

ENGINEERING STATEMENT
TECHNICAL INFORMATION IN SUPPORT
OF AN APPLICATION FOR CONSTRUCTION PERMIT
FOR A NEW TV TRANSLATOR STATION
ON BEHALF OF
NEXSTAR BROADCASTING, INC.
BILLINGS, MONTANA
CHANNEL 27 14 KW ERP 1137 METERS RC/AMSL

OCTOBER 2005

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

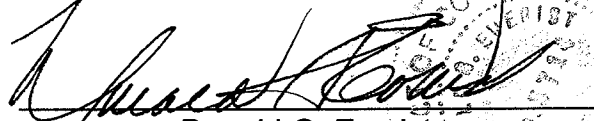
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

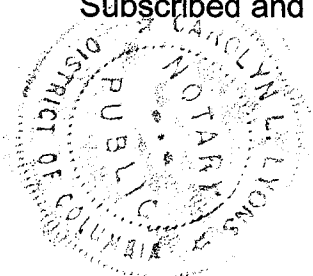
That his qualifications are a matter of record in the Federal Communications Commission;


That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 28th day of October, 2005.




Notary Public

My Commission Expires: 2/28/2008

COHEN, DIPPELL AND EVERIST, P. C.

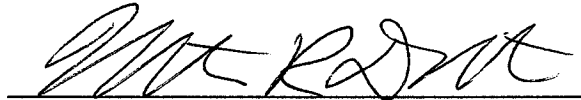
City of Washington)
) ss
District of Columbia)

Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the Pennsylvania State University, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

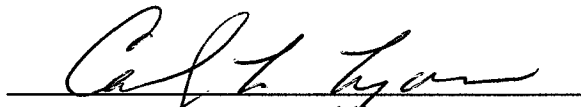
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



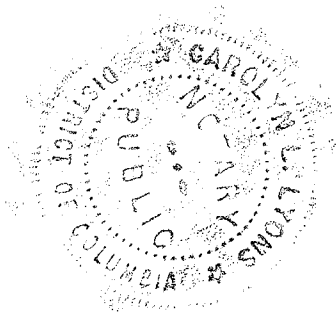
Martin R. Doczkat

Subscribed and sworn to before me this 28th day of October, 2005.



Notary Public

My Commission Expires: 2/28/2008



Introduction

This engineering statement has been prepared on behalf of Nexstar Broadcasting, Inc. in support of its application for a construction permit for a new television translator facility in Billings, Montana. Nexstar Broadcasting, Inc. won FCC Auction 81 for a new Channel 27 television translator facility in Billings, Montana.

Transmitter Site

The new television translator antenna will be mounted to an existing tower. The existing tower has antenna structure registration number 1006702. The geographic coordinates of the site are as follows:

North Latitude: 45° 46' 04"

West Longitude: 108° 27' 25"

NAD-27

Elevation Data

Elevation of site above mean sea level	1093.6 meters 3588 feet
Overall height above ground of the existing antenna structure (including appurtenances)	64.0 meters 210.0 feet
Overall height above mean sea level of the existing antenna structure (including appurtenances)	1157.6 meters 3798 feet
Center of radiation of antenna above ground level	43.4 meters 142.4 feet
Center of radiation of antenna above mean sea level	1137 meters 3730.3 feet

Equipment Data

Transmitter:	Type-Approved
Transmission Line:	Andrew, Model HJ7-50A, 1-5/8", 50 ohm, 50 meters
Antenna:	Andrew, ALP8LI-HSP with maximum gain of 17.01 (12.31 dB) and 0.25° electrical beam tilt

The transmitter with typical power output of 1000 watts will deliver 825 watts to the input of the antenna. The antenna, having a maximum gain of 17.01, will produce a maximum ERP of 14 kW. A coverage map of the proposed facility has been included as Exhibit E-1 of this report. The antenna azimuth pattern and elevation pattern are included as Exhibit E-2.

Longley-Rice and LPONE Analysis

An LPONE study has been performed and is attached as Exhibit E-3. No new interference has been predicted to any other television facility based on LPONE.

The above considers all pending, outstanding construction permits and licensed operations abstracted from the FCC CDBS dated October 28, 2005.

Other Broadcast Facilities

A brief analysis was completed to determine the presence of stations in the vicinity of the tower with registration number 1006702 using the October 10, 2005, data contained within the Commission's Consolidated Database System. There are several television broadcast facilities (KTVQ-DT, KTVQ(TV), K20HB(TX), K25BP(TX), and the proposed operation) and one FM broadcast facility (KBBB(FM)) within 150 meters of the tower site. There are numerous other broadcast facilities further from this site in the near vicinity, but are presumed to contribute relatively negligible amounts of radiofrequency field at the proposed site, and are therefore, not considered any further in the following study.

The analysis did not return any AM stations within 3.22 km of the proposed site. Although no adverse effects are expected due to the proposed television translator station the applicant will install filters or take other measures necessary to resolve any problems provided they are related to the changes proposed in this application.

