

Rose Hill, North Carolina  
Application for Modified Construction Permit for  
FM Translator W240BN  
On Channel 243  
by  
Conner Media Corporation

Exhibit 13  
Allocations

November 2012

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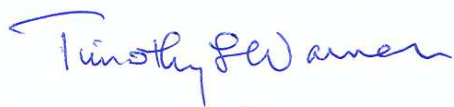
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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Exhibit 13, Allocations, for Conner Media Corporation, and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.



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16 November 2012

### Narrative

This Exhibit supports an application for a minor modification of a Construction Permit for FM translator W240BN, Rose Hill, North Carolina. The modifications proposed are a change of primary station, change of frequency, and a reduction of effective radiated power.

Figure 1 shows the proposed, authorized and licensed contours. There is overlap of the proposed contour with the licensed contour. Since the proposed site is the same as the authorized site, the contours are concentric.

Allocation details are provided in this exhibit. This proposal complies fully with the requirements of 74 C.F.R. §74.1204(a), with the exception of facilities protected under 47 C.F.R. §74.1204(d) by the Undesired to Desired (U/D) method described below.

The proposed modified facilities create no mutual exclusivities as shown in the allocation table in this exhibit.

The proposed site is not in any Arbitron measured metro area nor any urbanized area. The site does not impact any area identified for LPFM allocations.

### Allocations

This application proposes service to Rose Hill, North Carolina, on channel 243. An updated Table 1: Allocations is included in this exhibit with a list of the stations, construction permits, allocations, and applications studied. All are protected by this application, with the exception of facilities protected by the Undesired to Desired (U/D) method. Facilities protected by the U/D method are listed in Table 2. The allocations table was prepared using the NED 03 arcsecond terrain database which is described below.

The proposed facility has primary contour overlap with the licensed facility, as shown in Figure 1.

### **Undesired to Desired Method**

Protection to some facilities is provided through the use of Undesired to Desired Signal Strength Ratio (U/D) calculations. Table 2 lists the parameters studied. Figure 1 shows the relevant contours, including the WYMY 60.3 dBu contour. For the translator interference contour, free space calculations are used. The 100.3 dBu F(50,10) interference contour was calculated. At 10 Watts, the maximum extent of the contour is 214 meters. When the elevation pattern is considered, the 100.3 dBu contour does not reach below 2 meters above ground at any location beyond the tower field. Figure 2 is a vertical plane plot of the proposed W240BN 100.3 dBu free space signal strength. There is no population within the predicted interference area and therefore this facility is permitted under §74.1204(d).

The applicant recognizes that the U/D method is only a tool for predicting likely interference. Should any actual interference be experienced, the applicant will cooperate fully in correcting the interference. Corrective steps may require changes in the transmitting antenna or other steps which would require Commission authorization, may require that the translator cease operation except for brief equipment tests, or may require filtering at the receivers which report interference.

### **Source of Data**

Transmitter location, effective radiated power, directional antenna pattern, and elevation data are extracted from the Commission's CDBS. All contours for existing and

proposed facilities are calculated using height above average terrain calculated at one degree horizontal increments.

The contours were also evaluated using terrain extracted from the V-Soft Communications NED 03 terrain database. The NED 03 database is derived from the USGS National Elevation Data 30 meter terrain database. The USGS National Elevation Dataset has been developed by merging the highest-resolution, best-quality elevation data available across the United States into a seamless raster format. NED is the result of the maturation of the USGS effort to provide 1:24,000-scale Digital Elevation Model (DEM) data for the conterminous US and 1:63,360-scale DEM data for Alaska.

All population data is from 2010 U.S. Census PL data files. Population is counted by considering the location of the centroid of each census block. The data for each block is counted if it falls within the area being counted.

#### Television Channel 6 Protection

There are no television channel 6 stations requiring protection. This application proposes a channel which is not subject to television channel 6 separation requirements.

Table 1: Allocations

Timothy L. Warner, Inc.  
Asheville, North Carolina

Allocation Study  
Conner Media Corporation

REFERENCE CH# 243D - 96.5 MHz, Pwr= 0.01 kW, HAAT= 0.0 M, COR= 132 M DISPLAY DATES  
34 46 17.0 N. DATA 11-16-12  
77 56 35.0 W. Average Protected F(50-50)= 3.2 km SEARCH 11-16-12  
Omni-directional

