

SECTION II - APPLICANT INFORMATION

1. NAME OF APPLICANT RADIO BROADCAST SERVICES. INC.

MAILING ADDRESS 288 SOUTH RIVER ROAD

CITY BEDFORD

STATE NH

ZIP CODE 03110

2. This application is for:

- Commercial  Noncommercial  
 AM Directional  AM Non-Directional

Call letters WCAT	Community of License BURLINGTON VT	Construction Permit File No. N/A	Modification of Construction Permit File No(s).	Expiration Date of Last Construction Permit
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3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

Yes  No

Exhibit No.  
N/A

If No, explain in an Exhibit.

4. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?

Yes  No

Exhibit No.  
N/A

If No, state exceptions in an Exhibit.

5. Apart from the changes already reported, has any cause or circumstance arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect?

Yes  No

Exhibit No.  
N/A

If Yes, explain in an Exhibit.

6. Has the permittee filed its Ownership Report (FCC Form 323) or ownership certification in accordance with 47 C.F.R. Section 73.3615(b)?

Yes  No

Does not apply

Exhibit No.

If No, explain in an Exhibit.

7. Has an adverse finding been made or an adverse final action been taken by any court or administrative body with respect to the applicant or parties to the application in a civil or criminal proceeding, brought under the provisions of any law relating to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?

Yes  No

Exhibit No.

If the answer is Yes, attach as an Exhibit a full disclosure of the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and the disposition of the litigation. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 U.S.C. Section 1.65(c), the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.

8. Does the applicant, or any party to the application, have a petition on file to migrate to the expanded band (1605-1705 kHz) or a permit or license either in the existing band or expanded band that is held in combination (pursuant to the 5 year holding period allowed) with the AM facility proposed to be modified herein?

Yes  No

If Yes, provide particulars as an Exhibit.

Exhibit No. \_\_\_\_\_

The APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because use of the same, whether by license or otherwise, and requests and authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended).

The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations and that all the exhibits are a material part hereof and are incorporated herein as set out in full in

**CERTIFICATION**

1. By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b).

Yes  No

2. I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Name ED FLANAGAN	Signature 	
Title VICE-PRESIDENT	Date 11/19/2014	Telephone Number 802-223-2396

**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**

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The Commission will use the information provided in this form to determine whether grant of the application is in the public interest. In reaching that determination, or for law enforcement purposes, it may become necessary to refer personal information contained in this form to another government agency. In addition, all information provided in this form will be available for public inspection. If information requested on the form is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

Public reporting burden for this collection of information is estimated to average 639 hours and 53 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0627), Washington, D. C. 20554. Do NOT send completed forms to this address.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

**SECTION III - LICENSE APPLICATION ENGINEERING DATA**

Name of Applicant  
**Radio Broadcasting Services, Inc.**

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

Station License                       Direct Measurement of Power

1. Facilities authorized in construction permit					
Call Sign <b>WCAT</b>	File No. of Construction Permit (if applicable) <b>Does not apply</b>	Frequency (kHz) <b>1390</b>	Hours of Operation <b>Unlimited</b>	Power in kilowatts	
				Night <b>5.0 *</b>	Day <b>5.0</b>
2. Station location <span style="float: right;">* Nominal power.</span>					
State <b>Vermont</b>			City or Town <b>Burlington</b>		
3. Transmitter location					
State <b>Vermont</b>	County <b>Chittenden</b>	City or Town <b>Burlington</b>	Street address (or other identification) <b>Intervale Rd.</b>		
4. Main studio location					
State <b>Vermont</b>	County <b>Chittenden</b>	City or Town <b>South Burlington</b>	Street address (or other identification) <b>372 Dorset St.</b>		
5. Remote control point location (specify only if authorized directional antenna)					
State <b>Vermont</b>	County <b>Chittenden</b>	City or Town <b>South Burlington</b>	Street address (or other identification) <b>372 Dorset St.</b>		

6. Has type-approved stereo generating equipment been installed?                       Yes     No

7. Does the sampling system meet the requirements of 47 C.F.R. Section 73.68?                       Yes     No

Not Applicable

Attach as an Exhibit a detailed description of the sampling system as installed.

Exhibit No.

