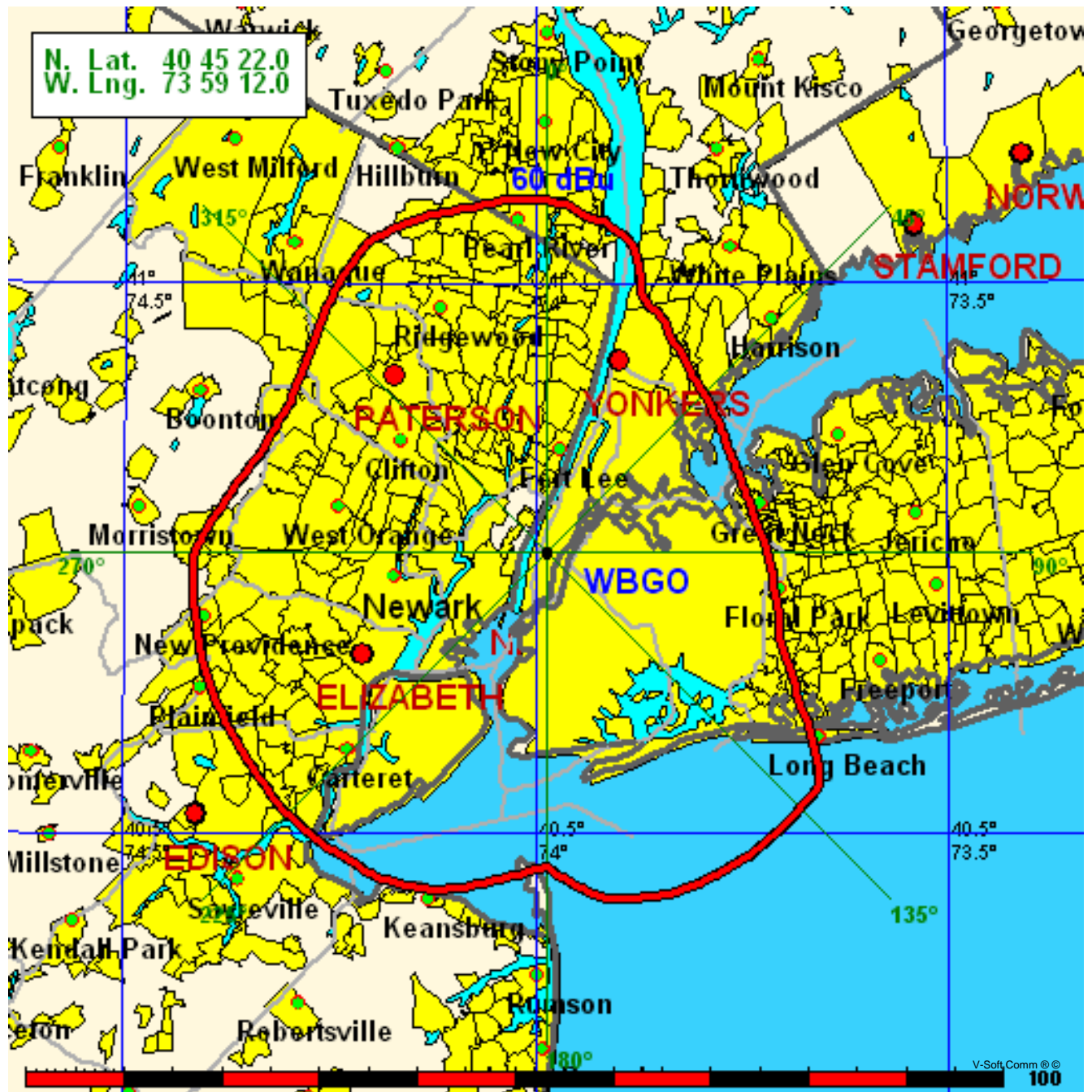
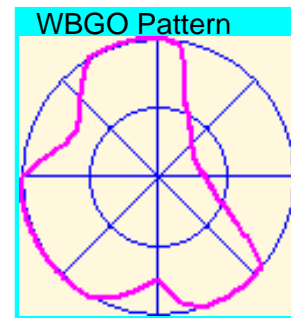


