

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FIRST UNITED, INC., licensee of Class A Low-Power Television Station W34CK, Channel 34, Arlington Heights, Illinois, in support of this Application for Construction Permit to specify operation with a new antenna and reduced transmitter power output.

Due to performance problems with the authorized antenna (a Superior Broadcast UP-3-EC composite system), the licensee replaced it with an Antenna Concepts ACB8BR-SP antenna. Attached are azimuth and elevation patterns for the new antenna. As shown, the new antenna's azimuth pattern duplicates that of the authorized antenna. It is also important to note that the transmitter power output of the new facility is 4.5 kw (5 kw is authorized).

No change in site location, effective antenna height, or effective radiated power toward the radio horizon is proposed herein. Since this facility duplicates that of authorized W34CK, no interference study was conducted. Since the station began operating in 1999, there have been no complaints of interference to any pertinent co-channel or adjacent-channel stations.

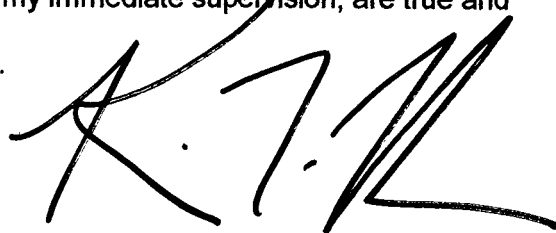
Because no change in the overall height or location of the existing structure is proposed, the FAA has not been notified of this application. The FCC has issued Antenna Structure Registration Number 1032959 to the Sears Tower.

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Arlington Heights facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a

main-lobe effective radiated power of 31.8 kw, an effective antenna height of 527 meters above ground, and the vertical pattern of the Antenna Concepts antenna, maximum power density two meters above ground of 0.000022 mw/cm^2 is calculated to occur 202 meters west of the base of the building. Since this is less than 0.1 percent of the 0.39 mw/cm^2 reference for uncontrolled environments (areas with public access) for a facility operating on Channel 34 (590-596 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation. In addition, the roof of the building is secure from unauthorized public access, meaning that there are no uncontrolled environments in the vicinity of the antenna structure on the roof.

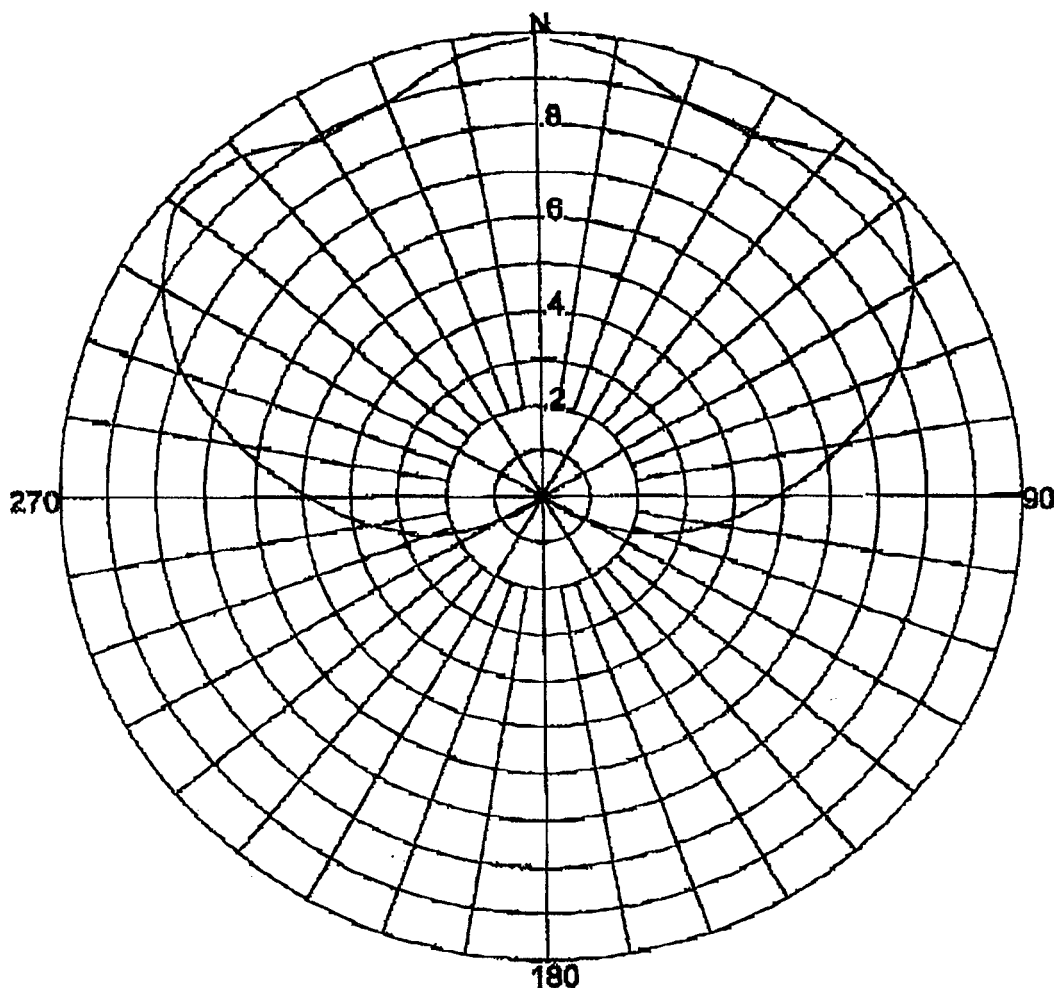
Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in black ink, appearing to read 'K. T. Fisher', with a stylized, sweeping flourish at the end.

