

ENGINEERING REPORT RE  
APPLICATION FOR LICENSE  
FCC FILE NO. BNPED-20071022AQO  
KJKR(FM), JAMESTOWN, NORTH DAKOTA  
CHANNEL 201A (88.1 MHZ) 4 KW ERP ND  
(VERTICAL) 1 M HAAT  
FACILITY ID NO. 164279  
NOVEMBER 2011

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         )

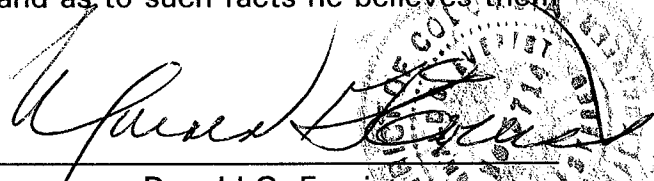
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

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 1420 N Street, N.W., Suite One, Washington, D.C. 20005;

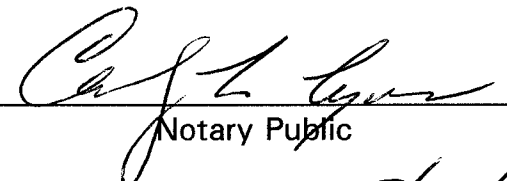
That his qualifications are a matter of record in the Federal Communications Commission;

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

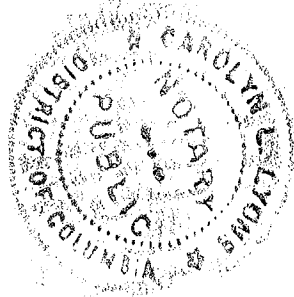
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

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

Subscribed and sworn to before me this 18<sup>th</sup> day of November, 2011.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 2/28/2013



### Introduction

This engineering report has been prepared on behalf of Jamestown College, permittee of an FM facility and is in support of an application for license for its outstanding construction permit (FCC File No. BNPED-20071022AQO as reissued). The authorized FM operation is proposed on Channel 201 (88.1 MHz) with 4.0 kW ("vertical") maximum effective radiated power ("ERP") and 1 meter height above average terrain ("HAAT").

Exhibits requested by Electronic Form of the FCC Form 302 are included in this engineering report and meet all special construction permit conditions.

### Antenna Site

The Scala 4-bay FM antenna is side-mounted on an existing self-supporting structure. The installed antenna is located 213 Second Avenue, NW, Jamestown, ND 58401.

The geographic coordinates of the antenna site are as follows:

North Latitude: 46° 54' 37"

West Longitude: 98° 42' 01"

NAD-27

The following tabulation shows the pertinent data for the installation.

### Equipment Data

Transmitter:	Type-approved
Transmission Line:	125 feet (38.1 meters) Andrews, Type AVA5-50 7/8" low loss foam (0.315 dB/100')
Antenna:	Scala, Model No.FMV-4, 4-bay, 0.87 wave spaced vertically

## polarized antenna

Power Data

Transmitter output power (nominal)	1.10 kW	0.4155 DB
Transmission line efficiency/loss	91.3%	0.3937 dB
Power input to antenna	1.005 kW	0.218 dB
Antenna gain (vertical only)	3.98 kW	6 dB
Effective Radiated Power (H&V)	4 kW	6.02 dB

Elevation Data

Elevation of the site above mean sea level	429 meters (1391 feet)
Elevation of the top of supporting structure above ground	30 meters (98.4 feet)
Elevation of the top of supporting structure above mean sea level	459 meters (1505.9 feet)
Height of radiation center above ground (H&V)	25 meters (82 feet)
Height of radiation center above mean sea level (H&V)	454 meters (1489.5 feet)
Height of radiation center above average terrain (H&V)	1.0 meter (3.28 feet)

Appendix A provides the antenna manufacturer's test data which demonstrates the antenna conforms to the requirements set forth in the re-issued outstanding construction permit.

FCC Rule, Section 1.1307

There are no AM stations located within 2 km of the existing tower site. According to the FCC database, there are also no other FM stations, no FM translators, no full-service analog or digital television stations within 0.1 km of the existing tower.

The proposed non-directional operation, based upon the current OET Bulletin No. 65, Edition 97-01 dated August 1997 and Supplement A, meets the provisions of the FCC radiofrequency field ("RFF") guidelines, and thus, complies with Section 1.1307 of the FCC Rules. The elevation pattern for the Scala, Type FMV-4 antenna (see attached manufacturer data) shows a maximum relative field of less than 0.15 toward the ground (30° to 90° below the horizontal). Calculation according to OET Bulletin 65 predicts a maximum RFF power density of less than 8  $\mu\text{W}/\text{cm}^2$ , 2 meters above ground or less than four percent of the uncontrolled Maximum Permissible Exposure ("MPE") guideline for the general population.