WBGO 60 dBu Community Service to Newark, New Jersey

Coverage Study - FCC NGDC 30 Sec
10-17-2009

WBGO CH202 B1 2.8 kW 269M COR
Prot. = 60 dBu. Population = 11,757,233



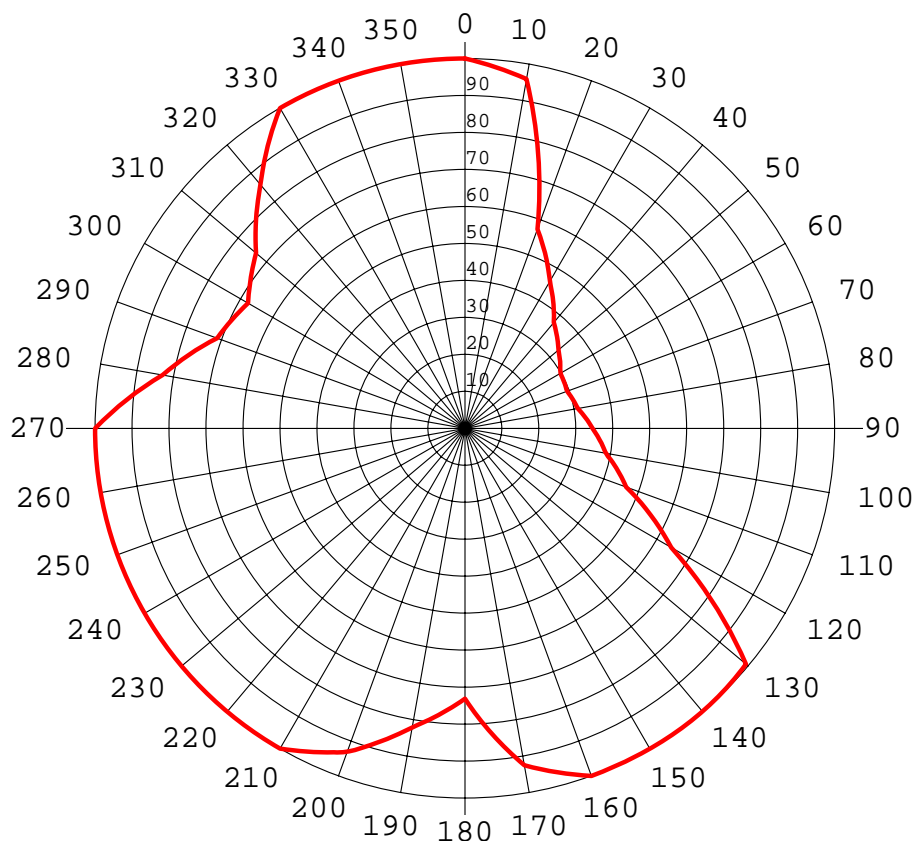
N. Lat. = 404522.0 W. Lng. = 735912.0
 HAAT and Distance to Contour,
 FCC, FM 2-10 Mi, 51 pts Method - FCC 30 SEC