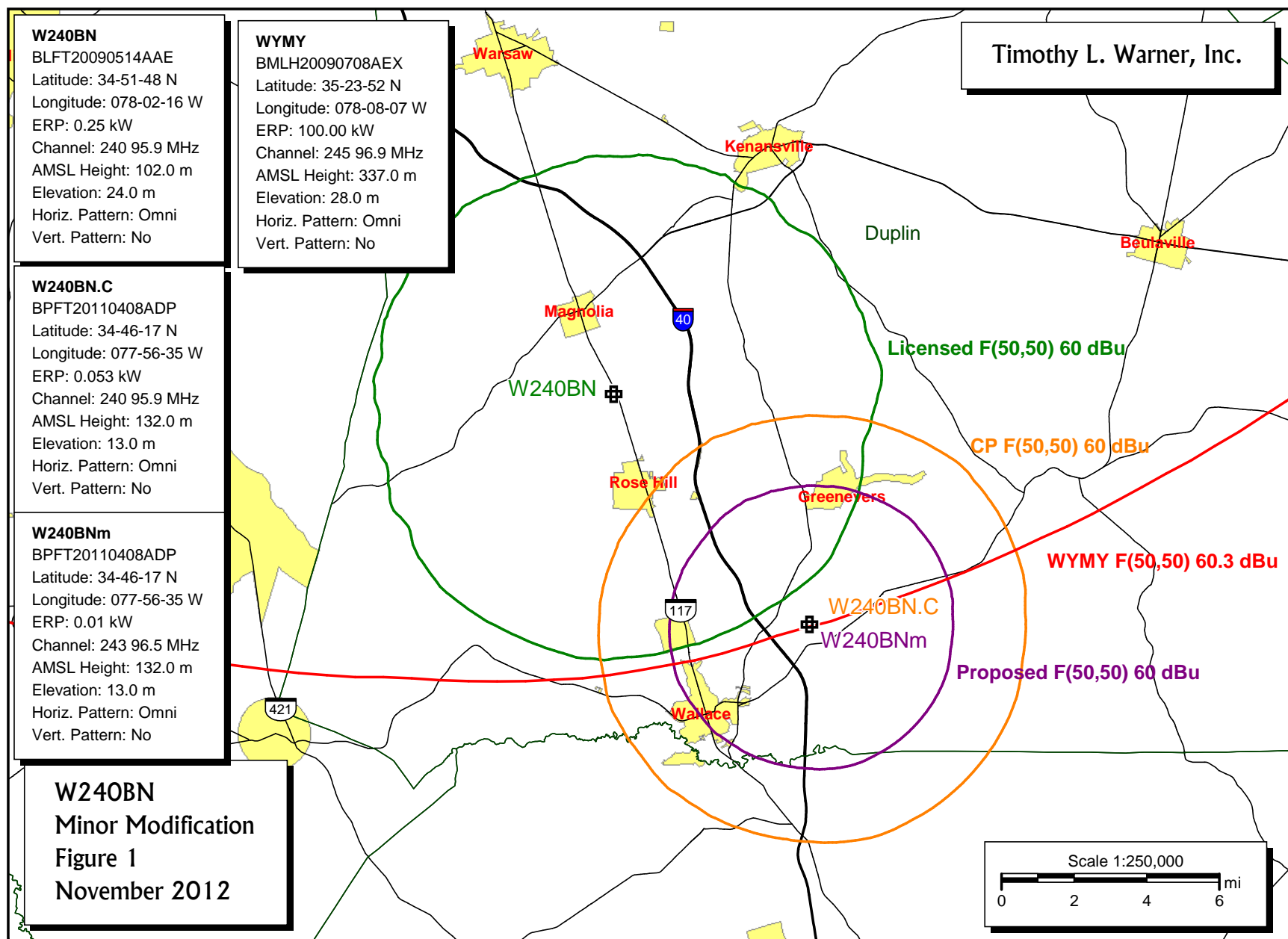
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
243C Laurinburg	WFLB	LIC	NCX NC	270.9 90.2	100.95 BMLH20120425ADF	34 46 49.0 79 02 45.0	100.000 318	174.9 368	74.2 wflb License Limited Partn	-80.1*	6.3
240D Rose Hill	W240BN	CP	C NC	0.0 0.0	0.00 BPFT20110408ADP	34 46 17.0 77 56 35.0	0.053	0.5 132	9.3 Conner Media Corporation	-6.7*	-9.5*
245C0 Goldsboro	WYMY	LIC	CX NC	346.0 165.8	71.66 BMLH20090708AEX	35 23 52.0 78 08 07.0	100.000 300	10.1 337	72.5 New Age Communications, Lt	55.4	-1.0*
240D Rose Hill	W240BN	LIC	C NC	319.8 139.7	13.38 BLFT20090514AAE	34 51 48.0 78 02 16.0	0.250 79	1.1 102	11.8 Conner Media Corporation	6.2	1.4
242C1 Morehead City	WRHT	LIC	NCX NC	91.0 271.6	97.12 BMLH20020910ABD	34 45 07.0 76 52 57.0	100.000 150	86.9 152	57.3 Inner Banks Media, LLC	3.9	30.8
240D Jacksonville	W240BQ	LIC	C NC	90.3 270.5	38.42 BLFT20070816AAC	34 46 08.0 77 31 24.0	0.038 65	0.4 76	5.9 Conner Media, Inc.	31.6	32.2
246D Jacksonville	650599	APP	C NC	86.1 266.4	41.55 BNPFT20030317KSI	34 47 45.0 77 29 24.0	0.019 94	0.3 105	6.2 Conner Media Corporation	34.9	35.1
240D Wilmington	W240AS	LIC	C NC	180.4 0.4	62.30 BLFT20110401AAZ	34 12 35.0 77 56 53.0	0.250 119	1.1 125	14.0 Sea-comm, Inc.	54.8	47.9
241C0 Raleigh	WBBB	LIC	CY NC	325.4 145.0	123.65 BLH19900228KE	35 41 07.0 78 43 14.0	100.000 300	10.4 408	73.5 Carolina Media Group, Inc.	107.1	50.0
240D Kinston Translator For WYFL, Henderson, NC	W240AW	LIC	CN NC	39.1 219.4	63.08 BLFT19951207TJ	35 12 39.0 77 30 16.0	0.055 60	0.5 77	6.5 Bible Broadcasting Network	56.1	56.4