Detail Calculation

The RFF contribution of the constructed FM station will be calculated using the following basic formula:

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

where:

S = power density in  $\mu\text{W}/\text{cm}^2$   
F = relative field factor

Total ERP = ERP Horizontal Polarization + ERP Vertical Polarization

R = RCAGL - 2 meters

ERP = RMS ERP in watts FM Stations

ERP = ERP (vertically polarized only)

FM Digital Station (Application)

Channel 201	Freq:	88.1 MHz
	ERP =	4 kW
	Polarization =	Horizontal
	RCAGL -2 meters =	23 meters

KJKR(FM) has installed a Scala, Type FMVMP-4 antenna with no electrical beam tilt. The manufacturer's vertical plane pattern for this antenna indicates that the field factor will be less than 0.15 at any angle greater than 30 degrees below the horizon. A value of 0.15 will be used in the calculation.

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

Tot ERP = 4000 watts (Vertical Only)  
R = 23 meters  
F = 0.15 (field factor)

$$S = < 8 \mu\text{W}/\text{cm}^2$$

KJKR(FM) contributes less than  $8 \mu\text{W}/\text{cm}^2$  at 2 meters above ground level.

The limit for an uncontrolled environment is  $200 \mu\text{W}/\text{cm}^2$  for a station broadcasting in the FM band.

Therefore, the constructed KJKR(FM) facility located on an existing tower contributes less than four percent RFF level for an uncontrolled environment two meters above the ground in the vicinity of the existing tower site.

COHEN, DIPPELL AND EVERIST, P.C.

APPENDIX A

ANTENNA MANUFACTURER DATA

KJKR(FM), JAMESTOWN, NORTH DAKOTA



# FMVMP

## FM DIPOLE ANTENNA

1 dBd gain  
88 to 108 MHz

### Specifications:

Model	Frequency MHz	Gain dBd	Weight lb (kg)	Power Gain	Equivalent Dimensions	Flat Plate Area	Number of Antennas
FMVMP-1	88–98	1	6 (2.7)	1.26	56 x 33 inches (1422 x 838 mm)	0.69 ft <sup>2</sup> (0.064 m <sup>2</sup> )	1
	93–103	1	6 (2.7)	1.26	53 x 27.5 inches (1347 x 699 mm)	0.72 ft <sup>2</sup> (0.067 m <sup>2</sup> )	1
	98–108	1	6 (2.7)	1.26	51 x 26 inches (1422 x 661 mm)	0.66 ft <sup>2</sup> (0.061 m <sup>2</sup> )	1
FMVMP-2	88–98	3.5	23 (10.5)	2.24	166 x 33 inches (4216 x 838 mm)	1.7 ft <sup>2</sup> (0.157 m <sup>2</sup> )	2
	93–103	3.5	23 (10.5)	2.24	158 x 31.5 inches (4014 x 800 mm)	1.62 ft <sup>2</sup> (0.15 m <sup>2</sup> )	2
	98–108	3.5	23 (10.5)	2.24	151 x 30 inches (3836 x 762 mm)	1.55 ft <sup>2</sup> (0.144 m <sup>2</sup> )	2
FMVMP-3	88–98	4.9	34 (15.5)	2.82	276 x 33 inches (7010 x 838 mm)	2.61 ft <sup>2</sup> (0.243 m <sup>2</sup> )	3
	93–103	4.9	34 (15.5)	2.82	263 x 31.5 inches (6681 x 800 mm)	2.49 ft <sup>2</sup> (0.232 m <sup>2</sup> )	3
	98–108	4.9	34 (15.5)	2.82	251 x 30 inches (6376 x 762 mm)	2.39 ft <sup>2</sup> (0.222 m <sup>2</sup> )	3
FMVMP-4	88–98	6	48 (21.8)	3.98	386 x 33 inches (9804 x 838 mm)	3.52 ft <sup>2</sup> (0.328 m <sup>2</sup> )	4
	93–103	6	48 (21.8)	3.98	368 x 31.5 inches (9348 x 800 mm)	3.37 ft <sup>2</sup> (0.313 m <sup>2</sup> )	4
	98–108	6	48 (21.8)	3.98	351 x 30 inches (8916 x 762 mm)	3.22 ft <sup>2</sup> (0.299 m <sup>2</sup> )	4

