

EXHIBIT A

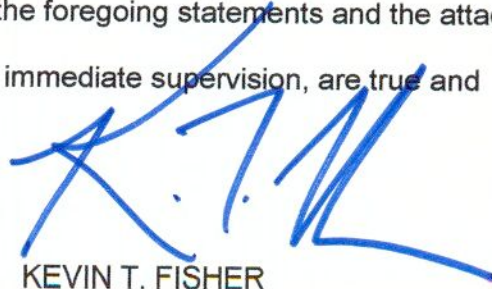
ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, permittee of television translator W64CQ in Arlington Heights, Illinois, in support of this further amendment to its pending Channel 42 displacement Application for Construction Permit BPTT-20030723ACP. The purpose of this amendment is to specify operation with a different antenna and an increase in effective radiated power.

It is proposed to mount a standard MCI directional antenna at the 76-meter level of the existing 134-meter communications tower. Exhibit B is a map upon which the predicted service contours are plotted. It is important to note that the newly proposed 74 dBu contour encompasses a significant portion of that which obtains from the licensed W64CQ facility. Operating parameters for the proposed facility are tabulated in Exhibit C. A contour overlap analysis and interference study are provided in Exhibit D, and a power density calculation follows as Exhibit E.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1054552 to this tower.

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.



KEVIN T. FISHER

May 3, 2007



**SMITH and FISHER**





EXHIBIT C

## PROPOSED OPERATING PARAMETERS

PROPOSED W64CQ  
CHANNEL 42 – ARLINGTON HEIGHTS, ILLINOIS  
[FURTHER AMENDMENT TO BPTT-20030723ACP]

Transmitter Power Output:	3.9 kw
Transmission Line Efficiency:	67.7%
Antenna Power Gain – Toward Horizon:	56.2
Antenna Power Gain – Main Lobe:	56.2
Effective Radiated Power – Toward Horizon:	150.0 kw
Effective Radiated Power – Main Lobe:	150.0 kw
Transmitter Make and Model:	Type-accepted
Rated Output	4 kw
Transmission Line Make and Model:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	310 feet
Antenna Make and Model:	MCI 955514
Orientation	135 degrees true
Beam Tilt	None
Effective Height Above Ground:	76 meters
Effective Height Above Mean Sea Level:	292 meters

CONTOUR OVERLAP AND  
LONGLEY-RICE INTERFERENCE STUDIES  
PROPOSED W64CQ  
CHANNEL 42 – ARLINGTON HEIGHTS, ILLINOIS  
[FURTHER AMENDMENT TO BPTT-20030723ACP]

We conducted a computer analysis of the interference situation for the proposed facility, the results of which are shown in Exhibit D-2. The study is based on contour protection requirements of Sections 74.705, 74.706, and 74.707 of the FCC's Rules with respect to analog full-power, digital full-power, and low power television stations, respectively. It concludes that the facility proposed herein meets these requirements except to five stations: WNDU-DT, Channel 42 in South Bend, Indiana; WCPX-DT, Channel 43 in Chicago, Illinois; WQRF-DT, Channel 42 in Rockford, Illinois; WJJA(TV), Channel 49 in Racine, Wisconsin; and, WOCH-CA, Channel 41 in Chicago, Illinois.

We then conducted detailed interference studies using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to these facilities of concern. The software utilizes a 1.0-square kilometer cell size, calculates signal strength at 0.1-kilometer increments along each radial studied, and employs the 1990 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than Trinity's proposed W64CQ) already is predicted to exist (also known as "masking"). The results

EXHIBIT D-1

of these studies are provided in Exhibit D-3. They conclude that the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, waivers of Section 74.705 of the Commission's Rules with respect to interference to WJJA(TV), Section 74.706 with regard to WNDU-DT, WCPX-DT and WQRF-DT, and Section 74.707 with respect to WOCH-CA are requested and believed to be justified based on the aforementioned Longley-Rice studies.

SMITH AND FISHER

EXHIBIT D-2

PROPOSED W64CQ  
CH. 42 - ARLINGTON HEIGHTS, IL

REFERENCE  
42 08 14 N  
87 58 57 W

LPTV Pwr = 150 kW, HAMS L COR= 292 M

DISPLAY DATES  
DATA 04-28-07  
SEARCH 05-02-07

..... Channel 42-, 638 MHz .....

Call	Channel	Location	Dist	Azi	FCC	Margin
WNDU-D LI	42	South Bend	IN 158.38	111.4	> 337.76	-179.38
WCPX-D LI	43	Chicago	IL 40.61	134.9	> 110.47	-69.86
WQRF-D CPM	42	Rockford	IL 99.53	280.1	> 122.76	-23.23
WJJA LI	49+	Racine	WI 80.53	8.0	> 100.00	-19.47
WOCH-C AP	41Z	Chicago	IL 39.84	131.6	> 053.56	-13.72
WOCH-C LI	41Z	Chicago	IL 39.84	131.6	> 033.53	6.31
WSNSTV LI	44Z	Chicago	IL 40.58	135.0	> 032.00	8.58
WCPX LI	38-	Chicago	IL 40.61	134.9	> 032.00	8.61
WIFR-D LI	41	Freeport	IL 99.71	280.7	> 069.96	29.75
WIFR-D CPM	41	Freeport	IL 99.71	280.7	> 069.80	29.91
WIFR-D ST	41	Freeport	IL 99.71	280.7	> 069.49	30.22
WIFR-D ST	41	Freeport	IL 99.71	280.7	> 066.72	32.99
WICS-D LI	42	Springfield	IL 287.43	206.1	> 236.32	51.11
AP430 AP	28Z	Sheboygan	WI 151.12	352.4	> 091.56	59.56
WQRF-TV LI	39Z	Rockford	IL 99.05	280.3	> 032.00	67.05
WMLW-C ST	41M	Milwaukee	WI 108.33	2.2	> 040.83	67.50
WSJV LI	28+	Elkhart	IN 159.36	110.8	> 089.71	69.65
WKOW-TV LI	27+	Madison	WI 163.24	309.3	> 089.64	73.60



## INTERFERENCE SUMMARY

PROPOSED W64CQ  
 CHANNEL 42 – ARLINGTON HEIGHTS, ILLINOIS  
 [FURTHER AMENDMENT TO BPTT-20030723ACP]

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Longley-Rice Service Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
WNDU-DT BLCDT-19991230AAH	Lic.	South Bend, IN	42	1,378,947	2,321	0.2
WCPX-DT BLCDT-20010226ABH	Lic.	Chicago, IL	43	8,370,329	0	0
WJJA(TV) BLCT-19900518KP	Lic.	Racine, WI	49	1,935,945	0	0
WQRF-DT BMPCDT-20070207ABW	Lic.	Rockford, IL	42	957,081	2,138	0.2
WOCH-CA BPTTA-20050127ALO	Appl.	Chicago, IL	41	5,601,600	12,671	0.2

EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED W64CQ  
CHANNEL 42 – ARLINGTON HEIGHTS, ILLINOIS  
[FURTHER AMENDMENT TO BPTT-20030723ACP]

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 150 kw, an antenna radiation center 76 meters above ground, and the vertical pattern of the MCI antenna, maximum power density two meters above ground of  $0.0022 \text{ mw/cm}^2$  is calculated to occur 60 meters southeast of the base of the tower. Since this is only 0.6 percent of the  $0.35 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 42 (518-524 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation.

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.