

Federal Communications Commission Washington, D.C. 20554  <p style="text-align: center;"><b>FCC 340</b></p>	Approved by OMB 3060-0029 (February 2007)  FOR FCC USE ONLY
<p><b>APPLICATION FOR CONSTRUCTION PERMIT FOR RESERVED CHANNEL NONCOMMERCIAL EDUCATIONAL BROADCAST STATION</b></p> <p>Read INSTRUCTIONS Before Filling Out Form</p>	FOR COMMISSION USE ONLY FILE NO. BPED - 20070823AEB

**Section I - General Information**

1. Legal Name of the Licensee/Permittee MINNESOTA PUBLIC RADIO		
Mailing Address 480 CEDAR STREET		
City ST. PAUL	State or Country (if foreign address) MN	Zip Code 55101 -
Telephone Number (include area code) 6512901259	E-Mail Address (if available) FCCFILING@MPR.ORG	
FCC Registration Number: 0002642510	Call Sign WIRR	Facility Identifier 42957
2. Contact Representative (if other than licensee/Permittee) TODD M STANSBURY		Firm or Company Name WILEY REIN LLP
Telephone Number (include area code) 2027194948		E-Mail Address (if available) TSTANSBURY@WILEYREIN.COM
3. Is this application being filed in response to a window? If Yes, specify closing date and/or window number:		
		<input type="radio"/> Yes <input checked="" type="radio"/> No
4 <b>Application Purpose</b>		
<input type="radio"/> New station		
<input type="radio"/> Major Change in licensed facility		
<input checked="" type="radio"/> Minor Change in licensed facility		
<input type="radio"/> Major Modification of construction permit		
<input type="radio"/> Minor Modification of construction permit		
<input type="radio"/> Major Amendment to pending application		
<input type="radio"/> Minor Amendment to pending application		
(a) File number of original construction permit: -		
(b) Service Type:		
<input checked="" type="radio"/> FM <input type="radio"/> TV <input type="radio"/> DTV		
(c) Community of License: City: VIRGINIA-HIBBING State: MN		
(d) Facility Type		
<input checked="" type="radio"/> Main <input type="radio"/> Auxiliary		
If an amendment, <b>submit as an Exhibit</b> a listing by Section and Question Number the portions of the pending application that are being revised.		[Exhibit 1]

**NOTE: The failure to include an explanatory providing full particulars in connection with a "No" response may result in dismissal of the application. See Instructions, paragraph L for additional information regarding completion of explanatory exhibits.**

**SECTION II - Legal and Financial**

1. <b>Certification.</b> Applicant certifies that it has answered each question in this application based on	<input checked="" type="radio"/> Yes <input type="radio"/> No
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	its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.	
2.	<p><b>Eligibility.</b> Each application must answer "Yes" to one and "No" to two of the three following certifications. An applicant should not submit an explanatory exhibit in connection with these Question 2 "No" responses.</p> <p>The applicant certifies that it is:</p> <p>a. a nonprofit educational institution; or</p> <p>b. a governmental entity other than a school; or</p> <p>c. a nonprofit educational organization, other than described in a. or b.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
3.	For applicants checking "Yes" to question 2(c) and applying for a new noncommercial educational television station only, the applicant certifies that the applicant's officers, directors and members of its governing board are broadly representative of the educational, cultural, and civic segments of the principal community to be served.	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p><input checked="" type="radio"/> N/A</p>
4.	<p>a. The applicant certifies that the Commission has previously granted a broadcast application identified here by file number that found this applicant qualified as a noncommercial educational entity with a qualifying educational program, and that the applicant will use the proposed station to advance a program similar to that the Commission has found qualifying in applicant's previous application.</p> <p>b. Applicants who answered "No" to Question 4(a), must include an exhibit that describes the applicant's educational objective and how the proposed station will be used to advance an educational program that will further that objective according to 47 C.F.R. Section 73.503 (for radio applicants) and 47 C.F.R. Section 73.621 (for television applicants).</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>FCC FileNumber -</p> <p>[Exhibit 2]</p>
5.	The applicant certifies that its governing documents (e.g., articles of incorporation, by-laws, charter, enabling statute, and/or other pertinent organizational document) permit the applicant to advance an educational program and that there is no provision in any of those documents that would restrict the applicant from advancing an educational program or complying with any Commission rule, policy, or provision of the Communications Act of 1934, as amended.	<p><input type="radio"/> Yes <input type="radio"/> No</p>
6.	<p>a. <b>Parties to the Application.</b> List separately each party to the application including, as applicable, the applicant, its officers, directors, five percent or greater stockholders, non-insulated partners, members, and all other persons and entities with attributable interests. If another entity hold an attributable interest in the applicant, list separately, as applicable, its officers, directors, five percent or greater stockholders, non-insulated partners, and board members. Create a separate row for each individual or entity. Attach additional pages if necessary.</p> <p>[Enter Parties/Owners Information]</p> <hr/> <hr/> <p>b. Applicant certifies that equity and financial interests not set forth above are non-attributable pursuant to 47 C.F.R. Section 73.3555 and that there are no agreements or understandings with any non-party that would give influence over the applicant's programming, personnel, or finances to that non-party.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>[Exhibit 3]</p>
7.	<b>Other Authorizations.</b> List call signs, locations, and facility identifiers of all other broadcast stations in which applicant or any party to the application has an attributable interest pursuant to the notes to 47 C.F.R. Section 73.3555.	<p><input type="checkbox"/> N/A</p> <p>[Exhibit 4]</p>
8.	<p><b>Character Issues.</b> Applicant certifies that neither applicant nor any party to the application has or has had any interest in or connection with:</p> <p>a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or</p> <p>b. any pending broadcast application in which character issues have been raised.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 5]</p>
9.	<p><b>Adverse Findings.</b> Applicant certifies that, with respect to the applicant, any party to the application, and any non-party equity owner in the applicant, no adverse finding has been made, nor has an adverse final action been taken by any court or administrative body in a civil or criminal proceeding brought under the provisions of any law related to any of the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another government unit; or discrimination.</p> <p>If the answer is "No," attach as an Exhibit a full disclosure concerning the persons and matters involved, including an identification of the the court or administrative body and the proceeding (by dates and file</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 6]</p>

	numbers), and a description of the disposition of the matter. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 C.F.R. Section 1.65, 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.	
10.	<b>Alien Ownership and Control.</b> Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.	<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 7]
11.	<b>Program Service Certification.</b> Applicant certifies that it is cognizant of and will comply with its obligations as a commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.	<input type="radio"/> Yes <input type="radio"/> No
12.	<b>Local Public Notice.</b> Applicant certifies compliance with the public notice requirements of 47 C.F.R. Section 73.3580.	<input type="radio"/> Yes <input type="radio"/> No
13.	<b>Anti-Drug Abuse Act Certification.</b> Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.	<input checked="" type="radio"/> Yes <input type="radio"/> No
14.	<b>Equal Employment Opportunity (EEO).</b> If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A

**QUESTIONS 15, 16 AND 17 APPLY ONLY TO APPLICANTS FOR NEW STATIONS. OTHER APPLICANTS CAN PROCEED TO QUESTION 18.**

15.	<b>Financial.</b> The applicant certifies that sufficient net liquid assets are on hand or that sufficient funds are available from committed sources to construct and operate the requested facilities for three months without revenue.  If "No" to 15., answer question 16. and 17.	<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 8]
16.	Is this application contingent upon receipt of a grant from the National Telecommunications and Information Administration?	<input type="radio"/> Yes <input type="radio"/> No
17.	Is this application contingent upon receipt of a grant from a charitable organization, the approval of the budget of a school or university, or an appropriation from a state, county, municipality or other political subdivision?	<input type="radio"/> Yes <input type="radio"/> No

NOTE: If Yes to 16. or 17., the application cannot be granted unconditionally until all of the necessary funds are committed or appropriated. In the case of grants from the National Telecommunications and Information Administration, no further action on the applicant's part is required. If the applicant relies on funds from a source specified in Question 17., **the applicant must advise the Commission when the funds are committed or appropriated.** This should be accomplished by letter amendment to the application. Applicants should take note that the Commission's construction period is not considered "tolled" by funding difficulties and that any permit granted conditionally on funding will expire if the station is not constructed for any reason, including lack of funding.