Radiofrequency Field Level

The KTVQ-DT antenna is side-mounted on its existing tower at 59.4 meters above ground level approximately 140 meters from the proposed television translator site. The radiofrequency field ("RFF") level contribution of all NTSC broadcasting facilities near the transmitting site will be calculated using the following formula:

$$S = \frac{33.4(F^2) [0.4 \text{ ERP}_V + \text{ERP}_A]}{R^2}$$

The RFF contribution of the DTV and FM station operation will be calculated using the following formula:

$$S = \frac{33.4 (F^2) \text{ ERP}}{R^2}$$

where:

S = power density in $\mu\text{W}/\text{cm}^2$
 F = relative field factor
 ERP_V = total peak visual ERP in watts
 ERP_A = total peak aural ERP in watts
 R = RCAGL - 2 meters

Radio Frequency Field Level Calculations

<u>Station</u>	<u>Channel</u>	<u>ERP</u> kW	<u>Field</u>	<u>RCAGL*</u> (meters)	<u>S-Calculated</u> $\mu\text{W}/\text{cm}^2$	<u>S-Limit</u> $\mu\text{W}/\text{cm}^2$	<u>% of</u> <u>Limit**</u>
New (proposed)	27	14	0.27	41.4	9.9	367.3	2.70
KBBB-FM (existing)	279	100	0.3	74.0	109.8	200	54.90
KTVQ(TV) (existing)	2	100	0.2	102	6.4	200	3.20

<u>Station</u>	<u>Channel</u>	<u>ERP</u> kW	<u>Field</u>	<u>RCAGL*</u> (meters)	<u>S-Calculated</u> $\mu\text{W}/\text{cm}^2$	<u>S-Limit</u> $\mu\text{W}/\text{cm}^2$	<u>% of</u> <u>Limit**</u>
KTVQ-DT (existing CP)	10	5.3	0.32	57.4	5.50	200	2.75
K20HB (TX) (existing)	20	51.2	0.2	43.0	18.5	339.3	5.45
K25BP (TX) (existing)	25	14	0.27	65.0	4.0	359.3	1.11

*RCAGL Minus 2 meters

**Maximum Exposure Limit for an Uncontrolled Environment

Total RFF at the Site

The total RFF contribution of all transmitters can now be calculated:

$$\text{Total RFF \%} = 2.70\% + 54.90\% + 3.20\% + 2.75\% + 5.45\% + 1.11\%$$

Total RFF % = 70.11% of the maximum permissible exposure for an uncontrolled environment 2 meters above ground level.

Therefore, all facilities contribute less than 70.11% RFF for an uncontrolled environment 2 meters above the ground at the tower site.

The tower site is located inside a chain link fence with a locked gate to prevent unauthorized access to the tower.

Finally, provisions will be made to reduce power or to terminate the transmitter emissions as appropriate when it is necessary for authorized personnel to climb the tower. All facilities operating on the tower will coordinate to ensure that workers will not be subjected to radio frequency field levels in excess of the current FCC guidelines listed in OET Bulletin No. 65, dated August 1997.

An environmental assessment (“EA”) is categorically excluded under Section 1.1306 of the FCC Rules and Regulations since the permittee indicates:

- (a)(1) The proposed facilities on an existing tower are not located in an officially designated wilderness area.
- (a)(2) The proposed facilities on an existing tower are not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities on an existing tower will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities on an existing tower will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities on an existing tower will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The proposed facilities on an existing tower are not located near any known Indian religious sites.
- (a)(6) The proposed facilities on an existing tower are not located in a flood plain.
- (a)(7) The installation of the facilities on an existing tower at an existing site will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) The existing tower lighting will remain unchanged.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin 65 (Edition 97-01) and Supplement A. Authorized personnel will be alerted to areas of the antennas where potential radiation levels are in excess of the FCC guidelines. An eight foot chain link fence with barbed wire precludes access to the tower site.

