

ENGINEERING EXHIBIT
APPLICATION FOR
MINOR MODIFICATION OF CONSTRUCTION PERMIT
NEW YORK TIMES MANAGEMENT SERVICES
STATION WQAD-DT, MOLINE, ILLINOIS
CHANNEL 38 1000 KW AVG. 334 METERS

New York Times Management Services (hereafter, NYTMS) is the permittee in BPCDT-19991021ACF for a new DTV facility for station WQAD-DT, Moline, Illinois. The authorization is for operation on Channel 38 with effective radiated average power of 1000 kW and antenna radiation center height above average terrain of 318 meters. A Special Temporary Authorization (STA) has been issued for WQAD-DT operation with effective radiated average power of 500 kW and antenna radiation center height above average terrain of 334 meters.

The antenna, as installed, is 16 meters higher in elevation than originally specified, and the tower on which the antenna has been installed is just a few meters away from the originally specified location. A new Antenna Structure Registration for the tower has been obtained. The instant application seeks to conform the outstanding construction permit to the "as built" conditions. All the changes are minor under FCC criteria.

The installed antenna is the same as authorized. In order to satisfy the CDBS electronic filing system requirement for complete responses to all items, the antenna vertical plane radiation pattern information that was previously submitted is furnished herein in Figures 1 and 2.

The sixteen-meter antenna radiation center height increase that is now proposed has no significant impact on allocation considerations. Previously, it was shown that only

WQAD-DT, Moline, Illinois
Engineering Exhibit

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NTSC station WCPX, Chicago, Illinois, Channel 38, would receive interference from the WQAD-DT operation impacting 0.1 % of the Grade B terrain limited population of over 8,000,000 people. The 16 meter height increase, with no change in effective radiated power that NYTMS now proposes for WQAD-DT, cannot increase the interference to WCPX in any meaningful manner. No other NTSC or DTV station merits consideration.

Since the WQAD-DT construction permit was issued, the FCC has specified that for a UHF DTV station the 48 dBu, F(50,90), signal strength contour, instead of the 41 dBu, F(50,90), signal strength contour, is to be used as the reference for determining compliance with the principal city encompassment Rule. A map depicting the now specified 48 dBu, F(50,90) contour for the proposed WQAD-DT operation is furnished as Figure 3. Figure 4 is a tabulation of the underlying supporting data for the contour depicted in Figure 3. Figure 3 demonstrates compliance with the principal community encompassment Rule.

The changes specified herein will not alter the previous conclusion that the construction will have no significant impact on the environment. In addition to WQAD-DT, the tower will support the antenna for new station WWWQ-TV, Galesburg, Illinois, Channel 53. Station WQAD-TV, Channel 8, operates from a nearby tower. Both workers and the public will be protected from radio-frequency radiation (rfr) exposure in excess of the levels specified in the FCC's adopted standard.

Of particular importance for the avoidance of overexposure of workers to rfr is the need to reduce power on the nearby WQAD-TV tower when a worker is on the WQAD-DT/WWWQ-TV tower and within the aperture of the WQAD-TV antenna. Similarly, power reductions for the WWWQ-TV and WQAD-DT antennas will be

BERNARD R. SEGAL, P. E.
CONSULTING ENGINEER
KENSINGTON, MARYLAND

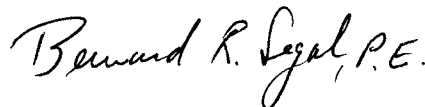
WQAD-DT, Moline, Illinois
Engineering Exhibit

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required when a worker is on the WQAD-TV tower and within the aperture of either the WQAD-DT or WWWQ-TV antenna. Of course, extinction of excitation to the antennas on the tower on which the worker is located is required, as well. A coordination procedure has been developed to assure that appropriate power reductions and extinctions are achieved according to the work project that is entailed.