**QUESTIONS 18 AND 19 DO NOT APPLY TO APPLICATIONS FOR NEW STATIONS. APPLICANTS FOR NEW FM STATIONS CAN PROCEED TO SECTION III. APPLICANTS FOR NEW TV STATIONS CAN PROCEED TO SECTION IV.**

**Holding Period.**

18.	Applicant certifies that this application does not propose a modification to an authorization that was awarded on the basis of a preference for fair distribution of service pursuant to 47 U.S.C. Section 307(b).  If "No," answer a. and b. below. If applicant answers "No" to 18. above and cannot answer "Yes" to either a. or b. below, the application is unacceptable.	<input type="radio"/> Yes <input type="radio"/> No
	a. Applicant certifies that the proposed modification will not downgrade service to the area on which the Section 307(b) preference was based.	<input type="radio"/> Yes <input type="radio"/> No
	b. Applicant certifies that although it proposes to downgrade service to the area on which the Section 307(b) preference was based, applicant has provided full service to that area for a period of four years of on-air operations.	<input type="radio"/> Yes <input type="radio"/> No
19.	Applicant certifies that this application does not propose a modification to an authorized station that received a credit for superior technical parameters under the point system selection method in 47 C.F.R. Section 73.7003.  If "No," applicant must be able to answer "Yes" to a. below or provide an exhibit that makes a	<input type="radio"/> Yes <input type="radio"/> No

compelling showing that the downgrade would be in the public interest.

a. Applicant certifies that the population and area within the proposed service contour (60 dBu (FM) or grade B (TV)) are greater than or equivalent to those authorized.

Yes  No  
[Exhibit 9]

**Section III**

**Fair Distribution of Service Pursuant to 47 U.S.C. Section 307(b) (New and Major Changes to FM Radio Only)** (Other applicants can proceed to Section IV).

<p>1. Applicant certifies that the proposed station will provide a first noncommercial educational aural service to (a) at least 10 percent of the people residing within the station's 60 dBu (1mV/m) service contour <b>and</b> (b) to a minimum of 2,000 people. Applicants answering "Yes" must provide an Exhibit.</p>	<p><input type="radio"/> Yes <input type="radio"/> No [Exhibit 10]</p>
<p>2. Applicant certifies that the proposed station will provide a second noncommercial educational aural service to (a) at least 10 percent of the people residing within the station's 60 dBu (1mV/m) service contour <b>and</b> (b) to a minimum of 2,000 people. Applicants answering "Yes" must provide an Exhibit.</p>	<p><input type="radio"/> Yes <input type="radio"/> No [Exhibit 11]</p>

**Section IV Point System Factors - New and Major Change Applications Only** (used to select among mutually exclusive radio and television applications for new stations and major modifications) **NOTE:** Applicants will not receive any additional points for amendments made after the close of the application filing window.

<p>1. <b>Established Local Applicant:</b> Applicant certifies that for at least the 24 months immediately prior to application, and continuing through the present, it qualifies as a local applicant pursuant to 47 C.F.R. Section 73.7000, that its governing documents require that such localism be maintained, and that it has placed documentation of its qualifications as an established local applicant in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>2. <b>Diversity of Ownership:</b> (a) Applicant certifies that the principal community (city grade) contour of the proposed station does not overlap the principal community contour of any other authorized station (comparing radio and television to television, including non-fill-in translator stations other than those identified in 2(b) below) in which any party to the application has an attributable interest as defined in 47 C.F.R. Section 73.3555, that its governing documents require that such diversity be maintained, and that it has placed documentation of its diversity qualification in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>(b) Is the application's certification to 2(a) based on its exclusion of translator station(s) that will be replaced with a full service station pursuant to the authorization requested here?  If Yes, applicant must include an exhibit identifying the translator station authorization for which it will request cancellation upon commencement of operation of the proposed full service station (i.e., upon its filing of a license application and receipt of program test authority).</p>	<p><input type="radio"/> Yes <input type="radio"/> No [Exhibit 12]</p>
<p>3. <b>State-wide Network:</b> Applicant certifies that (a) it has NOT claimed a credit for diversity of ownership above: (b) it is one of the three specific types of organizations described in 47 C.F.R. Section 73.7003(b)(3); and (c) it has placed documentation of its qualifications in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>4. <b>Technical Parameters:</b> Applicant certifies that the numbers in the boxes below accurately reflect the new area and population that its proposal would serve with a 60 dBu (FM) or Grade B (TV) signal measured in accordance with the standard predicted contours in 47 C.F.R. Section 73.713(c) (FM) and 73.683(TV) and that it has documented the basis for its calculations in the local public inspection file and has submitted copies to the Commission. Major modification applicants should include the area of proposed increase only (exclude any area already within the station's existing service area). (Points, if any, will be determined by FCC)</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>New area served in square kilometers (excluding areas of water):</p>	
<p>Population served based on the most recent census block data from the United States Bureau of Census using the centroid method:</p>	

**SECTION V - Tie Breakers - New and Major Change Applications Only** (used to choose among competing radio and television applications receiving the same number of points in Section IV)

1.	<p><b>Existing Authorizations.</b> By placing a number in the box, the applicant certifies that it and other parties to the application have, as of the date of filing and pursuant to 47 C.F.R. Section 73.3555, attributable interests in the stated number of relevant broadcast station authorizations. Radio applicants should count all attributable full service radio stations, AM and FM, commercial and noncommercial, and FM translator stations other than fill-in stations or those identified in IV (2)(b) above. TV applicants should count all attributable full service TV stations, commercial and noncommercial and TV translator stations other than fill-in stations or those identified in IV(2)(b) above. (number of commercial and non-commercial licenses and construction permits)</p>
2.	<p><b>Pending Applications.</b> By placing a number in the box, the applicant certifies that it and other parties to the application have, as of the date of filing and pursuant to 47 C.F.R. Section 73.3555, attributable interests in the stated number of pending applications for new or major changes to relevant broadcast stations. Radio applicants should count all attributable full service radio stations, AM and FM, commercial and noncommercial, and FM translator stations other than fill-in stations or those identified in IV(2)(b) above. TV applicants should count all attributable full service TV stations, commercial and noncommercial, and TV translator stations other than fill-in stations or those identified in IV(2)(b) above. (number of pending commercial and non-commercial applications)</p>

**Section VI -- Certification**

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. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing THOMAS J KIGIN	Typed or Printed Title of Person Signing EXECUTIVE VICE PRESIDENT
Signature	Date 8/23/2007

**Section VII Preparer's Certification**

I certify that I have prepared Section VII (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 KATE MICHLER	Relationship to Applicant (e.g., Consulting Engineer) TECHNICAL CONSULTANT	
Signature	Date 8/21/2007	
Mailing Address DOUG VERNIER TELECOMMUNICATIONS CONSULTANTS 721 WEST 1ST STREET, SUITE A		
City CEDAR FALLS	State or Country (if foreign address) IA	Zip Code 50613-
Telephone Number (include area code) 3192668402	E-Mail Address (if available) KMICHLER@V-SOFT.COM	

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 VII - FM 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 Number: 215
2.	Class (select one): <input type="radio"/> D <input type="radio"/> A <input type="radio"/> B1 <input type="radio"/> B <input type="radio"/> C3 <input type="radio"/> C2 <input checked="" type="radio"/> C1 <input type="radio"/> C0 <input type="radio"/> C

3. Antenna Location Coordinates: (NAD 27)  
 Latitude:  
 Degrees 47 Minutes 29 Seconds 47.3  North  South  
 Longitude:  
 Degrees 92 Minutes 47 Seconds 5.3  West  East

4. Proposed Assignment Coordinates: (NAD 27) - RESERVED CHANNELS ABOVE 220 ONLY  Not Applicable  
 Latitude:  
 Degrees Minutes Seconds  North  South  
 Longitude:  
 Degrees Minutes Seconds  West  East

5. Antenna Structure Registration Number: 1024157  
 Not Applicable  Notification filed with FAA

6. Overall Tower Height Above Ground Level: 158 meters

7. Height of Radiation Center Above Mean Sea Level: 615 meters(H) 615 meters(V)

8. Height of Radiation Center Above Ground Level: 142 meters(H) 142 meters(V)

9. Height of Radiation Center Above Average Terrain: 169.8 meters(H) 169.8 meters(V)

10. Effective Radiated Power: 100 kW(H) 100 kW(V)

11. Maximum Effective Radiated Power:  Not Applicable kW(H) kW(V)  
 (Beam-Tilt Antenna ONLY)

12. Directional Antenna Relative Field Values:  Not applicable (Nondirectional)  
 Rotation (Degrees):  No Rotation

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

[Relative Field Polar Plot](#)

**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**

**AUXILIARY ANTENNA APPLICANTS ARE NOT REQUIRED TO RESPOND TO ITEMS 12-15.**

13. **Main Studio Location.** The proposed main studio location complies with 47 C.F.R. Section 73.1125.  Yes  No  
 See Explanation in [Exhibit 13]

14. **Community Coverage.** The proposed facility complies with 47 C.F.R. Section 73.315. (Channels 221 and above) or 47 C.F.R. Section 73.515 (Channels 220 and below).  Yes  No  
 See Explanation in [Exhibit 14]

15. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all that apply:  Yes  No  
 See Explanation in [Exhibit 15]