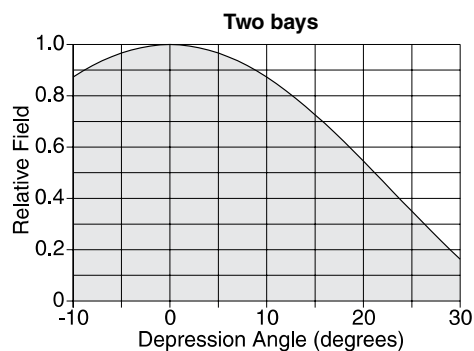
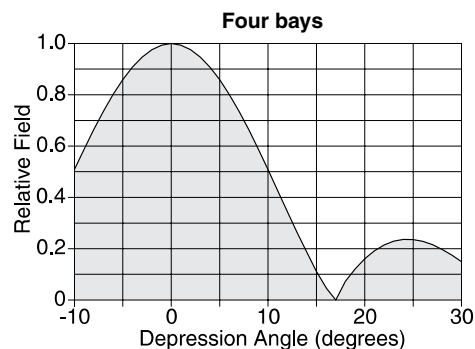
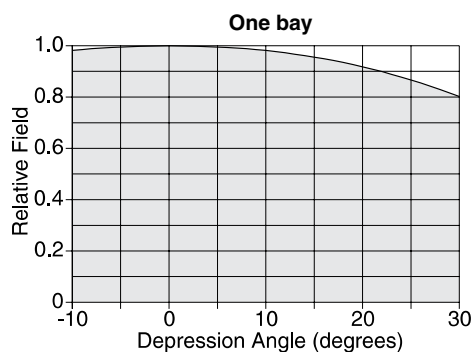
All specifications are subject to change without notice. The latest specifications are available at [www.kathrein-scala.com](http://www.kathrein-scala.com).

Kathrein Inc., Scala Division Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-3991  
Email: [broadcast@kathrein.com](mailto:broadcast@kathrein.com) Internet: [www.kathrein-scala.com](http://www.kathrein-scala.com)



**FMVMP**  
FM DIPOLE ANTENNA  
1 dBd gain  
88 to 108 MHz

Elevation patterns



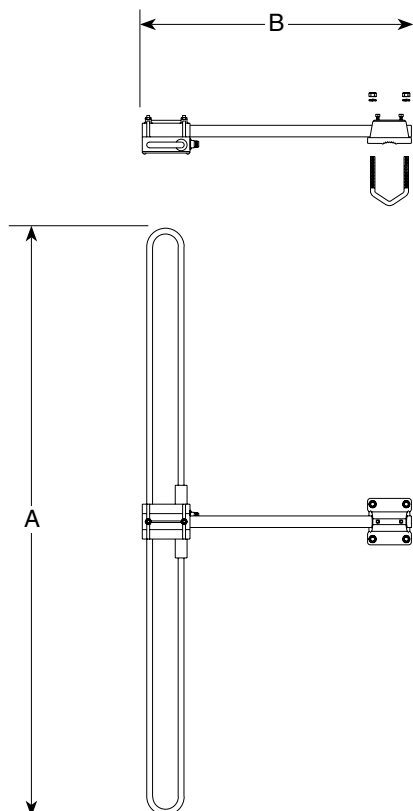
**Order Information:**

Model	Description
FMVMP	88–98 MHz antenna
FMVMP	93–103 MHz antenna
FMVMP	98–108 MHz antenna