**See Engineering Report.**

8. Operating constants:	
RF common point or antenna current (in amperes) without modulation for night system  <b>7.7</b>	RF common point or antenna current (in amperes) without modulation for day system  <b>13.1</b>
Measured antenna or common point resistance (in ohms) at operating frequency Night <b>50</b> Day <b>29</b>	Measured antenna or common point reactance (in ohms) at operating frequency Night <b>j 0</b> Day <b>-j 92</b>

Antenna indications for directional operation						
Towers	Antenna monitor Phase reading(s) in degrees		Antenna monitor sample current ratio(s)		Antenna base currents <b>Does not apply</b>	
	Night	Day	Night	Day	Night	Day
<b>#1</b>	<b>-178.0</b>	<b>---</b>	<b>0.665</b>	<b>---</b>		
<b>#2</b>	<b>0.0</b>	<b>---</b>	<b>1.000</b>	<b>---</b>		
<b>#3</b>	<b>+164.5</b>	<b>---</b>	<b>0.770</b>	<b>---</b>		

Manufacturer and type of antenna monitor:    **Potomac Instruments Model AM-19D**

**SECTION III - Page 2**

9. Description of antenna system ((f directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator <b>Uniform cross-section guyed vertical</b>	Overall height in meters of radiator above base insulator, or above base, if grounded. <b>Tower #1 - ASR No. 1042292 Tower #2 - ASR No. 1042293 Tower #3 - ASR No. 1042294</b>	Overall height in meters above ground (without obstruction lighting)	Overall height in meters above ground (include obstruction lighting)	If antenna is either top loaded or sectionalized, describe fully in an Exhibit. <b>Does not apply</b> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">Exhibit No.</div>
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Excitation       Series       Shunt

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude <b>44°            29'            47"</b>	West Longitude <b>73°            12'            49"</b>
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If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits.      **See Engineering Report.**

Exhibit No.

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system.      **See Engineering Report.**

Exhibit No.

10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

**Does not apply**

11. Give reasons for the change in antenna or common point resistance.

**Installation of transmitting antenna for FM translator W252CJ,**

**as authorized in File No. BPFT-20110711ABI.**

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type) <b>Fred W. Volken</b>	Signature (check appropriate box below) <i>Fred W. Volken</i>
Address (include ZIP Code) <b>348 W. Sierra Madre Blvd. Sierra Madre, CA 91024</b>	Date <b>Nov. 19, 2014</b>
	Telephone No. (Include Area Code) <b>(626) 355-1171</b>

<input type="checkbox"/> Technical Director	<input type="checkbox"/> Registered Professional Engineer
<input type="checkbox"/> Chief Operator	<input type="checkbox"/> Technical Consultant
<input checked="" type="checkbox"/> Other (specify) <b>Engineering Consultant</b>	

## ENGINEERING REPORT

### Partial Antenna Proof-of-Performance, Nighttime Directional Antenna System

WCAT(AM), Burlington, Vermont

This Engineering Report has been prepared for Radio Broadcasting Services, Inc., licensee of AM Broadcast Station WCAT, Burlington, Vermont. The Report is to be submitted to the Federal Communications Commission for the purpose of showing that the WCAT nighttime directional antenna system is operating properly subsequent to the completion of the construction of the transmitting facilities for FM Translator W252CJ, Burlington, Vermont, authorized in File Number BPFT-20110711ABI.

WCAT operates on 1390 kHz, with 5.0 kW daytime power employing a non-directional antenna, and 5.0 kW nominal nighttime power employing a three-tower directional antenna system. The nighttime directional antenna system is described in detail in Exhibit EE-1 (dated October 1, 1982), and in Exhibit EE-1, Supplement 1 (dated July 12, 1984), submitted with license application File Number BL-821006AF. The antenna monitor sampling system for the directional antenna system is also described in detail in that material.

The transmitting antenna for W252CJ is mounted on Tower #1 of the WCAT directional antenna system. A Kintronic Labs Isocoupler located at the base of Tower #1 is used for isolation of the transmission line for W252CJ from the WCAT antenna tower. Figure 1 of this Report is an elevation sketch of Tower #1 showing the location of the W252CJ transmitting antenna. Also mounted on Tower #1 is the transmitting antenna for FM Translator W227AQ. The transmission line for W227AQ is isolated from the tower in a similar manner. At Tower #2, a total of five microwave antennas are mounted near the top of the tower, and there are isolation devices for the respective transmission lines at the base of the tower. No antennas are mounted on Tower #3.

Unfortunately, unexpected serious problems were encountered in restoring the proper operation of the WCAT directional antenna system, and then carrying out this partial antenna proof. The failure of the station's antenna monitor in September 2014 required borrowing another monitor. Also, during the adjustments of the antenna array the field strength meter being used malfunctioned, and this required the loan of a different field strength meter. Necessary repairs of defective components in the directional antenna phasing and coupling equipment resulted in further delays.