**Contour Overlap Requirements.**  
 a.  47 C.F.R. Section 73.509  
**Exhibit Required.** [Exhibit 16]

	<p><b>Spacing Requirements.</b>                  b. <input type="checkbox"/> 47 C.F.R. Section 73.207 with respect to station(s)</p>	
	<p><b>Grandfathered Short-Spaced.</b>                  c. <input type="checkbox"/> 47 C.F.R. Section 73.213(a) with respect to station(s)  <b>Exhibit Required.</b></p>	[Exhibit 17]
	<p><b>Contour Protection.</b>                  d. <input type="checkbox"/> 47 C.F.R. Section 73.215(a) with respect to station(s)  <b>Exhibit Required.</b></p>	[Exhibit 18]
	<p><b>Television Channel 6 Protection.</b>                  e. <input checked="" type="checkbox"/> 47 C.F.R. Section 73.525 with respect to station(s)  <b>Exhibit Required.</b></p>	[Exhibit 19]
16.	<p><b>Reserved Channels Above 220.</b>                  a. <b>Availability of Channels.</b> The proposed facility complies with the assignment requirements of 47 C.F.R. Section 73.203.</p>	<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 20]
17.	<p><b>International Borders.</b> The proposed antenna location is not within 320 kilometers of the common border between the United States and Canada or Mexico.                   If "No," specify the country and provide an exhibit of compliance with all provisions of the relevant International Agreement.</p>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> Canada <input type="radio"/> Mexico [Exhibit 21]
18.	<p><b>Environmental Protection Act.</b> 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 Worksheet #7, an <b>Exhibit is required.</b>                   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.</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 22]
19.	<p><b>Community of License Change - Section 307(b).</b> If the application is being submitted to change the facility's community of license, then the applicant certifies that it has attached an exhibit containing information demonstrating that the proposed community of license change comports with the fair distribution of service policies underlying Section 307(b) of the Communications Act of 1934, as amended (47 U.S.C. Section 307(b)).   <b>An exhibit is required</b> unless this question is not applicable.</p>	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A [Exhibit 23]
<b>PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.</b>		

**Exhibits**

**Exhibit 1**

**Description:** ENGINEERING STATEMENT

**Attachment 1**

	Description
<a href="#">Exhibit #1, Engineering Statement</a>	

**Exhibit 13**

**Description:** MAIN STUDIO LOCATION

**Attachment 13**

	Description

[Exhibit #13, Main Studio Location](#)

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**Exhibit 14**

**Description:** COMMUNITY COVERAGE

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**Attachment 14**

Description
<a href="#">Exhibit #14, Community Coverage</a>

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**Exhibit 16**

**Description:** CONTOUR OVERLAP REQUIREMENTS

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**Attachment 16**

Description
<a href="#">Exhibit #16, Contour Overlap Requirements</a>

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**Exhibit 19**

**Description:** TELEVISION CHANNEL 6 PROTECTION

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**Attachment 19**

Description
<a href="#">Exhibit #19, Television Channel 6 Protection</a>

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**Exhibit 21**

**Description:** INTERNATIONAL BORDERS

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**Attachment 21**

Description
<a href="#">Exhibit #21, International Borders</a>

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**Exhibit 22**

**Description:** ENVIRONMENTAL PROTECTION ACT

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**Attachment 22**

Description
<a href="#">Exhibit #22, Environmental Protection Act</a>

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**EXHIBIT #1**  
ENGINEERING STATEMENT

**Minnesota Public Radio**  
Minor Change to Licensed Station  
WIRR  
BLED-19850827KC  
Virginia-Hibbing, MN

August 2007

CH 215C1

100 kW H & V Omni

This engineering statement supports application filed by Minnesota Public Radio to make a minor change to licensed NCE FM station WIRR, Virginia-Hibbing, Minnesota.

The applicant proposes to increase effective radiated power, correct the coordinates and recalculate the antenna height above average terrain. No other changes are being proposed at this time.

**Exhibit #13** consists of a request to continue the main studio location waiver previously granted to WIRR under license BLED-19850827KC.

**Exhibit #14** shows that the proposed facility meets the community coverage requirements of Section 73.515.

A total of 8 evenly spaced radials were used to determine the antenna height above average terrain. The N.G.D.C. 30 arc second database was employed to determine the elevations along the radials that were averaged using the required four-point interpolation method. The resulting averaged radial antenna heights were employed using the Commission's own TVFMINT algorithm to project the distances to signal contours. A map of the proposed 60 dBu contour, with cardinal radials is included on page #2. A tabular listing of the distance to the 60 dBu contour can be found on page #3 of this exhibit.

**Exhibit #16** is an Allocation Report showing that there is no prohibited contour overlap with any existing license, construction permit or application.

**Exhibit #19** consists of a letter from the licensee of television channel 6 station KBJR-TV, the only television channel 6 facility within the 180 kilometer cutoff distance from an NCE FM station on Channel 215. KBJR Inc. has no objection to the instant proposal. Further study for channel 6 protection was therefore deemed unnecessary.

The applicant proposes the use of registered tower ASR #1024157, constructed in 1989. Since this tower was built before March, 2001 and since no changes are being proposed to the tower structure itself, this application is excluded from environmental processing under 47. C.F.R. Section 1.1306.

**Exhibit #21** concerns protection to Canada.

**Exhibit #22** is an R.F. emissions compliance statement, showing that workers and the general public are protected from excess radio frequency emissions.

The proposed station is not within the specific critical distances to AM broadcast towers, FCC monitoring stations, Table Mountain and the West Virginia Quiet Zone. The applicant is aware of its responsibility under the rules to correct any blanketing interference it may cause within the period of one year from commencement of transmissions of newly authorized facilities.

Page #3 of Exhibit #1 is a statement of the qualifications of the preparer.

Kate Michler

**Declaration:**

I, Katherine A. Michler, have received a Bachelor of Science degree from the University of Northern Iowa, and;

That, I declare that I have received training as a technical consultant as a member of the staff of Doug Vernier Telecommunications Consultants, and;

That, I have been a member of the firm for over nine years, and;

That, my qualifications are a matter of record with the Federal Communications Commission, and;

That, I am an Associate Member (#20792) of the Society of Broadcast Engineers, Indianapolis, Indiana, and;

That, the consulting firm of Doug Vernier Telecommunications Consultants has been retained by Minnesota Public Radio, and;

That, I have personally prepared these engineering showings, the technical information contained in same and the facts stated within are true to my knowledge, and;

That, under penalty of perjury, I declare that the foregoing is correct.

Katherine A. Michler Katherine A. Michler

Executed on August 17, 2007

**EXHIBIT #13  
MAIN STUDIO LOCATION**

**Minnesota Public Radio**  
Minor Change to Licensed Station  
WIRR  
BLED-19850827KC  
Virginia-Hibbing, MN

August 2007

CH 215C1

100 kW H & V Omni

WIRR has been granted a waiver of Section 73.1125 under license BLED-19850827KC, to allow operation as a satellite station of KSJN, Minneapolis.

Minnesota Public Radio respectfully requests a continuation of that waiver.

**EXHIBIT #14**  
**COMMUNITY COVERAGE**

**Minnesota Public Radio**  
Minor Change to Licensed Station  
WIRR  
BLED-19850827KC  
Virginia-Hibbing, MN

August 2007

CH 215C1

100 kW H & V Omni

WIRR operates on Channel 215, a reserved channel. According to Section 73.515, a minimum field strength of 1 mv/m (60 dBu) must be provided over at least 50% of its community of license or reach 50% of the population within the community. The map on page #2 shows the 60 dBu contour of the proposed WIRR change. Virginia and Hibbing, the cities of license, is shown to be within this contour.