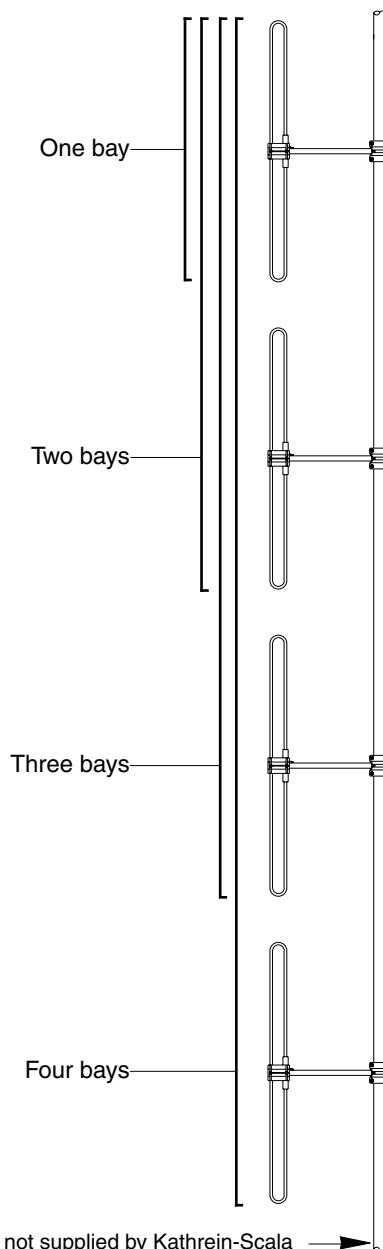
# FMVMP

## FM DIPOLE ANTENNA

1 dBd gain  
88 to 108 MHz



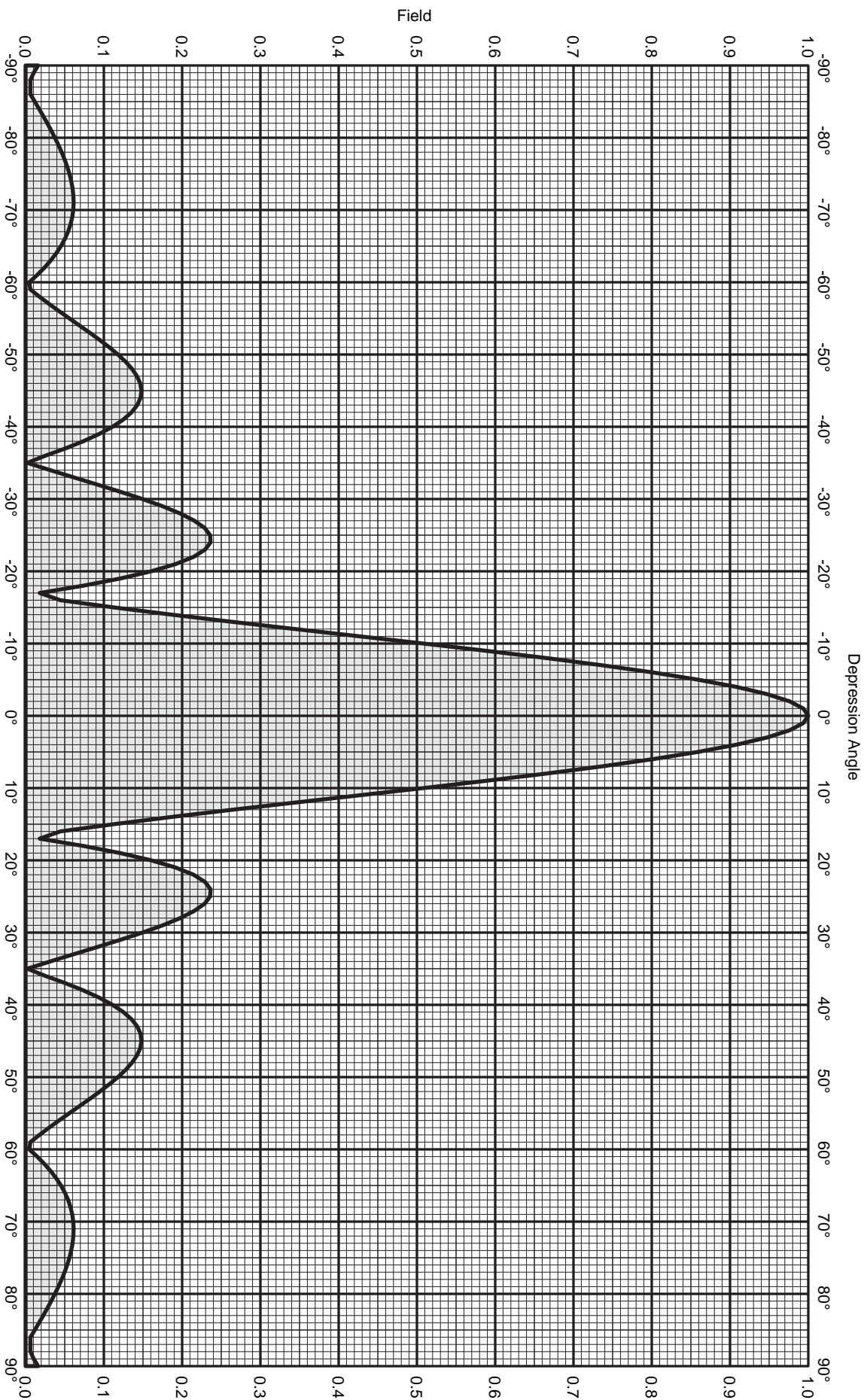
Dimensions:		A	B
FMVMP	88–98 MHz	56 inches (1422 mm)	33 inches (838 mm)
	93–103 MHz	53 inches (1347 mm)	31.5 inches (800 mm)
	98–108 MHz	51 inches (1422 mm)	30 inches (762 mm)



### Installation note:

In order to obtain proper impedance matching (minimum VSWR) and radiation patterns as shown the FMVMP antennas must be attached to a 2.375 inch (60 mm) OD mast that extends at least 12 inches (305 mm) above and below the antenna dipoles.