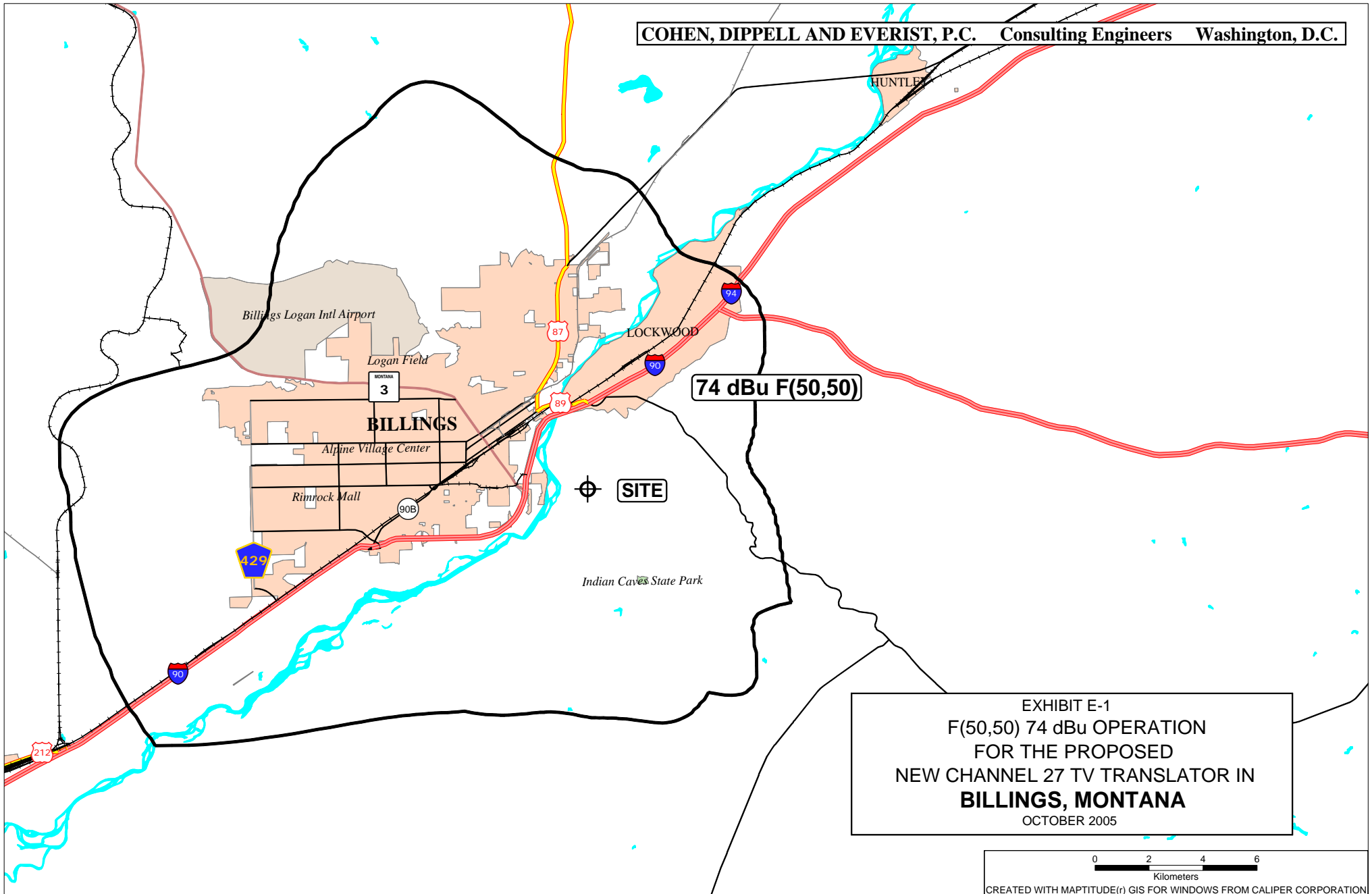


EXHIBIT E-1
F(50,50) 74 dBu OPERATION
FOR THE PROPOSED
NEW CHANNEL 27 TV TRANSLATOR IN
BILLINGS, MONTANA
OCTOBER 2005

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

NEW CHANNEL 27 TV TRANSLATOR

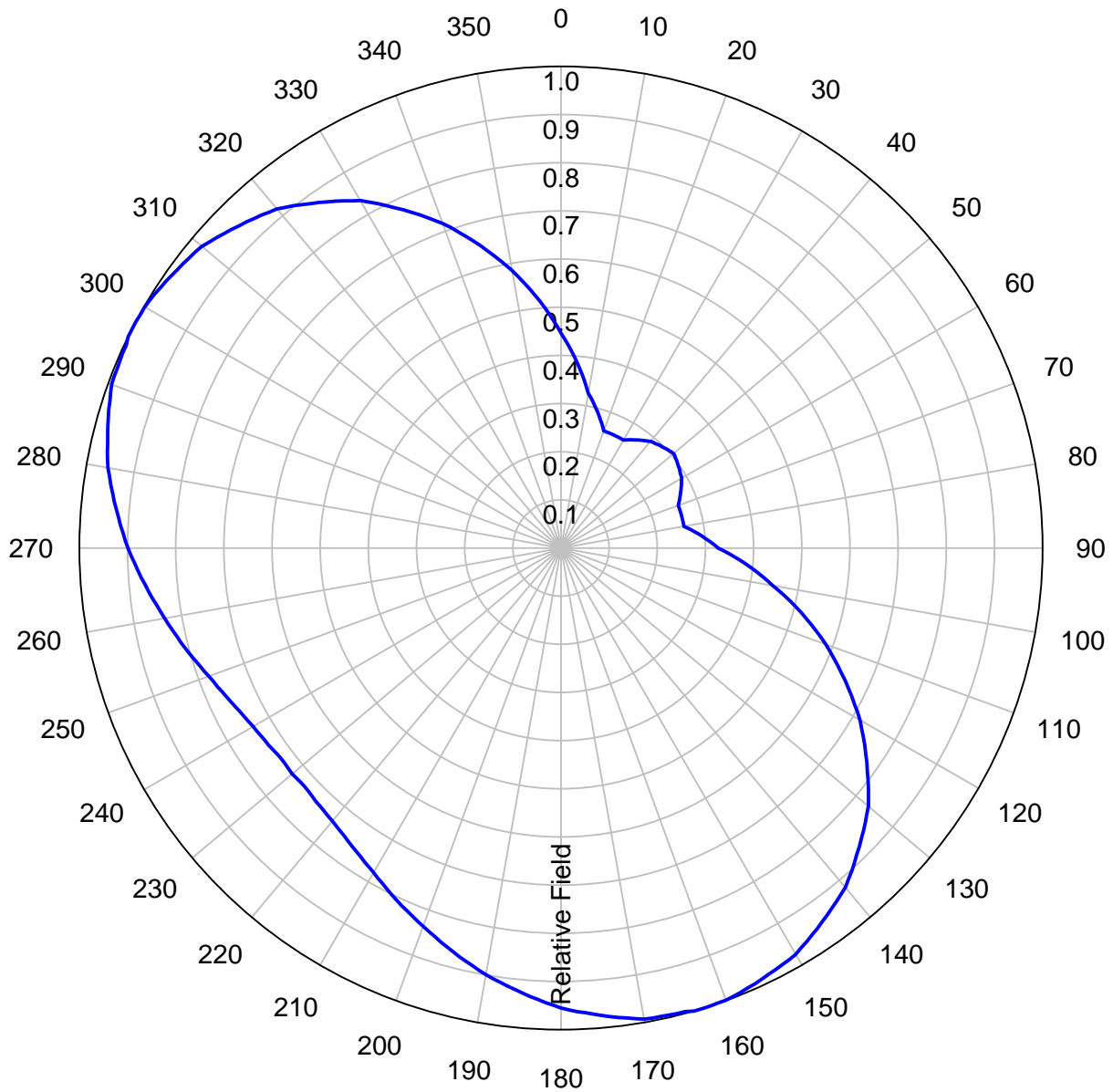
BILLINGS, MONTANA



ANDREW® AZIMUTH PATTERN

Type: ALP-P

	Numeric	dBd
Directivity:	<u>1.88</u>	<u>2.74</u>
Peak(s) at:	<u></u>	
Polarization:	<u>Horizontal</u>	
Channel:	<u>27</u>	
Location:	<u></u>	
Note:	<u></u>	



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A 60462

**ANDREW®****AZIMUTH TABULATED DATA**Type: ALP-PPolarization: Horizontal

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0	0.446	-7.01	92	0.350	-9.12	184	0.933	-0.60	276	0.933	-0.60
2	0.422	-7.49	94	0.374	-8.54	186	0.921	-0.71	278	0.944	-0.50
4	0.398	-8.00	96	0.398	-8.00	188	0.910	-0.82	280	0.955	-0.40
6	0.374	-8.54	98	0.422	-7.49	190	0.899	-0.92	282	0.963	-0.33
8	0.350	-9.12	100	0.446	-7.01	192	0.886	-1.05	284	0.970	-0.26
10	0.326	-9.74	102	0.474	-6.48	194	0.874	-1.17	286	0.978	-0.19
12	0.313	-10.09	104	0.502	-5.99	196	0.861	-1.30	288	0.985	-0.13
14	0.299	-10.49	106	0.529	-5.53	198	0.848	-1.43	290	0.993	-0.06
16	0.286	-10.87	108	0.557	-5.08	200	0.836	-1.56	292	0.994	-0.05
18	0.273	-11.28	110	0.585	-4.66	202	0.824	-1.68	294	0.996	-0.03
20	0.259	-11.73	112	0.611	-4.28	204	0.813	-1.80	296	1.000	0.00
22	0.259	-11.73	114	0.637	-3.92	206	0.801	-1.93	298	1.000	0.00
24	0.259	-11.73	116	0.664	-3.56	208	0.789	-2.06	300	0.999	-0.01
26	0.259	-11.73	118	0.690	-3.22	210	0.778	-2.18	302	0.995	-0.04
28	0.259	-11.73	120	0.717	-2.89	212	0.769	-2.28	304	0.990	-0.09
30	0.259	-11.73	122	0.740	-2.62	214	0.760	-2.38	306	0.984	-0.14
32	0.265	-11.54	124	0.763	-2.35	216	0.752	-2.48	308	0.979	-0.18