There have been no changes made in the station's antenna monitor sampling system in connection with this work. However, extensive preventive maintenance was performed for the entire sampling system, including the sampling loops mounted on the antenna towers. It is believed the sampling system is operating properly at the present time.

A partial antenna proof-of-performance, employing the procedures described in Section 73.154(b)(2) and (c) of the Commission's Rules, has been carried out to show that operation of the WCAT directional antenna system conforms with the requirements of the Commission's Rules. The methodology utilized involves comparison of field strength measurements made for directional operation with measurements for nondirectional operation at the same locations. Data for the field strength measurements for the partial antenna proof of the WCAT nighttime directional antenna system is contained in this Report.

The antenna monitor indications for the present operation of the WCAT directional antenna system are as follows:

	Tower #1	Tower #2	Tower #3
Phase indication	-178.0°	0.0°	+164.5°
Sample current	66.5 units	100.0 units	77.0 units
Sample current ratio	0.665	1.000	0.770

These antenna monitor indications are similar to those shown in the complete WCAT directional antenna proof-of-performance submitted to the Commission in 1984, in File Number BL-821006AF. /1

A new measurement of the Tower #1 base impedance for daytime nondirectional operation shows a value of 29 - j92 ohms. The nondirectional field strength measurements submitted in this Report were obtained with Tower #1 antenna current of 13.1 amperes for 5.0 kW power.

The WCAT license specifies four monitor points, on the radials bearing 66.5° T., 161.0° T., 227.5° T. and 342.5° T. Field strength measurements were made along each of these radials for operation with the nondirectional antenna and also with the nighttime directional antenna system. Data for the field strength measurements is contained in Tables A through D of this Report. The radial bearing 227.5° T. reaches the eastern shore

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/1 At least some of the differences in phase indications result from replacement in 1997 of the section of the Tower #2 sampling line between the sampling loop and the isolation coil at the tower base with newer coaxial cable having a higher velocity of propagation than the original. This repair work is described in the report included with the WCAT partial antenna proof-of-performance submitted in File Number BZ-980113KC.

of Lake Champlain within about two kilometers of the WCAT transmitter site, and crosses the western shoreline of the lake at a distance of about 18 kilometers. It is believed that a sufficient number of field strength measurements have been obtained on this radial for an accurate analysis.

Also shown in Tables A through D for each radial is the ratio of the directional field strength to nondirectional field strength at each measurement point, and the average of these ratios (using the logarithm method).

Table E of this Report shows the present calculated value of radiation for each radial, which was determined by multiplying the average ratio of directional field strength to nondirectional field strength by the measured nondirectional radiated field determined in the most recent complete antenna proof-of-performance. The modified nighttime standard pattern radiation value for each radial is also shown in Table E. Data for the values of measured nondirectional radiation for WCAT was obtained from Exhibit EE-1, Supplement 1, dated July 12, 1984, submitted to the Commission in File Number BL-821006AF.

Analysis of the field strength measurement data for this partial antenna proof-of-performance shows that in the direction 342.5° T., the present radiation slightly exceeds the value derived from the WCAT modified nighttime standard pattern. An up-to-date nighttime allocation study for WCAT shows that the station's modified nighttime standard pattern can be augmented in this direction. Additional field strength measurements will be taken along this radial to more accurately determine the present radiated field, with a view to submitting to the Commission an application on FCC Form 301-AM for further pattern augmentation to take into account the higher radiated field, if this is found to be necessary.

Item A of this Report provides data for the four monitor points for the WCAT directional antenna system. No significant change is proposed in the location of any of these monitor points. However, a small revision of the description of the point on the 342.5° T. radial is provided.

The field strength measurements for this Report for operation with the nighttime directional antenna system were obtained with antenna input power set to 2.972 kW for 5.0 kW nominal power. The measurements were made with the common point impedance adjusted to 50 ohms resistance and negligible reactance, and for common point current of 7.7 amperes.

The items of equipment utilized for the work on the WCAT directional antenna system and for the partial antenna proof-of-performance are a Delta Electronics Model OIB-3 Operating Impedance Bridge, serial number 582, for the antenna impedance and common point impedance measurements; and a Potomac Instruments Model FIM-41 Field Strength Meter, serial number 1315, for the field strength measurements. The impedance measurements and the field strength measurements were made by Mr. Jon Hosford, Director of Engineering for Montpelier Broadcasting, Inc.; and the repairs and adjustments of the antenna array were carried out by Mr. Hosford with assistance from Mr. Colin Spencer, Chief Engineer of WCAT. Both persons are experienced in performing such work.

