.1	83.5
176.0	39.5	84.6
177.0	40.3	87.3
178.0	41.2	91.4
179.0	42.1	94.9
180.0	42.6	97.2
181.0	43.1	98.8
182.0	43.6	100.4
183.0	44.1	102.1
184.0	44.9	105.9
185.0	45.8	110.4
186.0	46.6	114.2
187.0	47.1	116.4
188.0	47.6	118.6
189.0	48.1	121.1
190.0	48.4	122.3
191.0	48.7	123.1
192.0	48.9	123.1
193.0	48.8	121.4
194.0	48.6	119.0
195.0	48.4	116.8
196.0	48.4	115.8
197.0	48.5	115.2
198.0	48.4	113.9
199.0	48.2	112.3
200.0	48.2	111.5
201.0	47.9	109.2
202.0	47.4	105.5
203.0	46.7	101.2
204.0	46.2	97.9
205.0	45.8	95.2

Distance to Contour Values for Proposed WJVV-FM Channel 215 STA Facility

206.0	45.5	93.2
207.0	45.3	91.5
208.0	45.1	90.2
209.0	44.8	88.1
210.0	44.6	86.8
211.0	44.5	85.7
212.0	44.2	83.8
213.0	43.9	82.1
214.0	43.7	80.8
215.0	43.9	81.3
216.0	44.2	82.0
217.0	44.2	81.8
218.0	44.5	83.3
219.0	44.6	83.6
220.0	44.8	84.0
221.0	44.3	81.8
222.0	44.3	81.3
223.0	44.4	81.8
224.0	44.4	81.4
225.0	44.0	79.6
226.0	43.9	78.8
227.0	44.0	79.4
228.0	44.0	79.2
229.0	43.7	77.7
230.0	43.2	75.6
231.0	43.1	75.2
232.0	43.1	74.9
233.0	42.8	73.8
234.0	42.9	74.0
235.0	42.6	73.0
236.0	42.4	72.0
237.0	42.5	72.3
238.0	42.5	72.4
239.0	42.3	71.7
240.0	42.0	70.5
241.0	41.6	68.9
242.0	41.4	68.1
243.0	41.6	69.3
244.0	41.6	69.4
245.0	41.6	69.6
246.0	41.2	67.9
247.0	41.0	67.1
248.0	40.6	65.6
249.0	40.3	64.7
250.0	40.3	64.7
251.0	40.3	64.8
252.0	40.4	65.3
253.0	40.9	67.7
254.0	41.1	68.6
255.0	41.1	69.0
256.0	40.8	68.0
257.0	40.4	66.2
258.0	39.8	63.9
259.0	39.5	62.4
260.0	39.6	63.0
261.0	39.7	63.8
262.0	39.7	64.0

Distance to Contour Values for Proposed WJVV-FM Channel 215 STA Facility

263.0	39.6	63.6
264.0	39.4	62.9
265.0	39.5	63.5
266.0	40.0	65.5
267.0	40.1	66.0
268.0	39.8	64.9
269.0	39.6	64.0
270.0	39.5	63.8
271.0	39.5	63.4
272.0	39.4	63.2
273.0	39.4	63.2
274.0	39.4	63.4
275.0	39.5	63.6
276.0	39.5	63.5
277.0	39.7	64.6
278.0	39.5	64.0
279.0	39.1	62.2
280.0	38.9	61.5
281.0	39.0	61.8
282.0	39.2	63.1
283.0	39.5	64.6
284.0	39.6	64.7
285.0	39.6	65.2
286.0	39.9	66.6
287.0	40.0	67.2
288.0	40.1	67.7
289.0	40.1	67.9
290.0	40.2	68.6
291.0	40.1	68.2
292.0	40.1	68.2
293.0	40.4	69.9
294.0	41.1	73.4
295.0	41.9	77.3
296.0	42.5	80.3
297.0	42.9	82.2
298.0	43.0	82.9
299.0	43.0	83.4
300.0	43.1	84.2
301.0	43.9	88.4
302.0	44.2	89.9
303.0	44.0	89.2
304.0	44.0	89.3
305.0	43.6	87.6
306.0	43.3	86.6
307.0	43.2	86.3
308.0	43.0	85.6
309.0	43.4	87.9
310.0	43.7	89.8
311.0	43.9	91.3
312.0	44.3	93.8
313.0	44.9	97.4
314.0	45.5	101.3
315.0	45.9	104.0
316.0	45.9	104.6
317.0	45.8	104.7
318.0	45.8	105.2
319.0	45.8	105.7