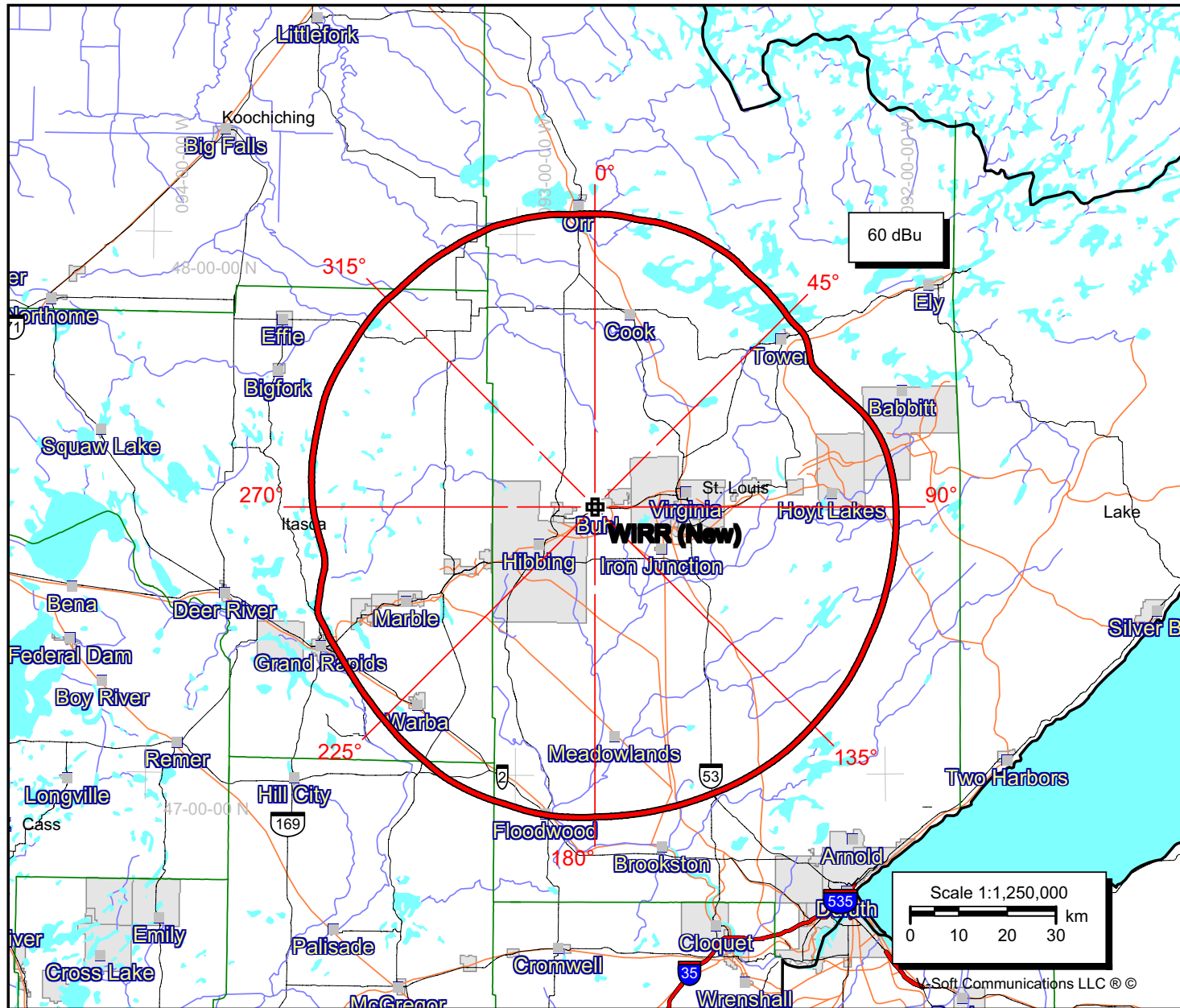
Page #3 is a distance to 60 dBu contour table of the proposed WIRR facility.

### WIRR (New) - Virginia-hibbing - 60 dBu Coverage

**WIRR (New)**  
Virginia-hibbing  
Latitude: 47-29-47.30 N  
Longitude: 092-47-05.30 W  
ERP: 100.00 kW  
Channel: 215  
Frequency: 90.9 MHz  
AMSL Height: 615.0 m  
Elevation: 473.0 m  
Horiz. Pattern: Omni  
  
Pop = 85,275

8/17/2007

**Doug Vernier**  
721 West 1st Street, Suite A  
Cedar Falls, Iowa 50613  
(319) 266-8402  
Telecommunications Consultants



Soft Communications LLC ©

N. Lat. = 472947.3 W. Lng. = 924705.3

HAAT and Distance to Contour - FCC Method - NGDC 30 SEC

WIRR (New) - Distance to 60 dBu Contour

Azi. AV EL HAAT ERP kW dBk Field 60-F5

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	450.9	164.1	100.0000	20.00	1.000	60.22
045	484.3	130.7	100.0000	20.00	1.000	55.79
090	435.2	179.8	100.0000	20.00	1.000	61.89
135	419.3	195.7	100.0000	20.00	1.000	63.39
180	415.5	199.5	100.0000	20.00	1.000	63.75
225	438.0	177.0	100.0000	20.00	1.000	61.61
270	468.7	146.3	100.0000	20.00	1.000	57.97
315	449.6	165.4	100.0000	20.00	1.000	60.36

Ave El= 445.19 M HAAT= 169.81 M AMSL= 615 M

Exhibit #16

Minnesota Public Radio  
WIRR (New) Minor Change

REFERENCE  
47 29 47.3 N.  
92 47 05.3 W.

CH# 215C1 - 90.9 MHz, Pwr= 100 kW, HAAT= 169.8 M, COR= 615 M  
Average Protected F(50-50)= 60.86 km

DISPLAY DATES  
DATA 08-17-07  
SEARCH 08-17-07

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
215C2	WIRR Virginia-hibbing	LIC _CN MN		171.0 351.0	0.04 BLED19850827KC	47 29 46.0 92 47 05.0	21.000 168	120.9 615	46.8 Minnesota Public Radio	-184.57*<	-208.41*<
06+2C	KBJRTV Superior	LI _HY WI		146.9 327.4	93.65 BLCT20000517AEX	46 47 21.0 92 06 51.0	100.000 302	604	92.0 Kbjr License, Inc.	130.7R	-37.0M
214C1	KBPR Braierd	APP _CX MN		227.4 46.2	174.76 BPED20070724ABY	46 25 21.0 94 27 41.0	100.000 207	97.6 597	66.2 Minnesota Public Radio	15.80	17.19
217C1	KUWS Superior	LIC _CN WI		146.9 327.4	93.65 BLED19910122KA	46 47 21.0 92 06 51.0	83.000 197	4.9 501	44.4 Board Of Regents, Universi	24.96	40.98
215B	ONTFM-050« Kenora	AL _HN ON		334.1 152.8	282.59 0	49 46 06.0 94 30 16.0	50.000 150	138.8 483	66.1 Ontfm-050	69.13	25.23
215B	LRRP-403« Kenora	LR _HN ON		334.1 152.8	282.59	49 46 06.0 94 30 16.0	50.000 150	138.8 483	66.1 Lrrp-403	69.13	25.23
214C1	KBPR Braierd	LIC _CN MN		227.4 46.2	174.76 BLED19880222KG	46 25 21.0 94 27 41.0	34.000 207	82.6 597	56.0 Minnesota Public Radio	30.77	27.36
213C3	KDNI Duluth	LIC _C_ MN		146.9 327.4	93.65 BLED20010305AAE	46 47 21.0 92 06 51.0	2.000 222	2.0 524	22.1 Northwestern College	27.81	63.35
213B	CBQQ-FM« Fort Frances	OP _HN ON		331.7 151.0	144.94 2106	48 38 22.0 93 43 14.0	50.000 142	6.0 494	65.5 Cbqq-fm	64.42	43.63
217C1	KNBJ Bemidji	LIC _CN MN		281.0 99.7	130.02 BLED20030429AAP	47 42 21.0 94 29 09.0	65.000 301	9.1 720	68.4 Minnesota Public Radio	61.94	54.47
214C2	WTIP Grand Marais	LIC _CN MN		79.7 261.5	185.71 BLED19980615KD	47 46 09.0 90 20 49.0	25.000 178	56.9 528	36.2 Cook County Community Radi	67.77	58.61
269C2	KLDJ Duluth	LIC _CN MN		147.3 327.8	93.57 BLH19960709KB	46 47 13.0 92 07 17.0	18.500 251	2.0 558	12.5 Cc Licenses, Lic	26.5R	67.1M

Terrain database is NGDC 30 SEC  
ERP and HAAT are on direct line to and from reference station.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
"\*"affixed to 'IN' or 'OUT' values = site inside protected contour.  
"«" = Station meets FCC minimum distance spacing for its class.  
"<" = Contour Overlap



### HOW TO READ THE FM COMPUTER PRINT-OUT

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using spline interpolation from data points identical to those published in Report No. RS 76-01 by Gary C. Kalagian. Critical contour distances are determined using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

The column listed "**\* IN \***" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of interference. Listed antenna heights are the average heights of eight standard radials as found in the Commission's records unless otherwise noted, in which case the specific antenna heights and the DA power, if applicable, along the straight line azimuths between the reference station and the database station are used and visa versa. The column labeled "**\* OUT \***" shows the distance in kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing overlap interference.

Under the "AZIMUTH" column, the first row of numbers indicate the bearings from True North of the data base stations in relationship with the reference station, while the numbers in the second row indicate the reverse bearings from the database station to the reference station.