Test calculations using methodologies outlined in OST Bulletin 65 demonstrate that the cumulative radiations from WQAD-TV, WQAD-DT, and WWWQ-TV will not exceed the maximum permissible exposure (MPE) at any location on the ground where the public may have access.

I declare under penalty of perjury that the foregoing is true and correct. Executed on December 12, 2001.

A handwritten signature in black ink that reads "Bernard R. Segal, P.E." in a cursive script.

Bernard R. Segal, P. E.



Proposal Number

Date

Call Letters

Location

Customer

Antenna Type

12 Dec 2001

WQAD-DT

MOLINE, IL

TFU-30GTH-R 06

FIGURE 1
Sheet 1 of 1

Channel

3

ELEVATION PATTERN

RMS Gain at Main Lobe

27.0 (14.31 dB)

Beam Tilt

0.75 Degrees

RMS Gain at Horizontal

18.7 (12.72 dB)

Frequency

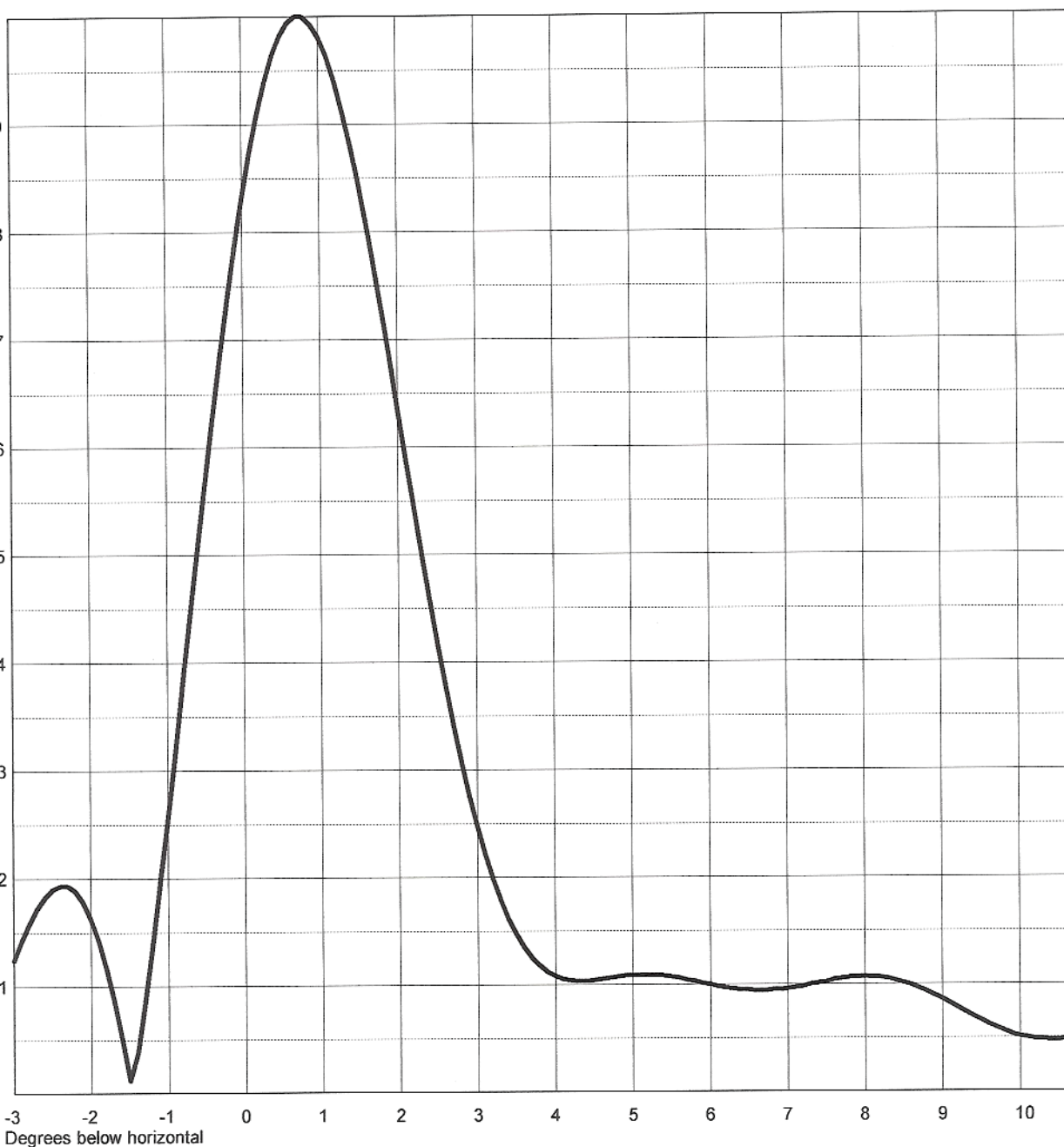
617.00 MHz

Calculated / Measured

Calculated

Drawing #

30G270075



Remarks:

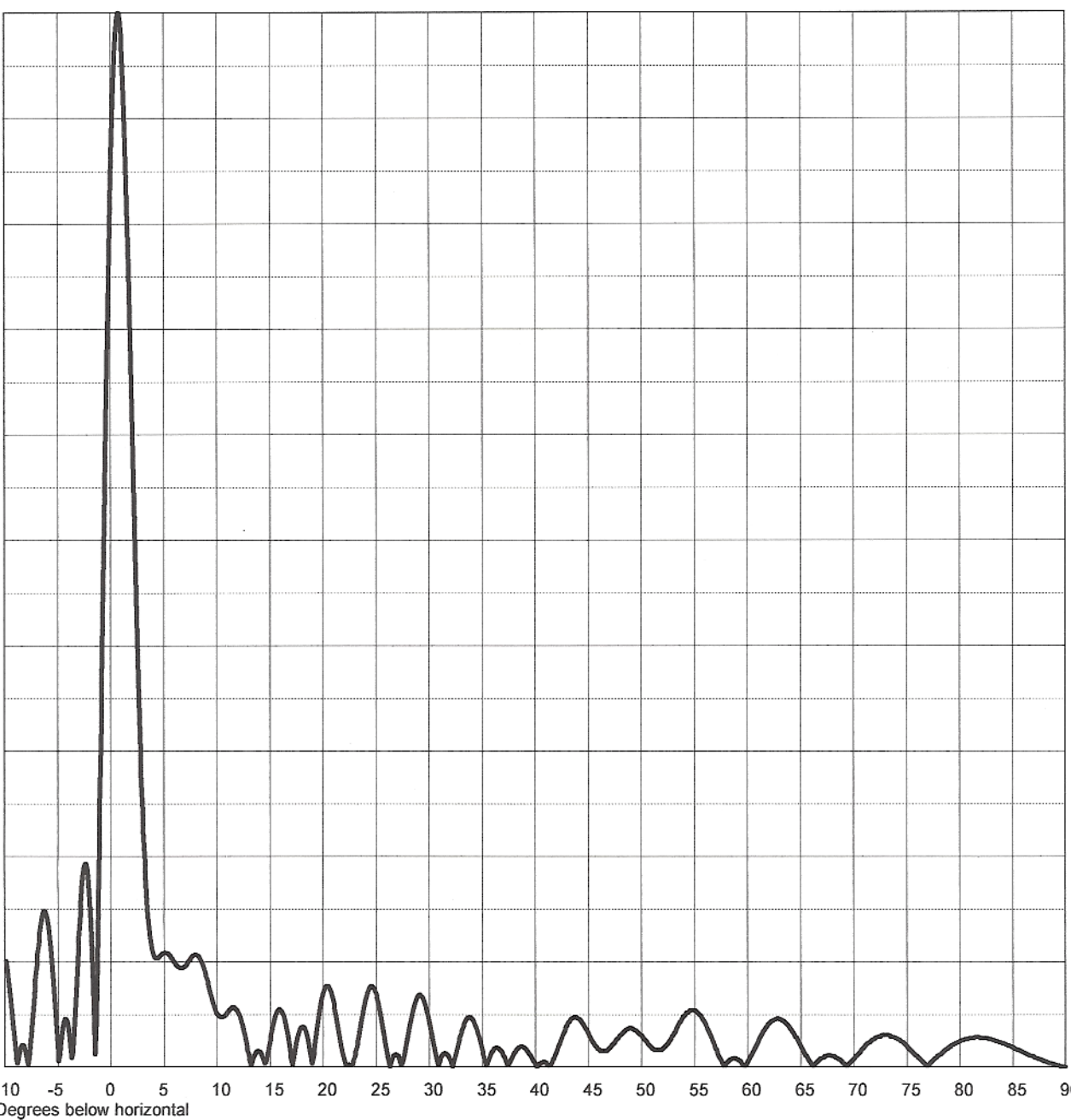


FIGURE 1
Sheet 2 of 2

Proposal Number			
Date	12 Dec 2001		
Call Letters	WQAD-DT	Channel	38
Location	MOLINE, IL		
Customer			
Antenna Type	TFU-30GTH-R 06		

ELEVATION PATTERN

RMS Gain at Main Lobe	27.0 (14.31 dB)	Beam Tilt	0.75 Degrees
RMS Gain at Horizontal	18.7 (12.72 dB)	Frequency	617.00 MHz