Distance to Contour Values for Proposed WJWV-FM Channel 215 STA Facility

320.0	45.7	106.1
321.0	45.6	106.1
322.0	45.5	106.2
323.0	45.4	106.5
324.0	45.3	106.8
325.0	45.3	107.5
326.0	45.3	107.8
327.0	45.2	107.9
328.0	45.0	107.9
329.0	44.9	107.9
330.0	44.8	107.9
331.0	44.7	107.9
332.0	44.5	107.9
333.0	44.4	107.9
334.0	44.2	107.8
335.0	44.1	107.6
336.0	43.9	107.2
337.0	43.7	106.7
338.0	43.4	105.7
339.0	43.0	104.1
340.0	42.6	102.7
341.0	42.4	101.8
342.0	42.1	101.1
343.0	41.9	100.4
344.0	41.6	99.6
345.0	41.4	98.8
346.0	41.1	97.9
347.0	40.9	97.5
348.0	40.7	97.3
349.0	40.4	96.7
350.0	40.1	96.1
351.0	39.7	94.7
352.0	39.3	93.3
353.0	38.9	92.5
354.0	38.6	91.8
355.0	38.3	91.0
356.0	37.9	89.9
357.0	37.6	89.1
358.0	37.2	88.4
359.0	36.7	86.9

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

Radial	WJWV-FM CP distance to contours (km)	WJWV-FM STA distance to contours (km)	PASS OR FAIL	Difference
0	37.7	36.0	PASS	1.7
1	36.9	35.2	PASS	1.7
2	36.0	34.4	PASS	1.6
3	35.4	33.7	PASS	1.7
4	34.7	33.0	PASS	1.7
5	34.1	32.4	PASS	1.7
6	33.7	32.0	PASS	1.7
7	33.0	31.3	PASS	1.7
8	32.3	30.6	PASS	1.7
9	31.8	30.1	PASS	1.7
10	31.3	29.7	PASS	1.6
11	30.6	29.1	PASS	1.5
12	30.4	28.9	PASS	1.5
13	30.3	28.8	PASS	1.5
14	29.7	28.2	PASS	1.5
15	29.2	27.7	PASS	1.5
16	29.0	27.5	PASS	1.5
17	28.6	27.1	PASS	1.5
18	27.9	26.5	PASS	1.4
19	27.6	26.2	PASS	1.4
20	27.4	26.1	PASS	1.3
21	27.6	26.2	PASS	1.4
22	27.6	26.2	PASS	1.4
23	27.7	26.3	PASS	1.4
24	27.9	26.6	PASS	1.3
25	27.9	26.5	PASS	1.4
26	28.1	26.7	PASS	1.4
27	28.0	26.6	PASS	1.4
28	28.4	27.0	PASS	1.4
29	29.0	27.7	PASS	1.3
30	28.8	27.5	PASS	1.3
31	28.1	26.8	PASS	1.3
32	27.5	26.2	PASS	1.3
33	27.1	25.9	PASS	1.2
34	27.0	25.7	PASS	1.3
35	27.0	25.7	PASS	1.3
36	26.9	25.6	PASS	1.3
37	27.0	25.7	PASS	1.3
38	27.3	26.0	PASS	1.3
39	27.5	26.3	PASS	1.2

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

40	27.5	26.4	PASS	1.1
41	27.1	26.0	PASS	1.1
42	26.8	25.7	PASS	1.1
43	26.9	25.8	PASS	1.1
44	26.6	25.5	PASS	1.1
45	26.2	25.1	PASS	1.1
46	25.8	24.7	PASS	1.1
47	25.7	24.6	PASS	1.1
48	26.0	25.0	PASS	1.0
49	26.4	25.4	PASS	1.0
50	26.9	25.9	PASS	1.0
51	27.0	26.0	PASS	1.0
52	27.0	26.0	PASS	1.0
53	27.0	26.1	PASS	0.9
54	26.7	25.8	PASS	0.9
55	25.6	24.6	PASS	1.0
56	24.6	23.7	PASS	0.9
57	24.5	23.6	PASS	0.9
58	24.7	23.8	PASS	0.9
59	24.7	23.8	PASS	0.9
60	24.3	23.4	PASS	0.9
61	23.7	22.9	PASS	0.8
62	23.0	22.2	PASS	0.8
63	22.6	21.8	PASS	0.8
64	22.8	22.0	PASS	0.8
65	23.5	22.7	PASS	0.8
66	24.0	23.2	PASS	0.8
67	24.2	23.4	PASS	0.8
68	24.4	23.6	PASS	0.8
69	24.6	23.8	PASS	0.8
70	24.2	23.4	PASS	0.8
71	23.7	22.9	PASS	0.8
72	23.4	22.6	PASS	0.8
73	23.1	22.3	PASS	0.8
74	22.9	22.1	PASS	0.8
75	22.8	22.0	PASS	0.8
76	22.7	21.9	PASS	0.8
77	22.2	21.4	PASS	0.8
78	21.8	21.1	PASS	0.7
79	21.5	20.8	PASS	0.7
80	21.2	20.5	PASS	0.7
81	20.7	20.1	PASS	0.6