All specifications are subject to change without notice. The latest specifications are available at [www.kathrein-scala.com](http://www.kathrein-scala.com).



**KATHREIN**  
**SCALA DIVISION**

Post Office Box 4580  
Medford, OR 97501 (USA)  
Phone: (541) 779-6500  
Fax: (541) 779-3991  
<http://www.kathrein-scala.com>

FMV-4 four bay vertical 1/2 wave dipole

Frequency: 88-98 MHz

Gain: 6.0 dBd (x3.98)

Vertical Polarization

Vertical Stacked 0.87 wavelength

Vertical plane Pattern



FMV-4 four bay vertical 1/2 wave dipole

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Vertical Polarization

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Vertical plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.016	-35.93	-29.93	0.00	-45	0.148	-16.59	-10.59	0.09
-89	0.010	-39.61	-33.61	0.00	-44	0.147	-16.66	-10.66	0.09
-88	0.010	-40.00	-34.00	0.00	-43	0.143	-16.91	-10.91	0.08
-87	0.010	-40.00	-34.00	0.00	-42	0.135	-17.37	-11.37	0.07
-86	0.010	-40.00	-34.00	0.00	-41	0.125	-18.07	-12.07	0.06
-85	0.012	-38.58	-32.58	0.00	-40	0.111	-19.08	-13.08	0.05
-84	0.017	-35.29	-29.29	0.00	-39	0.094	-20.54	-14.54	0.04
-83	0.023	-32.93	-26.93	0.00	-38	0.074	-22.63	-16.63	0.02
-82	0.028	-31.14	-25.14	0.00	-37	0.051	-25.88	-19.88	0.01
-81	0.033	-29.70	-23.70	0.00	-36	0.025	-31.93	-25.93	0.00
-80	0.037	-28.53	-22.53	0.01	-35	0.010	-40.00	-34.00	0.00
-79	0.042	-27.54	-21.54	0.01	-34	0.031	-30.06	-24.06	0.00
-78	0.046	-26.73	-20.73	0.01	-33	0.061	-24.23	-18.23	0.02
-77	0.050	-26.04	-20.04	0.01	-32	0.092	-20.75	-14.75	0.03
-76	0.053	-25.49	-19.49	0.01	-31	0.121	-18.33	-12.33	0.06
-75	0.056	-25.03	-19.03	0.01	-30	0.149	-16.51	-10.51	0.09
-74	0.058	-24.68	-18.68	0.01	-29	0.175	-15.14	-9.14	0.12
-73	0.060	-24.43	-18.43	0.01	-28	0.198	-14.09	-8.09	0.16
-72	0.061	-24.29	-18.29	0.01	-27	0.216	-13.32	-7.32	0.19
-71	0.061	-24.24	-18.24	0.02	-26	0.229	-12.81	-6.81	0.21
-70	0.061	-24.30	-18.30	0.01	-25	0.236	-12.55	-6.55	0.22
-69	0.060	-24.49	-18.49	0.01	-24	0.236	-12.53	-6.53	0.22
-68	0.057	-24.82	-18.82	0.01	-23	0.229	-12.79	-6.79	0.21
-67	0.054	-25.30	-19.30	0.01	-22	0.215	-13.36	-7.36	0.18
-66	0.050	-25.98	-19.98	0.01	-21	0.192	-14.34	-8.34	0.15
-65	0.045	-26.89	-20.89	0.01	-20	0.161	-15.89	-9.89	0.10
-64	0.039	-28.15	-22.15	0.01	-19	0.121	-18.35	-12.35	0.06
-63	0.032	-29.89	-23.89	0.00	-18	0.073	-22.69	-16.69	0.02
-62	0.024	-32.43	-26.43	0.00	-17	0.018	-34.89	-28.89	0.00
-61	0.015	-36.59	-30.59	0.00	-16	0.044	-27.06	-21.06	0.01
-60	0.010	-40.00	-34.00	0.00	-15	0.113	-18.95	-12.95	0.05
-59	0.010	-40.00	-34.00	0.00	-14	0.187	-14.58	-8.58	0.14
-58	0.018	-35.01	-29.01	0.00	-13	0.264	-11.56	-5.56	0.28
-57	0.030	-30.44	-24.44	0.00	-12	0.345	-9.24	-3.24	0.47
-56	0.043	-27.37	-21.37	0.01	-11	0.427	-7.40	-1.40	0.72
-55	0.056	-25.05	-19.05	0.01	-10	0.509	-5.87	0.13	1.03
-54	0.069	-23.21	-17.21	0.02	-9	0.588	-4.61	1.39	1.38
-53	0.082	-21.70	-15.70	0.03	-8	0.665	-3.55	2.45	1.76
-52	0.095	-20.46	-14.46	0.04	-7	0.736	-2.66	3.34	2.16
-51	0.107	-19.42	-13.42	0.05	-6	0.801	-1.92	4.08	2.56
-50	0.118	-18.56	-12.56	0.06	-5	0.859	-1.32	4.68	2.94
-49	0.128	-17.87	-11.87	0.07	-4	0.908	-0.84	5.16	3.28
-48	0.136	-17.33	-11.33	0.07	-3	0.947	-0.47	5.53	3.57
-47	0.142	-16.93	-10.93	0.08	-2	0.976	-0.21	5.79	3.79
-46	0.146	-16.68	-10.68	0.09	-1	0.994	-0.05	5.95	3.93
					0	1.000	0.00	6.00	3.98



