ENGINEERING STATEMENT IN SUPPORT OF

PERMISSIVE DIRECTIONAL ANTENNA CHANGE
WOCH-CA CHANNEL 41 CHICAGO, IL

FCC FAC ID: 35101

Narrative

This engineering statement is written in support of a permissive change in directional antenna type (model number) to be utilized by Class-A Television Station WOCH-CA, Channel 41, Chicago, Illinois

Permissive Directional Antenna Change

The construction permit facilities authorized the use of an Andrew Corporation Antenna Model Number ALP32L6-HSBR directional antenna. This antenna is listed in the FCC antenna database of standard patterns with an antenna identification number of 16875.

The proposed directional antenna is an Andrew Corporation Antenna Model ALP16L7-HSBR. This antenna is listed in the FCC antenna database of standard patterns with an antenna identification number of 16604.

Standard Patterns Identical

A comparison of the horizontal plane relative field values of the two antennas (#16875 and 16604) will confirm that the horizontal radiation pattern from each antenna is identical to the other, i.e. no change in the horizontal pattern occurs.

No change in the rotation of the antenna will occur from that authorized. The rotation of the standard pattern is 290 degrees. The rotation of the standard pattern by 290 degrees will result in major lobe(s) of radiation occurring at 225 and 355 degrees true.

As the data concerning the antenna has already been supplied to the Commission and accepted as a standard "off-the-shelf" directional antenna, the antenna data is not being submitted at this time. However, should the submission of such data be required by the staff, it will promptly be supplied.

Vertical Plane (Elevation) Pattern Supplied

The proposed antenna is slightly smaller in overall length due to the reduction in the number of antenna bays employed (from 32 bays to 16 bays), however, no change in the antenna center of radiation height (above ground or sea level) will occur.

A revised vertical plane radiation pattern is provided herein. The antenna employs 1.89 degrees of electrical beam tilt which will produce a maximum radiation of 150 kilowatts below the horizon while maintaining a maximum of 25 kilowatts at the horizon as authorized.

AM Broadcast Stations

The antenna location is atop the John Hancock building, located in downtown Chicago, Illinois, there are no known AM Directional Stations located within 3.2 kilometers that would be affected by the change in the type of antenna employed. The nearest AM Station is non-directional Station WNTD, located 6.7 kilometers away - far beyond the area of concern or study.

Environmental Concerns

The rooftop and the associated antenna mounting masts atop the John Hancock Building are under strict and fully supervised restricted (controlled) access by the management of the John Hancock Building.

The proposed facility will not have a significant environmental impact as defined by 47 C.F.R. § 1.1307. The proposed station will operate from a side mounted antennal mast atop the building. Access is not available by the general public and controlled access by workers is only allowed under strict supervision of the site operator (John Hancock Building).

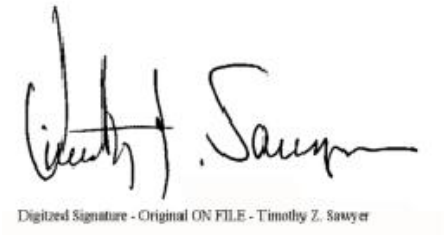
The proposed station will place a field at two meters elevation (above ground level) adjacent to the supporting structure which does not exceed 1% of ANSI general public limits.

The facility is not located within environmentally sensitive areas. There are no changes in surface features, and the tower/antenna/mast has been in place for many years with no change in height. The tower/antenna/mast is not equipped with high intensity white lights.

Summary

The change in directional antenna as proposed herein is permissible under 47 C.F.R. 73.1690(c)(3). No change in effective radiated power (ERP) or the horizontal directional radiation pattern has occurred. No AM Broadcast stations are impacted by the antenna change.

No increased or increased adverse effect on the environment will occur as a result of a grant of this application. The applicant will comply with the Commission's rules and regulations concerning environmental matters as outlined in OET Bulletin No. 65.



