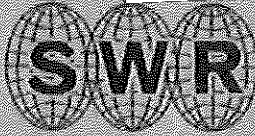


EXHIBIT B
APPLICATION FOR STATION LICENSE
REQUEST FOR PROGRAM TEST AUTHORITY
GLORY2GLORY EDUCATIONAL FOUNDATION, INC.
KJGM (FM) RADIO STATION
CH 202C1 - 88.3 MHZ - 63 KW
BASTROP, LOUISIANA
August 2013



SYSTEMS WITH RELIABILITY, LLP
BROADCAST ANTENNAS AND TRANSMISSION LINE

PATTERN CERTIFICATION
DIRECTIONAL FM ANTENNA
KJGM
July 30, 2013

Call Sign	:	KJGM
Location	:	Bastrop, LA
Frequency	:	88.3 MHz
Channel	:	202C1
Antenna Model	:	FM10V/3-HWS-DA
Maximum Antenna Gain	:	
Vertical	:	3.897 / 5.907 dB

ANTENNA DESCRIPTION

A custom designed FM10V/3-HWS-DA antenna was fabricated to conform to the prescribed directional azimuth pattern. Each antenna bay consists of a vertically polarized, dipole radiating element and vertical parasitic system. The three (3) bays are spaced one half wavelength apart, mounted to a 2" (inch) schedule 40 support pole. The support pole is mounted to a Western Electric "E" SSV tower. The antenna array points 30 degrees true north.

DESCRIPTION OF TEST PROCEDURE

The test antenna consisted of a single third-scale bay and mounting pole. The antenna was mounted to a third-scale pipe, which was mounted to a third-scale tower by use of third-scale brackets identical to those shipped with the final, full-scale antenna. For testing, the entire third-scale model was then mounted atop a 20' (foot) high platform, and all feed cables were properly grounded. Vertical readings were taken. The desired directional pattern was obtained by utilizing vertical parasitics, adjusting the distance between the tower and the antenna, and modifying the direction of the azimuth heading.

DESCRIPTION OF TEST PARAMETERS AND EQUIPMENT

Vertical pattern readings were taken by mounting a source antenna - a vertical/horizontal dipole, Cavity Back Resonator (CBR) antenna bay - approximately 100' (feet) from the third-scale antenna model. The source antenna's height was adjusted to achieve a uniform field at the third-scale test antenna location. The CBR antenna was operated in transmit mode, at frequency 264.9 MHz. The third-scale test antenna was then rotated clockwise in order to achieve 360° (degree) pattern readings. A gain reference was taken using a dipole tuned to 264.9 MHz. Nowhere did the received signal, or resultant documentation, exceed a maximum to minimum ratio of 15dB (decibels).

619 Industrial Park Road, Ebensburg, PA 15931 Tel. 800.762.7743 / 814.472.5436 • Fax 814.472.5552

TEST RESULTS

The attached calculations verify that the RMS value of this antenna is 90.0% of the RMS value of the pattern authorized in the related construction permit BNPED-20071018AGG. The vertical component RMS value is 0.721.

Azimuth and elevation plots and associated tabulations of this antenna are included with this package.

Measured vertical polarized directivity: 1.924 / 2.843 dB

Gain in each polarization was calculated using the following relation:

$$\text{GAIN} = \text{Azimuth Directivity} \times \text{Elevation Directivity}$$

Using this relationship along with ratio measured at our testing facilities:

$$\text{V-Pol. Gain} = (1.924)(2.025) = 3.897 / 5.907 \text{ dB}$$

INSTALLATION AND MOUNTING

The antenna is to be mounted in accordance with the supplied drawings. The antenna center of radiation is to be 78 meters (255.92 ft.) above ground level. The antenna aperture is 11.14 feet. No other antennas are to be mounted within 10 feet of the antenna. No other obstructions other than those specified by original drawings supplied are to be mounted at the same level as the antenna. The antenna is to be oriented 30 degrees true North.

The system's orientation and the mounting details are described in the following drawings:

DRAWING NO.	TITLE
1834D00	ELEVATION
1834D01	ANTENNA ORIENTATION
1834D02	BAY 1 INSTALLATION DETAIL
1834D03	BAY 2 INSTALLATION DETAIL
1834D04	BAY 3 INSTALLATION DETAIL
2105A10	TEST RANGE SCHEMATIC

The array shall be mounted according to DWG. 1834D00. The antenna elements shall be aligned at the same heading as in DWG. 1834D01. This will ensure that the antenna is oriented properly at 30 degrees true north. DWG. 1834D02 through DWG. 1834D04 show mounting details of each bay. The test range schematic DWG. 2105A10 shows the mounting configuration of the antenna setup on our range.

DOCUMENT EXHIBITS

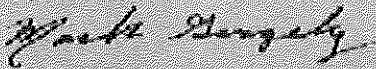
The following exhibits are included as part of this Certificate of Compliance:

Exhibit 1	Measured Vertical Polarized Azimuth Pattern
Exhibit 2	Measured Field Strength Tabulations (Vertical)
Exhibit 3	Elevation Pattern
Exhibit 4	Elevation Tabulations
Exhibit 5	Antenna Data Sheet
	RMS Calculations
	Drawings

TEST EQUIPMENT

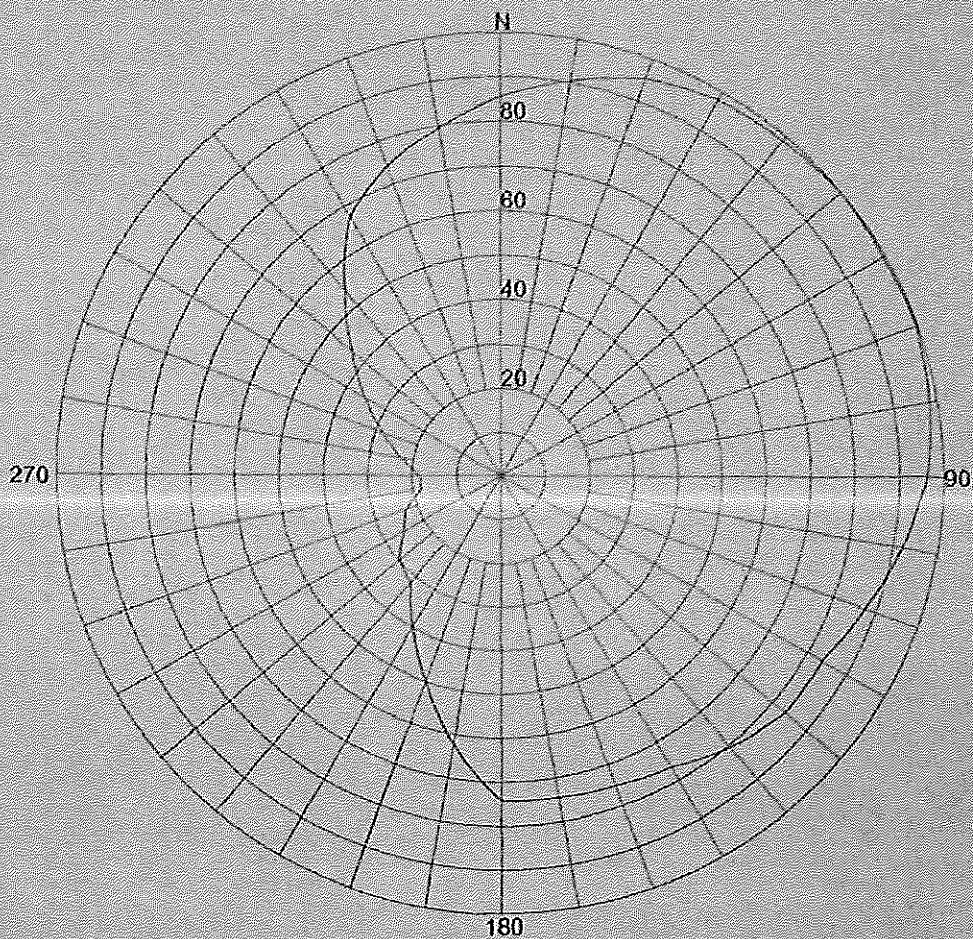
Network Analyzer	:	Hewlett Packard Model # 8753C Serial Number: 08753 - 69138
Computer	:	Pentium 3, 450 MHz, SAMS Range Program
Printer	:	Hewlett-Packard Laser Jet 6L
Positioner	:	Orbit Positioner
All equipment is calibrated to ANSI/NCSL Z540-1-1994 specs		