FMV-4 four bay vertical 1/2 wave dipole

Frequency: 88-98 MHz

Gain: 6.0 dBd (x3.98)

Vertical Polarization

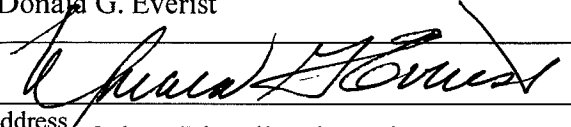
Vertical Stacked 0.87 wavelength

Vertical plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	6.00	3.98	45	0.148	-16.59	-10.59	0.09
1	0.994	-0.05	5.95	3.93	46	0.146	-16.68	-10.68	0.09
2	0.976	-0.21	5.79	3.79	47	0.142	-16.93	-10.93	0.08
3	0.947	-0.47	5.53	3.57	48	0.136	-17.33	-11.33	0.07
4	0.908	-0.84	5.16	3.28	49	0.128	-17.87	-11.87	0.07
5	0.859	-1.32	4.68	2.94	50	0.118	-18.56	-12.56	0.06
6	0.802	-1.92	4.08	2.56	51	0.107	-19.42	-13.42	0.05
7	0.736	-2.66	3.34	2.16	52	0.095	-20.46	-14.46	0.04
8	0.665	-3.55	2.45	1.76	53	0.082	-21.70	-15.70	0.03
9	0.588	-4.61	1.39	1.38	54	0.069	-23.21	-17.21	0.02
10	0.509	-5.87	0.13	1.03	55	0.056	-25.05	-19.05	0.01
11	0.427	-7.40	-1.40	0.73	56	0.043	-27.37	-21.37	0.01
12	0.345	-9.24	-3.24	0.47	57	0.030	-30.44	-24.44	0.00
13	0.264	-11.56	-5.56	0.28	58	0.018	-35.01	-29.01	0.00
14	0.187	-14.58	-8.58	0.14	59	0.010	-40.00	-34.00	0.00
15	0.113	-18.95	-12.95	0.05	60	0.010	-40.00	-34.00	0.00
16	0.044	-27.06	-21.06	0.01	61	0.015	-36.60	-30.60	0.00
17	0.018	-34.90	-28.90	0.00	62	0.024	-32.43	-26.43	0.00
18	0.073	-22.69	-16.69	0.02	63	0.032	-29.89	-23.89	0.00
19	0.121	-18.35	-12.35	0.06	64	0.039	-28.15	-22.15	0.01
20	0.161	-15.89	-9.89	0.10	65	0.045	-26.89	-20.89	0.01
21	0.192	-14.35	-8.35	0.15	66	0.050	-25.98	-19.98	0.01
22	0.215	-13.36	-7.36	0.18	67	0.054	-25.30	-19.30	0.01
23	0.229	-12.79	-6.79	0.21	68	0.057	-24.82	-18.82	0.01
24	0.236	-12.53	-6.53	0.22	69	0.060	-24.49	-18.49	0.01
25	0.236	-12.55	-6.55	0.22	70	0.061	-24.30	-18.30	0.01
26	0.229	-12.81	-6.81	0.21	71	0.061	-24.24	-18.24	0.02
27	0.216	-13.32	-7.32	0.19	72	0.061	-24.29	-18.29	0.01
28	0.198	-14.09	-8.09	0.16	73	0.060	-24.43	-18.43	0.01
29	0.175	-15.14	-9.14	0.12	74	0.058	-24.68	-18.68	0.01
30	0.149	-16.51	-10.51	0.09	75	0.056	-25.03	-19.03	0.01
31	0.121	-18.33	-12.33	0.06	76	0.053	-25.49	-19.49	0.01
32	0.092	-20.75	-14.75	0.03	77	0.050	-26.04	-20.04	0.01
33	0.061	-24.23	-18.23	0.02	78	0.046	-26.73	-20.73	0.01
34	0.031	-30.05	-24.05	0.00	79	0.042	-27.54	-21.54	0.01
35	0.010	-40.00	-34.00	0.00	80	0.037	-28.53	-22.53	0.01
36	0.025	-31.94	-25.94	0.00	81	0.033	-29.70	-23.70	0.00
37	0.051	-25.88	-19.88	0.01	82	0.028	-31.14	-25.14	0.00
38	0.074	-22.63	-16.63	0.02	83	0.023	-32.93	-26.93	0.00
39	0.094	-20.54	-14.54	0.04	84	0.017	-35.29	-29.29	0.00
40	0.111	-19.09	-13.09	0.05	85	0.012	-38.58	-32.58	0.00
41	0.125	-18.07	-12.07	0.06	86	0.010	-40.00	-34.00	0.00
42	0.135	-17.37	-11.37	0.07	87	0.010	-40.00	-34.00	0.00
43	0.143	-16.91	-10.91	0.08	88	0.010	-40.00	-34.00	0.00
44	0.147	-16.66	-10.66	0.09	89	0.010	-39.61	-33.61	0.00
					90	0.016	-35.93	-29.93	0.00