34	0.271	-11.34	126	0.786	-2.09	218	0.745	-2.56	310	0.974	-0.23
36	0.277	-11.15	128	0.810	-1.83	220	0.739	-2.63	312	0.963	-0.33
38	0.283	-10.96	130	0.833	-1.59	222	0.735	-2.67	314	0.952	-0.43
40	0.289	-10.78	132	0.850	-1.41	224	0.732	-2.71	316	0.941	-0.53
42	0.292	-10.69	134	0.867	-1.24	226	0.728	-2.76	318	0.930	-0.63
44	0.296	-10.57	136	0.884	-1.07	228	0.727	-2.77	320	0.919	-0.73
46	0.299	-10.49	138	0.902	-0.90	230	0.729	-2.75	322	0.902	-0.90
48	0.302	-10.40	140	0.919	-0.73	232	0.727	-2.77	324	0.884	-1.07
50	0.305	-10.31	142	0.930	-0.63	234	0.728	-2.76	326	0.867	-1.24
52	0.302	-10.40	144	0.941	-0.53	236	0.732	-2.71	328	0.850	-1.41
54	0.299	-10.49	146	0.952	-0.43	238	0.735	-2.67	330	0.833	-1.59
56	0.296	-10.57	148	0.963	-0.33	240	0.739	-2.63	332	0.810	-1.83
58	0.292	-10.69	150	0.974	-0.23	242	0.745	-2.56	334	0.786	-2.09
60	0.289	-10.78	152	0.979	-0.18	244	0.752	-2.48	336	0.763	-2.35
62	0.283	-10.96	154	0.984	-0.14	246	0.760	-2.38	338	0.740	-2.62
64	0.277	-11.15	156	0.990	-0.09	248	0.769	-2.28	340	0.717	-2.89
66	0.271	-11.34	158	0.995	-0.04	250	0.778	-2.18	342	0.690	-3.22
68	0.265	-11.54	160	0.999	-0.01	252	0.789	-2.06	344	0.664	-3.56
70	0.259	-11.73	162	1.000	0.00	254	0.801	-1.93	346	0.637	-3.92
72	0.259	-11.73	164	1.000	0.00	256	0.813	-1.80	348	0.611	-4.28
74	0.259	-11.73	166	0.996	-0.03	258	0.824	-1.68	350	0.585	-4.66
76	0.259	-11.73	168	0.994	-0.05	260	0.836	-1.56	352	0.557	-5.08
78	0.259	-11.73	170	0.993	-0.06	262	0.848	-1.43	354	0.529	-5.53
80	0.259	-11.73	172	0.985	-0.13	264	0.861	-1.30	356	0.502	-5.99
82	0.273	-11.28	174	0.978	-0.19	266	0.874	-1.17	358	0.474	-6.48
84	0.286	-10.87	176	0.970	-0.26	268	0.886	-1.05	360	0.446	-7.01
86	0.299	-10.49	178	0.963	-0.33	270	0.899	-0.92			
88	0.313	-10.09	180	0.955	-0.40	272	0.910	-0.82			
90	0.326	-9.74	182	0.944	-0.50	274	0.921	-0.71			