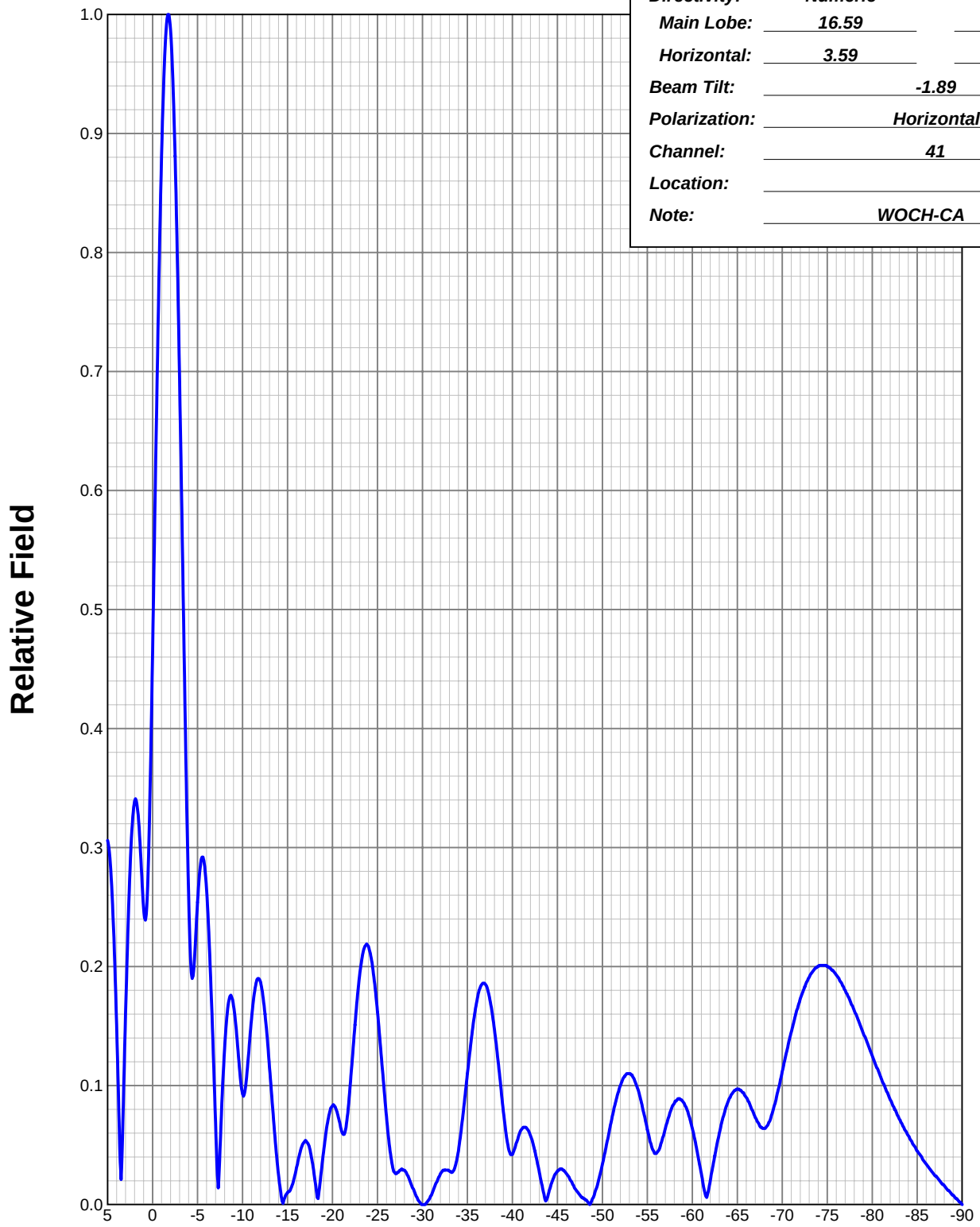
Timothy Z. Sawyer
Consulting Engineer

Mullaney Engineering, Inc.
9049 Shady Grove Court
Gaithersburg, MD 20877 USA

Tel.: 301-921-0115

ELEVATION PATTERN

Type:	ALP16L7-HSBR	
Directivity:	Numeric	dBd
Main Lobe:	16.59	12.20
Horizontal:	3.59	5.55
Beam Tilt:	-1.89	
Polarization:	Horizontal	
Channel:	41	
Location:		
Note:	WOCH-CA	



