WJWJ-FM CHANNEL 210 CLASS C1
BEAUFORT, SOUTH CAROLINA
MINOR CHANGE IN LICENSED
FACILITY APPLICATION

(SOUTH CAROLINA EDUCATIONAL TELEVISION COMMISSION)

KESSLER & GEHMAN ASSOCIATES, INC.
TELECOMMUNICATIONS CONSULTING ENGINEERS

KGA

20050909

Prepared by William T. Godfrey, Jr.

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ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR. OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC., TELECOMMUNICATIONS CONSULTING ENGINEERS IN CONNECTION WITH A MINOR CHANGE IN LICENSED FACILITY APPLICATION TO MAKE CHANGES TO THE SOUTH CAROLINA EDUCATION TELEVISION COMMISSION ("SCETV") FM BROADCAST FACILITY, WJWV-FM CHANNEL 210 C1 (BLED19800728AE), BEAUFORT, SOUTH CAROLINA.

The firm Kessler and Gehman Associates, Inc., has been retained by the South Carolina Educational Television Commission ("SCETV"), Columbia, South Carolina, in order to prepare engineering studies and the engineering portion of a minor change in licensed facility application for the licensed WJWJ-FM Channel 210 Class C1 FM broadcast facility (BLED19800728AE) requesting authorization to make changes to the following: 1) antenna system; and 2) maximum Effective Radiated Power ("ERP") in the main beam.

Discussion

SCETV is licensed to operate WJWJ-FM Channel 210 Class C1 with a maximum ERP of 49 kW (main beam) using circular polarization with an antenna height radiation center of 335.0 meters Above Ground Level ("AGL") using a nondirectional, side-mounted 12-bay, circularly polarized FM antenna. The licensed 12-bay antenna has a 0.5 degree electrical beam tilt; therefore the ERP in the horizontal plane is 47 kW. It was determined that the WJWJ tower would not be able to support the existing 12-bay FM antenna along with the top-mounted NTSC antenna and a new side-mounted DTV antenna without making serious tower upgrades. Therefore, SCETV requests authorization to remove the existing 12-bay, nondirectional, circularly polarized, side-mount FM antenna from the tower and replace it with a smaller 8-bay Dielectric model DCRM8CT5F10 nondirectional, circularly polarized, side-mount FM antenna which can be supported by the existing WJWJ tower.

The proposed 8-bay antenna would be shorter in length than the licensed 12-bay antenna; however, the antenna height radiation center will remain the same. The proposed 8-bay

antenna's azimuth pattern is the same as the licensed 12-bay antenna's azimuth pattern because they are both nondirectional antennas; however, the change from a 12-bay to an 8-bay antenna would also change the vertical pattern even though the electrical beam tilt would remain the same (0.5°). The maximum ERP in the main beam for the licensed WJWJ-FM facility is 49 kW and the ERP in the horizontal plane is 47 kW. At 0.0 degrees, the proposed 8-bay antenna's vertical pattern relative field value is 0.992 which means that the ERP in the horizontal plane would be 48 kW which would be 1 kW greater than the licensed ERP. In order for the proposed facility's ERP to equal the licensed facility's ERP in the horizontal plane (47 kW); the proposed facility's maximum ERP in the main beam must be reduced to 48 kW (1 kW reduction). Accordingly, this minor change in licensed facility application requests FCC authorization to make the following changes: 1) change antennas from the licensed side-mount, 12-bay, circularly polarized, nondirectional FM antenna to the proposed Dielectric model DCRM8CT5F10 side-mount, 8-bay, circularly polarized, nondirectional FM antenna; and 2) decrease the maximum ERP in the main beam from the licensed 49 kW to the proposed 48 kW.

Attached Figures

The following list is an index of enclosed figures produced by calculations and engineering studies of the proposed WJWJ-FM Channel 210 C1 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 Vertical Pattern: 0° - 90° (Exhibit 4)
5) Antenna Vertical Pattern Tabulation (Exhibit 5)
6) USGS 7.5-minute topographic quadrangle map depicting the proposed transmitter location and coordinate lines (Exhibit 6).
7) 1mV/m (60 dBuV/m) Protected Service Contour and Radials, Proposed Transmitter Location, & Principal Community Boundary Depiction (Exhibit 7).
8) FM-to-FM Interference Study (Exhibit 8).
9) WJWJ-FM Protected Interference-Free and Interfering Contours (Exhibit 9)

10) FM Allocation Study (Exhibit 10)
11) TV Channel 6 Study (Exhibit 11)
12) WJWJ-FM (License) Distance to Contour Tabulation (Exhibit 12)
13) WJWJ-FM (Proposed) Distance to Contour Tabulation (Exhibit 13)

Transmitter Location

It is proposed to side-mount the new FM antenna on the existing WJWJ support structure. The tower is registered with the FCC and has a registration number of 1059178. The structure is located off of Highway 119, approximately four miles west of Beaufort, South Carolina. The proposed Dielectric model DCRM8CT5F10, circularly polarized, nondirectional antenna shall be side-mounted on the support structure and will have an antenna height radiation center of 335.0 meters AGL as depicted in Exhibit 3's elevation view of the support structure. No FAA notifications or filings are required since the antenna will be side-mounted on the existing tower. The proposed antenna height radiation center will be exactly the same height as licensed antenna height radiation center.

Principal Community

The principal community of Beaufort, South Carolina would be completely encompassed by the proposed facility's F(50,50) 60.0 dBuV/m protected service contour. Exhibit 7 is a map depicting the boundaries of the principal community and demonstrates pictorially that the entire community would be encompassed by the proposed facility's 1 mV/m contour.

FM Interference Studies

Referring to the FM interference study calculations depicted in Exhibit 8, it can be seen that the proposed facility's F(50,10) interfering contours would not have unacceptable contour overlap with any applicable surrounding station's F(50,50) 60.0 dBuV/m protected service contour and the proposed facility's F(50,50) 60.0 dBuV/m protected service contour would not be overlapped

by any applicable surrounding station's F(50,10) interfering contours. The WSVH-FM Channel 211 application appeared to be a problem; however, the application should have been filed for Channel 216 and has been amended to make the correction. Therefore, the proposed facility would meet the contour overlap requirements specified in §73.509 of the FCC's rules and it would meet the spacing requirements specified in §73.207 of the FCC's rules.

Allocation Studies

The proposed facility's protected contour and interfering contours are depicted in Exhibit 9. The green contour represents the proposed facility's F(50,50) 60.0 dBuV/m protected service contour. The red contour represents the proposed facility's F(50,10) 40.0 dBuV/m co-channel interfering contour. The magenta contour represents the proposed facility's F(50,10) 54.0 dBuV/m 1st-adjacent channel interfering contour. The purple contour represents the proposed facility's F(50,10) 100.0 dBuV/m $2^{nd}/3^{rd}$ -adjacent channel interfering contour.

Exhibit 10 depicts the proposed WJWJ-FM's F(50,50) 60.0 dBuV/m protected service contour (green) and the WSCI-FM Channel 207 F(50,10) 100.0 dBuV/m 3^{rd}-adjacent channel interfering contour (purple). It can be seen that the licensed WSCI-FM facility's interfering contour (purple) would not overlap the proposed WJWJ-FM facility's protected contour (green). The proposed WJWJ-FM facility's interfering contour (purple) would not overlap the licensed WSCI-FM facility's protected contour (green).

