

Federal Communications Commission Washington, D.C. 20554	Approved by OMB 3060-0029 (February 2007)	FOR FCC USE ONLY
<b>FCC 340</b>		
<b>APPLICATION FOR CONSTRUCTION PERMIT FOR RESERVED CHANNEL NONCOMMERCIAL EDUCATIONAL BROADCAST STATION</b>		FOR COMMISSION USE ONLY FILE NO. BPED - 20070905ABI
Read INSTRUCTIONS Before Filling Out Form		

**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 KRSU	Facility Identifier 42967
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: APPLETON 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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<p>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.</p>	<p>2. <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 <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span></p> <p>b. a governmental entity other than a school; or <span style="float: right;"><input type="radio"/> Yes <input checked="" type="radio"/> No</span></p> <p>c. a nonprofit educational organization, other than described in a. or b. <span style="float: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No</span></p>
<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>	<p style="text-align: right;"><input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A</p>
<p>4. 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 style="text-align: right;"><input type="radio"/> Yes <input type="radio"/> No FCC File Number - [Exhibit 2]</p>
<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>	<p style="text-align: right;"><input type="radio"/> Yes <input type="radio"/> No</p>
<p>6. 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/> <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 style="text-align: right;"><input type="radio"/> Yes <input type="radio"/> No [Exhibit 3]</p>
<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>	<p style="text-align: right;"><input type="checkbox"/> N/A [Exhibit 4]</p>
<p>8. <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 style="text-align: right;"><input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 5]</p>
<p>9. <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 style="text-align: right;"><input type="radio"/> Yes <input type="radio"/> No 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. a. Applicant certifies that the proposed modification will not downgrade service to the area on which the Section 307(b) preference was based. 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  <input type="radio"/> Yes <input type="radio"/> No <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?</p> <p>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. **Existing Authorizations.** 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)
2. **Pending Applications.** 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)

### 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 9/5/2007

### 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 8/31/2007	
Mailing Address DOUG VERNIER TELECOMMUNICATIONS CONSULTANTS 721 WEST 1ST STREET, SUITE A		
City CEDAR FALLS	State or Country (if foreign address) IA	Zip Code 50677-
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: 217
2. Class (select one):  
 D  A  B1  B  C3  C2  C1  C0  C

3. Antenna Location Coordinates: (NAD 27)  
Latitude:  
Degrees 45 Minutes 10 Seconds 3.1  North  South  
Longitude:  
Degrees 96 Minutes 0 Seconds 1.9  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: 1031878  
 Not Applicable  Notification filed with FAA

6. Overall Tower Height Above Ground Level: 391 meters

7. Height of Radiation Center Above Mean Sea Level: 315.5 meters(H) 315.5 meters(V)

8. Height of Radiation Center Above Ground Level: 337 meters(H) 337 meters(V)

9. Height of Radiation Center Above Average Terrain: 345.2 meters(H) 345.2 meters(V)

10. Effective Radiated Power: 82 kW(H) 82 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]

<b>Spacing Requirements.</b>	
b. <input type="checkbox"/> 47 C.F.R. Section 73.207 with respect to station(s)	
<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>	[Exhibit 17]
<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>	[Exhibit 18]
<b>Television Channel 6 Protection.</b>	
e. <input type="checkbox"/> 47 C.F.R. Section 73.525 with respect to station(s)	
<b>Exhibit Required.</b>	[Exhibit 19]
16. <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.	<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 20]
17. <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.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="checkbox"/> Canada <input type="radio"/> Mexico [Exhibit 21]
If "No," specify the country and provide an exhibit of compliance with all provisions of the relevant International Agreement.	
18. <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>	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 22]
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.	
19. <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)).	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A [Exhibit 23]
<b>An exhibit is required</b> unless this question is not applicable.	
<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](#)

**Exhibit 14**

**Description:** COMMUNITY COVERAGE

**Attachment 14**

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

**Exhibit 16**

**Description:** CONTOUR OVERLAP REQUIREMENTS

**Attachment 16**

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

**Exhibit 22**

**Description:** ENVIRONMENTAL PROTECTION ACT

**Attachment 22**

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

**EXHIBIT #1**  
ENGINEERING STATEMENT

**Minnesota Public Radio**  
Minor Change to Licensed Station  
KRSU  
BLED-19891031KB  
Appleton, MN

August 2007

CH 217C0

82 kW H & V Omni

This engineering statement supports application filed by Minnesota Public Radio to make a minor change to licensed NCE FM station KRSU, Appleton, Minnesota.