ANDREW CORPORATION
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Orland Park, Illinois U.S.A 60462

**ANDREW®****AZIMUTH PATTERN
FCC FILING FORMAT**Type: ALP-PPolarization: Horizontal

<i>Angle</i>	<i>Field</i>	<i>ERP (kW)</i>	<i>ERP (dBk)</i>
0	0.446	2.785	4.448
10	0.326	1.488	1.726
20	0.259	0.939	-0.273
30	0.259	0.939	-0.273
40	0.289	1.169	0.679
50	0.305	1.302	1.147
60	0.289	1.169	0.679
70	0.259	0.939	-0.273
80	0.259	0.939	-0.273
90	0.326	1.488	1.726
100	0.446	2.785	4.448
110	0.585	4.791	6.804
120	0.717	7.197	8.572
130	0.833	9.714	9.874
140	0.919	11.824	10.728
150	0.974	13.281	11.232
160	0.999	13.972	11.453
170	0.993	13.805	11.400
180	0.955	12.768	11.061
190	0.899	11.315	10.536
200	0.836	9.785	9.905
210	0.778	8.474	9.281
220	0.739	7.646	8.834
230	0.729	7.440	8.716
240	0.739	7.646	8.834
250	0.778	8.474	9.281
260	0.836	9.785	9.905
270	0.899	11.315	10.536
280	0.955	12.768	11.061
290	0.993	13.805	11.400
300	0.999	13.972	11.453
310	0.974	13.281	11.232
320	0.919	11.824	10.728
330	0.833	9.714	9.874
340	0.717	7.197	8.572
350	0.585	4.791	6.804

