

Clearance to WSRV

This instant translator application clears all allocation constraints of Section 74.1204. On first glance, it appears that interference is created to WSRV, Gainesville, GA. However, Section 74.1204(d) instructs us:

“In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.”

Through the use of the Elevation Radiation Pattern from the antenna manufacturer and graphing the actual interfering contour, we will prove that the interference area never touches the ground and therefore there is no population being affected.

WSRV (BLH-19980825KB) places 69.8 dBu over the proposed translator site. Adding the 40 dBu U/D ratio to the 69.8 dBu signal produces an interfering contour of 109.8 dBu. This interfering contour extends a distance of 357 meters in the main lobe of the signal. The proposed antenna is a Shively 5-bay full-wave spaced. This antenna significantly focuses the 109.8 dBu interfering contour over the heads of any nearby resident. The closest this signal comes to the ground is 10.6 meters. This occurs a distance of 29.7 meters from the tower base and is created by the 55 degree elevation of the Shively antenna.

In conclusion, based on the foregoing explanation showing that no persons will receive interference, it is thought this application is in compliance will Section 74.1204 using Section 74.1204(d).

Shively Labs

Antenna Mfr.: Shively Labs

Date: 12/29/2004

Antenna Type: 6812B or 6602B 5-Bay, full-wave-spaced

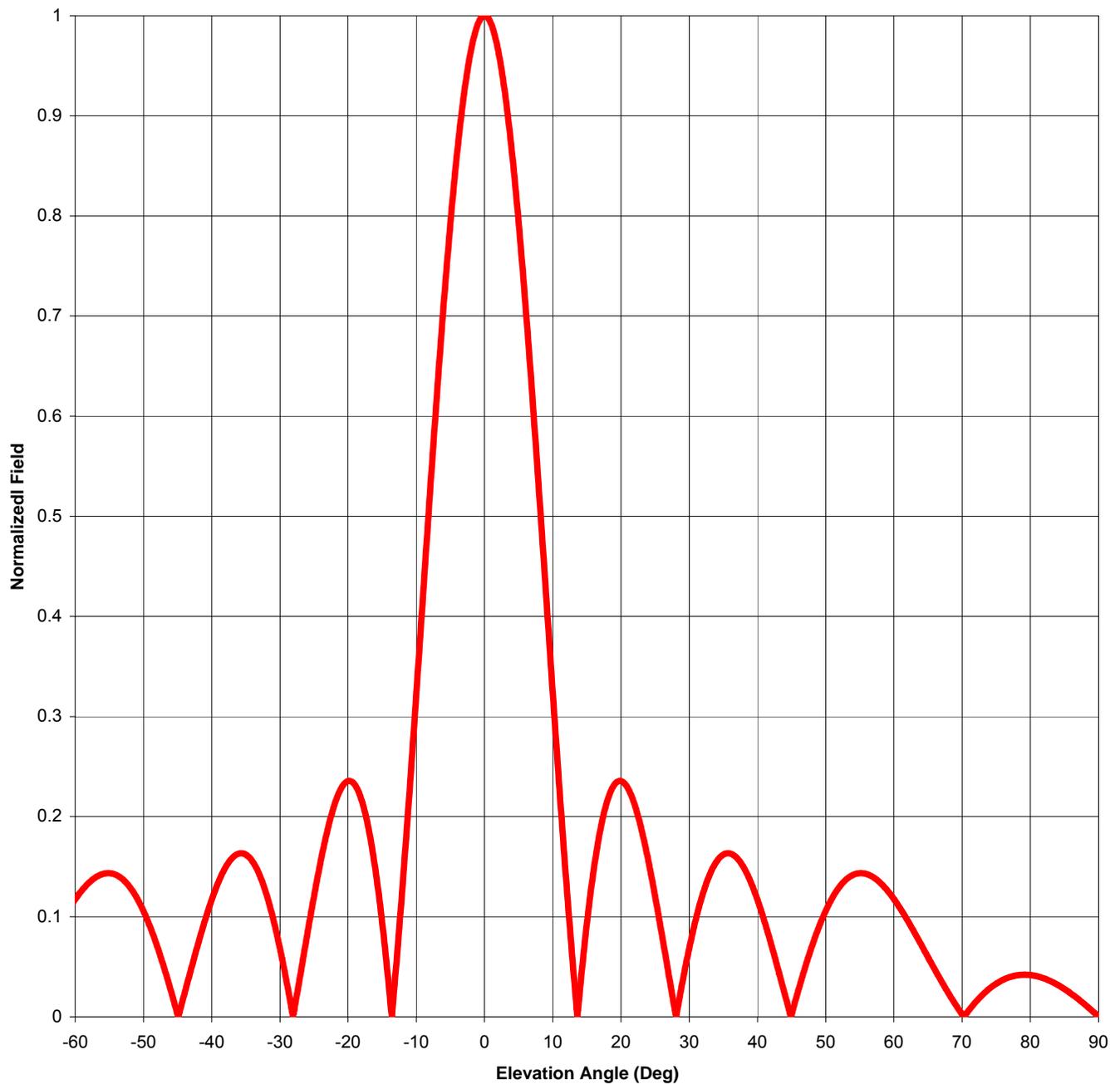
Frequency: 98.1

6812B Gain (Max) 2.61

4.17 dB

6602B Gain (Max) 5.22

7.17 dB



Elevation Pattern Tabulation, 6602B and 6812B 5-Bay Full-Wave-Spaced

Relative Field at 0° Depression = 1.000

Degrees	Rel. Field
1	0.991
2	0.965
3	0.922
4	0.865
5	0.793
6	0.711
7	0.620
8	0.523
9	0.423
10	0.323
11	0.225
12	0.133
13	0.048
14	0.028
15	0.094
16	0.147
17	0.188
18	0.216

Degrees	Rel. Field
19	0.232
20	0.236
21	0.228
22	0.212
23	0.187
24	0.156
25	0.120
26	0.082
27	0.042
28	0.003
29	0.034
30	0.068
31	0.098
32	0.123
33	0.142
34	0.155
35	0.162
36	0.163

Degrees	Rel. Field
37	0.159
38	0.149
39	0.135
40	0.117
41	0.096
42	0.073
43	0.048
44	0.023
45	0.002
46	0.027
47	0.050
48	0.071
49	0.090
50	0.106
51	0.119
52	0.130
53	0.137
54	0.142

Degrees	Rel. Field
55	0.144
56	0.143
57	0.139
58	0.134
59	0.127
60	0.118
61	0.107
62	0.096
63	0.084
64	0.072
65	0.060
66	0.047
67	0.035
68	0.024
69	0.013
70	0.003
71	0.007
72	0.015

Degrees	Rel. Field
73	0.022
74	0.028
75	0.033
76	0.037
77	0.040
78	0.041
79	0.042
80	0.042
81	0.041
82	0.038
83	0.036
84	0.032
85	0.028
86	0.023
87	0.018
88	0.012
89	0.006
90	0.000

109.8 dBu Interference - From 53 Meters AGL Shively 6812B 5-Bay Full-Wave Spaced