The undersigned engineer provided continuous guidance and supervision for this project, by long-distance telephone supplemented with many photographs and exchanges of e-mail messages.

Fred W. Volken  
Engineering Consultant

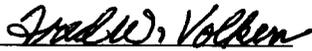
November 2014

Sierra Madre, California

## Statement of Engineer

FRED W. VOLKEN, whose place of business is located at 348 W. Sierra Madre Blvd., Sierra Madre, California, hereby states that he is a graduate physicist holding the degree Bachelor of Arts from Occidental College, Los Angeles, California; that his qualifications as an engineering consultant are a matter of record with the Federal Communications Commission; that he has guided and supervised the work described in this document as engineering consultant for Radio Broadcasting Services, Inc., licensee of AM Broadcast Station WCAT, Burlington, Vermont; and that all of the information contained in this document is accurate and correct to the best of his knowledge and ability.

I state under penalty of perjury that the foregoing is true and correct. Executed on November 12, 2014.

  
Fred W. Volken

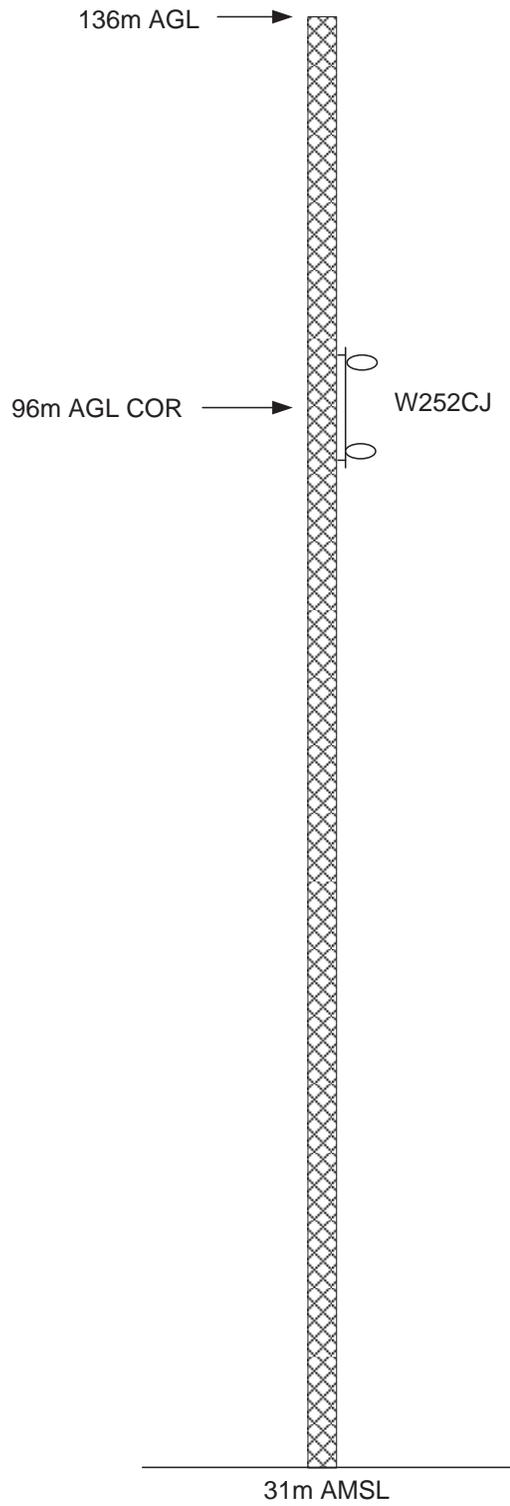


FIGURE 1	Elevation Sketch of WCAT Tower #1		
	ASR # 1042292		
Jon Hosford		DWG NO 1 of 1	REV A
Dir. Of Engineering		November 2014	

TABLE A  
 Field Strength Measurements,  
 Nighttime Directional Antenna System  
 WCAT 66.5° True