Proposed WBGO Community Service Distances to Contour

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	30.5	238.5	2.8000	4.47	1.000	35.56
010	44.6	224.4	2.5751	4.11	0.959	33.93
020	16.1	252.9	0.9193	-0.37	0.573	28.19
030	20.8	248.2	0.5899	-2.29	0.459	25.23
040	15.8	253.2	0.3917	-4.07	0.374	23.15
050	6.9	262.1	0.3049	-5.16	0.330	22.18
060	2.3	266.7	0.2487	-6.04	0.298	21.30
070	3.3	265.7	0.2420	-6.16	0.294	21.12
080	9.2	259.8	0.2691	-5.70	0.310	21.43
090	9.1	259.9	0.3333	-4.77	0.345	22.56
100	13.7	255.3	0.4194	-3.77	0.387	23.62
110	20.7	248.3	0.6028	-2.20	0.464	25.36
120	19.2	249.8	1.1613	0.65	0.644	29.59
130	14.2	254.8	2.7554	4.40	0.992	36.45
140	10.1	258.9	2.8000	4.47	1.000	36.83
150	8.3	260.7	2.8000	4.47	1.000	36.94
160	10.7	258.3	2.8000	4.47	1.000	36.79
170	11.2	257.8	2.3958	3.79	0.925	35.55
180	13.6	255.4	1.4962	1.75	0.731	31.75
190	10.5	258.5	1.8873	2.76	0.821	33.75
200	2.5	266.5	2.4269	3.85	0.931	36.18
210	3.7	265.3	2.8000	4.47	1.000	37.22
220	0.5	268.5	2.8000	4.47	1.000	37.41
230	2.4	266.6	2.8000	4.47	1.000	37.29
240	6.4	262.6	2.8000	4.47	1.000	37.06
250	8.4	260.6	2.8000	4.47	1.000	36.93
260	15.2	253.8	2.8000	4.47	1.000	36.52
270	22.7	246.3	2.8000	4.47	1.000	36.06
280	25.7	243.3	1.9289	2.85	0.830	32.97
290	24.1	244.9	1.4234	1.53	0.713	30.75
300	20.4	248.6	1.2833	1.08	0.677	30.22
310	20.1	248.9	1.5209	1.82	0.737	31.48
320	18.3	250.7	2.0709	3.16	0.860	33.99
330	19.5	249.5	2.8000	4.47	1.000	36.25
340	22.5	246.5	2.8000	4.47	1.000	36.07
350	29.0	240.0	2.8000	4.47	1.000	35.66

Ave El= 14.77 M HAAT= 254.23 M AMSL= 269 M

Composite Azimuth Pattern



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	1.000	4.47	2.800	0.00	180	0.731	1.75	1.496	-2.72
10	0.959	4.11	2.575	-0.36	190	0.821	2.76	1.887	-1.71
20	0.573	-0.37	0.919	-4.84	200	0.931	3.85	2.427	-0.62
30	0.459	-2.29	0.590	-6.76	210	1.000	4.47	2.800	0.00
40	0.374	-4.07	0.392	-8.54	220	1.000	4.47	2.800	0.00
50	0.330	-5.16	0.305	-9.63	230	1.000	4.47	2.800	0.00
60	0.298	-6.04	0.249	-10.52	240	1.000	4.47	2.800	0.00
70	0.294	-6.16	0.242	-10.63	250	1.000	4.47	2.800	0.00
80	0.310	-5.70	0.269	-10.17	260	1.000	4.47	2.800	0.00
90	0.345	-4.77	0.333	-9.24	270	1.000	4.47	2.800	0.00
100	0.387	-3.77	0.419	-8.25	280	0.830	2.85	1.929	-1.62
110	0.464	-2.20	0.603	-6.67	290	0.713	1.53	1.423	-2.94
120	0.644	0.65	1.161	-3.82	300	0.677	1.08	1.283	-3.39
130	0.992	4.40	2.755	-0.07	310	0.737	1.82	1.521	-2.65
140	1.000	4.47	2.800	0.00	320	0.860	3.16	2.071	-1.31
150	1.000	4.47	2.800	0.00	330	1.000	4.47	2.800	0.00
160	1.000	4.47	2.800	0.00	340	1.000	4.47	2.800	0.00
170	0.925	3.79	2.396	-0.68	350	1.000	4.47	2.800	0.00