Exhibit 10 depicts the proposed WJWJ-FM's F(50,50) 60.0 dBuV/m protected service contour (green) and the WSSB-FM Channel 212 F(50,10) 100.0 dBuV/m 2^{nd}-adjacent channel interfering contour (purple). It can be seen that the licensed WSSB-FM facility's interfering contour (purple) would not overlap the proposed WJWJ-FM facility's protected contour (green). The proposed WJWJ-FM facility's interfering contour (purple) would not overlap the licensed WSSB-FM facility's protected contour (green).

Exhibit 10 depicts the proposed WJWJ-FM's F(50,50) 60.0 dBuV/m protected service contour (green) and the WMHK-FM Channel 209 F(50,10) 54.0 dBuV/m 1st-adjacent channel interfering contour (magenta). It can be seen that the licensed WMHK-FM facility's interfering contour (magenta) would not overlap the proposed WJWJ-FM facility's protected contour (green). The proposed WJWJ-FM facility's interfering contour (magenta) would not overlap the licensed WSSB-FM facility's protected contour (green).

Exhibit 10 depicts the proposed WJWJ-FM's F(50,50) 60.0 dBuV/m protected service contour (green) and the Thomson, GA Channel 210 F(50,10) 40.0 dBuV/m co-channel interfering contour (red). It can be seen that the Thomson, GA facility's interfering contour (red) would not overlap the proposed WJWJ-FM facility's protected contour (green). The proposed WJWJ-FM facility's interfering contour (red) would not overlap the licensed WSSB-FM facility's protected contour (green).

TV Channel 6 Studies

The only Channel 6 station(s) within 196 km (§73.525 Table A) of the proposed WJWJ-FM site, and therefore, subject to receiving interference from a channel 210 NCE-FM station, is the WJBF-TV Channel 6 facility located in Augusta, GA. Exhibit 11 depicts the WJWJ-FM facility's licensed (magenta) and proposed (green) 60.0 dBuV/m service contours and the WJBF-TV Channel 6 47.0 dBuV/m Grade B Contour (red). Referring to Exhibit 11, it can be seen that the proposed 60.0 dBuV/m contour overlays perfectly over the licensed 60.0 dBuV/m contour which demonstrates that the proposed facility's FCC F(50,50) 60.0 dBuV/m coverage contour would be exactly the same as, or less than, the licensed facility's FCC F(50,50) 60.0 dBuV/m coverage contour.

To demonstrate even further, Exhibit 12 depicts the licensed WJWJ-FM facility's distance to contour tabulation from its transmitter site to its F(50,50) 60.0 dBuV/m contour in all azimuthal directions. Exhibit 13 depicts the proposed WJWJ-FM facility's distance to contour tabulation from its transmitter site to its F(50,50) 60.0 dBuV/m contour in all azimuthal directions.

Comparing Exhibits 12 and 13, it can be seen that the distance is either exactly the same, or slightly less, in all directions which verifies that the proposed WJWJ-FM facility would have the exact same interference area (or less) within the WJBF-TV Channel 6 facility's F(50,50) 47.0 dBuV/m Grade B contour as the licensed WJWJ-FM facility's. Therefore, no further Channel 6 studies are required. The intent of this application is to reduce the size of the antenna to decrease the tower loading and wind loading on the WJWJ support structure.

Environmental Impact

The proposed construction would have no significant environmental impact as defined in §1.1307 of the FCC Rules. The FM transmitter, 3-1/8 inch (50-ohm) EIA/DCA transmission line and antenna system would produce a maximum ERP of 48 kW. It was determined that the maximum lobe of radiation from the base of the tower out to approximately 1.79 miles would occur at approximately 292.9 feet from the base of the tower (1,131.6-foot radial distance from the antenna center). At approximately 292.9 feet from the base of the tower, the depression angle of the main lobe would be 75.0° below the horizontal. At that point, the relative field would be 0.222 and the power density six feet above the ground would be 0.001 mW/cm². This is only 0.13% of the Maximum Permissible Exposure ("MPE") limits for Occupational/Controlled Exposure and only 0.66% of the MPE limits for General Population/Uncontrolled Exposure authorized by the American National Standards Institute ("ANSI"). Since the proposed operation of WJWJ-FM Channel 210 would not exceed 5.0% of the MPE limit for Occupational/Controlled Exposure or General Population/Uncontrolled Exposure at any point on the ground, WJWJ-FM 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.

Certification

This technical statement was prepared by William T. Godfrey, Jr., Telecommunications 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 9 September, 2005

WJWJ-FM Channel 210 C1

Beaufort, South Carolina

ENGINEERING SPECIFICATIONS

A. ***Transmitter Site:***

Geographic coordinates (NAD27):

North Latitude	**32° 42' 42"**
West Longitude	**80° 40' 54"**

Transmitter Site Location: **Located off of Highway 119, approximately four miles west of Beaufort, South Carolina**

FCC Antenna Structure Registration Number: **1059178**

FAA Study Number: **98-ASO-5037-OE**

B. ***Main Studio Site Address:*** **1101 George Rogers Boulevard**
Columbia, South Carolina 29201

C. ***Proposed Facility:***

FM Channel	Number	**210**
	Frequency	**89.9 MHz**
	Class	**C1**

D. ***Exact Antenna Heights Without Rounding:***

Height of Site Above Mean Sea Level (AMSL):	**4.8 M**
Overall Height of Structure Above Ground: (including all appurtenances)	**401.6 M**
Overall Height of Structure Above Mean Sea Level: (including all appurtenances)	**406.4 M**
Height of Site Above Average Terrain:	**-1.3 M**
Antenna Height Radiation Center (R/C) Above Ground:	**335.0 M**
Antenna Height R/C Above Mean Sea Level:	**339.8 M**
Average of All Non-Odd Radials:	**6.1 M**
Antenna Height R/C Above Average Terrain:	**333.7 M**

E. ***System Parameters – Circular Polarization:***

Transmitter Power Required:	**15.2 kW**
Maximum Power Input to Antenna:	**11.7 kW**
Transmission Line Loss:	**1.14 dB**
Transmission Line Efficiency:	**76.9%**
Maximum Antenna Gain in Beam Maximum:	**6.12 dB**
Maximum Antenna Gain in Horizontal Plane:	**6.05 dB**
Maximum Effective Radiated Power:	**16.81 dBk**
In Beam Maximum:	**48.0 kW**
Maximum Effective Radiated Power:	**16.74 dBk**
In Horizontal Plane (*Rounded §73.212*):	**47.0 kW**

WJWJ-FM Channel 210 C1
Beaufort, South Carolina

DATA FOR PROPOSED NONDIRECTIONAL TRANSMITTING ANTENNA

A. ***Antenna:*** Dielectric Model DCRM8CT5F10, Circularly Polarized, Nondirectional, Side-mount Antenna.

B. ***Electrical Beam Tilt:*** 0.5°

C. ***Mechanical Beam Tilt:*** None

D. ***Main Beam Orientation:*** N/A

E.