Point	WGS84 Geographical Coordinates	Distance (kilometers)	Nondirectional Measurements			Directional Measurements			Ratio of Fields
			Date	Time (EST)	Field Strength (mV/m)	Date	Time (EST)	Field Strength (mV/m)	
1	N 44-30-30.8 W 73-10-28.3	3.35	11/14/14	16:05	108	11/14/14	16:05	17.0	0.157
2	N 44-30-55.5 W 73-09-05.9	5.32	11/15/14	12:51	39.5	11/15/14	12:51	3.1	0.078
3	N 44-30-57.7 W 73-08-57.4	5.52	11/15/14	12:55	36.0	11/15/14	12:55	2.5	0.069
4	N 44-31-00.3 W 73-08-50.9	5.68	11/15/14	12:58	31.9	11/15/14	12:58	2.75	0.086
5 Monitor Point	N 44-31-27.0 W 73-07-25.2	7.74	11/15/14	12:35	13.5	11/15/14	12:35	0.92	0.068
6	N 44-31-37.5 W 73-06-53.1	8.52	11/15/14	12:30	8.9	11/15/14	12:30	0.84	0.094
7	N 44-31-43.6 W 73-06-31.3	9.04	11/17/14	12:03	9.4	11/17/14	12:03	0.87	0.093
8	N 44-32-15.0 W 73-04-49.5	11.48	11/17/14	12:11	6.0	11/17/14	12:11	0.31	0.052
Average Ratio of Fields (Logarithm Method) 0.083									

WGS84 geographical coordinates of WCAT reference point: N 44-29-46.9, W 73-12-47.5

TABLE B

Field Strength Measurements,  
Nighttime Directional Antenna System

WCAT 161.0° True

Point	WGS84 Geographical Coordinates	Distance (kilometers)	Nondirectional Measurements			Directional Measurements			Ratio of Fields
			Date	Time (EST)	Field Strength (mV/m)	Date	Time (EST)	Field Strength (mV/m)	
1	N 44-27-57.9 W 73-11-54.9	3.56	11/17/14	13:39	112	11/17/14	13:39	74.0	0.661
2 Monitor Point	N 44-27-51.9 W 73-11-53.0	3.75	11/14/14	15:46	100	11/14/14	15:46	66.0	0.660
3	N 44-27-22.6 W 73-11-37.9	4.71	11/15/14	13:47	53.0	11/15/14	13:47	35.0	0.660
4	N 44-26-37.9 W 73-11-16.3	6.17	11/15/14	16:34	36.0	11/15/14	16:34	22.5	0.625
5	N 44-25-43.9 W 73-10-50.3	7.94	11/15/14	16:26	32.0	11/15/14	16:26	19.9	0.622
6	N 44-25-34.3 W 73-10-45.7	8.25	11/17/14	13:23	29.5	11/17/14	13:23	18.8	0.637
7	N 44-24-55.4 W 73-10-27.0	9.52	11/17/14	13:01	18.8	11/17/14	13:01	12.0	0.638
8	N 44-24-28.5 W 73-10-14.0	10.40	11/17/14	12:54	15.5	11/17/14	12:54	10.0	0.645
Average Ratio of Fields (Logarithm Method) 0.643									

WGS84 geographical coordinates of WCAT reference point: N 44-29-46.9, W 73-12-47.5

TABLE C

Field Strength Measurements,  
Nighttime Directional Antenna System

WCAT 227.5° True

Point	WGS84 Geographical Coordinates	Distance (kilometers)	Nondirectional Measurements			Directional Measurements			Ratio of Fields
			Date	Time	Field Strength (mV/m)	Date	Time (EST)	Field Strength (mV/m)	
1	N 44-29-18.0 W 73-13-32.0	1.33	11/15/14	11:40	335	11/15/14	11:40	23.0	0.069
2	N 44-29-13.6 W 73-13-38.5	1.52	11/15/14	11:21	285	11/15/14	11:21	14.0	0.049
3	N 44-29-11.6 W 73-13-41.6	1.62	11/15/14	11:15	305	11/15/14	11:15	15.1	0.050
4	N 44-23-09.9 W 73-22-53.8	18.14	11/15/14	14:43	12.0	11/15/14	14:43	1.1	0.092
5	N 44-22-43.5 W 73-23-33.2	19.33	11/15/14	14:55	10.3	11/15/14	14:55	1.05	0.102
6 Monitor Point	N 44-22-38.7 W 73-23-40.0	19.54	11/15/14	14:52	11.0	11/15/14	14:52	1.05	0.095
7	N 44-22-17.1 W 73-24-13.3	20.54	11/15/14	15:12	10.5	11/15/14	15:12	1.1	0.105
8	N 44-22-11.5 W 73-24-24.2	20.83	11/15/14	15:04	8.8	11/15/14	15:04	0.98	0.111
Average Ratio of Fields (Logarithm Method) 0.080									