The columns labeled "INT" and "PRO" hold the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

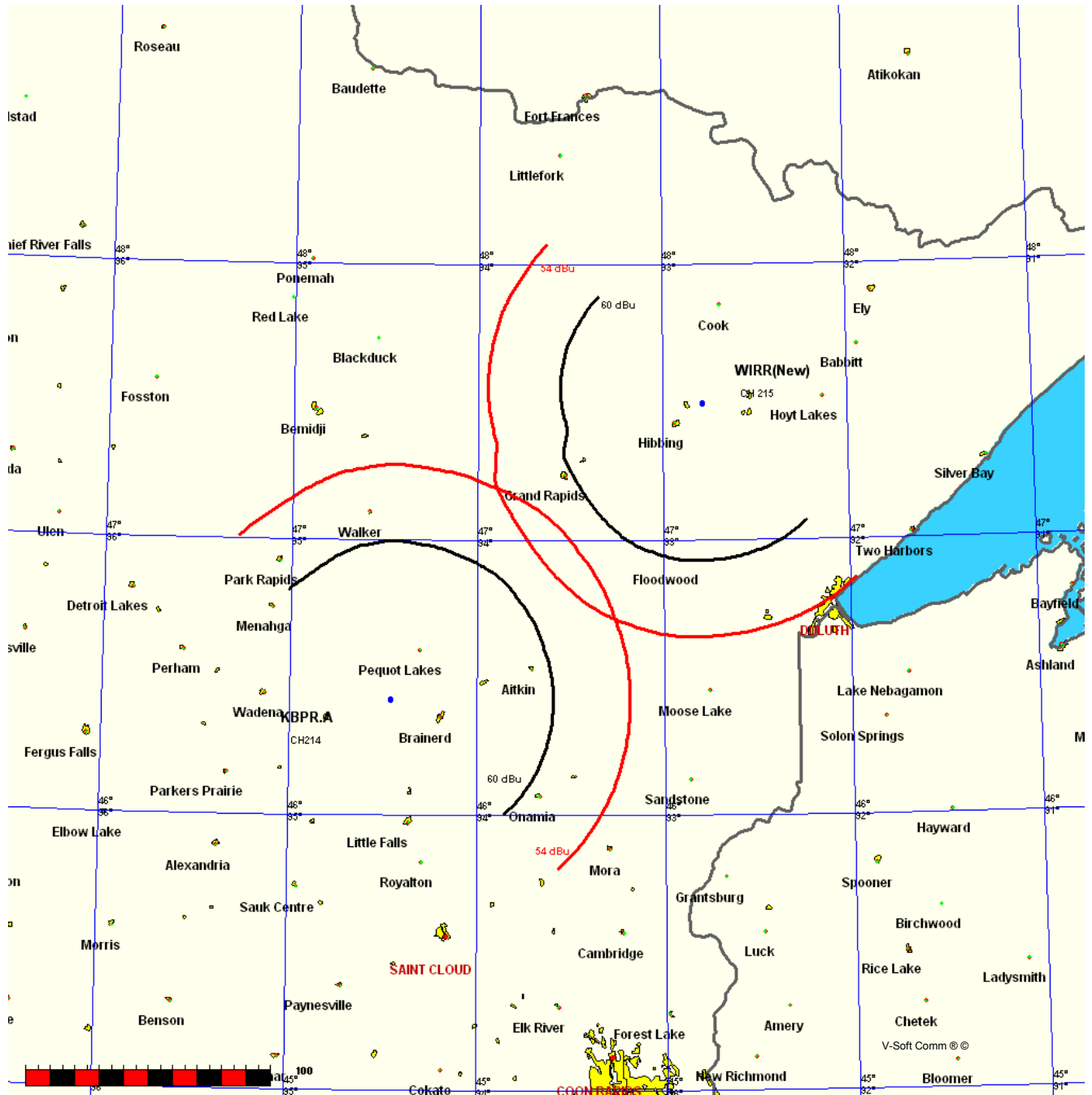
For I.F. relationships the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column follows the **available clear space** separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates omni. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N".

FMCommander Single Allocation Study  
08-17-2007

WIRR(New) CH 215 C1  
100.0 kW 613.2 M COR  
Prot. = 60 dBu  
Intef. = 54 dBu

KBPR-A CH 214 C1 BPED20070724ABY  
100.0 kW, 597 M COR  
Prot. = 60 dBu  
Intef. = 54 dBu



WIRR(New)  
 Channel = 215C1  
 Max ERP = 100 kW  
 RCAMSL = 613.25 M  
 N. Lat. 47 29 47.3  
 W. Lng. 92 47 05.3  
 Protected  
 60 dBu

KBPR-A BPED20070724ABY  
 Channel = 214C1  
 Max ERP = 100 kW  
 RCAMSL = 597 M  
 N. Lat. 46 25 21.0  
 W. Lng. 94 27 41.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
167.0	100.0000	0196.7	063.5	067.3	100.0000	0224.0	153.8	41.88
168.0	100.0000	0196.7	063.5	067.2	100.0000	0224.1	152.6	42.08
169.0	100.0000	0196.8	063.5	067.2	100.0000	0224.1	151.5	42.27
170.0	100.0000	0196.8	063.5	067.1	100.0000	0224.2	150.5	42.46
171.0	100.0000	0196.9	063.5	067.0	100.0000	0224.2	149.4	42.65
172.0	100.0000	0196.8	063.5	066.9	100.0000	0224.2	148.3	42.85
173.0	100.0000	0196.8	063.5	066.8	100.0000	0224.3	147.2	43.04
174.0	100.0000	0196.7	063.5	066.7	100.0000	0224.4	146.2	43.23
175.0	100.0000	0196.7	063.5	066.5	100.0000	0224.4	145.1	43.42
176.0	100.0000	0196.9	063.5	066.4	100.0000	0224.5	144.1	43.62
177.0	100.0000	0197.2	063.5	066.3	100.0000	0224.5	143.0	43.81
178.0	100.0000	0197.2	063.5	066.1	100.0000	0224.6	142.0	44.01
179.0	100.0000	0197.2	063.5	066.0	100.0000	0224.7	140.9	44.20
180.0	100.0000	0197.7	063.6	065.8	100.0000	0224.8	139.9	44.40
181.0	100.0000	0198.4	063.6	065.7	100.0000	0224.8	138.9	44.60
182.0	100.0000	0199.1	063.7	065.5	100.0000	0224.9	137.8	44.80
183.0	100.0000	0199.6	063.8	065.3	100.0000	0225.0	136.8	45.00
184.0	100.0000	0200.0	063.8	065.1	100.0000	0225.1	135.8	45.19
185.0	100.0000	0200.5	063.9	064.9	100.0000	0225.1	134.8	45.39
186.0	100.0000	0201.2	063.9	064.7	100.0000	0225.2	133.8	45.58
187.0	100.0000	0201.5	063.9	064.5	100.0000	0225.3	132.8	45.77
188.0	100.0000	0201.7	064.0	064.2	100.0000	0225.3	131.9	45.96
189.0	100.0000	0201.5	063.9	063.9	100.0000	0225.3	131.0	46.14
190.0	100.0000	0201.4	063.9	063.7	100.0000	0225.4	130.1	46.32
191.0	100.0000	0201.3	063.9	063.4	100.0000	0225.4	129.2	46.49
192.0	100.0000	0201.1	063.9	063.1	100.0000	0225.4	128.3	46.66
193.0	100.0000	0200.6	063.9	062.7	100.0000	0225.4	127.5	46.83
194.0	100.0000	0199.9	063.8	062.4	100.0000	0225.4	126.6	46.99
195.0	100.0000	0199.2	063.7	062.0	100.0000	0225.3	125.9	47.14
196.0	100.0000	0198.6	063.7	061.7	100.0000	0225.2	125.1	47.29
197.0	100.0000	0198.3	063.6	061.3	100.0000	0225.1	124.3	47.45
198.0	100.0000	0198.4	063.6	061.0	100.0000	0225.0	123.5	47.60
199.0	100.0000	0198.7	063.7	060.6	100.0000	0224.9	122.7	47.76
200.0	100.0000	0198.8	063.7	060.2	100.0000	0224.7	122.0	47.90
201.0	100.0000	0198.8	063.7	059.8	100.0000	0224.4	121.3	48.04
202.0	100.0000	0198.6	063.7	059.4	100.0000	0224.2	120.6	48.18
203.0	100.0000	0198.5	063.7	059.0	100.0000	0224.0	119.9	48.31