Maximum Power Gain		**Horizontal Polarization**
Maximum:	4.09	(6.12 dB)
Horizontal:	4.03	(6.05 dB)

F. ***Length:*** 78.0 feet (23.8 meters) not including lightning protector.

G. ***Weight:*** 804 lbs

H. ***Transmitter Power Output:*** 15.2 kW

I. ***Null Fill:*** 12.0%

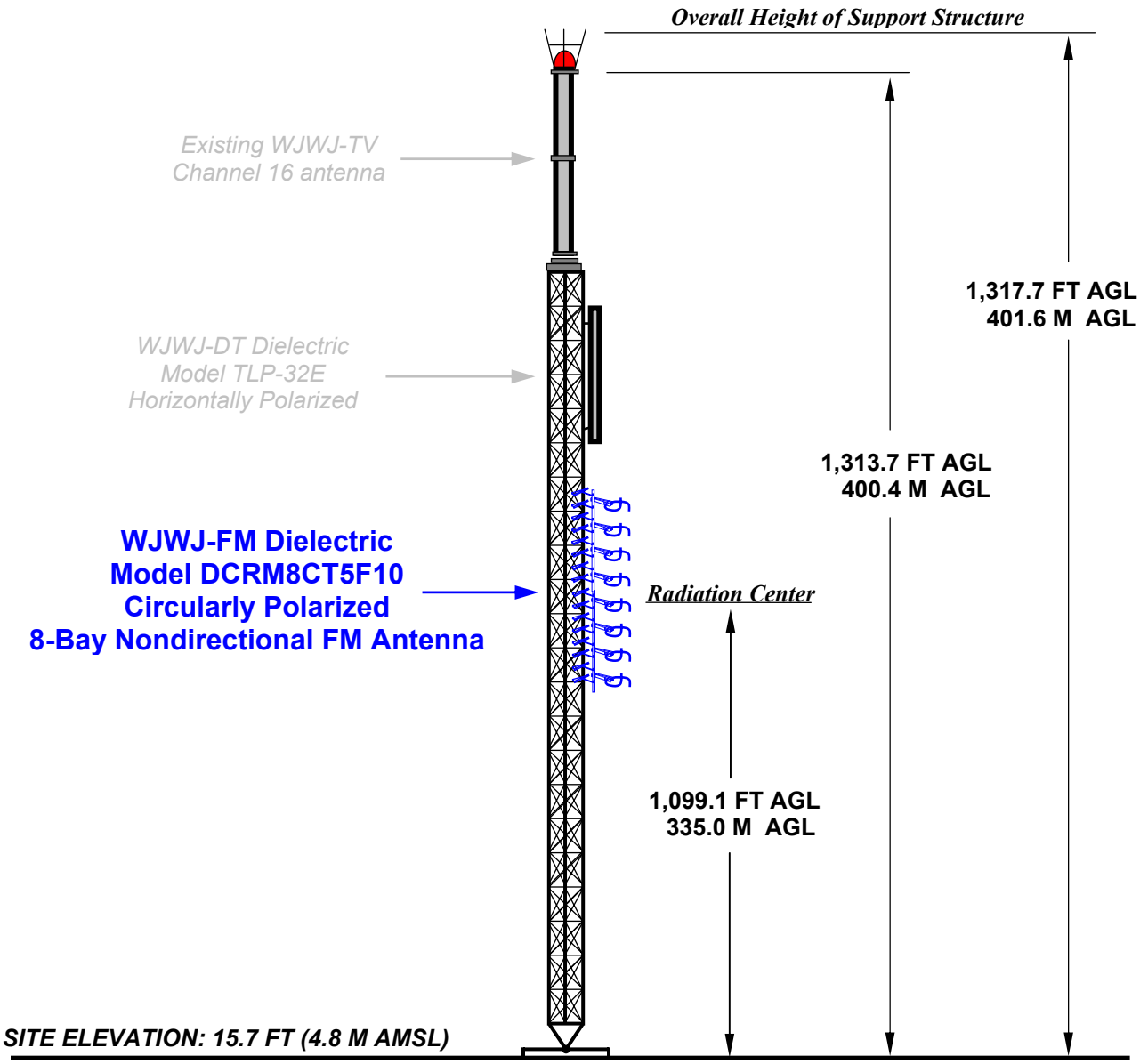
J. ***Transmission Line:*** 3-1/8" 50-ohm EIA/DCA

K. ***Transmission Line Loss:*** 0.091 dB/100-feet

L. ***Total Transmission Line:*** 1,250 feet (381.0 meters)

M. ***Transmission Line Attenuation:*** 1.14 dB

ANTENNA STRUCTURE ELEVATION VIEW



OVERALL HEIGHT AGL:	401.6 M
OVERALL HEIGHT AMSL:	406.4 M
RADIATION CENTER AGL:	335.0 M
RADIATION CENTER AMSL:	339.8 M
RADIATION CENTER HAAT:	333.7 M
AVERAGE OF NON-ODD RADIALS:	6.1 M
SITE ELEVATION HAAT:	-1.3 M

COORDINATES: (NAD 27)

N. LATITUDE 32° 42’ 42”

W. LONGITUDE 80° 40’ 54”

Antenna Structure Registration Number:
1059178

FAA Aeronautical Study Number:
98-ASO-5037-OE

NOTE: NOT TO SCALE

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WJWJ-FM CHANNEL 210

BEAUFORT, SOUTH CAROLINA

20050902 EXHIBIT 3

Dielectric

Proposal Number			
Date	**26-Aug-05**		
Call Letters	**WJWJ**	Channel	**210**
Location	**Beaufort, SC**		
Customer	**SCETV**		
Antenna Type	**DCRM8CT5F10**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**4.09**	**(6.12 dB)**	Beam Tilt	**0.50 deg**
RMS Gain at Horizontal	**4.03**	**(6.05 dB)**	Frequency	**89.90 MHz**
Calculated / Measured	**Calculated**			