Prepared by:



Mark A. Gorgely
Electrical Engineer
Systems With Reliability LLP

Exhibit 1: Measured Vertical Polarized Azimuth Pattern



Azimuth Pattern

Systems With Reliability

Scale: Linear

Unit: Relative Field

CLIENT: *KJGM*

Date: 7/23/2013

ANTENNA TYPE: FM10V/3-HWS-DA

FREQUENCY: 88.3 MHz

PATTERN POL.: Vertical

CIRCULARITY(+/-dB):

AZ. DIRECTIVITY: 1.92422 / 2.84dB

PATTERN RMS: 0.721

Exhibit 1 (cont'd); Measured Vertical Polarized Azimuth Pattern Tabulations

Relative Field Tabulation(Azimuth)

Azimuth Heading	Normalized Field(dB)	Azimuth Heading	Normalized Field(dB)
0	.8550 (-1.36)	180	.7430 (-2.58)
5	.8795 (-1.12)	185	.6825 (-3.32)
10	.9040 (-0.88)	190	.6220 (-4.12)
15	.9290 (-0.64)	195	.5595 (-5.04)
20	.9540 (-0.41)	200	.4970 (-6.07)
25	.9670 (-0.29)	205	.4465 (-7)
30	.9800 (-0.18)	210	.3960 (-8.05)
35	.9840 (-0.14)	215	.3560 (-8.97)
40	.9880 (-0.1)	220	.3160 (-10.01)
45	.9940 (-0.05)	225	.3075 (-10.24)
50	1.0000 (0)	230	.2990 (-10.49)
55	.9970 (-0.03)	235	.2755 (-11.2)
60	.9940 (-0.05)	240	.2520 (-11.97)
65	.9950 (-0.04)	245	.2390 (-12.43)
70	.9960 (-0.03)	250	.2260 (-12.92)
75	.9895 (-0.09)	255	.2040 (-13.81)
80	.9830 (-0.15)	260	.1820 (-14.8)
85	.9725 (-0.24)	265	.1820 (-14.8)
90	.9620 (-0.34)	270	.1820 (-14.8)
95	.9410 (-0.53)	275	.2040 (-13.81)
100	.9200 (-0.72)	280	.2260 (-12.92)
105	.8975 (-0.94)	285	.2540 (-11.9)
110	.8750 (-1.16)	290	.2820 (-11)
115	.8560 (-1.35)	295	.3165 (-9.99)
120	.8370 (-1.55)	300	.3510 (-9.09)
125	.8370 (-1.55)	305	.3935 (-8.1)
130	.8370 (-1.55)	310	.4360 (-7.21)
135	.8210 (-1.71)	315	.4895 (-6.2)
140	.8050 (-1.88)	320	.5430 (-5.3)
145	.7855 (-2.1)	325	.6095 (-4.3)
150	.7660 (-2.32)	330	.6760 (-3.4)
155	.7590 (-2.4)	335	.7095 (-2.98)
160	.7520 (-2.48)	340	.7430 (-2.58)
165	.7490 (-2.51)	345	.7690 (-2.28)
170	.7460 (-2.55)	350	.7950 (-1.99)
175	.7445 (-2.56)	355	.8250 (-1.67)

Systems With Reliability

CLIENT: *KJGM*

Date: 7/23/2013

ANTENNA TYPE: FM10V/3-HWS-DA

FREQUENCY: 88.3 MHz

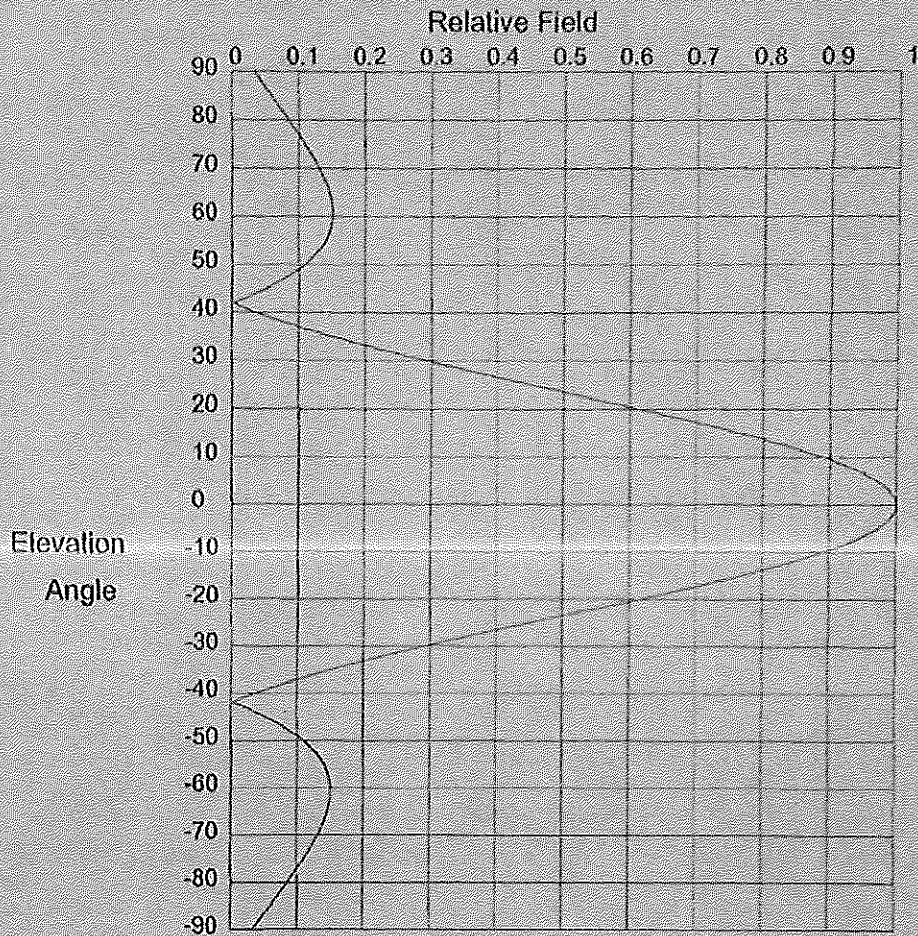
PATTERN POL.: Vertical

CIRCULARITY(+/-dB):