The applicant proposes to correct the coordinates of the transmitter location and base elevation, increase effective radiated power, recalculate the antenna height above mean sea level and average terrain and downgrade to Class C0. 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 KRSU under license BLED-19891031KB.

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

A total of 36 evenly spaced radials were used to determine the antenna height above average terrain. The U.S.G.S. 03 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.

The proposed station is not within the specific critical distances to the US border with Canada or Mexico, 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.

There are no television channel six stations within the cutoff distance of 174 kilometers for a non-commercial FM station on Channel 217.

The applicant proposes the use of registered tower ASR #1031878, constructed in 1983. 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 #22** is an R.F. emissions compliance statement, showing that workers and the general public are protected from excess radio frequency emissions.

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

Executed on August 31, 2007

**EXHIBIT #13  
MAIN STUDIO LOCATION**

**Minnesota Public Radio**  
Minor Change to Licensed Station  
KRSU  
BLED-19891031KB  
Appleton, MN

August 2007

CH 217C0

82 kW H & V Omni

KRSU has been granted a waiver of Section 73.1125 under license BLED-19891031KB, to allow operation as a satellite station of KSJN, Minneapolis – St. Paul, Minnesota.

Minnesota Public Radio respectfully requests a continuation of that waiver.

**EXHIBIT #14  
COMMUNITY COVERAGE**

**Minnesota Public Radio**  
Minor Change to Licensed Station  
KRSU  
BLED-19891031KB  
Appleton, MN

August 2007

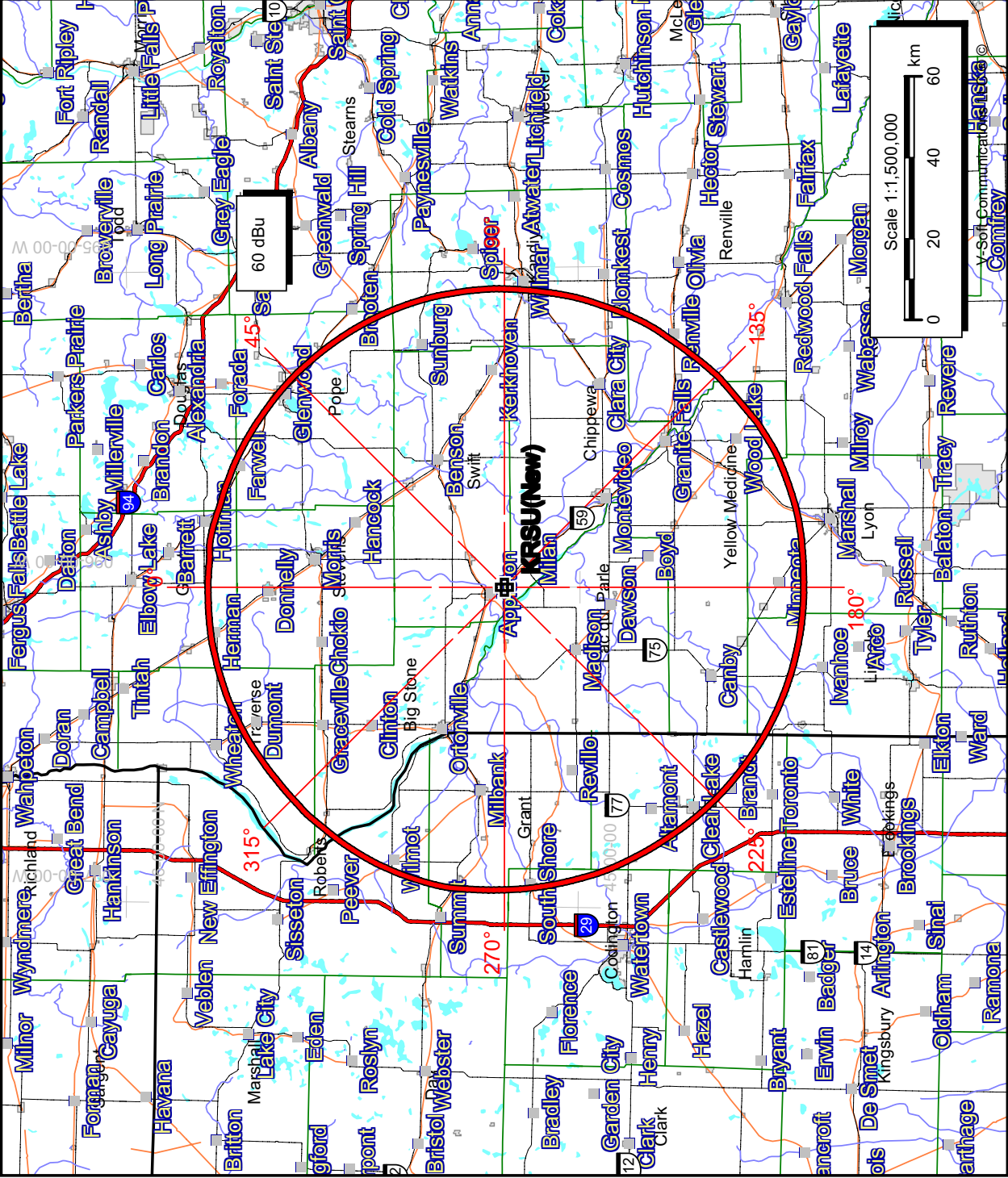
CH 217C0

82 kW H & V Omni

KRSU operates on Channel 217, 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 KRSU change. Appleton, Minnesota, the city of license, is shown to be within this contour.

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

# KRSU(New) - Appleton - 60 dBu Coverage



**KRSU(New) - Appleton**  
 Latitude: 45-10-03.10 N  
 Longitude: 096-00-01.90 W  
 ERP: 82.00 kW  
 Channel: 217  
 Frequency: 91.3 MHz  
 AMSL Height: 652.5 m  
 HAAT: 345.2 m  
 Horiz. Pattern: Omni  
 Pop = 96,917

8/31/2007

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

N. Lat. = 451003.1 W. Lng. = 960001.9  
 HAAT and Distance to Contour - FCC Method - USGS 03 SEC  
 KRSU (New) Distance to 60 dBu contour