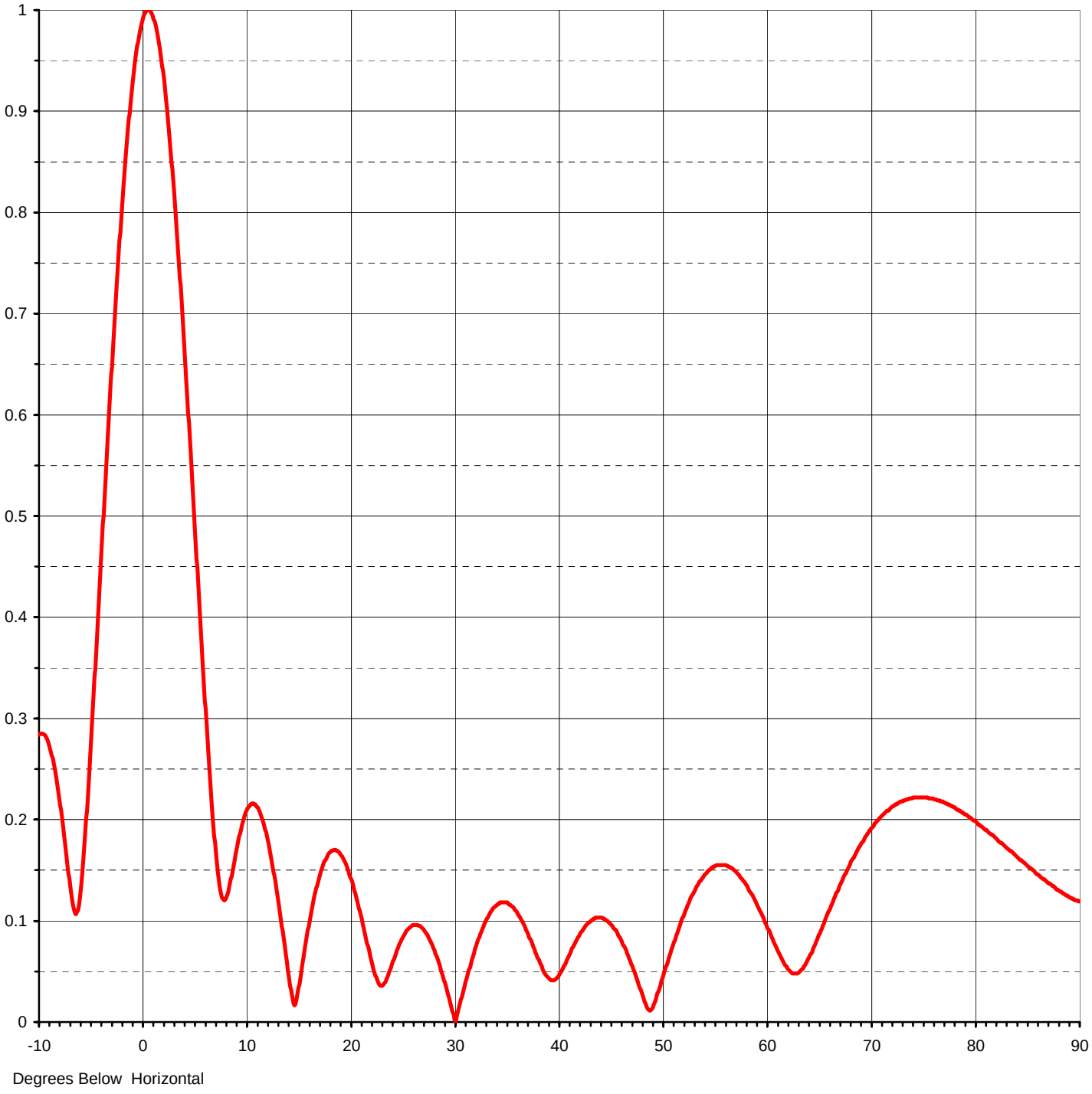


EXHIBIT 4

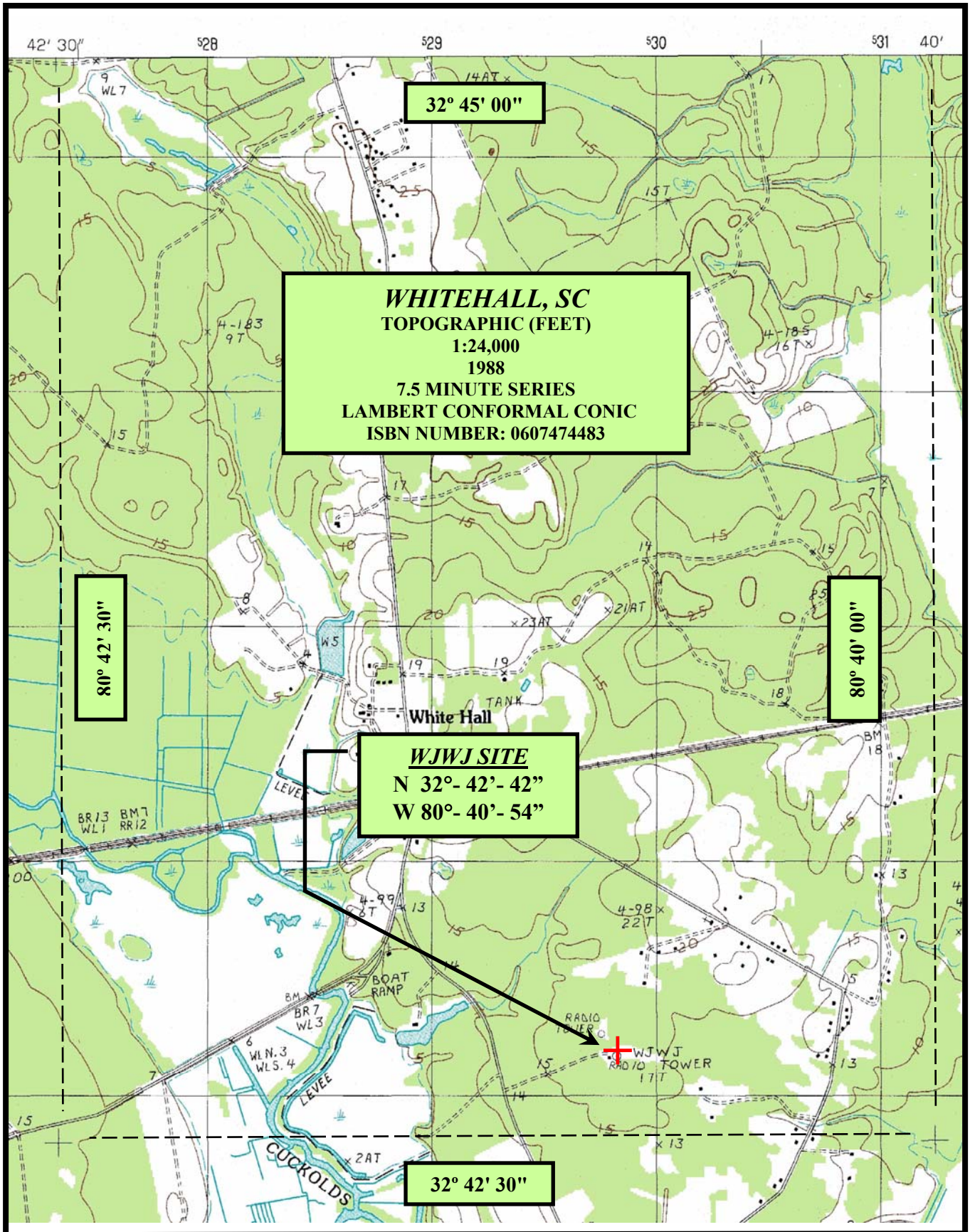
Dielectric

Proposal Number	
Date	**26-Aug-05**
Call Letters	**WJWJ**
Location	**Beaufort, SC**
Customer	**SCETV**
Antenna Type	**DCRM8CT5F10**