Calculated / Measured	Calculated	Drawing #	30G270075



Remarks:



Proposal Number

FIGURE 2

Date

12 Dec 2001

Call Letters

WQAD-DT

Channel 38

Location

MOLINE, IL

Customer

Antenna Type

TFU-30GTH-R 06

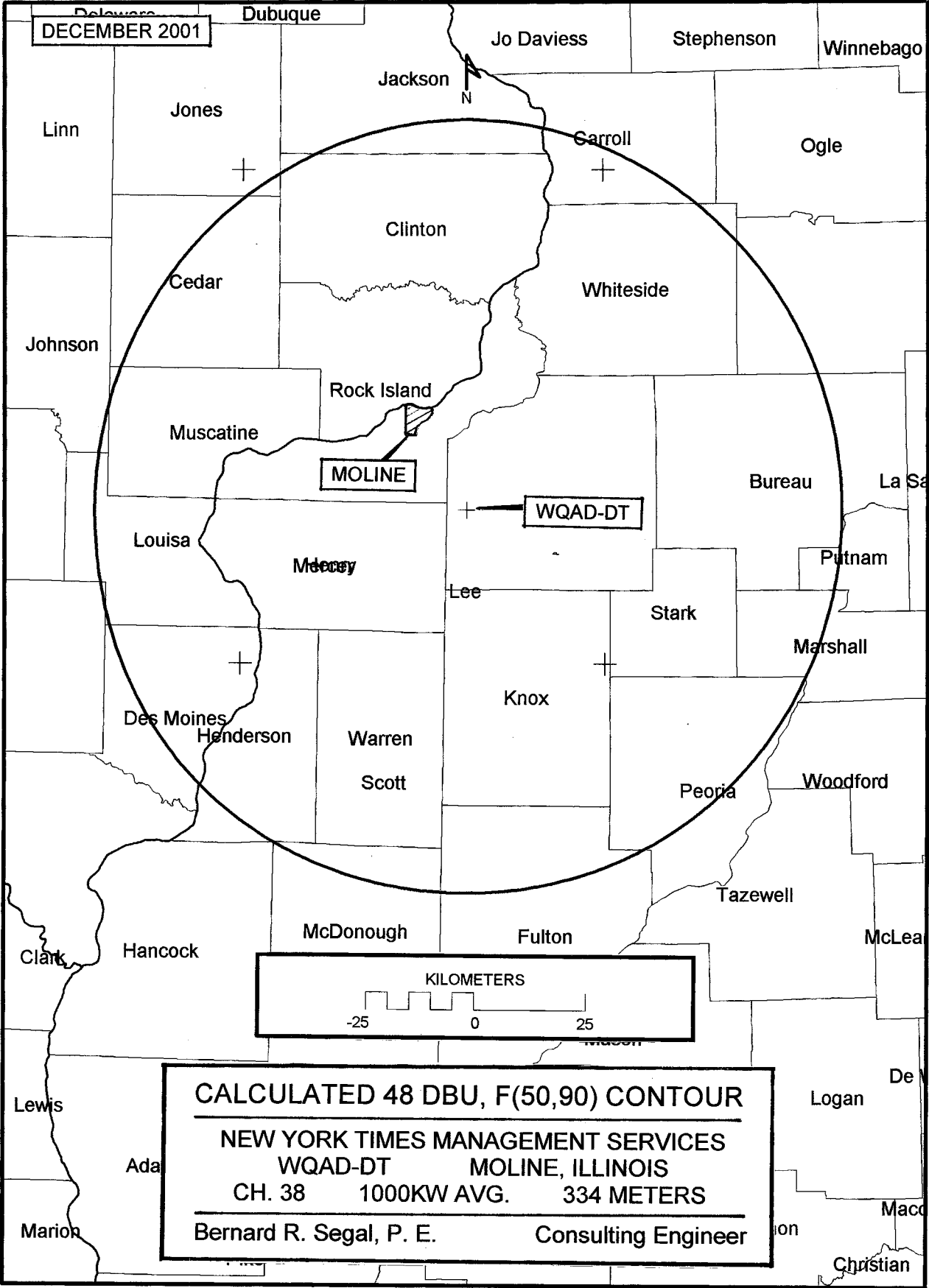
TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # 30G270075