AZ. DIRECTIVITY: 1.92422 / 2.84dB

PATTERN RMS: 0.721

Exhibit 2: Elevation Pattern



Elevation Pattern

Scale: Linear

Units: Field, Relative

Systems With Reliability

CLIENT: KJGM

Date: 7/24/2013

ANTENNA TYPE: FM10V/3-HWS-DA

FREQUENCY: 88.3 MHz

PATTERN POL.: Vertical

DIRECTIVITY(Peak): 2.025/3.064 dBd

Beam Tilt (Deg.): 0

DIRECTIVITY(Horiz): 2.025/3.064 dBd

Null Fill(s)(%): 0, 0, 0

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
90.0	.033 (-29.542)	52.0	.125 (-18.072)	14.0	.795 (-1.996)
89.0	.039 (-28.275)	51.0	.118 (-18.59)	13.0	.821 (-1.714)
88.0	.044 (-27.17)	50.0	.109 (-19.22)	12.0	.846 (-1.455)
87.0	.049 (-26.19)	49.0	.10 (-19.99)	11.0	.869 (-1.218)
86.0	.054 (-25.311)	48.0	.09 (-20.939)	10.0	.891 (-1.004)
85.0	.059 (-24.514)	47.0	.078 (-22.127)	9.8	.895 (-0.963)
84.0	.065 (-23.786)	46.0	.066 (-23.653)	9.6	.899 (-0.924)
83.0	.07 (-23.116)	45.0	.052 (-25.698)	9.4	.903 (-0.885)
82.0	.075 (-22.497)	44.0	.037 (-28.651)	9.2	.907 (-0.848)
81.0	.08 (-21.923)	43.0	.021 (-33.646)	9.0	.911 (-0.811)
80.0	.085 (-21.388)	42.0	.003 (-49.299)	8.8	.915 (-0.775)
79.0	.09 (-20.889)	41.0	.015 (-36.401)	8.6	.918 (-0.739)
78.0	.095 (-20.422)	40.0	.035 (-29.143)	8.4	.922 (-0.705)
77.0	.10 (-19.986)	39.0	.056 (-25.058)	8.2	.926 (-0.672)
76.0	.105 (-19.577)	38.0	.076 (-22.158)	8.0	.929 (-0.639)
75.0	.11 (-19.195)	37.0	.101 (-19.889)	7.8	.932 (-0.607)
74.0	.114 (-18.838)	36.0	.126 (-18.013)	7.6	.936 (-0.576)
73.0	.119 (-18.506)	35.0	.151 (-16.408)	7.4	.939 (-0.546)
72.0	.123 (-18.197)	34.0	.178 (-15.004)	7.2	.942 (-0.517)
71.0	.127 (-17.912)	33.0	.205 (-13.753)	7.0	.945 (-0.488)
70.0	.131 (-17.65)	32.0	.234 (-12.626)	6.8	.948 (-0.46)
69.0	.135 (-17.41)	31.0	.263 (-11.599)	6.6	.951 (-0.434)
68.0	.138 (-17.195)	30.0	.293 (-10.658)	6.4	.954 (-0.408)
67.0	.141 (-17.003)	29.0	.324 (-9.791)	6.2	.957 (-0.382)
66.0	.144 (-16.835)	28.0	.355 (-8.987)	6.0	.96 (-0.358)
65.0	.146 (-16.692)	27.0	.387 (-8.24)	5.8	.962 (-0.334)
64.0	.148 (-16.576)	26.0	.42 (-7.544)	5.6	.965 (-0.312)
63.0	.15 (-16.487)	25.0	.452 (-6.894)	5.4	.967 (-0.29)
62.0	.151 (-16.427)	24.0	.485 (-6.286)	5.2	.97 (-0.269)
61.0	.151 (-16.398)	23.0	.518 (-5.717)	5.0	.972 (-0.248)
60.0	.151 (-16.401)	22.0	.551 (-5.183)	4.8	.974 (-0.229)
59.0	.151 (-16.44)	21.0	.583 (-4.684)	4.6	.976 (-0.21)
58.0	.149 (-16.518)	20.0	.615 (-4.216)	4.4	.978 (-0.192)
57.0	.147 (-16.638)	19.0	.647 (-3.778)	4.2	.98 (-0.175)
56.0	.144 (-16.805)	18.0	.678 (-3.369)	4.0	.982 (-0.159)
55.0	.141 (-17.024)	17.0	.709 (-2.987)	3.8	.984 (-0.143)
54.0	.136 (-17.302)	16.0	.739 (-2.632)	3.6	.985 (-0.128)
53.0	.131 (-17.648)	15.0	.767 (-2.302)	3.4	.987 (-0.115)

Systems With Reliability

Page 1 of 3

CLIENT: KJGM

Date: 7/24/2013

ANTENNA TYPE: FM10V/3-HWS-DA

FREQUENCY: 88.3 MHz

PATTERN POL.: Vertical

DIRECTIVITY(Peak): 2.025/3.064 dBd

Beam Tilt (Deg.): 0

DIRECTIVITY(Horiz): 2.025/3.064 dBd

Null Fill(s)(%): 0, 0, 0

Exhibit 2 (cont'd): Elevation Pattern Tabulations

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
3.2	.988 (-0.101)	-4.4	.978 (-0.192)	-12.0	.846 (-1.455)
3.0	.99 (-0.089)	-4.6	.976 (-0.21)	-12.2	.841 (-1.505)
2.8	.991 (-0.078)	-4.8	.974 (-0.229)	-12.4	.836 (-1.555)
2.6	.992 (-0.067)	-5.0	.972 (-0.248)	-12.6	.831 (-1.607)
2.4	.993 (-0.057)	-5.2	.97 (-0.269)	-12.8	.826 (-1.66)
2.2	.994 (-0.048)	-5.4	.967 (-0.29)	-13.0	.821 (-1.714)
2.0	.995 (-0.04)	-5.6	.965 (-0.312)	-13.2	.816 (-1.768)
1.8	.996 (-0.032)	-5.8	.962 (-0.334)	-13.4	.811 (-1.824)
1.6	.997 (-0.025)	-6.0	.96 (-0.358)	-13.6	.805 (-1.88)
1.4	.998 (-0.019)	-6.2	.957 (-0.382)	-13.8	.80 (-1.937)
1.2	.998 (-0.014)	-6.4	.954 (-0.409)	-14.0	.795 (-1.996)
1.0	.999 (-0.01)	-6.6	.951 (-0.434)	-14.2	.789 (-2.055)
.8	.999 (-0.006)	-6.8	.948 (-0.46)	-14.4	.784 (-2.115)
.6	1.00 (-0.004)	-7.0	.945 (-0.488)	-14.6	.778 (-2.176)
.4	1.00 (-0.002)	-7.2	.942 (-0.517)	-14.8	.773 (-2.238)
.2	1.00 (0)	-7.4	.939 (-0.546)	-15.0	.767 (-2.302)
0	1.00 (0)	-7.6	.936 (-0.576)	-15.2	.762 (-2.366)
-.2	1.00 (0)	-7.8	.932 (-0.607)	-15.4	.756 (-2.431)
-.4	1.00 (-0.002)	-8.0	.929 (-0.639)	-15.6	.751 (-2.497)
-.6	1.00 (-0.004)	-8.2	.926 (-0.672)	-15.8	.744 (-2.564)
-.8	.999 (-0.006)	-8.4	.922 (-0.705)	-16.0	.739 (-2.632)
-1.0	.999 (-0.01)	-8.6	.918 (-0.739)	-16.2	.733 (-2.701)
-1.2	.998 (-0.014)	-8.8	.915 (-0.775)	-16.4	.727 (-2.771)
-1.4	.998 (-0.019)	-9.0	.911 (-0.811)	-16.6	.721 (-2.842)
-1.6	.997 (-0.025)	-9.2	.907 (-0.848)	-16.8	.715 (-2.914)
-1.8	.996 (-0.032)	-9.4	.903 (-0.885)	-17.0	.709 (-2.987)
-2.0	.995 (-0.04)	-9.6	.899 (-0.924)	-17.2	.703 (-3.062)
-2.2	.994 (-0.048)	-9.8	.895 (-0.963)	-17.4	.697 (-3.137)
-2.4	.993 (-0.057)	-10.0	.891 (-1.004)	-17.6	.691 (-3.213)
-2.6	.992 (-0.067)	-10.2	.887 (-1.045)	-17.8	.685 (-3.291)
-2.8	.991 (-0.078)	-10.4	.882 (-1.087)	-18.0	.678 (-3.369)
-3.0	.99 (-0.089)	-10.6	.878 (-1.13)	-18.2	.672 (-3.449)
-3.2	.988 (-0.101)	-10.8	.874 (-1.173)	-18.4	.666 (-3.529)
-3.4	.987 (-0.115)	-11.0	.869 (-1.218)	-18.6	.66 (-3.611)
-3.6	.985 (-0.128)	-11.2	.865 (-1.264)	-18.8	.654 (-3.694)
-3.8	.984 (-0.143)	-11.4	.86 (-1.31)	-19.0	.647 (-3.778)
-4.0	.982 (-0.159)	-11.6	.855 (-1.357)	-19.2	.641 (-3.863)
-4.2	.98 (-0.175)	-11.8	.851 (-1.406)	-19.4	.635 (-3.95)