TABULATION OF ELEVATION PATTERN

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.284	2.4	0.891	10.6	0.216	30.5	0.016	51.0	0.075	71.5	0.209
-9.5	0.284	2.6	0.868	10.8	0.215	31.0	0.036	51.5	0.090	72.0	0.213
-9.0	0.273	2.8	0.843	11.0	0.213	31.5	0.054	52.0	0.104	72.5	0.216
-8.5	0.251	3.0	0.817	11.5	0.202	32.0	0.072	52.5	0.117	73.0	0.218
-8.0	0.218	3.2	0.788	12.0	0.183	32.5	0.087	53.0	0.128	73.5	0.220
-7.5	0.177	3.4	0.758	12.5	0.157	33.0	0.099	53.5	0.137	74.0	0.222
-7.0	0.133	3.6	0.727	13.0	0.126	33.5	0.109	54.0	0.145	74.5	0.222
-6.5	0.107	3.8	0.695	13.5	0.090	34.0	0.115	54.5	0.150	75.0	0.222
-6.0	0.130	4.0	0.661	14.0	0.053	34.5	0.118	55.0	0.154	75.5	0.221
-5.5	0.194	4.2	0.627	14.5	0.021	35.0	0.118	55.5	0.155	76.0	0.220
-5.0	0.277	4.4	0.592	15.0	0.031	35.5	0.115	56.0	0.155	76.5	0.219
-4.5	0.368	4.6	0.557	15.5	0.063	36.0	0.109	56.5	0.153	77.0	0.217
-4.0	0.463	4.8	0.521	16.0	0.094	36.5	0.100	57.0	0.149	77.5	0.214
-3.5	0.557	5.0	0.485	16.5	0.121	37.0	0.089	57.5	0.143	78.0	0.212
-3.0	0.648	5.2	0.449	17.0	0.142	37.5	0.077	58.0	0.136	78.5	0.209
-2.8	0.683	5.4	0.413	17.5	0.158	38.0	0.064	58.5	0.128	79.0	0.205
-2.6	0.717	5.6	0.378	18.0	0.167	38.5	0.052	59.0	0.118	79.5	0.202
-2.4	0.749	5.8	0.343	18.5	0.170	39.0	0.044	59.5	0.107	80.0	0.198
-2.2	0.780	6.0	0.309	19.0	0.167	39.5	0.041	60.0	0.096	80.5	0.194
-2.0	0.810	6.2	0.277	19.5	0.158	40.0	0.045	60.5	0.084	81.0	0.190
-1.8	0.837	6.4	0.246	20.0	0.144	40.5	0.054	61.0	0.073	81.5	0.185
-1.6	0.863	6.6	0.216	20.5	0.127	41.0	0.065	61.5	0.062	82.0	0.181
-1.4	0.887	6.8	0.190	21.0	0.106	41.5	0.076	62.0	0.053	82.5	0.177
-1.2	0.909	7.0	0.166	21.5	0.084	42.0	0.085	62.5	0.048	83.0	0.172
-1.0	0.929	7.2	0.147	22.0	0.062	42.5	0.093	63.0	0.048	83.5	0.168
-0.8	0.946	7.4	0.132	22.5	0.044	43.0	0.099	63.5	0.053	84.0	0.163
-0.6	0.961	7.6	0.123	23.0	0.036	43.5	0.102	64.0	0.062	84.5	0.159
-0.4	0.974	7.8	0.120	23.5	0.043	44.0	0.103	64.5	0.075	85.0	0.154
-0.2	0.984	8.0	0.123	24.0	0.056	44.5	0.101	65.0	0.087	85.5	0.150
0.0	0.992	8.2	0.129	24.5	0.071	45.0	0.097	65.5	0.100	86.0	0.146
0.2	0.997	8.4	0.139	25.0	0.083	45.5	0.091	66.0	0.112	86.5	0.141
0.4	1.000	8.6	0.149	25.5	0.091	46.0	0.082	66.5	0.124	87.0	0.137
0.6	1.000	8.8	0.160	26.0	0.096	46.5	0.071	67.0	0.136	87.5	0.134
0.8	0.997	9.0	0.171	26.5	0.096	47.0	0.058	67.5	0.147	88.0	0.130
1.0	0.992	9.2	0.181	27.0	0.092	47.5	0.044	68.0	0.158	88.5	0.127
1.2	0.985	9.4	0.190	27.5	0.084	48.0	0.029	68.5	0.167	89.0	0.123
1.4	0.975	9.6	0.198	28.0	0.073	48.5	0.015	69.0	0.176	89.5	0.121
1.6	0.963	9.8	0.202	28.5	0.059	49.0	0.013	69.5	0.184	90.0	0.119
1.8	0.948	10.0	0.208	29.0	0.042	49.5	0.027	70.0	0.192		
2.0	0.932	10.2	0.212	29.5	0.024	50.0	0.043	70.5	0.198		
2.2	0.912	10.4	0.215	30.0	0.004	50.5	0.059	71.0	0.204		

EXHIBIT 5



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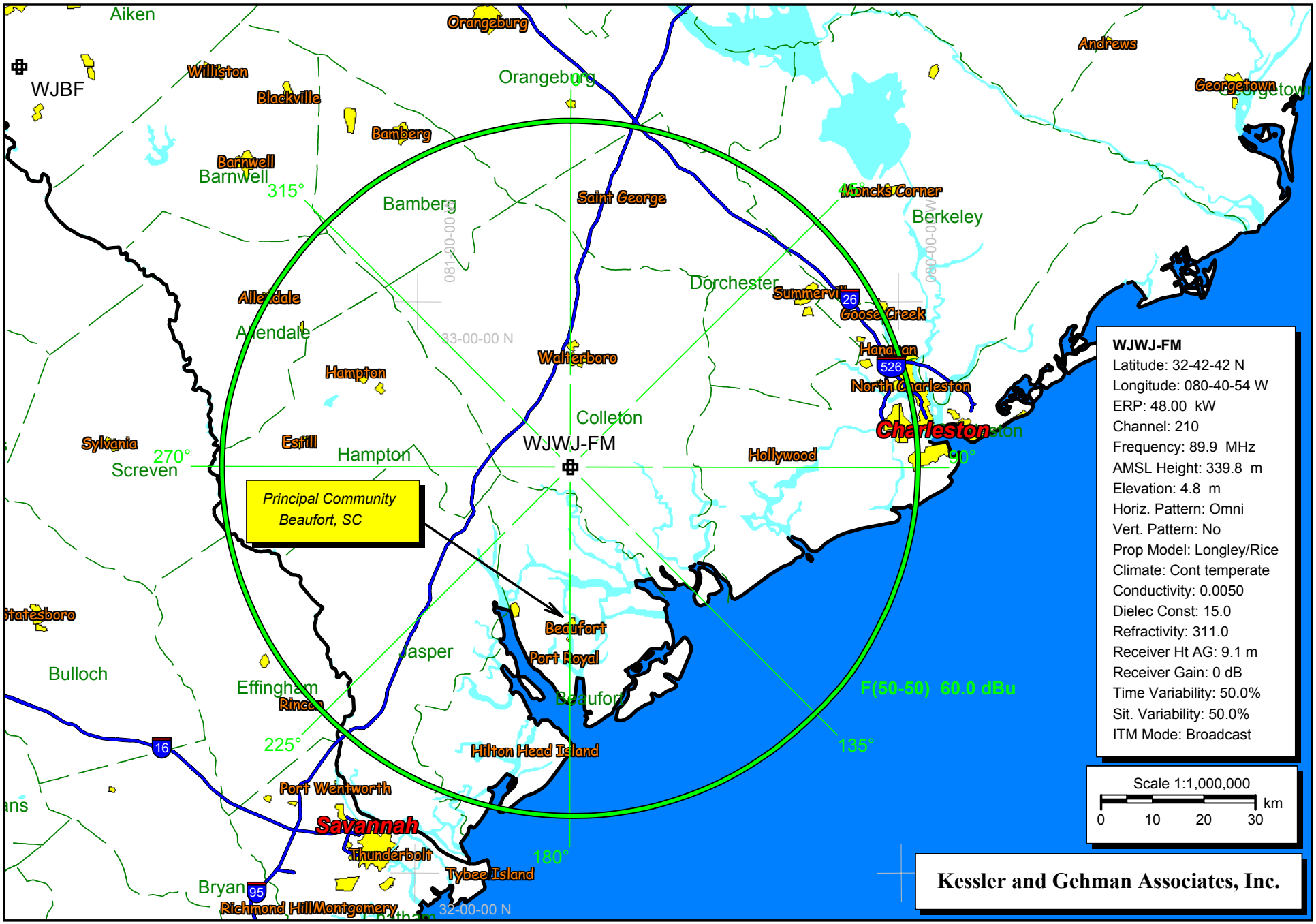
WJWJ-FM CHANNEL 210