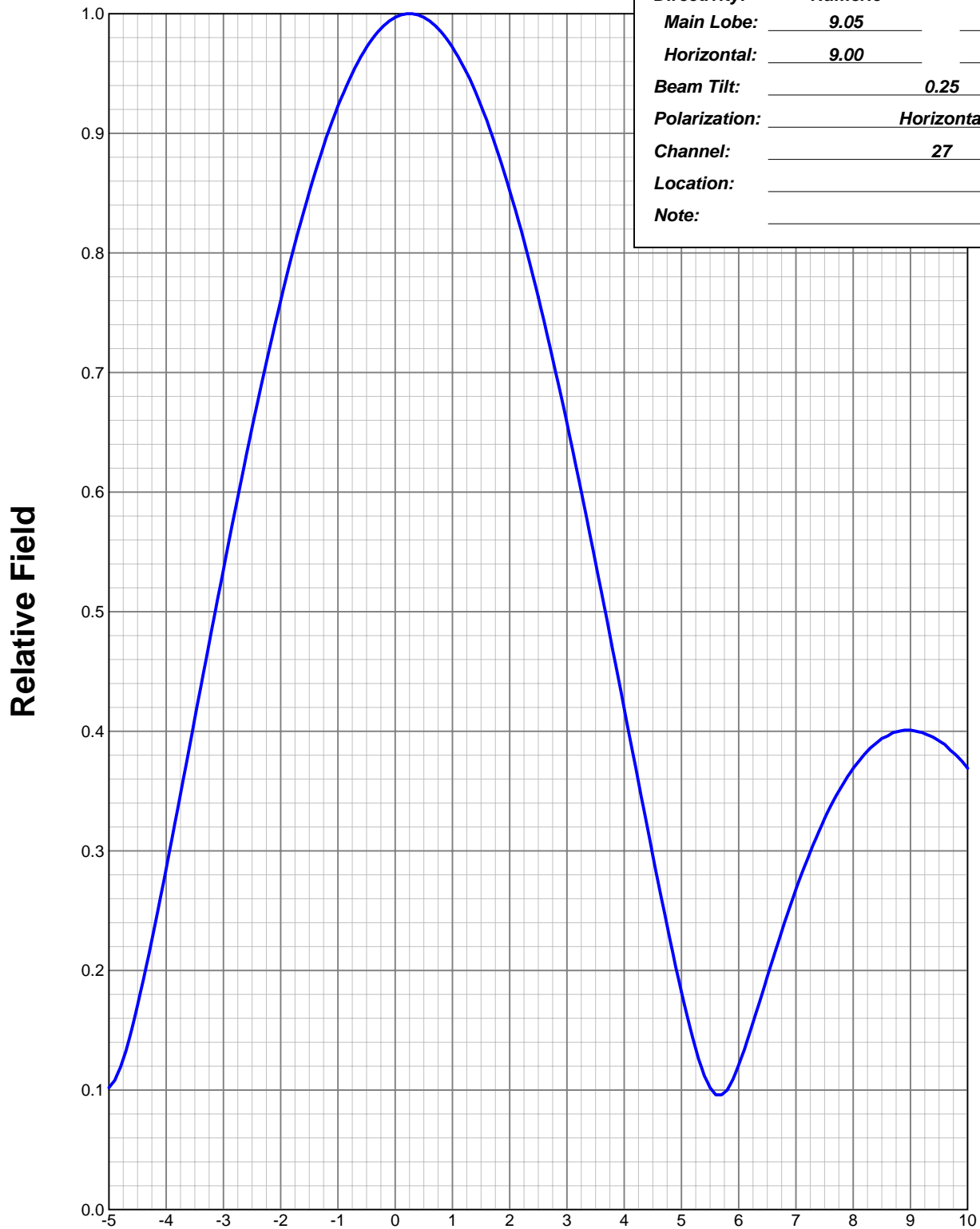
ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A 60462



ANDREW®

ELEVATION PATTERN

Type:	ALP8L1	
Directivity:	Numeric	dBd
Main Lobe:	9.05	9.57
Horizontal:	9.00	9.54
Beam Tilt:	0.25	
Polarization:	Horizontal	
Channel:	27	
Location:		
Note:		



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Orland Park, Illinois U.S.A 60462