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

82	20.5	19.9	PASS	0.6
83	20.3	19.7	PASS	0.6
84	20.0	19.4	PASS	0.6
85	19.9	19.3	PASS	0.6
86	19.9	19.2	PASS	0.7
87	19.8	19.1	PASS	0.7
88	19.5	19.0	PASS	0.5
89	19.2	18.7	PASS	0.5
90	18.5	18.1	PASS	0.4
91	18.7	18.2	PASS	0.5
92	18.8	18.3	PASS	0.5
93	18.9	18.5	PASS	0.4
94	19.1	18.6	PASS	0.5
95	19.3	18.9	PASS	0.4
96	19.5	19.0	PASS	0.5
97	19.5	19.0	PASS	0.5
98	19.7	19.3	PASS	0.4
99	20.0	19.6	PASS	0.4
100	20.1	19.8	PASS	0.3
101	20.5	20.1	PASS	0.4
102	20.8	20.5	PASS	0.3
103	21.2	20.9	PASS	0.3
104	21.4	21.1	PASS	0.3
105	21.8	21.4	PASS	0.4
106	22.1	21.7	PASS	0.4
107	22.2	21.8	PASS	0.4
108	22.4	22.0	PASS	0.4
109	22.7	22.3	PASS	0.4
110	23.1	22.7	PASS	0.4
111	23.2	22.9	PASS	0.3
112	23.3	23.0	PASS	0.3
113	23.5	23.2	PASS	0.3
114	23.7	23.3	PASS	0.4
115	24.1	23.7	PASS	0.4
116	24.4	24.0	PASS	0.4
117	24.6	24.2	PASS	0.4
118	24.8	24.3	PASS	0.5
119	24.9	24.5	PASS	0.4
120	25.1	24.7	PASS	0.4
121	25.1	24.7	PASS	0.4
122	25.2	24.7	PASS	0.5
123	25.3	24.8	PASS	0.5

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

124	25.2	24.7	PASS	0.5
125	25.3	24.8	PASS	0.5
126	25.9	25.4	PASS	0.5
127	26.3	25.8	PASS	0.5
128	26.9	26.5	PASS	0.4
129	27.0	26.7	PASS	0.3
130	26.7	26.5	PASS	0.2
131	26.5	26.3	PASS	0.2
132	26.5	26.3	PASS	0.2
133	26.4	26.2	PASS	0.2
134	26.8	26.5	PASS	0.3
135	27.3	27.0	PASS	0.3
136	27.9	27.6	PASS	0.3
137	28.1	27.8	PASS	0.3
138	28.1	27.9	PASS	0.2
139	28.3	28.1	PASS	0.2
140	28.4	28.3	PASS	0.1
141	28.7	28.5	PASS	0.2
142	29.0	28.8	PASS	0.2
143	29.3	29.2	PASS	0.1
144	29.9	29.7	PASS	0.2
145	30.6	30.4	PASS	0.2
146	31.3	31.0	PASS	0.3
147	31.9	31.6	PASS	0.3
148	32.3	32.2	PASS	0.1
149	32.6	32.5	PASS	0.1
150	32.8	32.7	PASS	0.1
151	33.2	33.1	PASS	0.1
152	33.7	33.6	PASS	0.1
153	34.0	33.9	PASS	0.1
154	34.3	34.2	PASS	0.1
155	34.9	34.8	PASS	0.1
156	35.1	34.9	PASS	0.2
157	35.3	35.1	PASS	0.2
158	35.5	35.3	PASS	0.2
159	35.8	35.6	PASS	0.2
160	36.2	36.0	PASS	0.2
161	36.3	36.1	PASS	0.2
162	36.3	36.1	PASS	0.2
163	36.6	36.4	PASS	0.2
164	36.9	36.7	PASS	0.2
165	37.2	37.0	PASS	0.2