KEVIN T. FISHER

January 23, 2002



Azimuth Pattern

Scale: Linear

Units: Absolute

Antenna Concepts Inc.

CLIENT: WJYS-TV Jovon Broadcasting

Date: 11/9/2000

ANTENNA TYPE: ACB8BR-Sp Special 8 bay Blaster panel antenna

FREQUENCY: Ch-34 590-596 MHz

PATTERN POL.: C.P.

CIRCULARITY(+/-dB):

AZ. DIRECTIVITY: 2.4966 / 3.9735dB

PATTERN RMS:

Software Design by: Micro-Tek Engineering

Field Strength Tabulation

Azimuth Heading	Field strength(dB)	Azimuth Heading	Field Strength(dB)
0	.99 (-.08)	180	.01 (-39.17)
5	.98 (-.21)	185	.01 (-39.17)
10	.98 (-.35)	190	.01 (-39.17)
15	.93 (-.62)	195	.01 (-39.17)
20	.90 (-.91)	200	.01 (-39.17)
25	.90 (-.95)	205	.01 (-39.17)
30	.88 (-1.00)	210	.01 (-39.17)
35	.83 (-.67)	215	.01 (-39.17)
40	.86 (-.35)	220	.01 (-39.17)
45	.97 (-.29)	225	.02 (-35.92)
50	.98 (-.17)	230	.02 (-33.58)
55	.94 (-.53)	235	.06 (-24.29)
60	.90 (-.91)	240	.10 (-19.91)
65	.85 (-1.45)	245	.18 (-15.09)
70	.79 (-2.04)	250	.25 (-12.01)
75	.72 (-2.90)	255	.31 (-10.29)
80	.64 (-3.68)	260	.38 (-8.85)
85	.57 (-4.94)	265	.43 (-7.41)
90	.48 (-6.18)	270	.48 (-6.18)
95	.43 (-7.41)	275	.57 (-4.94)
100	.38 (-8.85)	280	.64 (-3.68)
105	.31 (-10.29)	285	.72 (-2.90)
110	.25 (-12.01)	290	.79 (-2.04)
115	.18 (-15.09)	295	.85 (-1.45)
120	.10 (-19.91)	300	.90 (-.91)
125	.08 (-24.29)	305	.94 (-.53)
130	.02 (-33.58)	310	.98 (-.17)
135	.02 (-35.92)	315	.97 (-.28)
140	.01 (-39.17)	320	.98 (-.35)
145	.01 (-39.17)	325	.93 (-.87)
150	.01 (-39.17)	330	.89 (-1.00)
155	.01 (-39.17)	335	.90 (-.95)
160	.01 (-39.17)	340	.90 (-.91)
165	.01 (-39.17)	345	.93 (-.62)
170	.01 (-39.17)	350	.98 (-.35)
175	.01 (-39.17)	355	.98 (-.21)

Antenna Concepts Inc.