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	318.4	334.1	82.0000	19.14	1.000	72.90
010	313.3	339.2	82.0000	19.14	1.000	73.28
020	317.8	334.7	82.0000	19.14	1.000	72.94
030	315.8	336.7	82.0000	19.14	1.000	73.09
040	313.9	338.6	82.0000	19.14	1.000	73.23
050	312.0	340.5	82.0000	19.14	1.000	73.37
060	310.0	342.5	82.0000	19.14	1.000	73.52
070	309.2	343.3	82.0000	19.14	1.000	73.57
080	310.1	342.4	82.0000	19.14	1.000	73.51
090	310.8	341.7	82.0000	19.14	1.000	73.45
100	311.8	340.7	82.0000	19.14	1.000	73.39
110	311.1	341.4	82.0000	19.14	1.000	73.44
120	308.2	344.3	82.0000	19.14	1.000	73.65
130	308.9	343.6	82.0000	19.14	1.000	73.59
140	306.6	345.9	82.0000	19.14	1.000	73.77
150	298.3	354.2	82.0000	19.14	1.000	74.37
160	298.2	354.3	82.0000	19.14	1.000	74.38
170	301.7	350.8	82.0000	19.14	1.000	74.12
180	308.0	344.5	82.0000	19.14	1.000	73.66
190	308.2	344.3	82.0000	19.14	1.000	73.65
200	308.4	344.1	82.0000	19.14	1.000	73.63
210	308.7	343.8	82.0000	19.14	1.000	73.61
220	308.8	343.7	82.0000	19.14	1.000	73.61
230	308.7	343.8	82.0000	19.14	1.000	73.61
240	307.8	344.7	82.0000	19.14	1.000	73.68
250	303.2	349.3	82.0000	19.14	1.000	74.01
260	301.4	351.1	82.0000	19.14	1.000	74.14
270	297.1	355.4	82.0000	19.14	1.000	74.45
280	287.7	364.8	82.0000	19.14	1.000	75.14
290	289.0	363.5	82.0000	19.14	1.000	75.05
300	295.1	357.4	82.0000	19.14	1.000	74.60
310	302.5	350.0	82.0000	19.14	1.000	74.06
320	311.7	340.8	82.0000	19.14	1.000	73.39
330	312.1	340.4	82.0000	19.14	1.000	73.36
340	313.1	339.4	82.0000	19.14	1.000	73.29
350	314.7	337.8	82.0000	19.14	1.000	73.18

Ave El= 307.28 M HAAT= 345.22 M AMSL= 652.5

Exhibit #16

Minnesota Public Radio  
KRSU Minor Change Application

REFERENCE CH# 217C0 - 91.3 MHz, Pwr= 82 kw, HAAT= 345.2 M, COR= 652.5 M  
45 10 03.1 N.  
96 00 01.9 W.  
Average Protected F(50-50)= 73.71 km