Systems With Reliability

Page 2 of 3

CLIENT: KJGM

Date: 7/24/2013

ANTENNA TYPE: FM10V/3-HWS-DA

FREQUENCY: 88.3 MHz

PATTERN POL.: Vertical

DIRECTIVITY(Peak): 2.025/3.064 dBd

Beam Tilt (Deg.): 0

DIRECTIVITY(Horiz): 2.025/3.064 dBd

Null Fill(s)(%): 0, 0, 0

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
-19.6	.628 (-4.037)	-27.2	.381 (-8.385)	-54.0	.136 (-17.302)
-19.8	.622 (-4.126)	-27.4	.374 (-8.533)	-55.0	.141 (-17.024)
-20.0	.615 (-4.216)	-27.6	.368 (-8.682)	-56.0	.144 (-16.805)
-20.2	.609 (-4.307)	-27.8	.362 (-8.834)	-57.0	.147 (-16.638)
-20.4	.603 (-4.399)	-28.0	.355 (-8.987)	-58.0	.149 (-16.518)
-20.6	.596 (-4.493)	-28.2	.349 (-9.143)	-59.0	.151 (-16.44)
-20.8	.59 (-4.588)	-28.4	.343 (-9.302)	-60.0	.151 (-16.401)
-21.0	.583 (-4.684)	-28.6	.336 (-9.462)	-61.0	.151 (-16.398)
-21.2	.577 (-4.781)	-28.8	.33 (-9.625)	-62.0	.151 (-16.427)
-21.4	.57 (-4.88)	-29.0	.324 (-9.791)	-63.0	.15 (-16.487)
-21.6	.564 (-4.979)	-29.2	.318 (-9.959)	-64.0	.148 (-16.576)
-21.8	.557 (-5.081)	-29.4	.312 (-10.13)	-65.0	.146 (-16.692)
-22.0	.551 (-5.183)	-29.6	.305 (-10.303)	-66.0	.144 (-16.835)
-22.2	.544 (-5.287)	-29.8	.299 (-10.479)	-67.0	.141 (-17.003)
-22.4	.538 (-5.392)	-30.0	.293 (-10.658)	-68.0	.138 (-17.195)
-22.6	.531 (-5.499)	-31.0	.263 (-11.599)	-69.0	.135 (-17.41)
-22.8	.524 (-5.607)	-32.0	.234 (-12.626)	-70.0	.131 (-17.65)
-23.0	.518 (-5.717)	-33.0	.205 (-13.753)	-71.0	.127 (-17.912)
-23.2	.511 (-5.827)	-34.0	.178 (-15.004)	-72.0	.123 (-18.197)
-23.4	.505 (-5.94)	-35.0	.151 (-16.408)	-73.0	.119 (-18.506)
-23.6	.498 (-6.054)	-36.0	.126 (-18.013)	-74.0	.114 (-18.838)
-23.8	.492 (-6.169)	-37.0	.101 (-19.889)	-75.0	.11 (-19.195)
-24.0	.485 (-6.286)	-38.0	.078 (-22.158)	-76.0	.105 (-19.577)
-24.2	.478 (-6.404)	-39.0	.056 (-25.058)	-77.0	.10 (-19.986)
-24.4	.472 (-6.524)	-40.0	.035 (-29.143)	-78.0	.095 (-20.422)
-24.6	.465 (-6.646)	-41.0	.015 (-36.401)	-79.0	.09 (-20.889)
-24.8	.459 (-6.769)	-42.0	.003 (-49.299)	-80.0	.085 (-21.388)
-25.0	.452 (-6.894)	-43.0	.021 (-33.646)	-81.0	.08 (-21.923)
-25.2	.446 (-7.021)	-44.0	.037 (-28.651)	-82.0	.075 (-22.497)
-25.4	.439 (-7.149)	-45.0	.052 (-25.698)	-83.0	.07 (-23.116)
-25.6	.433 (-7.279)	-46.0	.066 (-23.653)	-84.0	.065 (-23.786)
-25.8	.426 (-7.411)	-47.0	.078 (-22.127)	-85.0	.059 (-24.514)
-26.0	.42 (-7.544)	-48.0	.09 (-20.939)	-86.0	.054 (-25.311)
-26.2	.413 (-7.68)	-49.0	.10 (-19.99)	-87.0	.049 (-26.19)
-26.4	.407 (-7.817)	-50.0	.109 (-19.22)	-88.0	.044 (-27.17)
-26.6	.40 (-7.956)	-51.0	.118 (-18.59)	-89.0	.039 (-28.275)
-26.8	.394 (-8.097)	-52.0	.125 (-18.072)	-90.0	.033 (-29.542)
-27.0	.387 (-8.24)	-53.0	.131 (-17.648)	90.0	.00 (-50)

Systems With Reliability

Page 3 of 3

CLIENT: KJGM

Date: 7/24/2013

ANTENNA TYPE: FM10V3-HWS-DA

FREQUENCY: 88.3 MHz

PATTERN POL.: Vertical

DIRECTIVITY(Peak): 2.025/3.064 dBd

Beam Tilt (Deg.): 0

DIRECTIVITY(Horiz): 2.025/3.064 dBd

Null Fill(s)(%): 0, 0, 0

Exhibit 3: Antenna Data Sheet



SYSTEMS WITH RELIABILITY, LLP
BROADCAST ANTENNAS AND TRANSMISSION LINE

SYSTEM DATA SHEET

Customer	KJGM
Contact	Tyson Evans
Location	Bastrop, LA
Antenna Model	FM10V/3-HWS-DA
Channel / Frequency	202C1 / 88.3 MHz

ELECTRICAL SPECIFICATIONS

Antenna Specifications:

	V. Pol.	dB	
License ERP (KW)	63.000	17.993	dB
FCC Limit Pattern Directivity	1.592	2.018	dB
Elevation Directivity	2.025	3.064	dB
Azimuth Directivity	1.924	2.843	dB
Polarization Ratio	100.000		
RMS Comp./RMS Limit	90.9 %		
Antenna Efficiency %	100		
Antenna Gain	3.897	5.907	dB

Antenna Input Power (KW)	16.168 kW	12.087 (dBK)
--------------------------	-----------	--------------

Feed Line Specifications:

Line Type	3" Air 50 Ω HJ7-50A	
Attenuation Per 100 ft (dB)	0.135 dB	
Line Length (ft) AGL + 60' Horizontal Run	315.92 ft.	
Total Line Attenuation (dB)	0.426 dB	
Line Efficiency	90.65 %	
Power Input to the Line (KW)	17.837 kW	12.513 (dBK)

MECHANICAL SPECIFICATIONS

No. Of Bays	3		
Antenna Aperture	11.14 ft.	3.40	meter
Center of Radiation AGL	255.92 ft.	78.00	meter
Antenna Weight w/pole	455.00 lbs.	211.82	kg
Windload (50/33)	607.00 lbs.	Windload CaAc	27.40 ft ²

Prepared by:

David K. Edmiston Jr.
David K. Edmiston Jr.
SWR, LLP

Exhibit 4: RMS Calculations



SYSTEMS WITH RELIABILITY, INC.
Broadcast Antennas and Transmission Systems

KJGM Antenna RMS Comparison

PROPOSED ANTENNA

Azimuth Heading	Relative Field
0	1.000
10	1.000
20	1.000
30	1.000
40	1.000
50	1.000
60	1.000
70	1.000
80	1.000
90	1.000
100	1.000
110	1.000
120	1.000
130	1.000
140	1.000
150	1.000
160	1.000
170	0.977
180	0.780
190	0.622
200	0.497
210	0.396
220	0.316
230	0.316
240	0.282
250	0.226
260	0.182
270	0.182
280	0.226
290	0.282
300	0.351
310	0.436
320	0.543
330	0.676
340	0.841
350	1.000

Sum of Relative Field Squared : 22.653
Sum Divided by 36 (Readings) : 0.629
Square Root : 0.793

DESIGNED ANTENNA

Azimuth Heading	Relative Field
0	0.855
10	0.904
20	0.954
30	0.980
40	0.988
50	1.000
60	0.994
70	0.966
80	0.983
90	0.962
100	0.920
110	0.875
120	0.837
130	0.837
140	0.805
150	0.766
160	0.752
170	0.748
180	0.743
190	0.622
200	0.497
210	0.396
220	0.316
230	0.299
240	0.252
250	0.226
260	0.182
270	0.182
280	0.226
290	0.282
300	0.351
310	0.436
320	0.543
330	0.676
340	0.743
350	0.795

Sum of Relative Field Squared : 18.729
Sum Divided by 36 (Readings) : 0.520
Square Root : 0.721

Percentage of Construction Permit Antenna Filled :