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.108	2.4	0.458	10.6	0.048	30.5	0.017	51.0	0.018	71.5	0.023
-9.5	0.066	2.6	0.378	10.8	0.049	31.0	0.005	51.5	0.016	72.0	0.027
-9.0	0.015	2.8	0.307	11.0	0.052	31.5	0.013	52.0	0.017	72.5	0.029
-8.5	0.018	3.0	0.247	11.5	0.057	32.0	0.006	52.5	0.022	73.0	0.030
-8.0	0.012	3.2	0.198	12.0	0.052	32.5	0.012	53.0	0.031	73.5	0.029
-7.5	0.033	3.4	0.161	12.5	0.035	33.0	0.032	53.5	0.040	74.0	0.027
-7.0	0.096	3.6	0.135	13.0	0.011	33.5	0.045	54.0	0.048	74.5	0.024
-6.5	0.141	3.8	0.118	13.5	0.010	34.0	0.046	54.5	0.053	75.0	0.020
-6.0	0.141	4.0	0.108	14.0	0.015	34.5	0.035	55.0	0.054	75.5	0.015
-5.5	0.091	4.2	0.104	14.5	0.003	35.0	0.016	55.5	0.050	76.0	0.010
-5.0	0.017	4.4	0.103	15.0	0.024	35.5	0.003	56.0	0.042	76.5	0.005
-4.5	0.038	4.6	0.105	15.5	0.048	36.0	0.015	56.5	0.030	77.0	0.001
-4.0	0.037	4.8	0.107	16.0	0.054	36.5	0.018	57.0	0.018	77.5	0.006
-3.5	0.029	5.0	0.108	16.5	0.039	37.0	0.011	57.5	0.007	78.0	0.011
-3.0	0.124	5.2	0.109	17.0	0.008	37.5	0.002	58.0	0.003	78.5	0.015
-2.8	0.158	5.4	0.108	17.5	0.023	38.0	0.013	58.5	0.007	79.0	0.019
-2.6	0.182	5.6	0.106	18.0	0.038	38.5	0.019	59.0	0.007	79.5	0.022
-2.4	0.193	5.8	0.103	18.5	0.029	39.0	0.018	59.5	0.003	80.0	0.024
-2.2	0.188	6.0	0.100	19.0	0.003	39.5	0.012	60.0	0.004	80.5	0.026
-2.0	0.162	6.2	0.097	19.5	0.041	40.0	0.003	60.5	0.014	81.0	0.027
-1.8	0.116	6.4	0.095	20.0	0.070	40.5	0.003	61.0	0.024	81.5	0.028
-1.6	0.050	6.6	0.094	20.5	0.077	41.0	0.004	61.5	0.034	82.0	0.027
-1.4	0.038	6.8	0.095	21.0	0.061	41.5	0.002	62.0	0.041	82.5	0.027
-1.2	0.140	7.0	0.096	21.5	0.032	42.0	0.014	62.5	0.045	83.0	0.026
-1.0	0.255	7.2	0.098	22.0	0.007	42.5	0.028	63.0	0.046	83.5	0.024
-0.8	0.378	7.4	0.101	22.5	0.002	43.0	0.040	63.5	0.043	84.0	0.023