BEAUFORT, SOUTH CAROLINA

20050906

EXHIBIT 6



Proposed WJWJ-FM Channel 210 Principal Community Map

EXHIBIT 7

South Carolina Educational Television Commission
WJWJ-FM Channel 210 C1 Interference Study

REFERENCE CH# 210C1- 89.9 MHz, Pwr= 48 kW, HAAT=333.7M, COR= 340 M DISPLAY DATES

32 42 42 N. Average Protected F(50-50)= 67.5 km DATA 09-07-05
80 40 54 W. Ave. F(50-10) 40 dBu= 158.2 54 dBu= 98.3 80 dBu= 29.5 100 dBu= 8.7 SEARCH 09-07-05

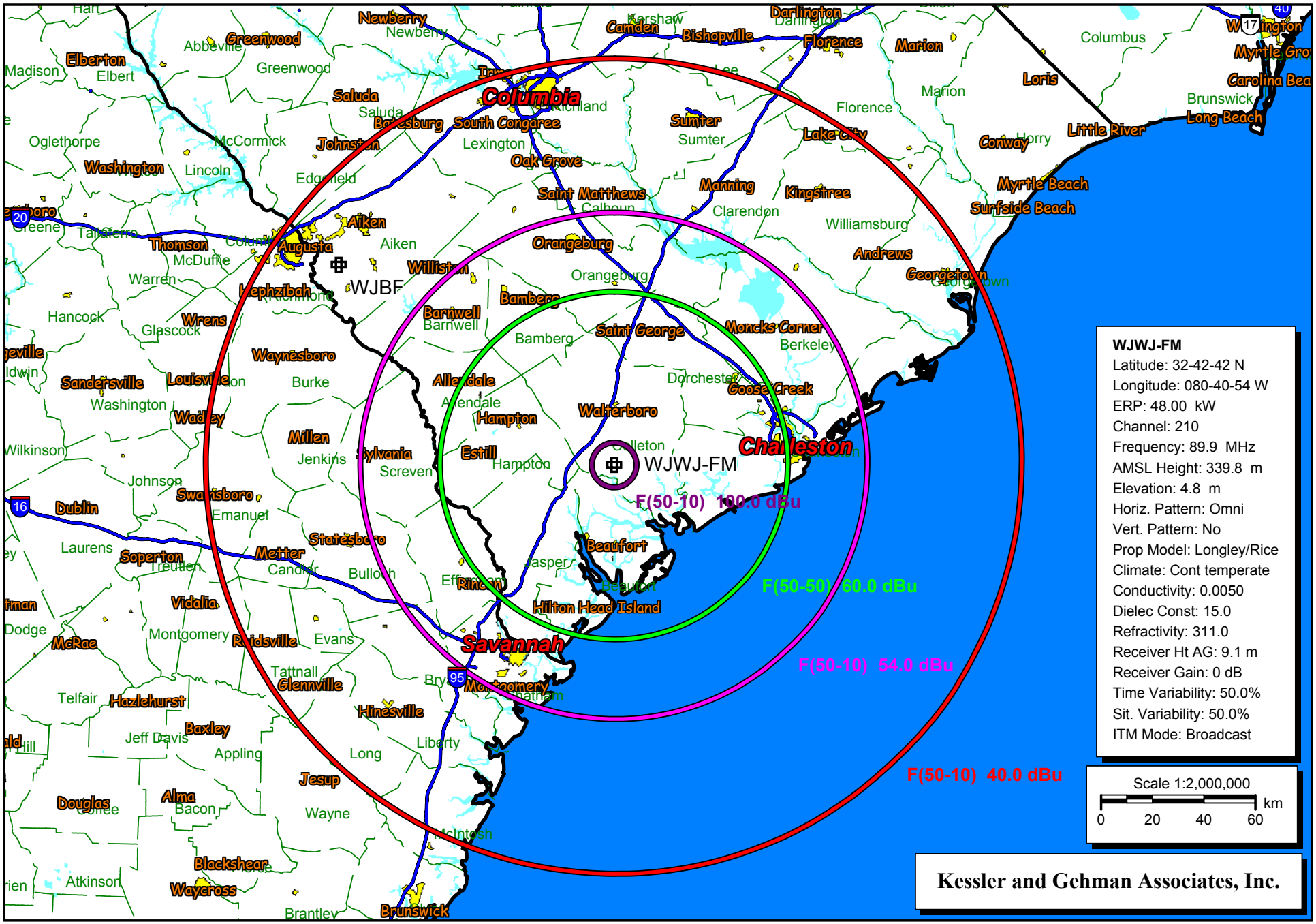
CH	CALL	TYPE	AZI.	DIST	LAT.	Pwr(kW)	COR(M)	PRO(km)	*IN*	*OUT*
CITY		STATE	<--	FILE #	LNG.	HAAT(M)	INT(km)	LICENSEE	(Overlap in km)	
209C	WMHK	LIC DCN	357.2	153.83	34 05 49	6.003	507	52.7	7.54	3.10
Columbia		SC	177.1	BLED19940323KA	80 45 51	424	79.0	Columbia Bible College Bro		
210C3	980319	APP DVN	306.4	198.52	33 45 28	8.500	269	38.8	29.28	2.28
Thomson		GA	125.4	BPED19980319MI	82 24 36	166	102.2	American Family Associatio		
Vertical Polarization Only										
207C	WSCI	LIC DCY	75.3	94.96	32 55 28	100.000	419	81.1	15.67	5.17
Charleston		SC	255.8	BLED19921223KA	79 41 58	418	11.8	South Carolina Educational		
210A	980619	APP VN	306.3	197.05	33 44 51	1.100	219	20.7	65.31	18.86
Lincolnton		GA	125.3	BPED19980619ME	82 23 57	118	64.7	Augusta Radio Fellowship I		
210A	980619	APP VX	306.3	197.05	33 44 51	1.100	219	20.7	65.31	18.86
Lincolnton		GA	125.3	BPED19980619ME	82 23 57	118	64.7	Augusta Radio Fellowship I		
212C1	WSSBFM	LIC DEN	350.4	88.54	33 29 55	80.000	128	43.4	16.77	36.53
Orangeburg		SC	170.3	BLED19850212KW	80 50 30	73	4.7	South Carolina State Unive		
212A	WHCJ	LIC CN	204.8	84.12	32 01 23	6.000	44	19.0	14.52	56.35
Savannah		GA	24.6	BLED19930423KA	81 03 24	43	1.9	Savannah State University		
208C1	WYFS	LIC DEN	221.6	95.44	32 04 04	49.710	191	56.0	21.26	30.74
Savannah		GA	41.3	BLED19890727KA	81 21 17	185	6.6	Bible Broadcasting Network		
211C1	WHMCFM	LIC DEY	46.2	200.88	33 57 05	28.150	235	53.5	54.40	49.03
Conway		SC	227.1	BLED19850215LP	79 06 31	216	79.0	South Carolina Educational		
209C	WDCOFM	LIC CN	264.3	243.06	32 28 11	100.000	421	74.6	66.92	69.87
Cochran		GA	82.9	BLED19850227KR	83 15 17	330	108.5	Georgia Public Telecommuni		
210C1	WJCTFM	LIC CY	197.6	282.39	30 16 53	100.000	255	68.1	47.63	55.67
Jacksonville		FL	17.1	BLED19811016AM	81 34 15	248	167.1	Wjct, Inc.		
210C1	WJCTFM	APP CN	197.5	282.42	30 16 51	98.000	256	68.0	48.08	55.83
Jacksonville		FL	17.1	BLED20030623AHA	81 34 12	249	166.7	Wjct, Inc.		