WGS84 geographical coordinates of WCAT reference point: N 44-29-46.9, W 73-12-47.5

TABLE D

Field Strength Measurements,  
Nighttime Directional Antenna System

WCAT 342.5 ° True

Point	WGS84 Geographical Coordinates	Distance (kilometers)	Nondirectional Measurements			Directional Measurements			Ratio of Fields
			Date	Time (EST)	Field Strength (mV/m)	Date	Time (EST)	Field Strength (mV/m)	
1	N 44-32-16.8 W 73-13-53.9	4.86	11/17/14	11:31	23.1	11/17/14	11:31	28.1	1.216
2	N 44-32-20.4 W 73-13-55.5	4.97	11/17/14	11:35	45.0	11/17/14	11:35	54.5	1.211
3	N 44-32-54.9 W 73-14-10.2	6.09	11/17/14	11:05	12.5	11/17/14	11:05	17.5	1.400
4	N 44-33-09.1 W 73-14-17.0	6.54	11/15/14	12:23	13.1	11/15/14	12:23	18.1	1.382
5	N 44-33-10.7 W 73-14-17.6	6.60	11/17/14	11:20	13.5	11/17/14	11:20	19.2	1.422
6 Monitor Point	N 44-33-12.1 W 73-14-19.3	6.65	11/15/14	12:20	14.0	11/15/14	12:20	19.5	1.393
7	N 44-33-27.2 W 73-14-24.9	7.13	11/17/14	11:13	9.4	11/17/14	11:13	13.0	1.383
8	N 44-33-28.6 W 73-14-25.6	7.18	11/17/14	11:16	11.4	11/17/14	11:16	15.6	1.368
Average Ratio of Fields (Logarithm Method) 1.344									

WGS84 geographical coordinates of WCAT reference point: N 44-29-46.9, W 73-12-47.5

TABLE E

Analysis of Nighttime Partial  
Antenna Proof-of-Performance Data

WCAT, Burlington, Vermont

Radial	Average Ratio of Fields	Original Measured Nondirectional Radiation (mV/m)	Product (mV/m)	Modified Nighttime Standard Radiation (mV/m)
66.5° T.	0.083	905.9	75.2	124.2
161.0° T.	0.643	965.4	620.8	682.2
227.5° T.	0.080	708.0	56.6	70.0
342.5° T. *	1.344	965.4	1297.5	1208.3

“Average Ratio of Fields” is average of ratio of present nighttime directional field strength measurements to present nondirectional field strength measurements on radial, as shown in Tables A through D of this Report.

“Original Measured Nondirectional Radiation” is measured nondirectional radiation value at one kilometer (converted from measured radiation value at one mile) shown in WCAT nighttime directional antenna proof-of-performance dated July 12, 1984.

“Product” is “Average Ratio of Fields” multiplied by “Original Measured Nondirectional Radiation.”

\* The measured radiation value determined for this radial slightly exceeds that derived from the WCAT modified nighttime standard pattern. As explained in the text of this Report, further augmentation of the standard pattern will be requested from the Commission to accommodate the measured radiation value, if it is found to be necessary.

## ITEM A

### Description of Monitor Points

WCAT, Burlington, Vermont

#### 66.5° True Monitor Point (Measurement Point No. 5)

Location: No change in location.

WGS84 geographical coordinates: N 44-31-27.0, W 73-07-25.2

Distance: 7.74 km

Measured nighttime field strength: 0.92 mV/m

#### 161.0° True Monitor Point (Measurement Point No. 2)

Location: No change in location.

WGS84 geographical coordinates: N 44-27-51.9, W 73-11-53.0

Distance: 3.75 km

Measured nighttime field strength: 66.0 mV/m

#### 227.5° True Monitor Point (Measurement Point No. 6)

Location: No change in location.

WGS84 geographical coordinates: N 44-22-38.7, W 73-23-40.0

Distance: 19.54 km

Measured nighttime field strength: 1.05 mV/m

#### 342.5° True Monitor Point (Measurement Point No. 6)

Location: No significant change in location. Change last two sentences of description to the following:

Continue 0.3 miles to a bend in the road, to the northwest corner of Lakeshore Drive and Thayer Beach Road. Measurement is on the north side of Lakeshore Drive, opposite the fire hydrant at the south side of the street.

WGS84 geographical coordinates: N 44-33-12.1, W 73-14-19.3

Distance: 6.65 km

Measured nighttime field strength: 19.5 mV/m