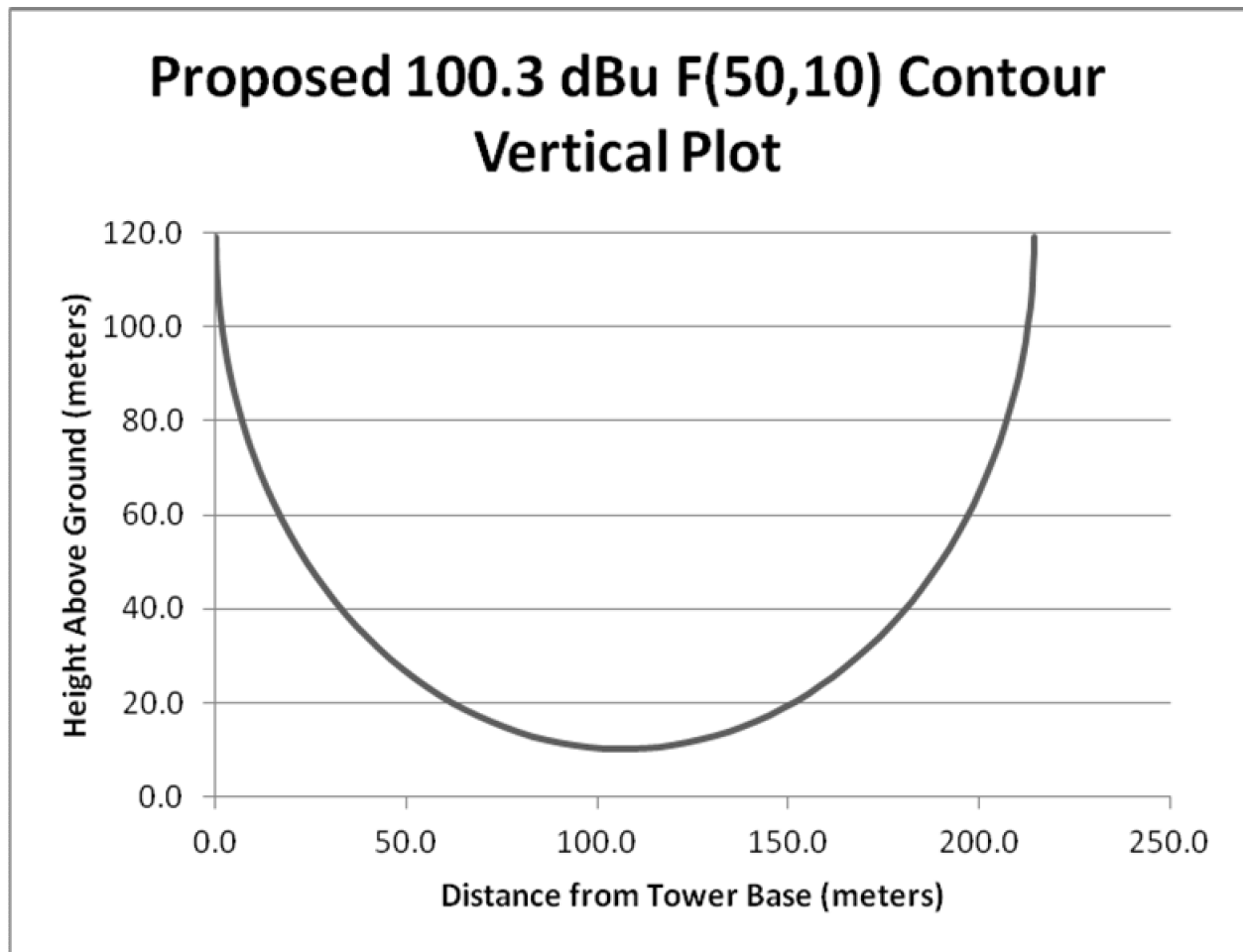
Terrain database is NED 03 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3rd adj.  
All separation margins (if shown) include rounding  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
"\*"affixed to 'IN' or 'OUT' values = site inside protected contour.