DISPLAY DATES  
DATA 08-31-07  
SEARCH 08-31-07

CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kw)	INT(km)	PRO(km)	*IN*	*OUT*
CITY	STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)		
217C	KRSU	LIC	_CN	218.9	0.00	45 10 03.0	75.000	169.0	72.0	-242.60*<	-244.49*<
Appleton	MN			38.9	BLED19891031KB	96 00 02.0	341	648	Minnesota Public Radio		
218C3	KCFB	LIC	_C_	74.3	142.74	45 30 02.0	15.000	54.1	35.0	15.00	0.31
St. Cloud	MN			255.5	BLED19991213AAH	94 14 31.0	106	435	Minnesota Christian Broadc		
218A	KNWF	LIC	_CX	356.9	128.29	46 19 12.0	2.700	31.2	21.1	24.11	0.98
Fergus Falls	MN			176.8	BLED20030430ABU	96 05 32.0	66	439	Minnesota Public Radio		
215A	KKLW	LIC	_CX	87.3	82.68	45 11 52.0	0.400	1.4	16.5	7.75	55.91
Willmar	MN			268.0	BLED20040204ABY	94 56 58.0	129	491	Educational Media Foundati		
220C3	KBHZ	LIC	_C_	101.0	88.45	45 00 40.0	25.000	4.2	39.9	10.88	38.33
Willmar	MN			281.8	BMLLED20050622AAT	94 53 56.0	100	445	Christian Heritage Broadca		
216C1	KCCM-FM	LIC	_CN	345.4	183.11	46 45 35.0	67.000	88.5	59.8	21.44	16.79
Moorhead	MN			164.9	BLED19811119AL	96 36 26.0	201	486	Minnesota Public Radio		
216C	KNOW-FM	LIC	_CN	92.0	225.47	45 03 44.0	100.000	119.3	80.4	32.80	38.12
Minneapolis-st. Pau	MN			274.0	BMLLED19940420KA	93 08 21.0	400	677	Minnesota Public Radio		
218C2	KNGA	LIC	_VN	124.6	182.52	44 13 20.0	8.500	58.1	39.3	50.98	36.14
St. Peter	MN			305.9	BLED19920303KA	94 07 03.0	183	471	Minnesota Public Radio		
214A	KSDJ	LIC	_CN	213.5	113.07	44 19 01.0	1.000	1.6	10.2	37.86	92.65
Brookings	SD			32.9	BLED19940105KB	96 47 02.0	38	534	South Dakota State Univers		
215C1	KDSD-FM	LIC	_CN	286.3	136.43	45 29 55.0	70.000	9.2	68.5	52.13	57.33
Pierpont	SD			105.1	BLED19840416CA	97 40 35.0	323	847	South Dakota Board Of Dire		
219C1	KNSW	LIC	_CN	177.7	142.78	43 53 01.0	99.000	9.0	67.4	60.04	65.13
Worthington-marshal	MN			357.7	BMLLED19931019KC	95 55 44.0	243	758	Minnesota Public Radio		
215C3	981215MB	CP	_CN	153.6	143.78	44 00 22.0	25.000	4.3	41.3	64.90	92.01
Windom	MN			334.2	BPED19981215MB	95 12 09.0	100	534	Minn-iowa Christian Broadc		