Electronics Research, Inc.
7777 Gardner Road
Chandler, Indiana U.S.A 47610

ELEVATION TABULATED DATA

Type: ALP16L7-HSBR

Polarization: Horizontal

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
5.00	0.306	-10.29	**-6.50**	0.181	-14.85	**-42.00**	0.058	-24.73	**-88.00**	0.016	-35.92
4.75	0.291	-10.71	**-6.75**	0.127	-17.96	**-43.00**	0.027	-31.37	**-89.00**	0.008	-41.94
4.50	0.261	-11.67	**-7.00**	0.069	-23.22	**-44.00**	0.009	-40.92	**-90.00**	0.000	-40.00
4.25	0.213	-13.45	**-7.25**	0.020	-34.20	**-45.00**	0.028	-31.06			
4.00	0.151	-16.42	**-7.50**	0.047	-26.56	**-46.00**	0.026	-31.70			
3.75	0.079	-22.05	**-7.75**	0.093	-20.58	**-47.00**	0.013	-37.72			
3.50	0.021	-33.56	**-8.00**	0.131	-17.65	**-48.00**	0.005	-46.02			
3.25	0.086	-21.36	**-8.25**	0.157	-16.08	**-49.00**	0.006	-44.44			
3.00	0.161	-15.86	**-8.50**	0.172	-15.29	**-50.00**	0.034	-29.37			
2.75	0.228	-12.82	**-8.75**	0.175	-15.14	**-51.00**	0.070	-23.10			
2.50	0.283	-10.96	**-9.00**	0.167	-15.55	**-52.00**	0.100	-20.00			
2.25	0.321	-9.88	**-9.25**	0.151	-16.42	**-53.00**	0.110	-19.17			
2.00	0.339	-9.40	**-9.50**	0.129	-17.79	**-54.00**	0.096	-20.35			
1.75	0.337	-9.46	**-9.75**	0.107	-19.41	**-55.00**	0.063	-24.01			
1.50	0.317	-9.98	**-10.00**	0.093	-20.63	**-56.00**	0.043	-27.33			
1.25	0.283	-10.96	**-11.00**	0.156	-16.14	**-57.00**	0.064	-23.88			
1.00	0.249	-12.08	**-12.00**	0.187	-14.56	**-58.00**	0.085	-21.41			
0.75	0.241	-12.34	**-13.00**	0.115	-18.79	**-59.00**	0.086	-21.31			
0.50	0.278	-11.12	**-14.00**	0.025	-32.04	**-60.00**	0.064	-23.88			
0.25	0.360	-8.89	**-15.00**	0.010	-40.00	**-61.00**	0.026	-31.70			
0.00	0.465	-6.65	**-16.00**	0.031	-30.17	**-62.00**	0.020	-33.98			
-0.25	0.580	-4.74	**-17.00**	0.054	-25.35	**-63.00**	0.060	-24.44			
-0.50	0.692	-3.20	**-18.00**	0.023	-32.77	**-64.00**	0.087	-21.21			
-0.75	0.795	-1.99	**-19.00**	0.044	-27.13	**-65.00**	0.097	-20.26			
-1.00	0.881	-1.10	**-20.00**	0.083	-21.62	**-66.00**	0.090	-20.92			
-1.25	0.946	-0.48	**-21.00**	0.062	-24.15	**-67.00**	0.073	-22.73			
-1.50	0.987	-0.11	**-22.00**	0.103	-19.74	**-68.00**	0.064	-23.88			
-1.89	1.000	0.00	**-23.00**	0.192	-14.33	**-69.00**	0.080	-21.94			
-2.00	0.987	-0.11	**-24.00**	0.217	-13.27	**-70.00**	0.112	-19.02			
-2.25	0.946	-0.49	**-25.00**	0.162	-15.81	**-71.00**	0.145	-16.77			
-2.50	0.881	-1.10	**-26.00**	0.074	-22.62	**-72.00**	0.173	-15.24			
-2.75	0.795	-1.99	**-27.00**	0.026	-31.70	**-73.00**	0.191	-14.38			
-3.00	0.694	-3.17	**-28.00**	0.029	-30.75	**-74.00**	0.200	-13.98			
-3.25	0.582	-4.70	**-29.00**	0.013	-37.72	**-75.00**	0.200	-13.98			
-3.50	0.466	-6.63	**-30.00**	0.000	-40.00	**-76.00**	0.193	-14.29			
-3.75	0.355	-9.00	**-31.00**	0.008	-41.94	**-77.00**	0.180	-14.89			
-4.00	0.261	-11.67	**-32.00**	0.026	-31.70	**-78.00**	0.163	-15.76			
-4.25	0.202	-13.89	**-33.00**	0.028	-31.06	**-79.00**	0.144	-16.83			
-4.50	0.192	-14.33	**-34.00**	0.045	-26.94	**-80.00**	0.125	-18.06			
-4.75	0.219	-13.19	**-35.00**	0.110	-19.17	**-81.00**	0.106	-19.49			
-5.00	0.254	-11.90	**-36.00**	0.169	-15.44	**-82.00**	0.088	-21.11			
-5.25	0.280	-11.04	**-37.00**	0.185	-14.66	**-83.00**	0.072	-22.85			
-5.50	0.292	-10.69	**-38.00**	0.147	-16.65	**-84.00**	0.058	-24.73			
-5.75	0.286	-10.86	**-39.00**	0.078	-22.16	**-85.00**	0.045	-26.94			
-6.00	0.265	-11.54	**-40.00**	0.042	-27.54	**-86.00**	0.034	-29.37			
-6.25	0.228	-12.82	**-41.00**	0.063	-24.01	**-87.00**	0.024	-32.40			