CLIENT: *WJYS-TV Jovon Broadcasting*

Date: 11/9/2000

ANTENNA TYPE: *ACB88R-Sp Special 8 bay Blaster panel antenna*

FREQUENCY: *Ch-34 590-598 mHz*

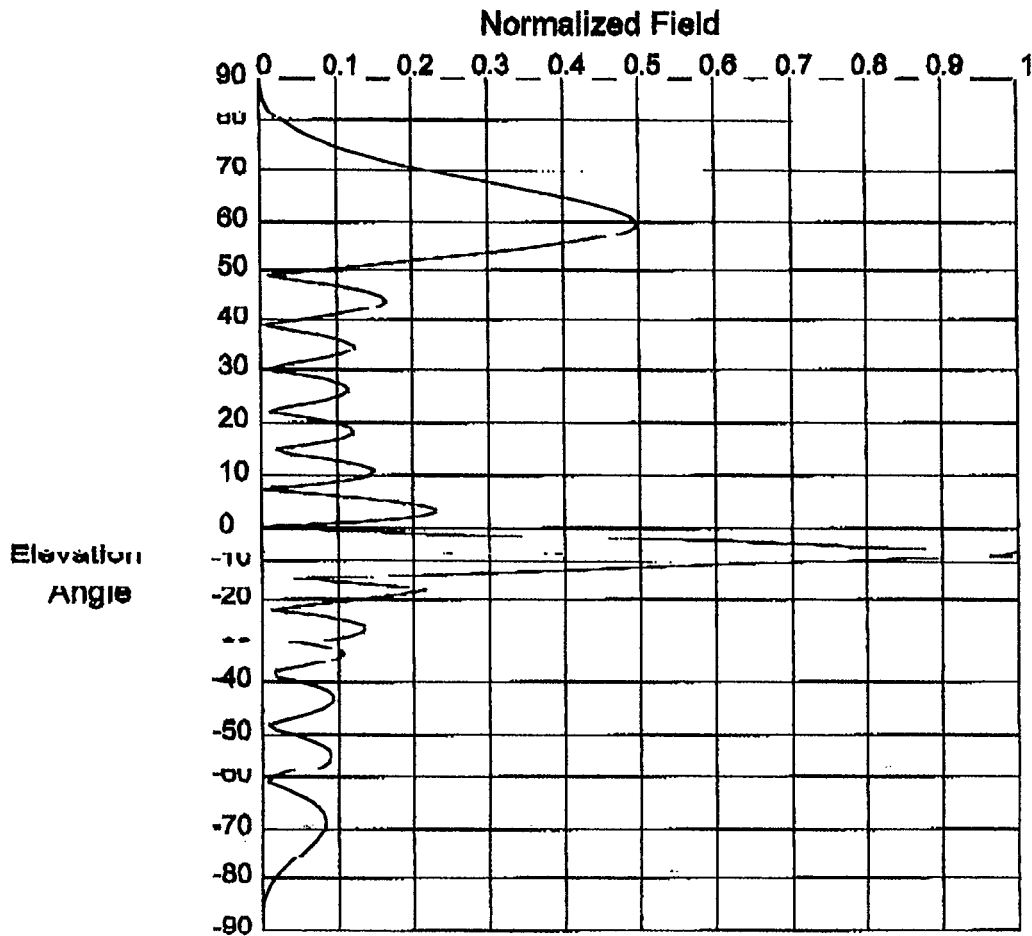
PATTERN POL.: *C.P.*

CIRCULARITY(+/-dB):

AZ. DIRECTIVITY: *2.4966 / 3.9735dB*

PATTERN RMS:

Software Design by: *Micro-Tek Engineering*



Elevation Pattern

Antenna Concepts Inc.