Rotation Angle = 0

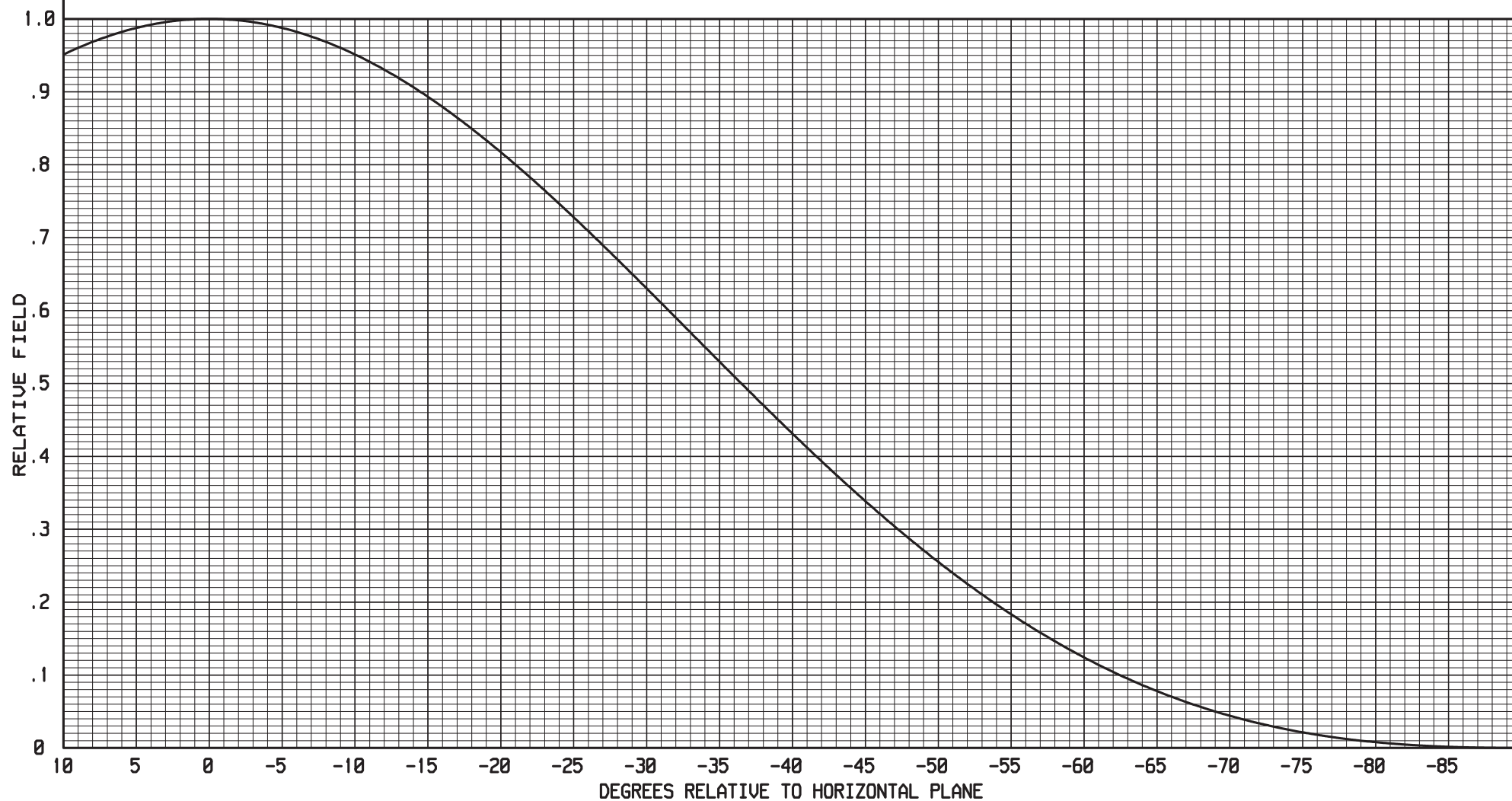
ELECTRONICS RESEARCH, INC.
7777 GARDNER ROAD
CHANDLER, IN. 47610

FIGURE 3

----THEORETICAL----
VERTICAL PLANE RELATIVE FIELD

ERI TYPE 1092-2CP-DA-HW BROADCAST ANTENNA
0 DEGREE(S) BEAM TILT
0 PERCENT NULL FILL

BAY SPACING:
HALF-WAVE



Directional Antenna

The proposed custom directional antenna pattern meets the Commission's rules in that the radio frequency emission does not change more than two dB for each ten degrees of azimuthal variation. Also, the maximum pattern attenuation in the deepest null is less than 15 dB. The pattern shown is a composite of the maximum field values in the horizontal and vertical planes.

The proposed antenna will be mounted on the sides of a post that has been specified by the antenna manufacturer in accordance with the instructions provided by the manufacturer. The antenna will not be mounted on the top of a tower that includes a top mounted platform larger than the nominal cross-sectional area of the tower in the horizontal plane. No other antennas of any type will be mounted at the same tower level as the directional antenna nor within the horizontal or vertical distance specified by the manufacturer as being necessary to maintain proper directional operation. The antenna will be designed and tested by a major manufacturer of broadcast antennas known to the Commission. The pattern will be achieved through traditional methods including power-splitting, resonators and phasing.