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
204.0	100.0000	0198.3	063.6	058.5	100.0000	0223.8	119.3	48.44
205.0	100.0000	0198.0	063.6	058.1	100.0000	0223.6	118.7	48.56
206.0	100.0000	0197.6	063.6	057.6	100.0000	0223.5	118.1	48.68
207.0	100.0000	0197.2	063.5	057.2	100.0000	0223.5	117.5	48.80
208.0	100.0000	0196.6	063.5	056.7	100.0000	0223.6	117.0	48.91
209.0	100.0000	0195.8	063.4	056.2	100.0000	0223.7	116.6	49.01
210.0	100.0000	0194.8	063.3	055.7	100.0000	0223.8	116.1	49.10
211.0	100.0000	0193.2	063.2	055.2	100.0000	0223.8	115.8	49.18
212.0	100.0000	0191.4	063.0	054.6	100.0000	0223.6	115.5	49.24
213.0	100.0000	0189.7	062.8	054.1	100.0000	0223.3	115.2	49.29
214.0	100.0000	0188.2	062.7	053.6	100.0000	0222.9	115.0	49.34
215.0	100.0000	0186.9	062.6	053.0	100.0000	0222.5	114.7	49.38
216.0	100.0000	0185.9	062.5	052.5	100.0000	0222.2	114.5	49.43
217.0	100.0000	0185.0	062.4	052.0	100.0000	0222.1	114.2	49.48
218.0	100.0000	0183.9	062.3	051.4	100.0000	0222.3	114.0	49.52
219.0	100.0000	0182.8	062.2	050.9	100.0000	0222.7	113.9	49.57
220.0	100.0000	0181.6	062.1	050.3	100.0000	0223.3	113.8	49.61
221.0	100.0000	0180.3	061.9	049.8	100.0000	0224.0	113.7	49.64
222.0	100.0000	0178.7	061.8	049.2	100.0000	0224.7	113.7	49.66
223.0	100.0000	0177.2	061.6	048.7	100.0000	0225.3	113.7	49.68
224.0	100.0000	0176.1	061.5	048.1	100.0000	0225.7	113.7	49.69
225.0	100.0000	0175.2	061.4	047.6	100.0000	0225.9	113.7	49.69
226.0	100.0000	0174.3	061.3	047.1	100.0000	0226.0	113.8	49.68
227.0	100.0000	0173.2	061.2	046.5	100.0000	0225.9	113.9	49.66
228.0	100.0000	0172.1	061.1	046.0	100.0000	0226.0	114.0	49.63
229.0	100.0000	0171.2	061.0	045.5	100.0000	0226.0	114.1	49.60
230.0	100.0000	0170.5	060.9	044.9	100.0000	0226.2	114.3	49.58
231.0	100.0000	0170.0	060.9	044.4	100.0000	0226.4	114.4	49.55
232.0	100.0000	0169.4	060.8	043.9	100.0000	0226.5	114.6	49.51
233.0	100.0000	0168.8	060.7	043.4	100.0000	0226.5	114.8	49.46
234.0	100.0000	0168.1	060.7	042.8	100.0000	0226.3	115.1	49.40
235.0	100.0000	0167.5	060.6	042.3	100.0000	0226.1	115.3	49.34
236.0	100.0000	0167.1	060.6	041.8	100.0000	0225.7	115.6	49.27
237.0	100.0000	0166.8	060.5	041.3	100.0000	0225.3	115.9	49.20
238.0	100.0000	0166.4	060.5	040.8	100.0000	0224.8	116.2	49.11
239.0	100.0000	0166.1	060.4	040.3	100.0000	0224.1	116.6	49.02
240.0	100.0000	0166.0	060.4	039.8	100.0000	0223.4	116.9	48.93
241.0	100.0000	0166.2	060.5	039.4	100.0000	0222.7	117.2	48.84
242.0	100.0000	0166.9	060.5	038.9	100.0000	0221.9	117.6	48.76
243.0	100.0000	0167.6	060.6	038.4	100.0000	0221.2	117.9	48.67
244.0	100.0000	0167.9	060.6	037.9	100.0000	0220.6	118.3	48.57
245.0	100.0000	0167.6	060.6	037.4	100.0000	0220.1	118.8	48.45
246.0	100.0000	0167.9	060.6	037.0	100.0000	0219.5	119.3	48.34
247.0	100.0000	0168.7	060.7	036.5	100.0000	0219.0	119.7	48.24
248.0	100.0000	0169.7	060.8	036.1	100.0000	0218.4	120.2	48.13
249.0	100.0000	0169.3	060.8	035.6	100.0000	0217.8	120.7	48.00
250.0	100.0000	0166.3	060.5	035.3	100.0000	0217.3	121.6	47.81
251.0	100.0000	0161.5	059.9	035.0	100.0000	0216.9	122.7	47.59
252.0	100.0000	0156.8	059.3	034.8	100.0000	0216.6	123.7	47.37
253.0	100.0000	0152.9	058.8	034.6	100.0000	0216.2	124.7	47.16
254.0	100.0000	0149.5	058.4	034.3	100.0000	0215.9	125.7	46.95

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
255.0	100.0000	0145.8	057.9	034.1	100.0000	0215.6	126.7	46.74
256.0	100.0000	0141.8	057.4	033.9	100.0000	0215.4	127.8	46.53
257.0	100.0000	0138.1	056.8	033.7	100.0000	0215.2	128.8	46.32
258.0	100.0000	0135.8	056.5	033.5	100.0000	0214.9	129.8	46.14
259.0	100.0000	0134.6	056.3	033.3	100.0000	0214.6	130.6	45.97
260.0	100.0000	0134.2	056.3	033.0	100.0000	0214.3	131.3	45.82
261.0	100.0000	0134.7	056.4	032.7	100.0000	0214.0	132.0	45.69
262.0	100.0000	0135.5	056.5	032.3	100.0000	0213.7	132.6	45.55
263.0	100.0000	0136.4	056.6	032.0	100.0000	0213.4	133.3	45.42
264.0	100.0000	0137.8	056.8	031.7	100.0000	0213.1	133.9	45.28
265.0	100.0000	0138.9	057.0	031.4	100.0000	0212.9	134.6	45.14
266.0	100.0000	0140.0	057.1	031.1	100.0000	0212.6	135.3	45.00
267.0	100.0000	0141.1	057.3	030.8	100.0000	0212.3	136.1	44.85
268.0	100.0000	0142.6	057.5	030.5	100.0000	0212.0	136.8	44.71
269.0	100.0000	0143.6	057.6	030.2	100.0000	0211.8	137.6	44.56
270.0	100.0000	0144.5	057.7	029.9	100.0000	0211.5	138.3	44.40
271.0	100.0000	0145.4	057.9	029.7	100.0000	0211.3	139.2	44.24
272.0	100.0000	0146.4	058.0	029.4	100.0000	0211.1	140.0	44.08
273.0	100.0000	0146.9	058.1	029.2	100.0000	0210.9	140.8	43.91
274.0	100.0000	0147.5	058.1	029.0	100.0000	0210.7	141.7	43.74
275.0	100.0000	0148.4	058.3	028.8	100.0000	0210.6	142.6	43.58
276.0	100.0000	0149.2	058.4	028.6	100.0000	0210.4	143.5	43.41
277.0	100.0000	0149.9	058.5	028.4	100.0000	0210.2	144.4	43.24
278.0	100.0000	0150.6	058.6	028.2	100.0000	0210.0	145.3	43.07
279.0	100.0000	0151.2	058.6	028.0	100.0000	0209.8	146.2	42.89
280.0	100.0000	0151.8	058.7	027.9	100.0000	0209.6	147.1	42.72
281.0	100.0000	0152.3	058.8	027.7	100.0000	0209.4	148.1	42.55
282.0	100.0000	0152.7	058.8	027.6	100.0000	0209.3	149.1	42.38
283.0	100.0000	0153.1	058.9	027.5	100.0000	0209.1	150.0	42.21
284.0	100.0000	0153.6	058.9	027.3	100.0000	0208.9	151.0	42.04
285.0	100.0000	0154.0	059.0	027.2	100.0000	0208.8	152.0	41.87
286.0	100.0000	0154.6	059.1	027.1	100.0000	0208.6	153.0	41.69
287.0	100.0000	0155.1	059.1	027.0	100.0000	0208.5	154.0	41.52

KBPR-A BPED20070724ABY  
 Channel = 214C1  
 Max ERP = 100 kW  
 RCAMSL = 597 M  
 N. Lat. 46 25 21.0  
 W. Lng. 94 27 41.0  
 Protected  
 60 dBu