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

166	37.6	37.4	PASS	0.2
167	37.8	37.5	PASS	0.3
168	37.9	37.6	PASS	0.3
169	38.0	37.7	PASS	0.3
170	38.2	37.9	PASS	0.3
171	38.4	38.0	PASS	0.4
172	38.5	38.2	PASS	0.3
173	38.7	38.4	PASS	0.3
174	39.1	38.8	PASS	0.3
175	39.5	39.1	PASS	0.4
176	39.9	39.5	PASS	0.4
177	40.7	40.3	PASS	0.4
178	41.6	41.2	PASS	0.4
179	42.5	42.1	PASS	0.4
180	43.1	42.6	PASS	0.5
181	43.6	43.1	PASS	0.5
182	44.1	43.6	PASS	0.5
183	44.5	44.1	PASS	0.4
184	45.4	44.9	PASS	0.5
185	46.3	45.8	PASS	0.5
186	47.1	46.6	PASS	0.5
187	47.6	47.1	PASS	0.5
188	48.2	47.6	PASS	0.6
189	48.7	48.1	PASS	0.6
190	49.1	48.4	PASS	0.7
191	49.4	48.7	PASS	0.7
192	49.5	48.9	PASS	0.6
193	49.4	48.8	PASS	0.6
194	49.3	48.6	PASS	0.7
195	49.1	48.4	PASS	0.7
196	49.1	48.4	PASS	0.7
197	49.1	48.5	PASS	0.6
198	49.1	48.4	PASS	0.7
199	49.0	48.2	PASS	0.8
200	49.0	48.2	PASS	0.8
201	48.7	47.9	PASS	0.8
202	48.2	47.4	PASS	0.8
203	47.5	46.7	PASS	0.8
204	47.0	46.2	PASS	0.8
205	46.6	45.8	PASS	0.8
206	46.3	45.5	PASS	0.8
207	46.1	45.3	PASS	0.8

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

208	45.9	45.1	PASS	0.8
209	45.6	44.8	PASS	0.8
210	45.5	44.6	PASS	0.9
211	45.3	44.5	PASS	0.8
212	45.0	44.2	PASS	0.8
213	44.7	43.9	PASS	0.8
214	44.5	43.7	PASS	0.8
215	44.7	43.9	PASS	0.8
216	45.0	44.2	PASS	0.8
217	45.0	44.2	PASS	0.8
218	45.4	44.5	PASS	0.9
219	45.6	44.6	PASS	1.0
220	45.7	44.8	PASS	0.9
221	45.3	44.3	PASS	1.0
222	45.2	44.3	PASS	0.9
223	45.4	44.4	PASS	1.0
224	45.3	44.4	PASS	0.9
225	45.0	44.0	PASS	1.0
226	44.8	43.9	PASS	0.9
227	45.0	44.0	PASS	1.0
228	45.0	44.0	PASS	1.0
229	44.7	43.7	PASS	1.0
230	44.3	43.2	PASS	1.1
231	44.2	43.1	PASS	1.1
232	44.1	43.1	PASS	1.0
233	43.9	42.8	PASS	1.1
234	43.9	42.9	PASS	1.0
235	43.7	42.6	PASS	1.1
236	43.4	42.4	PASS	1.0
237	43.5	42.5	PASS	1.0
238	43.5	42.5	PASS	1.0
239	43.4	42.3	PASS	1.1
240	43.1	42.0	PASS	1.1
241	42.7	41.6	PASS	1.1
242	42.5	41.4	PASS	1.1
243	42.7	41.6	PASS	1.1
244	42.7	41.6	PASS	1.1
245	42.7	41.6	PASS	1.1
246	42.3	41.2	PASS	1.1
247	42.1	41.0	PASS	1.1
248	41.7	40.6	PASS	1.1
249	41.5	40.3	PASS	1.2