Scale: Linear
Units: Absolute

CLIENT: WJYS-TV / Jovon Broadcasting

Date: 11/29/2000

ANTENNA TYPE: ACB88BR-Sp 8 bay Blaster panel antenna

FREQUENCY: Ch-34 590-596 MHz

PATTERN POL.: C.P.

Beam Tilt (Deg.): -6.6

Elev. DIRECTIVITY: 7.6631/ 8.644dBd

Null Fill (%) : , ,

Software Design by: Micro-Tek Engineering

Field Strength Tabulation

Elevation Reading	Field strength(dB)	Elevation Reading	Field Strength(dB)
6.00	.11 (-19.14)	-1.60	.30 (-10.23)
5.80	.12 (-18.03)	-1.80	.34 (-9.22)
5.60	.14 (-17.08)	-2.00	.38 (-8.30)
5.40	.15 (-16.28)	-2.20	.42 (-7.48)
5.20	.16 (-15.55)	-2.40	.46 (-6.72)
5.00	.18 (-14.93)	-2.60	.50 (-6.03)
4.80	.19 (-14.40)	-2.80	.53 (-5.40)
4.60	.20 (-13.95)	-3.00	.57 (-4.82)
4.40	.21 (-13.57)	-3.20	.61 (-4.28)
4.20	.21 (-13.28)	-3.40	.64 (-3.79)
4.00	.22 (-13.01)	-3.60	.68 (-3.33)
3.80	.23 (-12.82)	-3.80	.71 (-2.91)
3.60	.23 (-12.70)	-4.00	.74 (-2.53)
3.40	.23 (-12.64)	-4.20	.78 (-2.18)
3.20	.23 (-12.64)	-4.40	.80 (-1.85)
3.00	.23 (-12.71)	-4.60	.83 (-1.56)
2.80	.22 (-12.85)	-4.80	.86 (-1.30)
2.60	.22 (-13.06)	-5.00	.88 (-1.06)
2.40	.21 (-13.36)	-5.20	.90 (-.84)
2.20	.20 (-13.75)	-5.40	.92 (-.65)
2.00	.19 (-14.25)	-5.60	.94 (-.49)
1.80	.18 (-14.86)	-5.80	.96 (-.35)
1.60	.16 (-15.63)	-6.00	.97 (-.23)
1.40	.14 (-16.59)	-6.20	.98 (-.14)
1.20	.13 (-17.79)	-6.40	.99 (-.06)
1.00	.10 (-19.33)	-6.60	1.00 (-.01)
.80	.08 (-21.40)	-6.80	1.00 (.02)
.60	.06 (-24.37)	-7.00	1.00 (.03)
.40	.03 (-29.34)	-7.20	1.00 (.01)
.20	.00 (-44.24)	-7.40	.99 (-.02)
.00	.03 (-30.53)	-7.60	.99 (-.08)
-.20	.06 (-24.33)	-7.80	.98 (-.16)
-.40	.09 (-20.63)	-8.00	.97 (-.26)
-.60	.12 (-17.95)	-8.20	.95 (-.38)
-.80	.16 (-15.85)	-8.40	.94 (-.52)
-1.00	.19 (-14.12)	-8.60	.92 (-.69)
-1.20	.23 (-12.65)	-8.80	.90 (-.88)
-1.40	.27 (-11.36)	-9.00	.88 (-1.10)

Antenna Concepts Inc.

CLIENT: WJYS-TV / Jovon Broadcasting

Date: 11/29/2000

ANTENNA TYPE: 1000000R Op 0 bay Director panel antenna

FREQUENCY: Ch-34 590-596 mHz

PATTERN POL.: C.P.

Beam Tilt (Deg.): -6.6

Elev. DIRECTIVITY: 7.0031/ 0.644dBd

Null Fill (%): , ,

Software Design by: Micro-Tek Engineering