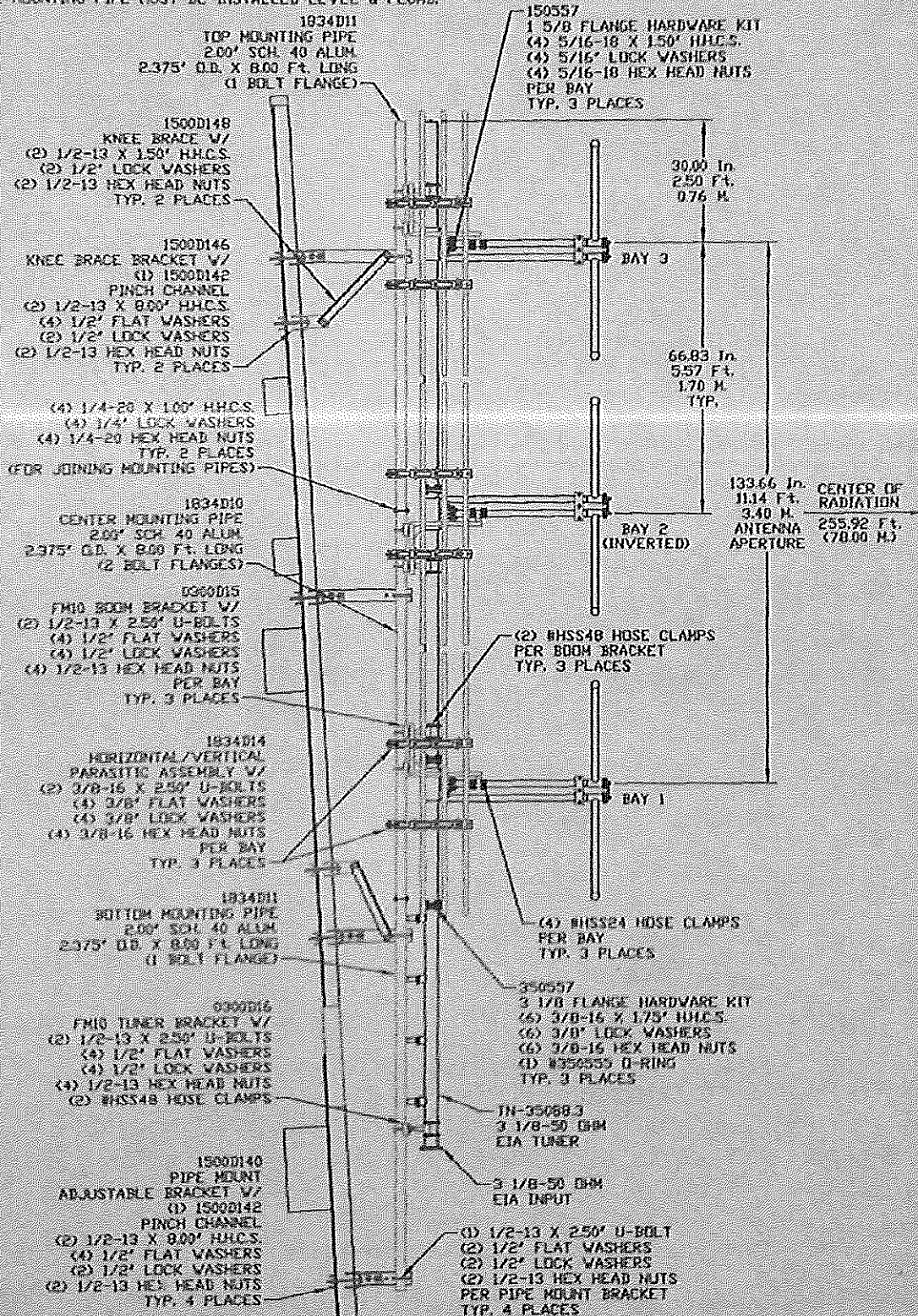
90.9%

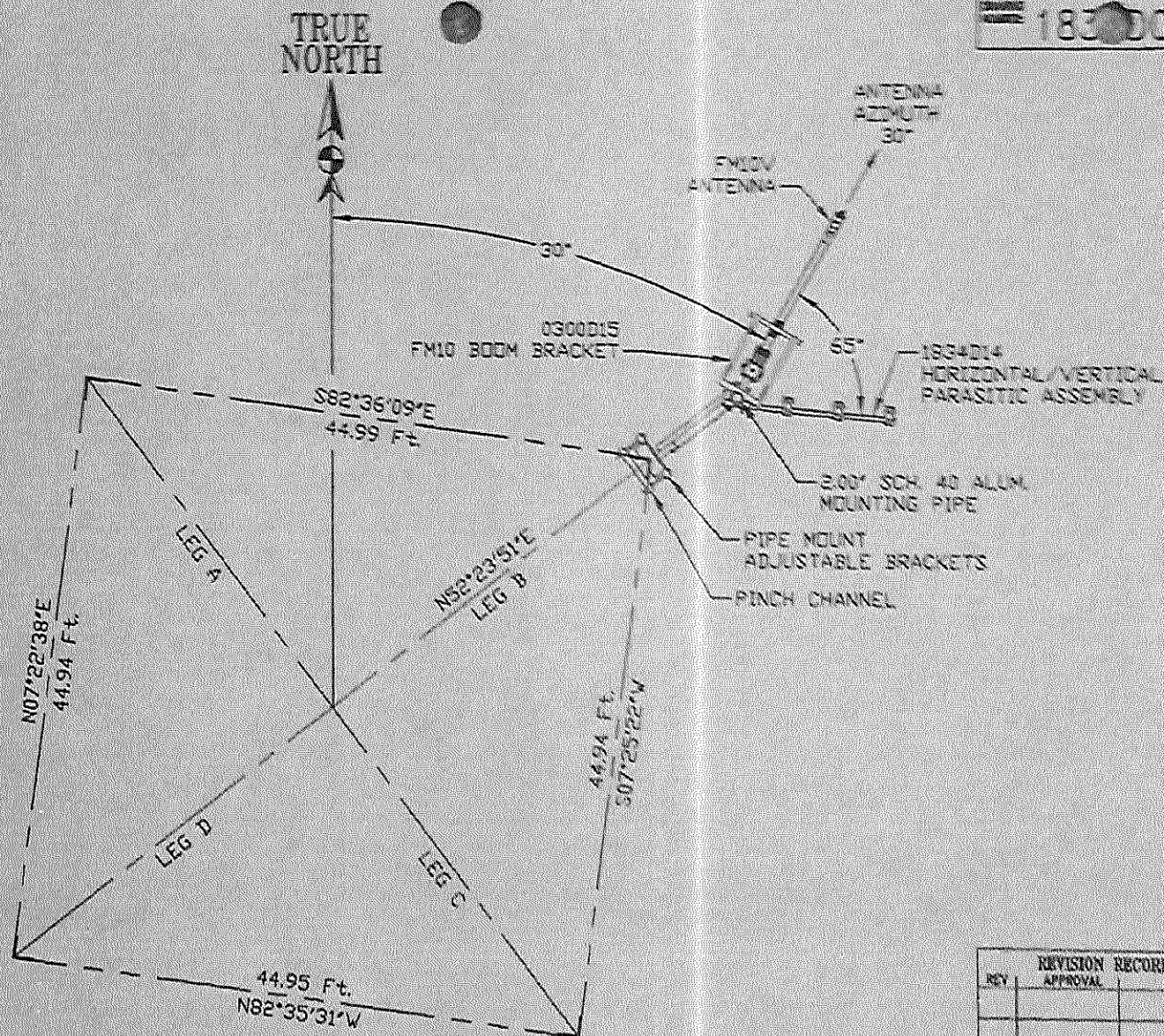
Exhibit 5: Drawings

DRAWING NUMBER 1834D00

NOTES:

1. REFERENCE DWG. 1834D01 FOR ANTENNA ORIENTATION.
2. REFERENCE DWG. 1834D02 FOR BAY 1 PARASITIC PLACEMENT.
3. REFERENCE DWG. 1834D03 FOR BAY 2 PARASITIC PLACEMENT.
4. REFERENCE DWG. 1834D04 FOR BAY 3 PARASITIC PLACEMENT.
5. THE MOUNTING PIPE MUST BE INSTALLED LEVEL & PLUMB.