Table 2: Facilities Protected by U/D Method

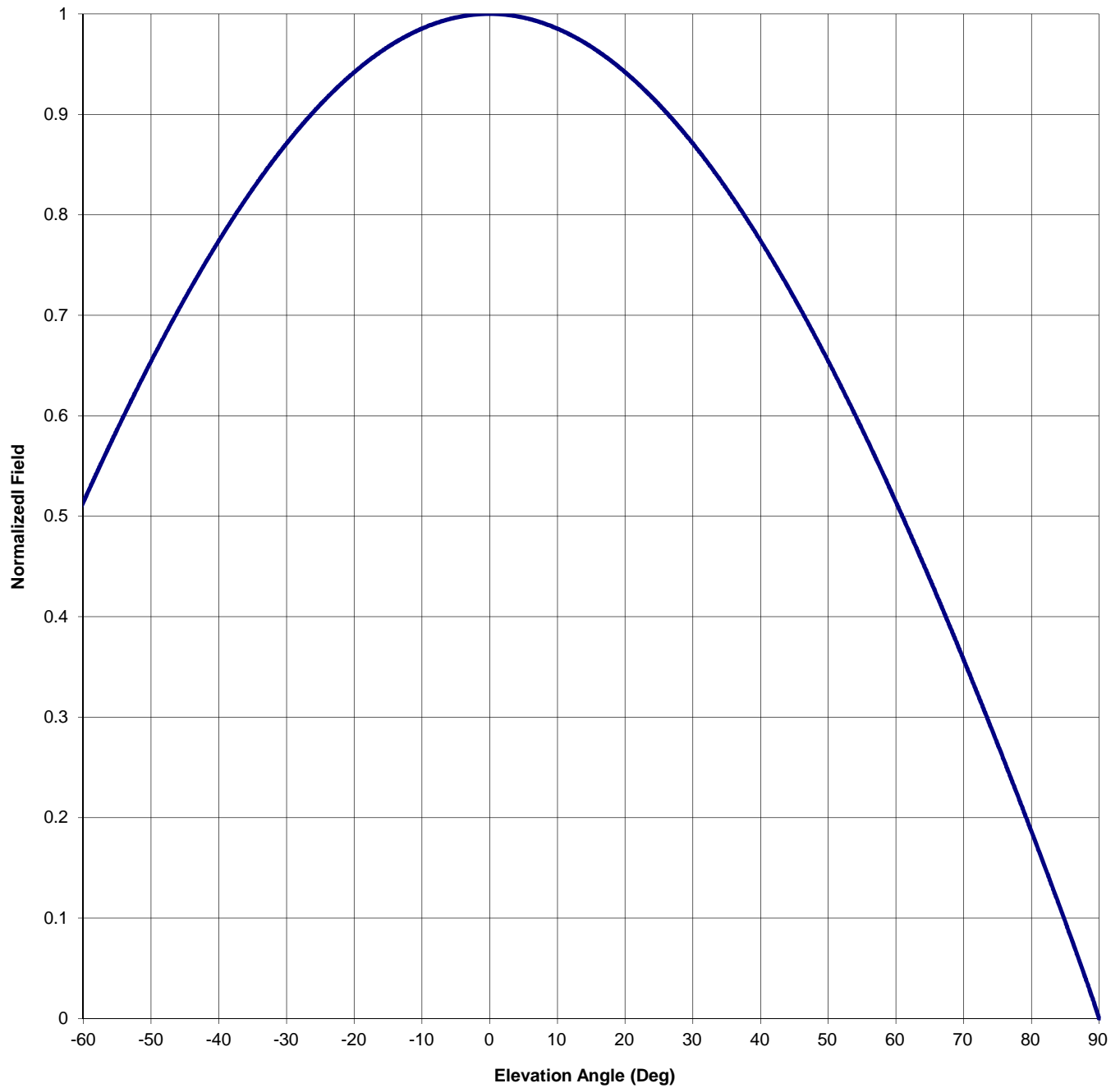
Facility	WYMY Goldsboro, North Carolina
Relationship	245C0, second adjacent
Distance (km)	71.67
Bearing (degrees)	346.0
ERP (kW, on azimuth)	100
HAAT (m, on azimuth)	301.2
Ratio	40
Signal Strength (dBu)	60.3
Translator Signal Strength	100.3
Translator distance (km)	.214