-0.6	0.503	7.6	0.104	23.0	0.010	43.5	0.046	64.0	0.037	84.5	0.021
-0.4	0.624	7.8	0.106	23.5	0.037	44.0	0.046	64.5	0.029	85.0	0.019
-0.2	0.735	8.0	0.107	24.0	0.064	44.5	0.041	65.0	0.020	85.5	0.016
0.0	0.832	8.2	0.106	24.5	0.077	45.0	0.032	65.5	0.011	86.0	0.014
0.2	0.909	8.4	0.103	25.0	0.069	45.5	0.023	66.0	0.003	86.5	0.012
0.4	0.964	8.6	0.099	25.5	0.045	46.0	0.017	66.5	0.004	87.0	0.010
0.6	0.994	8.8	0.093	26.0	0.015	46.5	0.015	67.0	0.008	87.5	0.007
0.8	1.000	9.0	0.086	26.5	0.007	47.0	0.018	67.5	0.011	88.0	0.005
1.0	0.981	9.2	0.078	27.0	0.011	47.5	0.023	68.0	0.010	88.5	0.003
1.2	0.941	9.4	0.070	27.5	0.004	48.0	0.030	68.5	0.008	89.0	0.002
1.4	0.882	9.6	0.062	28.0	0.030	48.5	0.035	69.0	0.004	89.5	0.001
1.6	0.808	9.8	0.056	28.5	0.055	49.0	0.037	69.5	0.002	90.0	0.000
1.8	0.724	10.0	0.051	29.0	0.068	49.5	0.035	70.0	0.007		
2.0	0.635	10.2	0.048	29.5	0.063	50.0	0.030	70.5	0.013		
2.2	0.545	10.4	0.047	30.0	0.043	50.5	0.024	71.0	0.019		

Remarks:

FIGURE 3



BERNARD R. SEGAL, P. E.
CONSULTING ENGINEER
KENSINGTON, MARYLAND

Figure 4

WQAD-DT, MOLINE, ILLINOIS
CH. 38 1000 KW AVG. 334 METERS

Tabulation of Average Elevations, and
Distances to the 48 dBu, F(50,90) Contour

Site Coordinates: 41° 18' 44" North Latitude
90° 22' 46" West Longitude

Antenna Radiation Center: 556 m AMSL

<u>Azimuth</u> (Deg. T.)	<u>Radiation Center</u> <u>Above 3.2-16.1 km</u> <u>Terrain Avg</u> (meters)	<u>Distance to</u> <u>48 dBu, F(50,90)</u> <u>Contour</u> (km)
0	345	87.8
45	334	86.6
90	331	86.3
135	335	86.7
180	331	86.2
225	339	87.1
270	324	85.5
315	334	86.6
332*	339	87.1
Average:	334**	

*Radial through principal community, Moline.

**The average is for the eight standard radials.

Note: The terrain elevation data were obtained from the U.S.G.S. 3 arcsecond terrain elevation database.