REVISION RECORD		
REV	APPROVAL	DATE



SYSTEMS WITH RELIABILITY, LP
819 INDUSTRIAL PARK ROAD
EBENSBURG, PENNSYLVANIA 15931

TITLE: FM10V/3-HWS-DA, FREQ. 88.3
KJGM, BASTROP, LA
MATERIAL: ANTENNA ORIENTATION
FROM TRUE NORTH

SIZE

A

PARTS MADE BY THIS DRAWING

SCALE: NTS

NAME: RAC

DATE: 7/25/13

SHEET 1 OF 1

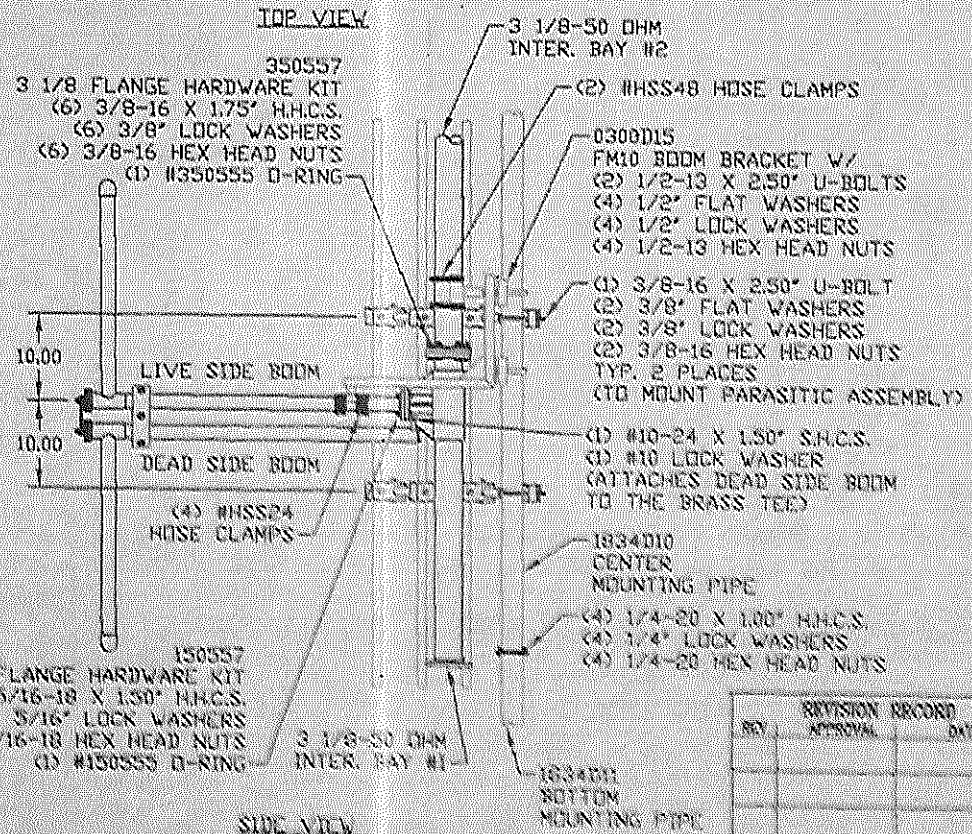
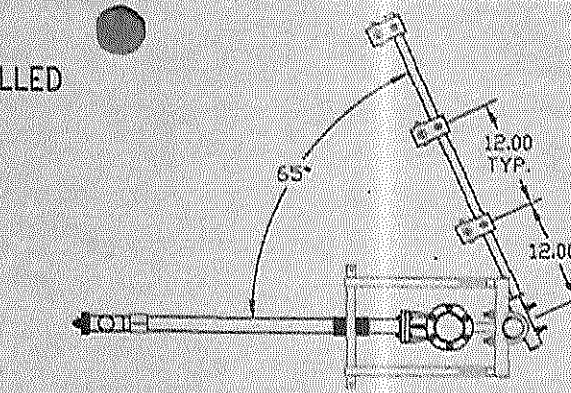
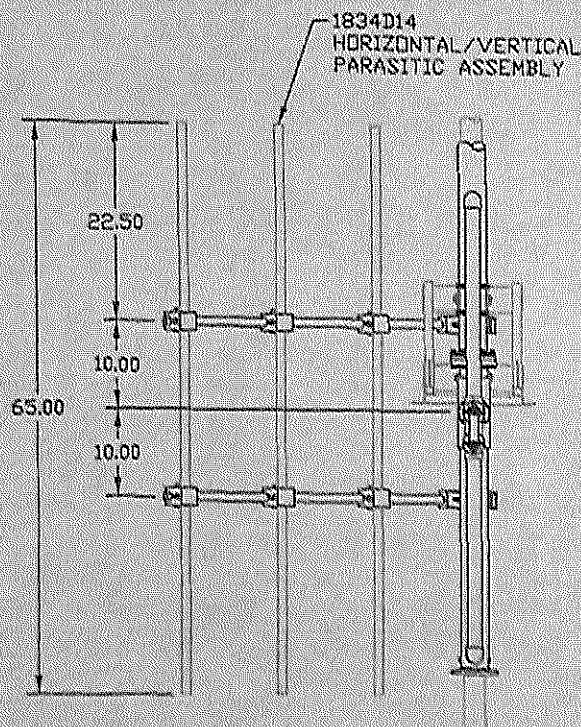
DRAWING NUMBER: 1834D01

NOTE:

ATTACH THE DEAD SIDE BOOM TO THE PRE-DRILLED
BRASS TEE ON INTER. BAY #1.

Exhibit 5 (cont'd): Drawings

DRAWING
NUMBER: 1834D02



- 350557
- 3 1/8 FLANGE HARDWARE KIT
- (6) 3/8-16 X 1.75" H.H.C.S.
- (6) 3/8" LOCK WASHERS
- (6) 3/8-16 HEX HEAD NUTS
- (1) #350555 O-RING

3 1/8-50 DHM
INTER. BAY #2

(2) #HSS48 HOSE CLAMPS

- 0300D15
- FM10 BOOM BRACKET W/
- (2) 1/2-13 X 2.50" U-BOLTS
- (4) 1/2" FLAT WASHERS
- (4) 1/2" LOCK WASHERS
- (4) 1/2-13 HEX HEAD NUTS

- (1) 3/8-16 X 2.50" U-BOLT
- (2) 3/8" FLAT WASHERS
- (2) 3/8" LOCK WASHERS
- (2) 3/8-16 HEX HEAD NUTS
- TYP. 2 PLACES
- (TO MOUNT PARASITIC ASSEMBLY)

- (1) #10-24 X 1.50" S.H.C.S.
- (1) #10 LOCK WASHER
- (ATTACHES DEAD SIDE BOOM TO THE BRASS TEE)

1834D10
CENTER
MOUNTING PIPE

- (4) 1/4-20 X 1.00" H.H.C.S.
- (4) 1/4" LOCK WASHERS
- (4) 1/4-20 HEX HEAD NUTS

- 150557
- 1 5/8 FLANGE HARDWARE KIT
- (4) 5/16-18 X 1.50" H.H.C.S.
- (4) 5/16" LOCK WASHERS
- (4) 5/16-18 HEX HEAD NUTS
- (1) #150555 O-RING