EXHIBIT 8

210C1	WJCTFM	CP	CN	197.5	282.42	30 16 51	98.000	256	68.0	48.08	55.83	
Jacksonville		FL		17.1	BPED20021223AAT	81 34 12		249	166.7	Wjct, Inc.		
263C3	WALC	LIC	ZCN	79.2	66.96	32 49 20	13.764	123	37.3	24.0R	43.0M	
Charleston		SC		259.6	BLH19930218KD	79 58 45		121	41.5	Citicasters Licenses, L.p.		
263C3	WALC.C	CP	ZCX	78.9	68.47	32 49 40	18.500	91	34.7	24.0R	44.5M	
Charleston		SC		259.3	BPH20040618AAV	79 57 50		89	38.6	Citicasters Licenses, L.p.		
210C1	WDAV	LIC	DCN	357.3	303.90	35 26 54	47.724	474	59.4	89.80	86.66	
Davidson		NC		177.2	BLED19950313KA	80 50 23		229	146.9	The Trustees Of Davidson C		
211C1	WXVS	LIC	DEN	227.6	243.48	31 13 17	76.879	329	68.2	76.37	76.76	
Waycross		GA		46.6	BLED19860403KD	82 34 24		281	99.5	Georgia Public Telecommuni		
213A	WUSCFM	LIC	CN	347.7	146.41	34 00 02	2.500	148	24.2	77.15	113.55	
Columbia		SC		167.5	BLED19870817KD	81 01 19		109	2.2	The University Of South Ca		
213A	WTLD	LIC	CX	224.0	171.20	31 35 49	6.000	78	21.4	101.42	141.05	
Jesup		GA		43.3	BLED20020305AAO	81 56 14		54	2.2	Resurrection House Ministr		
213C3	980224	APP	DCX	25.6	179.15	34 09 50	25.000	109	33.9	108.34	136.54	
Florence		SC		206.1	BPED19980224MB	79 50 17		73	3.5	Francis Marion University		
213C3	980224	APP	DCN	25.6	179.15	34 09 50	25.000	108	33.7	108.36	136.76	
Florence		SC		206.1	BPED19980224MB	79 50 17		72	3.4	Francis Marion University		
213C3	980224	APP	DVX	25.6	179.15	34 09 50	25.000	109	33.9	108.34	136.54	
Florence		SC		206.1	BPED19980224MB	79 50 17		73	3.5	Francis Marion University		
06+2C	WJBF	LI	HY	306.0	132.27	33 24 20	100.000	563	117.6	196.0R	-63.7M	
Augusta		GA		125.4	BLCT20040130AOR	81 50 01		495	59.3	Media General Broadcasting		

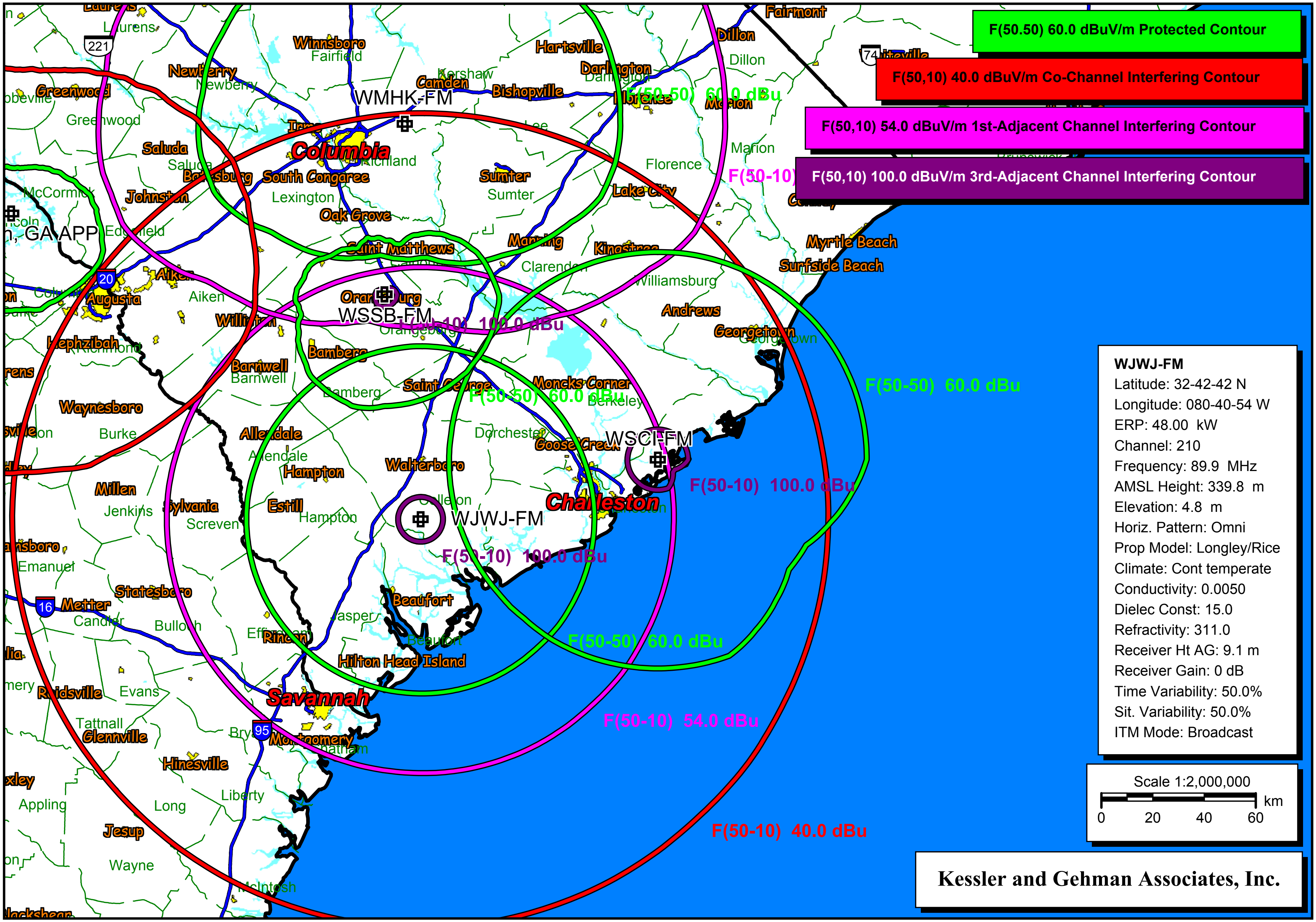
ERP and HAAT on direct-line with reference station.
• affixed to TV6 Margin= no direct-line contour overlap.
"*"affixed to 'IN' or 'Out' values = site inside protected contour.