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

250	41.4	40.3	PASS	1.1
251	41.4	40.3	PASS	1.1
252	41.5	40.4	PASS	1.1
253	42.0	40.9	PASS	1.1
254	42.2	41.1	PASS	1.1
255	42.3	41.1	PASS	1.2
256	42.0	40.8	PASS	1.2
257	41.5	40.4	PASS	1.1
258	41.0	39.8	PASS	1.2
259	40.6	39.5	PASS	1.1
260	40.7	39.6	PASS	1.1
261	40.8	39.7	PASS	1.1
262	40.8	39.7	PASS	1.1
263	40.7	39.6	PASS	1.1
264	40.5	39.4	PASS	1.1
265	40.7	39.5	PASS	1.2
266	41.1	40.0	PASS	1.1
267	41.2	40.1	PASS	1.1
268	40.9	39.8	PASS	1.1
269	40.7	39.6	PASS	1.1
270	40.6	39.5	PASS	1.1
271	40.5	39.5	PASS	1.0
272	40.4	39.4	PASS	1.0
273	40.4	39.4	PASS	1.0
274	40.5	39.4	PASS	1.1
275	40.5	39.5	PASS	1.0
276	40.5	39.5	PASS	1.0
277	40.7	39.7	PASS	1.0
278	40.6	39.5	PASS	1.1
279	40.2	39.1	PASS	1.1
280	40.0	38.9	PASS	1.1
281	40.0	39.0	PASS	1.0
282	40.3	39.2	PASS	1.1
283	40.6	39.5	PASS	1.1
284	40.7	39.6	PASS	1.1
285	40.7	39.6	PASS	1.1
286	41.0	39.9	PASS	1.1
287	41.1	40.0	PASS	1.1
288	41.2	40.1	PASS	1.1
289	41.3	40.1	PASS	1.2
290	41.4	40.2	PASS	1.2
291	41.2	40.1	PASS	1.1

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

292	41.2	40.1	PASS	1.1
293	41.6	40.4	PASS	1.2
294	42.3	41.1	PASS	1.2
295	43.1	41.9	PASS	1.2
296	43.7	42.5	PASS	1.2
297	44.0	42.9	PASS	1.1
298	44.1	43.0	PASS	1.1
299	44.2	43.0	PASS	1.2
300	44.3	43.1	PASS	1.2
301	45.1	43.9	PASS	1.2
302	45.4	44.2	PASS	1.2
303	45.2	44.0	PASS	1.2
304	45.2	44.0	PASS	1.2
305	44.8	43.6	PASS	1.2
306	44.5	43.3	PASS	1.2
307	44.4	43.2	PASS	1.2
308	44.2	43.0	PASS	1.2
309	44.6	43.4	PASS	1.2
310	45.0	43.7	PASS	1.3
311	45.2	43.9	PASS	1.3
312	45.6	44.3	PASS	1.3
313	46.2	44.9	PASS	1.3
314	46.8	45.5	PASS	1.3
315	47.2	45.9	PASS	1.3
316	47.2	45.9	PASS	1.3
317	47.2	45.8	PASS	1.4
318	47.2	45.8	PASS	1.4
319	47.2	45.8	PASS	1.4
320	47.2	45.7	PASS	1.5
321	47.0	45.6	PASS	1.4
322	46.9	45.5	PASS	1.4
323	46.9	45.4	PASS	1.5
324	46.8	45.3	PASS	1.5
325	46.8	45.3	PASS	1.5
326	46.7	45.3	PASS	1.4
327	46.6	45.2	PASS	1.4
328	46.5	45.0	PASS	1.5
329	46.4	44.9	PASS	1.5
330	46.2	44.8	PASS	1.4
331	46.1	44.7	PASS	1.4
332	46.0	44.5	PASS	1.5
333	45.8	44.4	PASS	1.4

WJWV-FM (CP) and WJWV-FM (STA) Distance to Contour Comparison Chart

334	45.7	44.2	PASS	1.5
335	45.5	44.1	PASS	1.4
336	45.3	43.9	PASS	1.4
337	45.1	43.7	PASS	1.4
338	44.8	43.4	PASS	1.4
339	44.4	43.0	PASS	1.4
340	44.1	42.6	PASS	1.5
341	43.8	42.4	PASS	1.4
342	43.5	42.1	PASS	1.4
343	43.3	41.9	PASS	1.4
344	43.0	41.6	PASS	1.4
345	42.8	41.4	PASS	1.4
346	42.5	41.1	PASS	1.4
347	42.3	40.9	PASS	1.4
348	42.1	40.7	PASS	1.4
349	41.9	40.4	PASS	1.5
350	41.7	40.1	PASS	1.6
351	41.2	39.7	PASS	1.5
352	40.8	39.3	PASS	1.5
353	40.5	38.9	PASS	1.6
354	40.2	38.6	PASS	1.6
355	39.9	38.3	PASS	1.6
356	39.5	37.9	PASS	1.6
357	39.1	37.6	PASS	1.5
358	38.8	37.2	PASS	1.6
359	38.3	36.7	PASS	1.6