**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 Donald G. Everist		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 		Date November 18, 2011	
Mailing Address Cohen, Dippell and Everist, P.C., 1420 N Street, NW, Suite One			
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).

### 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. a. Effective Radiated Power: \_\_\_\_\_ kW (H) \_\_\_\_\_ kW (V)  
b. Maximum Effective Radiated Power: ☐ Not applicable \_\_\_\_\_ kW (H) \_\_\_\_\_ kW (V)  
(Beam-Tilt Antenna ONLY)
3. Transmitter Power Output: \_\_\_\_\_ kW
4. Antenna Data

Manufacturer	Model	Number of Sections	Spacing Between Sections (wavelength)
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**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

All applicants must complete this section.

5. **Main Studio Location.** The main studio location complies with 47 C.F.R. Section 73.1125. ☐ Yes ☐ No 

See Explanation  
in Exhibit No.
6. **Transmitter Power Output.** The operating transmitter power output produces the authorized effective radiated power. ☐ Yes ☐ No 

See Explanation  
in Exhibit No.

#### APPLICATIONS FILED TO COVER A CONSTRUCTION PERMIT.

**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.

7. **Constructed Facility.** The facility was constructed as authorized in the underlying construction permit or complies with 47 C.F.R. Section 73.1690. ☐ Yes ☐ No 

See Explanation  
in Exhibit No.
8. **Special Operating Conditions.** The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit. ☐ Yes ☐ No 

See Explanation  
in Exhibit No.

Exhibit No.

An exhibit may be required. Review the underlying construction permit.

**PREPARER'S CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.**

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**APPLICATION FILED PURSUANT TO 47 C.F.R. SECTIONS 73.1675(c) or 73.1690(c).**

Only applicants filing this application pursuant to 47 C.F.R. Sections 73.1675(c) or 73.1690(c) must complete the following

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9. **Changing transmitter power output.** Is this application being filed to authorize a change in transmitter power output caused by the replacement of omnidirectional antenna with another omnidirectional antenna or an alteration of the transmission line system? See 47 C.F.R. Sections 73.1690(c)(1) and (c)(10). ☐ Yes ☐ No
10. **Increasing effective radiated power.** Is this application being filed to authorize an increase in ERP for a station operating in the nonreserved band (Channels 221-300)? See 47 C.F.R. Sections 73.1690(c)(4), (c)(5) and (c)(7). ☐ Yes ☐ No

If "Yes" to the above, the Applicant certifies the following:

- a. **Spacing Requirements.** The increase in ERP was authorized pursuant to MM Docket 88-375 (Class A stations) OR the facility complies with the spacing requirements of 47 C.F.R. Section 73.207. ☐ Yes ☐ No 

See Explanation in Exhibit No.
- b. **International Coordination.** The transmitter site is greater than 320 km from the Canadian or Mexican borders OR coordination for the station's international class is complete. ☐ Yes ☐ No 

See Explanation in Exhibit No.
- c. **Interference.** The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied OR are not applicable. ☐ Yes ☐ No 

See Explanation in Exhibit No.

**Exhibit required.** If the proposed facility must be notified to the entities set forth in 47 C.F.R. Section 73.1030, the applicant must provide a copy of the written approval for the ERP increase from the affected entity.

Exhibit No.