3 1/8-50 DHM
INTER. BAY #1

(4) #HSS24
HOSE CLAMPS

1834D11
BOTTOM
MOUNTING PIPE

REVISION RECORD		
REV.	APPROVAL	DATE

SYSTEMS WITH RELIABILITY, LP
819 INDUSTRIAL PARK ROAD
EBENSBURG, PENNSYLVANIA 15931

FM10V/3-HWS-DA, FREQ. 88.3
KJGM, BASTROP, LA
BAY 1
PARASITIC PLACEMENT

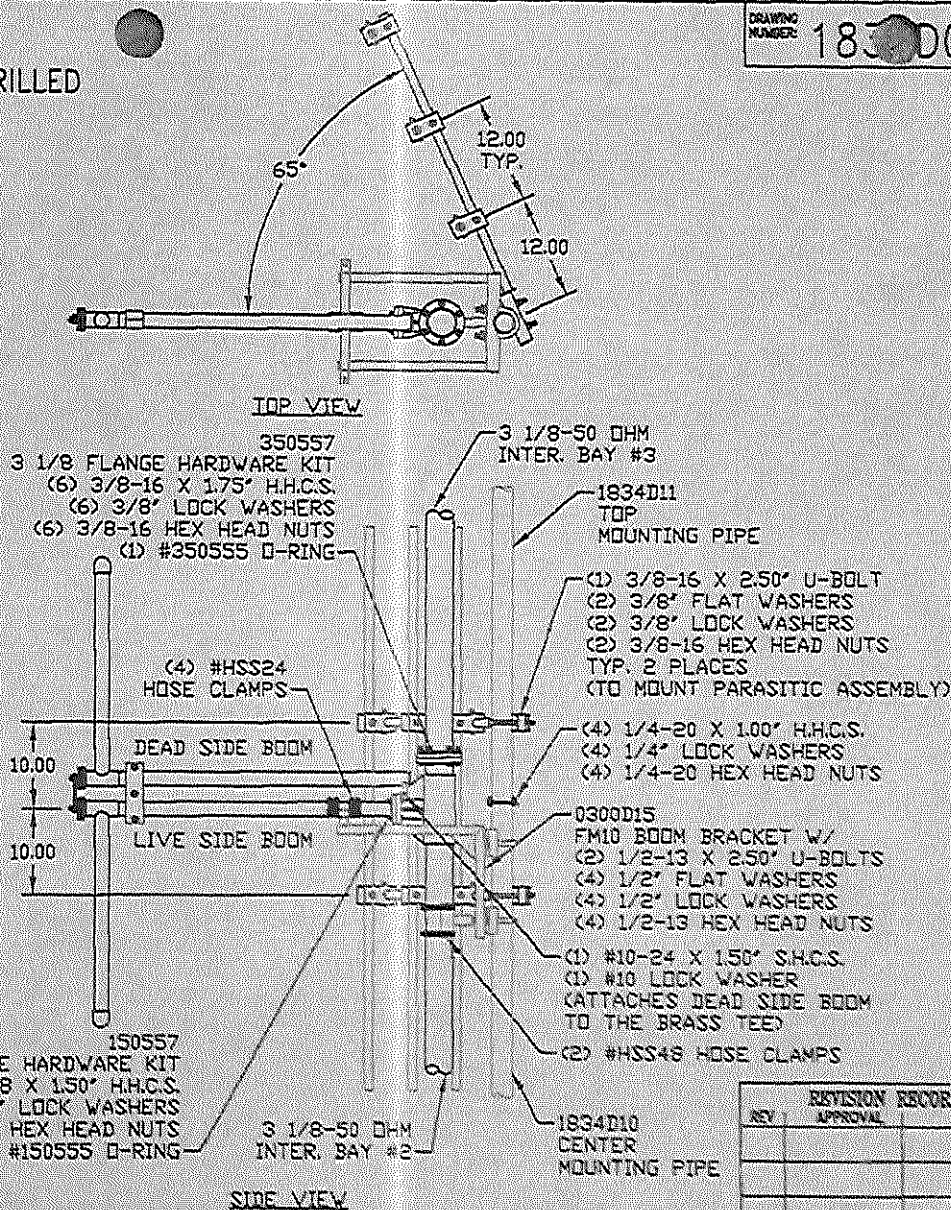
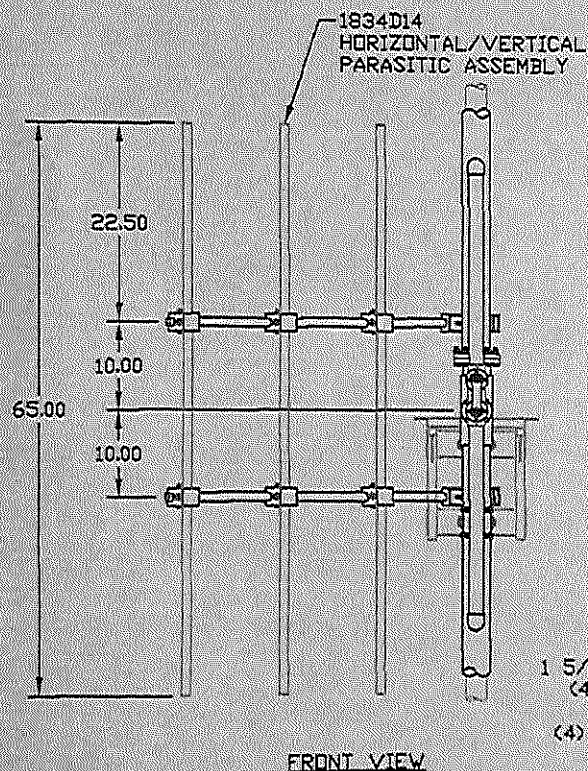
PARTS MADE BY THIS DRAWING
NTS RAC 7/25/13 1 OF 1

NOTE:

ATTACH THE DEAD SIDE BOOM TO THE PRE-DRILLED BRASS TEE ON INTER. BAY #2.

DRAWING NUMBER 1834D03

Exhibit 5 (cont'd): Drawings



SYSTEMS WITH RELIABILITY, LP
619 INDUSTRIAL PARK ROAD
EBensburg, PENNSYLVANIA 15931

TITLE: FM10V/3-HWS-DA, FREQ. 88.3
KJGM, BASTROP, LA
BAY 2
PARASITIC PLACEMENT

MATERIAL:

SIZE

A

PARTS MADE BY THIS DRAWING

SCALE: NTS

NAME: RAC

DATE: 7/25/13

SHEET 1 OF 1

REVISION RECORD		
REV	APPROVAL	DATE

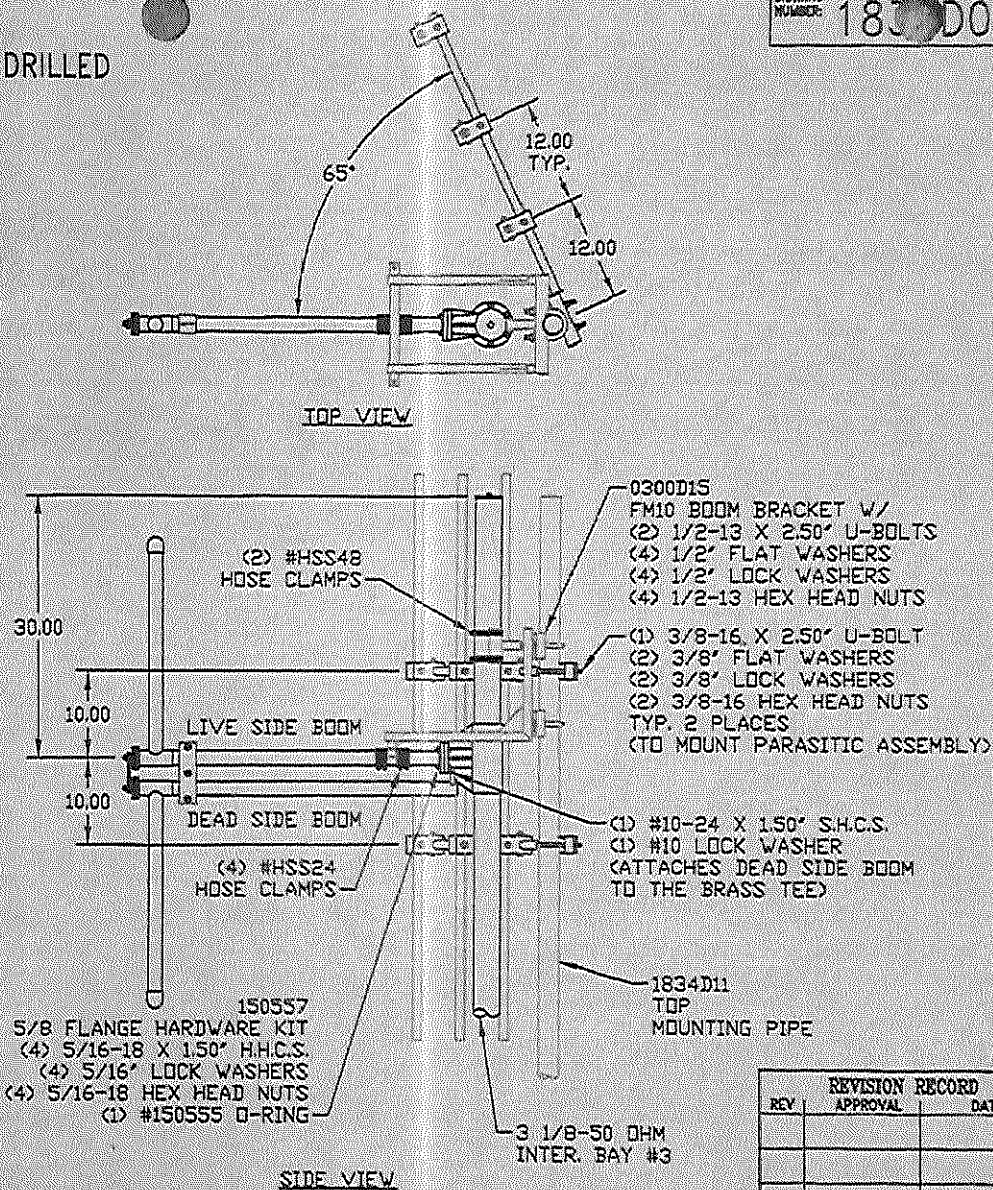
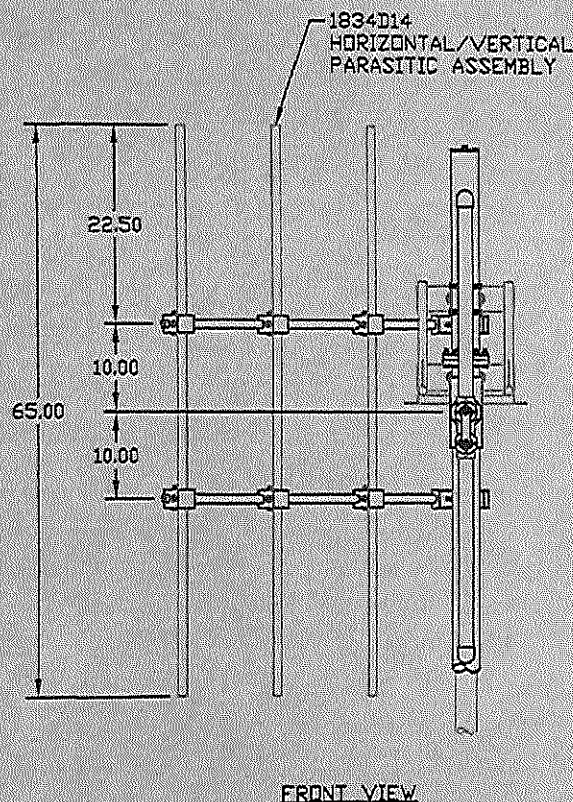
DRAWING NUMBER 1834D03

NOTE:

ATTACH THE DEAD SIDE BOOM TO THE PRE-DRILLED BRASS TEE ON INTER. BAY #3.

Exhibit 5 (cont'd): Drawings

DRAWING NUMBER: 1834D04



SYSTEMS WITH RELIABILITY, LP
619 INDUSTRIAL PARK ROAD
EBENSBURG, PENNSYLVANIA 15931

TITLE: FM10V/3-HWS-DA, FREQ. 88.3
KJGM, BASTROP, LA
BAY 3
PARASITIC PLACEMENT

MATERIAL:

SIZE:

A

PARTS MADE BY THIS DRAWING

SCALE: NTS

NAME: RAC

DATE: 7/25/13

SHEET 1 OF 1

REVISION RECORD		
REV	APPROVAL	DATE

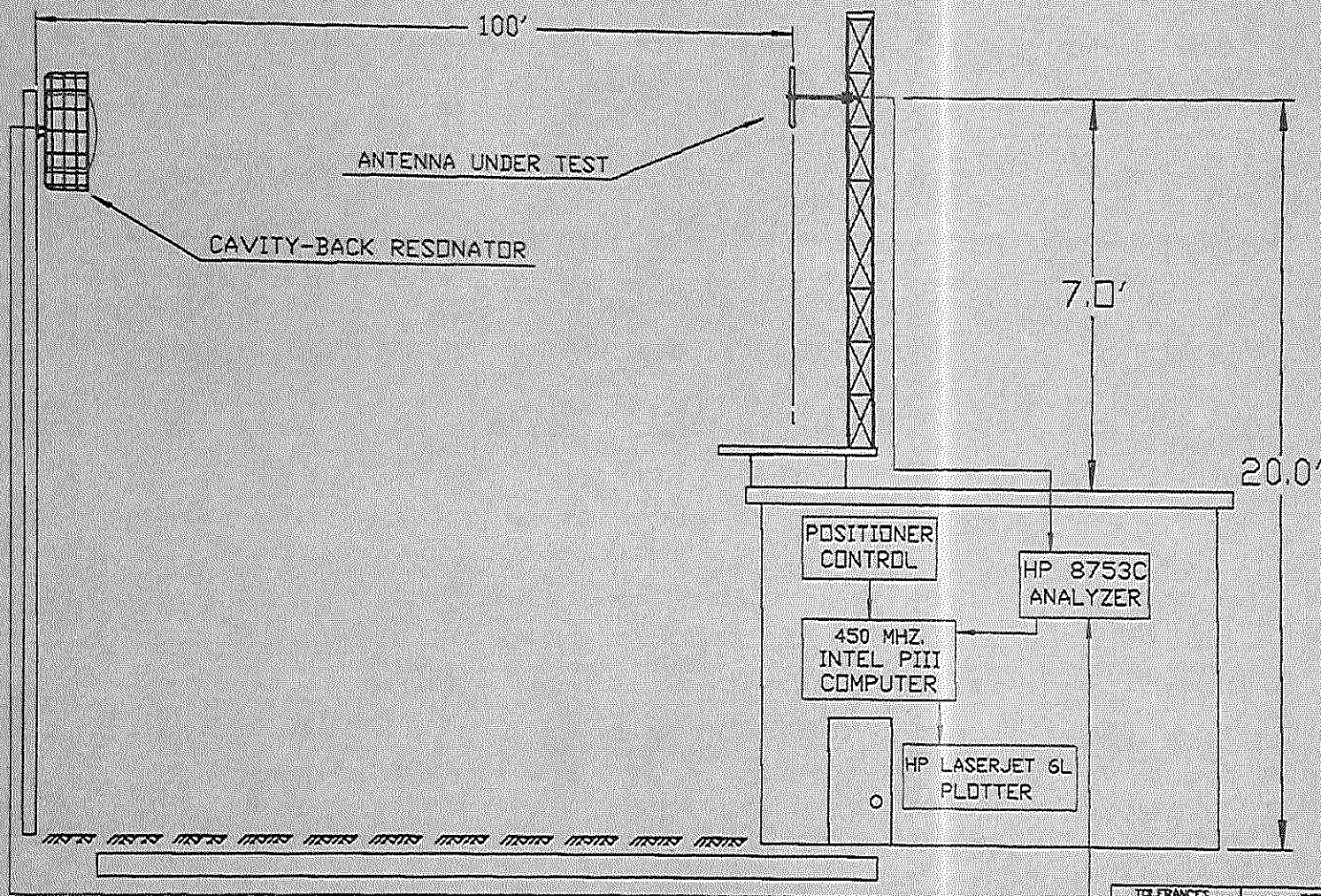
DRAWING NUMBER: 1834D04

NOTE:

Exhibit 5 (cont'd): Drawings

DRAWING
NUMBER:

2105A10



TOLERANCES	
X	± .015
XX	± .005
XXX	± .002
X/X	± 1/32
DEG.	± 1/2
UNLESS OTHERWISE SPECIFIED	

REVISION RECORD		
REV	APPROVAL	DATE
2		10/7/05
1		4/30/02



SYSTEMS WITH RELIABILITY, INC
819 INDUSTRIAL PARK ROAD
EBENSBURG, PENNSYLVANIA 15031

TITLE:

TEST RANGE SCHEMATIC

MATERIAL:

SIZE

A

PARTS MADE BY THIS DRAWING

SCALE: NTS

NAME: JRM

DATE: 11/1/98

SHEET 1 OF 1

DRAWING
NUMBER:

2105A10