WIRR(New)  
 Channel = 215C1  
 Max ERP = 100 kW  
 RCAMSL = 613.25 M  
 N. Lat. 47 29 47.3  
 W. Lng. 92 47 05.3  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
346.0	100.0000	0191.1	063.0	248.3	100.0000	0169.8	153.6	40.71
347.0	100.0000	0192.5	063.1	248.3	100.0000	0169.8	152.6	40.87
348.0	100.0000	0193.3	063.2	248.3	100.0000	0169.8	151.5	41.05
349.0	100.0000	0193.5	063.2	248.2	100.0000	0169.8	150.4	41.22
350.0	100.0000	0193.3	063.2	248.1	100.0000	0169.7	149.3	41.40
351.0	100.0000	0193.4	063.2	248.0	100.0000	0169.7	148.2	41.58
352.0	100.0000	0194.0	063.2	247.9	100.0000	0169.6	147.1	41.76
353.0	100.0000	0195.0	063.3	247.8	100.0000	0169.5	146.0	41.95
354.0	100.0000	0196.0	063.4	247.7	100.0000	0169.4	145.0	42.14
355.0	100.0000	0196.8	063.5	247.6	100.0000	0169.3	143.9	42.34
356.0	100.0000	0197.8	063.6	247.5	100.0000	0169.2	142.8	42.54
357.0	100.0000	0198.8	063.7	247.4	100.0000	0169.1	141.7	42.74
358.0	100.0000	0200.1	063.8	247.3	100.0000	0168.9	140.6	42.94
359.0	100.0000	0201.4	063.9	247.1	100.0000	0168.8	139.5	43.15
000.0	100.0000	0202.7	064.1	247.0	100.0000	0168.7	138.5	43.35
001.0	100.0000	0203.9	064.2	246.8	100.0000	0168.5	137.4	43.56
002.0	100.0000	0203.7	064.1	246.6	100.0000	0168.3	136.4	43.75
003.0	100.0000	0202.8	064.1	246.4	100.0000	0168.1	135.4	43.93
004.0	100.0000	0202.2	064.0	246.1	100.0000	0167.9	134.5	44.12
005.0	100.0000	0201.5	063.9	245.9	100.0000	0167.8	133.5	44.30
006.0	100.0000	0201.1	063.9	245.6	100.0000	0167.7	132.6	44.48
007.0	100.0000	0200.6	063.9	245.3	100.0000	0167.6	131.7	44.66
008.0	100.0000	0200.2	063.8	245.0	100.0000	0167.6	130.8	44.84
009.0	100.0000	0199.6	063.8	244.7	100.0000	0167.7	129.9	45.02
010.0	100.0000	0199.2	063.7	244.4	100.0000	0167.8	129.0	45.19
011.0	100.0000	0199.4	063.7	244.1	100.0000	0167.9	128.1	45.37
012.0	100.0000	0200.1	063.8	243.9	100.0000	0167.9	127.2	45.54
013.0	100.0000	0201.0	063.9	243.6	100.0000	0167.8	126.2	45.72
014.0	100.0000	0201.8	064.0	243.3	100.0000	0167.7	125.4	45.89
015.0	100.0000	0202.5	064.0	242.9	100.0000	0167.5	124.5	46.05
016.0	100.0000	0203.3	064.1	242.6	100.0000	0167.3	123.6	46.21
017.0	100.0000	0203.9	064.2	242.2	100.0000	0167.1	122.8	46.37
018.0	100.0000	0204.5	064.2	241.9	100.0000	0166.8	122.0	46.52
019.0	100.0000	0205.2	064.3	241.5	100.0000	0166.6	121.2	46.67

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
020.0	100.0000	0205.5	064.3	241.1	100.0000	0166.3	120.4	46.81
021.0	100.0000	0205.4	064.3	240.7	100.0000	0166.1	119.7	46.94
022.0	100.0000	0205.2	064.3	240.3	100.0000	0166.0	119.0	47.07
023.0	100.0000	0205.0	064.3	239.8	100.0000	0166.0	118.3	47.20
024.0	100.0000	0204.9	064.3	239.4	100.0000	0166.0	117.7	47.32
025.0	100.0000	0205.5	064.3	238.9	100.0000	0166.1	117.0	47.46
026.0	100.0000	0206.8	064.4	238.5	100.0000	0166.3	116.3	47.60
027.0	100.0000	0208.5	064.6	238.1	100.0000	0166.4	115.6	47.75
028.0	100.0000	0209.8	064.7	237.6	100.0000	0166.6	114.9	47.88
029.0	100.0000	0210.8	064.8	237.1	100.0000	0166.7	114.3	48.01
030.0	100.0000	0211.6	064.9	236.6	100.0000	0166.9	113.7	48.13
031.0	100.0000	0212.5	065.0	236.1	100.0000	0167.1	113.2	48.25
032.0	100.0000	0213.4	065.1	235.6	100.0000	0167.2	112.6	48.36
033.0	100.0000	0214.3	065.1	235.1	100.0000	0167.5	112.1	48.47
034.0	100.0000	0215.5	065.3	234.6	100.0000	0167.7	111.6	48.58
035.0	100.0000	0216.8	065.4	234.0	100.0000	0168.0	111.1	48.69
036.0	100.0000	0218.3	065.5	233.5	100.0000	0168.4	110.7	48.80
037.0	100.0000	0219.5	065.6	232.9	100.0000	0168.8	110.2	48.90
038.0	100.0000	0220.7	065.7	232.4	100.0000	0169.2	109.9	49.00
039.0	100.0000	0222.1	065.9	231.8	100.0000	0169.6	109.5	49.09
040.0	100.0000	0223.7	066.0	231.2	100.0000	0169.9	109.1	49.18
041.0	100.0000	0225.0	066.1	230.6	100.0000	0170.2	108.8	49.26
042.0	100.0000	0225.9	066.2	230.0	100.0000	0170.5	108.5	49.32
043.0	100.0000	0226.4	066.2	229.4	100.0000	0170.9	108.4	49.37
044.0	100.0000	0226.5	066.2	228.8	100.0000	0171.3	108.3	49.41
045.0	100.0000	0226.2	066.2	228.2	100.0000	0171.9	108.2	49.44
046.0	100.0000	0226.0	066.2	227.6	100.0000	0172.5	108.2	49.46
047.0	100.0000	0226.0	066.2	227.0	100.0000	0173.2	108.2	49.48
048.0	100.0000	0225.7	066.2	226.4	100.0000	0173.9	108.2	49.49
049.0	100.0000	0225.0	066.1	225.7	100.0000	0174.5	108.4	49.48
050.0	100.0000	0223.7	066.0	225.1	100.0000	0175.1	108.6	49.45
051.0	100.0000	0222.6	065.9	224.5	100.0000	0175.6	108.8	49.42
052.0	100.0000	0222.1	065.9	223.9	100.0000	0176.2	109.0	49.39
053.0	100.0000	0222.5	065.9	223.3	100.0000	0176.8	109.2	49.37
054.0	100.0000	0223.2	066.0	222.7	100.0000	0177.5	109.3	49.36
055.0	100.0000	0223.7	066.0	222.2	100.0000	0178.4	109.5	49.34
056.0	100.0000	0223.7	066.0	221.6	100.0000	0179.3	109.8	49.31
057.0	100.0000	0223.5	066.0	221.0	100.0000	0180.3	110.1	49.26
058.0	100.0000	0223.6	066.0	220.4	100.0000	0181.1	110.5	49.21
059.0	100.0000	0224.0	066.0	219.9	100.0000	0181.8	110.8	49.15
060.0	100.0000	0224.6	066.1	219.3	100.0000	0182.5	111.2	49.10
061.0	100.0000	0225.1	066.1	218.7	100.0000	0183.1	111.6	49.03
062.0	100.0000	0225.3	066.1	218.2	100.0000	0183.7	112.0	48.95
063.0	100.0000	0225.4	066.2	217.7	100.0000	0184.3	112.5	48.87
064.0	100.0000	0225.3	066.1	217.1	100.0000	0184.8	113.0	48.78
065.0	100.0000	0225.1	066.1	216.6	100.0000	0185.3	113.6	48.67
066.0	100.0000	0224.7	066.1	216.1	100.0000	0185.8	114.2	48.56
067.0	100.0000	0224.2	066.0	215.6	100.0000	0186.3	114.8	48.44
068.0	100.0000	0223.7	066.0	215.2	100.0000	0186.7	115.5	48.32
069.0	100.0000	0223.3	066.0	214.7	100.0000	0187.2	116.2	48.20
070.0	100.0000	0222.9	065.9	214.3	100.0000	0187.8	116.9	48.07

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
071.0	100.0000	0222.7	065.9	213.8	100.0000	0188.4	117.6	47.94
072.0	100.0000	0222.8	065.9	213.4	100.0000	0189.1	118.3	47.82
073.0	100.0000	0223.3	066.0	212.9	100.0000	0189.8	119.0	47.69
074.0	100.0000	0223.9	066.0	212.5	100.0000	0190.5	119.7	47.56
075.0	100.0000	0224.5	066.1	212.1	100.0000	0191.2	120.5	47.43
076.0	100.0000	0225.1	066.1	211.7	100.0000	0192.0	121.2	47.30
077.0	100.0000	0225.7	066.2	211.3	100.0000	0192.7	122.0	47.16
078.0	100.0000	0226.2	066.2	210.9	100.0000	0193.4	122.8	47.01
079.0	100.0000	0226.8	066.3	210.5	100.0000	0194.0	123.7	46.86
080.0	100.0000	0227.3	066.3	210.2	100.0000	0194.5	124.5	46.70
081.0	100.0000	0227.6	066.3	209.8	100.0000	0195.0	125.4	46.54
082.0	100.0000	0227.8	066.4	209.5	100.0000	0195.4	126.3	46.37
083.0	100.0000	0228.0	066.4	209.2	100.0000	0195.7	127.2	46.19
084.0	100.0000	0228.2	066.4	208.9	100.0000	0195.9	128.2	46.01
085.0	100.0000	0228.4	066.4	208.6	100.0000	0196.2	129.1	45.83
086.0	100.0000	0228.5	066.4	208.3	100.0000	0196.4	130.1	45.65
087.0	100.0000	0228.7	066.4	208.1	100.0000	0196.6	131.1	45.46
088.0	100.0000	0228.8	066.5	207.8	100.0000	0196.7	132.1	45.27
089.0	100.0000	0228.9	066.5	207.6	100.0000	0196.9	133.1	45.07
090.0	100.0000	0229.0	066.5	207.3	100.0000	0197.0	134.1	44.88
091.0	100.0000	0229.1	066.5	207.1	100.0000	0197.1	135.2	44.68
092.0	100.0000	0229.2	066.5	206.9	100.0000	0197.2	136.2	44.48
093.0	100.0000	0229.3	066.5	206.7	100.0000	0197.3	137.3	44.27
094.0	100.0000	0229.4	066.5	206.5	100.0000	0197.4	138.4	44.07
095.0	100.0000	0229.6	066.5	206.3	100.0000	0197.5	139.4	43.87
096.0	100.0000	0229.9	066.6	206.2	100.0000	0197.6	140.5	43.66
097.0	100.0000	0230.2	066.6	206.0	100.0000	0197.6	141.6	43.46
098.0	100.0000	0230.5	066.6	205.9	100.0000	0197.7	142.7	43.25
099.0	100.0000	0230.8	066.6	205.7	100.0000	0197.7	143.8	43.05
100.0	100.0000	0230.6	066.6	205.6	100.0000	0197.8	144.9	42.84
101.0	100.0000	0230.3	066.6	205.5	100.0000	0197.8	146.1	42.64
102.0	100.0000	0229.9	066.6	205.4	100.0000	0197.9	147.2	42.43
103.0	100.0000	0229.4	066.5	205.3	100.0000	0197.9	148.4	42.23
104.0	100.0000	0229.2	066.5	205.3	100.0000	0197.9	149.5	42.04
105.0	100.0000	0229.2	066.5	205.2	100.0000	0197.9	150.7	41.85
106.0	100.0000	0229.5	066.5	205.1	100.0000	0198.0	151.8	41.66