ELEVATION TABULATED DATA

Type: ALP8L1

Polarization: Horizontal

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5.00	0.102	-19.83	6.50	0.195	-14.20	42.00	0.039	-28.18	88.00	0.014	-37.08
-4.75	0.126	-17.99	6.75	0.232	-12.67	43.00	0.063	-24.01	89.00	0.007	-43.10
-4.50	0.171	-15.34	7.00	0.268	-11.44	44.00	0.076	-22.38	90.00	0.000	0.00
-4.25	0.225	-12.94	7.25	0.299	-10.49	45.00	0.076	-22.38			
-4.00	0.285	-10.90	7.50	0.327	-9.71	46.00	0.065	-23.74			
-3.75	0.348	-9.18	7.75	0.350	-9.12	47.00	0.044	-27.13			
-3.50	0.411	-7.72	8.00	0.369	-8.66	48.00	0.017	-35.39			
-3.25	0.474	-6.49	8.25	0.384	-8.32	49.00	0.012	-38.42			
-3.00	0.535	-5.43	8.50	0.394	-8.09	50.00	0.040	-27.96			
-2.75	0.595	-4.50	8.75	0.400	-7.97	51.00	0.064	-23.88			
-2.50	0.654	-3.69	9.00	0.401	-7.94	52.00	0.079	-22.05			
-2.25	0.708	-2.99	9.25	0.398	-8.00	53.00	0.086	-21.31			
-2.00	0.760	-2.38	9.50	0.392	-8.13	54.00	0.083	-21.62			
-1.75	0.808	-1.85	9.75	0.382	-8.36	55.00	0.071	-22.97			
-1.50	0.851	-1.40	10.00	0.369	-8.66	56.00	0.051	-25.85			
-1.25	0.889	-1.02	11.00	0.292	-10.69	57.00	0.031	-30.17			
-1.00	0.923	-0.70	12.00	0.193	-14.29	58.00	0.034	-29.37			
-0.75	0.950	-0.45	13.00	0.097	-20.26	59.00	0.064	-23.88			
-0.50	0.972	-0.25	14.00	0.023	-32.77	60.00	0.101	-19.91			
-0.25	0.988	-0.11	15.00	0.016	-35.92	61.00	0.137	-17.27			
0.00	0.997	-0.03	16.00	0.019	-34.42	62.00	0.170	-15.39			
0.25	1.000	0.00	17.00	0.027	-31.37	63.00	0.200	-13.98			
0.50	0.997	-0.03	18.00	0.080	-21.94	64.00	0.224	-13.00			
0.75	0.988	-0.11	19.00	0.142	-16.95	65.00	0.243	-12.29			
1.00	0.972	-0.25	20.00	0.197	-14.11	66.00	0.255	-11.87			
1.25	0.950	-0.44	21.00	0.233	-12.65	67.00	0.262	-11.63			
1.50	0.923	-0.70	22.00	0.243	-12.29	68.00	0.263	-11.60			
1.75	0.890	-1.01	23.00	0.226	-12.92	69.00	0.260	-11.70			
2.00	0.852	-1.39	24.00	0.187	-14.56	70.00	0.252	-11.97			
2.25	0.810	-1.83	25.00	0.135	-17.39	71.00	0.241	-12.36			
2.50	0.763	-2.35	26.00	0.081	-21.83	72.00	0.227	-12.88			
2.75	0.712	-2.96	27.00	0.035	-29.12	73.00	0.211	-13.51			
3.00	0.658	-3.64	28.00	0.010	-40.00	74.00	0.194	-14.24			
3.25	0.601	-4.43	29.00	0.010	-40.00	75.00	0.176	-15.09			
3.50	0.541	-5.34	30.00	0.000	0.00	76.00	0.159	-15.97			
3.75	0.481	-6.37	31.00	0.026	-31.70	77.00	0.141	-17.02			
4.00	0.419	-7.56	32.00	0.062	-24.15	78.00	0.125	-18.06			
4.25	0.357	-8.93	33.00	0.100	-20.00	79.00	0.109	-19.25			
4.50	0.296	-10.57	34.00	0.132	-17.59	80.00	0.094	-20.54			
4.75	0.237	-12.49	35.00	0.153	-16.31	81.00	0.080	-21.94			
5.00	0.182	-14.80	36.00	0.159	-15.97	82.00	0.068	-23.35			
5.25	0.135	-17.43	37.00	0.149	-16.54	83.00	0.056	-25.04			
5.50	0.102	-19.83	38.00	0.124	-18.13	84.00	0.046	-26.74			
5.75	0.098	-20.18	39.00	0.089	-21.01	85.00	0.037	-28.64			
6.00	0.121	-18.34	40.00	0.050	-26.02	86.00	0.029	-30.75			
6.25	0.157	-16.11	41.00	0.022	-33.15	87.00	0.021	-33.56			



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A 60462

LPONE Study Results

Application Station Info Studied as Undesired

Channel: 27 TX USR Latitude: 45°, 46', 4" Max HAAT: 0 m Call: NEW
 Application ID: 1864 Longitude: 108°, 27', 25" ERP: 14 kW OffSet: Z