EXHIBIT 8



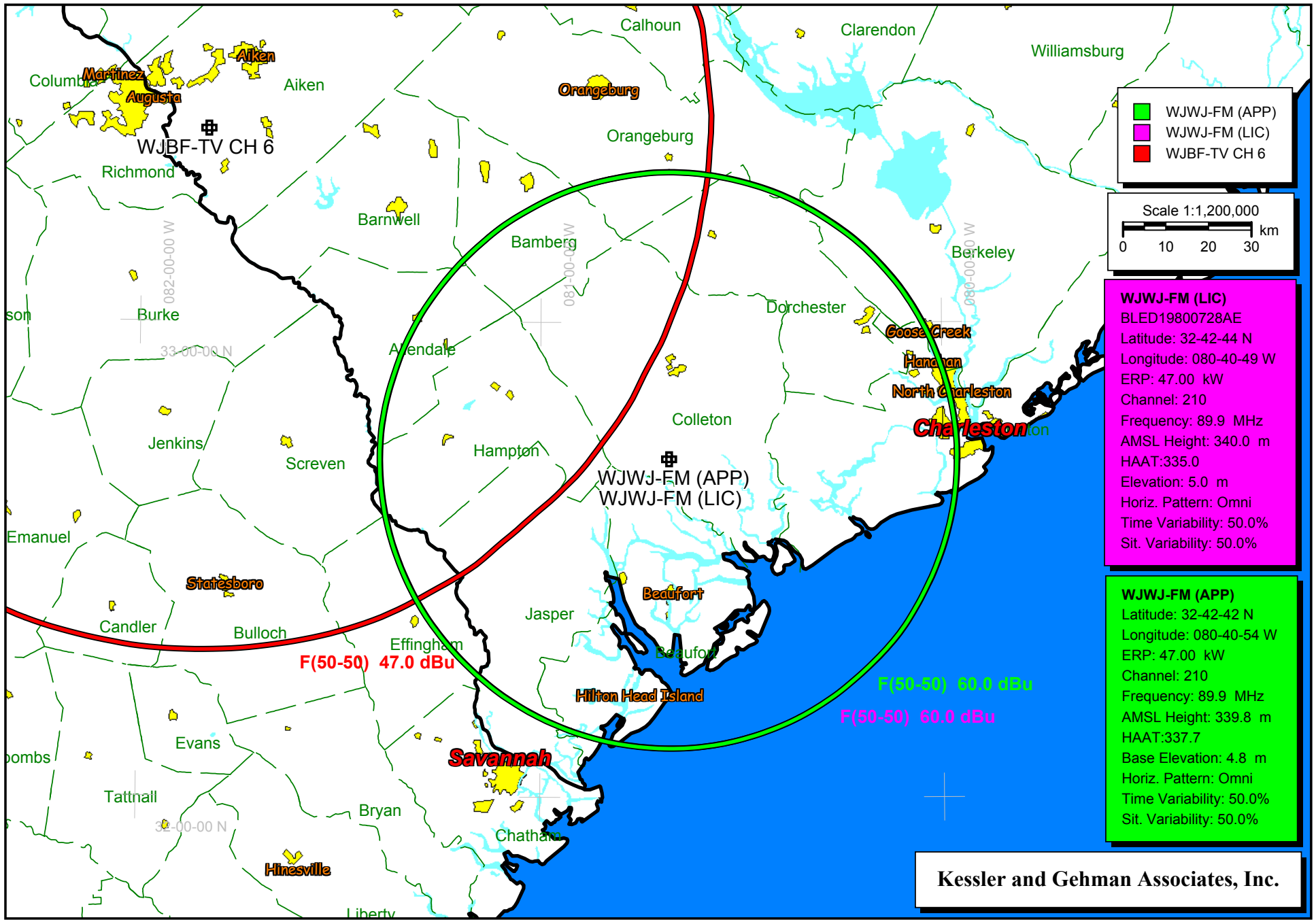
Protected Interference-Free (Green) & Interfering (Red) Contours For Proposed Operation

EXHIBIT 9



WJWJ-FM Allocation Map

EXHIBIT 10



TV Channel 6 Study

EXHIBIT 11

WJWJ-FM (Licensed) Distance to Contour Tabulation

Call Letters: WJWJ-FM (LIC)
File Number: BLED19800728AE
Latitude: 32-42-44 N
Longitude: 080-40-49 W
ERP: 47.00 kW
Channel: 210
Frequency: 89.9 MHz
AMSL Height: 340.0 m
Elevation: 5.0 m
HAAT: 335.0 m
Horiz. Antenna Pattern: Omni

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
# of Radials Calculated: 360
Field Strength: 60.00 dBuV/m

Primary Terrain: 3 Second US Terrain

Bearing (deg)	Distance (km)
0.0	67.0
10.0	67.0
20.0	67.1
30.0	67.1
40.0	67.3
50.0	67.3
60.0	67.3
70.0	67.3
80.0	67.3
90.0	67.3
100.0	67.3
110.0	67.2
120.0	67.2
130.0	67.4
140.0	67.3
150.0	67.5
160.0	67.5
170.0	67.6
180.0	67.5
190.0	67.5
200.0	67.5
210.0	67.5
220.0	67.4
230.0	67.4
240.0	67.4
250.0	67.4
260.0	67.5
270.0	67.4
280.0	67.3
290.0	67.1
300.0	67.0
310.0	66.8
320.0	66.8
330.0	66.8
340.0	66.9
350.0	66.9

WJWJ-FM (Proposed) Distance to Contour Tabulation

Call Letters: WJWJ-FM (APP)
Latitude: 32-42-42 N
Longitude: 080-40-54 W
ERP: 47.00 kW
Channel: 210
Frequency: 89.9 MHz
AMSL Height: 339.8 m
Elevation: 4.8 m
HAAT: 337.7 m
Horiz. Antenna Pattern: Omni

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
# of Radials Calculated: 360
Field Strength: 60.00 dBuV/m

Primary Terrain: 3 Second US Terrain

Bearing (deg)	Distance (km)
0.0	67.0
10.0	67.0
20.0	67.1
30.0	67.1
40.0	67.2
50.0	67.3
60.0	67.3
70.0	67.2
80.0	67.3
90.0	67.3
100.0	67.2
110.0	67.2
120.0	67.2
130.0	67.4
140.0	67.3
150.0	67.5
160.0	67.5
170.0	67.6
180.0	67.5
190.0	67.5
200.0	67.4
210.0	67.4
220.0	67.4
230.0	67.4
240.0	67.4
250.0	67.4
260.0	67.4
270.0	67.4
280.0	67.3
290.0	67.1
300.0	67.0
310.0	66.8
320.0	66.7
330.0	66.8
340.0	66.9
350.0	66.8