CONSENT TO APPLICATION

KBJR License, Inc., licensee of KBJR-TV, Superior, Wisconsin, TV Channel 6, pursuant to Section 73.525(a) of the rules of the Federal Communications Commission, hereby consents to the filing by Minnesota Public Radio of an application for a construction permit for minor modifications to WIRR, Virginia-Hibbing, Minnesota to increase its operating power to approximately 100 kW which would increase the overlap between the stations, and confirms that it has no objection to the grant of the application.

KBJR License, Inc.

By: David Jensen  
Name: David Jensen  
Title: Station Manager

August 16, 2007

**EXHIBIT #21  
INTERNATIONAL BORDERS**

**Minnesota Public Radio**  
Minor Change to Licensed Station  
WIRR  
BLED-19850827KC  
Virginia-Hibbing, MN

August 2007

CH 215C1

100 kW H & V Omni

The transmitter location for WIRR is 87.5 kilometers distant from the US border with Canada. There are no overlaps with any Canadian stations, allocations or applications. The proposal for WIRR therefore complies with the treaty requirements for protection to Canada.

Minnesota Public Radio  
WIRR (New) Minor Change

REFERENCE  
47 29 47.3 N.  
92 47 05.3 W.

CH# 215C1 - 90.9 MHz, Pwr= 100 kW, HAAT= 169.8 M, COR= 615 M  
Average Protected F(50-50)= 60.86 km

DISPLAY DATES  
DATA 08-17-07  
SEARCH 08-17-07

CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
215C2 Virginia-hibbing	WIRR	LIC _CN MN	171.0 351.0	0.04 BLED19850827KC	47 29 46.0 92 47 05.0	21.000 168	120.9 615	46.8 Minnesota Public Radio	-184.57*<	-208.41*<
06+2C Superior	KBJRTV	LI _HY WI	146.9 327.4	93.65 BLCT20000517AEX	46 47 21.0 92 06 51.0	100.000 302	604	92.0 Kbjr License, Inc.	130.7R	-37.0M
214C1 Brainerd	KBPR	APP _CX MN	227.4 46.2	174.76 BPED20070724ABY	46 25 21.0 94 27 41.0	100.000 207	97.6 597	66.2 Minnesota Public Radio	15.80	17.19
217C1 Superior	KUWS	LIC _CN WI	146.9 327.4	93.65 BLED19910122KA	46 47 21.0 92 06 51.0	83.000 197	4.9 501	44.4 Board Of Regents, Universi	24.96	40.98
215B Kenora	ONTFM-050<<	AL _HN ON	334.1 152.8	282.59 0	49 46 06.0 94 30 16.0	50.000 150	138.8 483	66.1 Ontfm-050	69.13	25.23
215B Kenora	LRRP-403<<	LR _HN ON	334.1 152.8	282.59	49 46 06.0 94 30 16.0	50.000 150	138.8 483	66.1 Lrrp-403	69.13	25.23
214C1 Brainerd	KBPR	LIC _CN MN	227.4 46.2	174.76 BLED19880222KG	46 25 21.0 94 27 41.0	34.000 207	82.6 597	56.0 Minnesota Public Radio	30.77	27.36
213C3 Duluth	KDNI	LIC _C_ MN	146.9 327.4	93.65 BLED20010305AAE	46 47 21.0 92 06 51.0	2.000 222	2.0 524	22.1 Northwestern College	27.81	63.35
213B Fort Frances	CBQQ-FM<<	OP _HN ON	331.7 151.0	144.94 2106	48 38 22.0 93 43 14.0	50.000 142	6.0 494	65.5 Cbqq-fm	64.42	43.63
217C1 Bemidji	KNBJ	LIC _CN MN	281.0 99.7	130.02 BLED20030429AAP	47 42 21.0 94 29 09.0	65.000 301	9.1 720	68.4 Minnesota Public Radio	61.94	54.47
214C2 Grand Marais	WTIP	LIC _CN MN	79.7 261.5	185.71 BLED19980615KD	47 46 09.0 90 20 49.0	25.000 178	56.9 528	36.2 Cook County Community Radi	67.77	58.61
269C2 Duluth	KLDJ	LIC _CN MN	147.3 327.8	93.57 BLH19960709KB	46 47 13.0 92 07 17.0	18.500 251	2.0 558	12.5 Cc Licenses, Llc	26.5R	67.1M

Terrain database is NGDC 30 SEC  
ERP and HAAT are on direct line to and from reference station.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtlt(Y,N,X)  
"\*"affixed to 'IN' or 'OUT' values = site inside protected contour.  
"<" = Station meets FCC minimum distance spacing for its class.  
"<" = Contour Overlap

## EXHIBIT #22

### R.F. EMISSION COMPLIANCE STATEMENT

**Minnesota Public Radio**  
Minor Change to Licensed Station  
WIRR  
BLED-19850827KC  
Virginia-Hibbing, MN

August 2007

CH 215C1

100 kW H & V Omni

The applicant proposes the continued use of registered tower ASR#1024157. This tower was constructed before March, 2001, and is therefore exempt from environmental processing.

The proposed six-bay, circularly polarized antenna will be energized such that it produces 100 kW effective radiated power from a center of radiation of 142 meters above ground. Using the formulas expressed in the OET Bulletin, No. 65, August 1997, "Evaluating Compliance with F.C.C. Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", published by the Federal Communication Commission's Office of Science and Engineering, and then by applying a combination of the element and array pattern as defined in E.P.A. study PB85-245868 ("**Engineering Assessment of the Potential Impact of the Federal Radiation Protection Guidance on the AM, FM and TV Broadcast Services**") the predicted level of RF non-ionization emissions at a position of 2 meters above ground (head-height) at the base of the tower for the proposed 6-bay Shively 6810-6R-CF-BB (Type #6) antenna is 1.705 microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ), which is 0.85 percent of maximum for an uncontrolled area.

After researching the Mass Media and ULS databases, it was determined that there are four other sources of RF emissions on the tower. The contributions to the level of RF emission at ground level from each source are:

Call	Ch/ Freq	Power (kW)	Height (m)	Level ( $\mu\text{W}/\text{cm}^2$ )	Max ( $\mu\text{W}/\text{cm}^2$ )	Percent (Uncont.)
WIRR (New)	215	100 H/V	142	1.705	200	0.85
WIRN*	223	26 H/V	142	0.443	200	0.22
WNMG744**	460.425	0.202 H	12	26.362	307	8.59
WNMO404**	155.94	0.1 H	134	0.075	200	0.04
WPYP223**	458.375	0.17 H	12	22.186	306	7.25
Total				50.771		16.95
* Diplexed with WIRR thru 6-bay Shively 6810 series (Type #6) antenna.						
** Worst case, without regard to vertical elevation field at nadir. Assumes 100% duty cycle.						

The CDBS database lists a construction permit for an FM translator on Channel 300, K300BV, BNPFT-20030829ALZ. This translator is not located on this tower, nor does the permittee have permission to place the translator on this tower. The translator CP was therefore not considered in the RF emissions calculations.

The applicant will protect workers on the tower by either reducing ERP or terminating transmission.

Consequently, it appears that the proposed FM station will be in full compliance with the Commission's human exposure to radiofrequency electromagnetic field rules and regulations.