<u>CALL</u> <u>City, State</u> <u>OWNER</u>	<u>Status</u>	<u>CH</u>	<u>ERP</u> <u>Offset Zone</u>	<u>R/C</u> <u>HAAT</u>	<u>Latitude</u> <u>Longitude</u>	<u>ARN</u> <u>Antenna ID</u> <u>Comments</u>	<u>App ID</u> <u>Facility ID</u>	<u>Sep. Dist</u> <u>Req. Dist</u> <u>Azimuth</u>	<u>Max. QRM</u> <u>QRM Bearin</u>
K26GL TX COLUMBUS, MT KTVQ COMMUNICATIONS, INC.	LIC	26	0.635 kW N 0	1,112.70 n	45° 37' 36.0" 109° 15' 36.	BLTT20040929AFE 67514 Sum of Contours < Sep. Dist.	1015526 130833	64.48 km 121.00 km 256.17°	
K27DL TX EMIGRANT, MT PARADISE VALLEY TV ASSOCIATION	LIC	27	0.374 kW N 0	1,724.00 n	45° 20' 7.0" 110° 41' 22.	BLTT19901226IX 23501 Sum of Contours < Sep. Dist.	155798 51537	180.84 km 338.00 km 255.33°	
K27CD TX BOULDER, MT BOULDER TV TRANSLATOR ASSOCIATION	LIC	27	1.240 kW N 0	1,819.00 n	46° 15' 34.0" 112° 9' 8.0"	BLTT19910322IA Sum of Contours < Sep. Dist.	158413 6526	291.36 km 338.00 km 282.17°	
NEW TX BILLINGS, MT NEXSTAR BROADCASTING, INC.	APP	27	14.0 kW N 0	1,137.00 n	45° 46' 4.0" 108° 27' 25.	BNPTT20000804ADE 34221 Within Protected Contour	512065 125462	0.00 km 338.00 km 0.00°	
NEW TX GLASGOW, MT CHARLES C. TOWNSEND, III	APP	27	50.0 kW + 0	703.00 m	48° 11' 3.0" 106° 35' 39.	BNPTTL20000830ARO 65310 Sum of Contours < Sep. Dist.	973972 128786	303.73 km 338.00 km 27.07°	
K27HQ TX CODY, WY MCDONALD, JAMES R., JR.	CP	27	14.8 kW - 0	2,349.00 n	44° 29' 44.0" 109° 9' 10.0"	BNPTTL20000831BKA 17726 Sum of Contours < Sep. Dist.	671406 128858	151.61 km 338.00 km 201.35°	
NEW TX BILLINGS, MT LAURIE MINTZ	APP	27	7.080 kW N 0	1,215.00 n	45° 45' 59.0" 108° 27' 21.	BNPTTL20000807ABK 20734 Within Protected Contour	511130 125152	0.18 km 338.00 km 150.84°	
NEW TX BILLINGS, MT DEAN M. MOSELY	APP	27	25.0 kW Z 0	993.80 m	45° 46' 54.0" 108° 30' 19.	BNPTTL20000828AFO 34609 Within Protected Contour	515241 126306	4.06 km 338.00 km 292.41°	
NEW TX MILES CITY, MT DEAN M. MOSELY	APP	27	100.0 kW + 0	885.60 m	46° 29' 24.0" 105° 40' 3.0"	BNPTTL20000828AKR 41802 Sum of Contours < Sep. Dist.	588587 126812	230.05 km 338.00 km 68.51°	

<u>CALL</u>		<u>Status</u>	<u>CH</u>	<u>ERP</u>	<u>R/C</u>	<u>Latitude</u>	<u>ARN</u>	<u>App ID</u>	<u>Sep. Dist</u>	<u>Max. QRM</u>
<u>City, State</u>			<u>Offset</u>	<u>Zone</u>	<u>HAAT</u>	<u>Longitude</u>	<u>Antenna ID</u>	<u>Facility ID</u>	<u>Req. Dist</u>	<u>QRM Bearin</u>
<u>OWNER</u>							<u>Comments</u>		<u>Azimuth</u>	
NEW TX	APP	27	0.840 kW		717.00 m	48° 2' 6.0"	BNPTT20000818AET	519772	337.06 km	
WOLF POINT, MT			N 0			105° 31' 12.	16237	127552	338.00 km	
WOLF POINT TV DISTRICT							Sum of Contours < Sep. Dist.		40.45°	
NEW TX	APP	27	25.0 kW		993.80 m	45° 46' 54.0"	BNPTTL20000828AWZ	523204	4.06 km	
BILLINGS, MT			Z 0			108° 30' 19.	35735	128021	338.00 km	
CHARLES C. TOWNSEND, III							Within Protected Contour		292.41°	

Section III - Engineering

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel: _____

2. Frequency Offset:

☐

No offset

☐

Zero offset

☐

Plus offset

☐

Minus offset

3. Translator Input Channel No. _____

4. Primary station proposed to be rebroadcast:

Call Sign	City	State	Channel
-----------	------	-------	---------

5. Antenna Location Coordinates: (NAD 27)

_____ ° _____ ' _____ " ☐ N ☐ S Latitude
_____ ° _____ ' _____ " ☐ E ☐ W Longitude

6. Antenna Structure Registration Number: _____

☐

Not applicable

☐

FAA Notification Filed with FAA

7. Antenna Location Site Elevation Above Mean Sea Level: _____ meters

8. Overall Tower Height Above Ground Level: _____ meters

9. Height of Radiation Center Above Ground Level: _____ meters

10. Maximum Effective Radiated Power (ERP) Towards Radio Horizon: _____ kW

11. Maximum ERP in any Horizontal and Vertical Angle: _____ kW

12. Transmitting Antenna: ☐ Nondirectional ☐ Directional "Off-the-shelf" ☐ Directional composite

Manufacturer	Model
--------------	-------

Directional Antenna Relative Field Values:

Rotation: _____ ° ☐ No rotation ☐ N/A (Nondirectional)

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all those that apply. ☐ Yes ☐ No See Explanation in Exhibit No.

TV broadcast analog system protection.

- a. ☐ 47 C.F.R. Section 74.705.

Digital TV station protection.

- b. ☐ 47 C.F.R. Section 74.706.

Low Power TV and TV translator station protection.

- c. ☐ 47 C.F.R. Section 74.707.


14. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.*, the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. An **Exhibit is required.** ☐ Yes ☐ No See Explanation in Exhibit No.
- Exhibit No.

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Martin R. Doczkat		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 		Date October 28, 2005	
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, Suite 1100			
City Washington		State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111		E-Mail Address (if available) cde@attglobal.net	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001),
AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)),
AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).