- d. **Multiple Ownership Showing.** The increase in ERP will not require the consideration of a multiple ownership showing pursuant to 47 C.F.R. Section 73.3555. ☐ Yes ☐ No 

See Explanation in Exhibit No.
- e. **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 compliance through the use of the RF worksheets in Appendix A, an **Exhibit is required.** ☐ Yes ☐ No 

See Explanation in 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.



11. **Increasing vertically polarized effective radiated power.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(4) to authorize an increase in the vertically polarized ERP for a station operating in the reserved band (Channels 200-220)? ☐ Yes ☐ No

If "Yes" to the above, the Applicant certifies the following:

- a. **TV Channel 6 Protection Requirements.** The facility complies with the spacing requirements of 47 C.F.R. Section 73.525(a)(1). ☐ Yes ☐ No 

See Explanation  
in Exhibit No.
- b. **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 compliance through the use of the RF worksheets in Appendix A, an **Exhibit is required**. ☐ Yes ☐ No 

See Explanation  
in 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.

12. **Decreasing effective radiated power (non-reserved channel).** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(8) to authorize a decrease in the ERP for a station operating in the nonreserved band (Channels 221-300)? ☐ Yes ☐ No

If "Yes" to the above, the Applicant certifies the following:

- a. **Community Coverage.** The proposed facility complies with the community coverage requirements of 47 C.F.R. Section 73.315 where the distance to the 3.16 mV/m contour is predicted using the standard prediction method in 47 C.F.R. Section 73.313. ☐ Yes ☐ No 

See Explanation  
in Exhibit No.
- b. **Auxiliary Facilities.** The authorized or pending auxiliary facilities for this station comply with 47 C.F.R. Section 73.1675(a). ☐ Yes ☐ No 

See Explanation  
in Exhibit No.
- c. **Multiple Ownership Showing.** The decrease in ERP is not requested or required to establish compliance with 47 C.F.R. Section 73.3555. ☐ Yes ☐ No 

See Explanation  
in Exhibit No.

13. **Decreasing effective radiated power (reserved channel).** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(8) to authorize a decrease in the ERP for a station operating in the reserved band (Channels 200-220)? ☐ Yes ☐ No

If "Yes" to the above, the Applicant certifies the following:

- a. **Community Coverage.** The proposed facility complies with the community coverage requirements of 47 C.F.R. Section 73.1690(c)(8)(i) where the distance to the 1 mV/m contour is predicted using the standard prediction method in 47 C.F.R. Section 73.313. ☐ Yes ☐ No 

See Explanation  
in Exhibit No.
- b. **Auxiliary Facilities.** The authorized or pending auxiliary facilities for this station comply with 47 C.F.R. Section 73.1675(a). ☐ Yes ☐ No 

See Explanation  
in Exhibit No.

14. **Replacing a directional antenna.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(2) to replace a directional antenna with another directional antenna? ☐ Yes ☐ No

If "Yes" to the above, the applicant certifies the following:

- a. **Measurement of Directional Antenna.** The composite measured pattern and measurement procedures comply with 47 C.F.R. Section 73.1690(c)(2). **Exhibit required.** ☐ Yes ☐ No 

See Explanation in Exhibit No.

Exhibit No.

- b. **Installation of Directional Antenna.** The installation of the directional antenna complies with 47 C.F.R. Section 73.1690(c)(2). **Exhibit required.** ☐ Yes ☐ No 

See Explanation in Exhibit No.

Exhibit No.

15. **Deleting contour protection status.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(6) to delete contour protection status (47 C.F.R. Section 73.215) for a station operating in the nonreserved band (Channels 221-300)? ☐ Yes ☐ No

- a. If "Yes" to the above, the applicant certifies that the facility complies with the spacing requirements of 47 C.F.R. Section 73.207. ☐ Yes ☐ No 

See Explanation in Exhibit No.

16. **Use a formerly licensed main facility as an auxiliary facility.** Is this application being filed pursuant to 47 C.F.R. Section 73.1675(c)(1) to request authorization to use a formerly licensed main facility as an auxiliary facility and/or change the ERP of the proposed auxiliary facility? ☐ Yes ☐ No

If "Yes" to the above, the applicant certifies the following:

- a. **Auxiliary antenna service area.** The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a). ☐ Yes ☐ No 

See Explanation in Exhibit No.

- b. **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 compliance through the use of the RF worksheets in Appendix A, an **Exhibit is required.** ☐ Yes ☐ No 

See Explanation in 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.

17. **Change the license status.** Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(9) to change the license status from commercial to noncommercial or from noncommercial to commercial? ☐ Yes ☐ No

Exhibit No.

If "Yes" to the above, submit an exhibit providing full particulars. For applications changing license status from commercial to noncommercial, include Section II of FCC Form 340 as an exhibit to this application.

**PREPARER'S CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.**