Free space propagation  
Shively 6812B-1  
Center of Radiation 119 meters Above Ground Level  
ERP 10 Watts

**Antenna Mfg.: Shively Labs****Date: 11/23/2011****Antenna Type: 6812-1****Station: none****Beam Tilt 0****Frequency: 93.1****Gain (Max) 0.460 -3.369 dB****Channel #: 226****Gain (Horizon) 0.460 -3.369 dB****Figure: 3**

**Antenna Mfg.: Shively Labs****Date: 11/23/2011****Antenna Type: 6812-1****Station: none****Beam Tilt 0****Frequency: 93.1****Gain (Max) 0.460 -3.369 dB****Channel #: 226****Gain (Horizon) 0.460 -3.369 dB****Figure: 3**

Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field
-90	0.000	-44	0.729	0	1.000	46	0.705
-89	0.021	-43	0.741	1	1.000	47	0.693
-88	0.040	-42	0.752	2	0.999	48	0.680
-87	0.059	-41	0.763	3	0.999	49	0.667
-86	0.078	-40	0.774	4	0.998	50	0.654
-85	0.096	-39	0.785	5	0.996	51	0.641
-84	0.114	-38	0.796	6	0.995	52	0.628
-83	0.133	-37	0.806	7	0.993	53	0.614
-82	0.151	-36	0.816	8	0.991	54	0.600
-81	0.168	-35	0.826	9	0.988	55	0.586
-80	0.186	-34	0.835	10	0.985	56	0.572
-79	0.204	-33	0.845	11	0.982	57	0.558
-78	0.221	-32	0.854	12	0.979	58	0.544
-77	0.239	-31	0.862	13	0.975	59	0.529
-76	0.256	-30	0.871	14	0.971	60	0.514
-75	0.273	-29	0.879	15	0.967	61	0.499
-74	0.290	-28	0.887	16	0.963	62	0.484
-73	0.307	-27	0.895	17	0.958	63	0.469
-72	0.324	-26	0.903	18	0.953	64	0.453
-71	0.341	-25	0.910	19	0.948	65	0.437
-70	0.357	-24	0.917	20	0.942	66	0.422
-69	0.373	-23	0.924	21	0.936	67	0.406
-68	0.390	-22	0.930	22	0.930	68	0.390
-67	0.406	-21	0.936	23	0.924	69	0.373
-66	0.422	-20	0.942	24	0.917	70	0.357
-65	0.437	-19	0.948	25	0.910	71	0.341
-64	0.453	-18	0.953	26	0.903	72	0.324
-63	0.469	-17	0.958	27	0.895	73	0.307
-62	0.484	-16	0.963	28	0.887	74	0.290
-61	0.499	-15	0.967	29	0.879	75	0.273
-60	0.514	-14	0.971	30	0.871	76	0.256
-59	0.529	-13	0.975	31	0.862	77	0.239
-58	0.544	-12	0.979	32	0.854	78	0.221
-57	0.558	-11	0.982	33	0.845	79	0.204
-56	0.572	-10	0.985	34	0.835	80	0.186
-55	0.586	-9	0.988	35	0.826	81	0.168
-54	0.600	-8	0.991	36	0.816	82	0.151
-53	0.614	-7	0.993	37	0.806	83	0.133
-52	0.628	-6	0.995	38	0.796	84	0.114
-51	0.641	-5	0.996	39	0.785	85	0.096
-50	0.654	-4	0.998	40	0.774	86	0.078
-49	0.667	-3	0.999	41	0.763	87	0.059
-48	0.680	-2	0.999	42	0.752	88	0.040
-47	0.693	-1	1.000	43	0.741	89	0.021
-46	0.705	0	1.000	44	0.729	90	0.000
-45	0.717			45	0.717		