217C1	KNBJ	LIC	_CN	21.8	305.23	47 42 21.0	65.000	162.3	68.8	70.04	65.21
Bemidji	MN			202.9	BLED20030429AAP	94 29 09.0	301	720	Minnesota Public Radio		
214C1	KBPR	APP	_CX	40.0	183.79	46 25 21.0	100.000	8.3	64.3	102.21	109.29
Brainerd	MN			221.1	BPED20070724ABY	94 27 41.0	207	597	Minnesota Public Radio		
214C1	KBPR	LIC	_CN	40.0	183.79	46 25 21.0	34.000	6.2	54.3	104.33	119.28
Brainerd	MN			221.1	BLED19880222KG	94 27 41.0	207	597	Minnesota Public Radio		
217C3	KAYA	CP	_CX	187.9	315.58	42 21 10.0	7.400	98.2	36.3	143.70	106.65
Hubbard	NE			7.5	BPED20050715ABK	96 31 32.0	115	489	American Family Associatio		
216C	KTPR	CP	_CX	153.5	290.57	42 49 03.0	100.000	107.8	74.2	108.28	107.03
Fort Dodge	IA			334.6	BPED20070807AAR	94 24 41.0	326	676	Iowa State University Of S		
216C	KTPR	LIC	_CN	153.5	290.57	42 49 03.0	100.000	107.3	73.9	108.78	107.33
Fort Dodge	IA			334.6	BLED19881123KB	94 24 41.0	321	672	Iowa State University Of S		
215A	KCSF	CP	DCX	196.6	184.55	43 34 28.0	6.000	1.9	19.2	109.04	155.05
Sioux Falls	SD			16.1	BMPED20070314ADG	96 39 19.0	80	514	University Of Sioux Falls		
217C3	KAYA	LIC	_CX	187.9	315.58	42 21 10.0	5.100	92.4	33.3	149.52	109.68
Hubbard	NE			7.5	BLED20031205AJN	96 31 32.0	115	489	American Family Associatio		
217A	KMSK	LIC	_CN	123.8	290.64	43 40 39.0	0.135	27.3	8.2	189.88	110.15
Austin	MN			305.9	BLED19890831KA	93 00 04.0	59	436	Mankato State University		
215A	KCSF	LIC	_CN	198.2	190.98	43 31 57.0	2.350	1.6	16.0	115.71	164.76
Sioux Falls	SD			17.6	BLED19850711KL	96 44 20.0	58	497	University Of Sioux Falls		
216C	KTSD-FM	LIC	_CN	246.1	315.54	43 57 55.0	100.000	125.4	84.3	116.27	123.29
Reliance	SD			63.6	BLED19840224AC	99 35 56.0	451	975	South Dakota Board Of Dire		
218B1	KPRJ	LIC	_CN	313.5	264.93	46 46 36.0	18.500	57.8	37.8	133.37	119.44
Jamestown	ND			131.6	BLED19930617KB	98 31 20.0	108	549	Prairie Public Broadcastin		

Terrain database is USGS 03 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.  
"<" = 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.

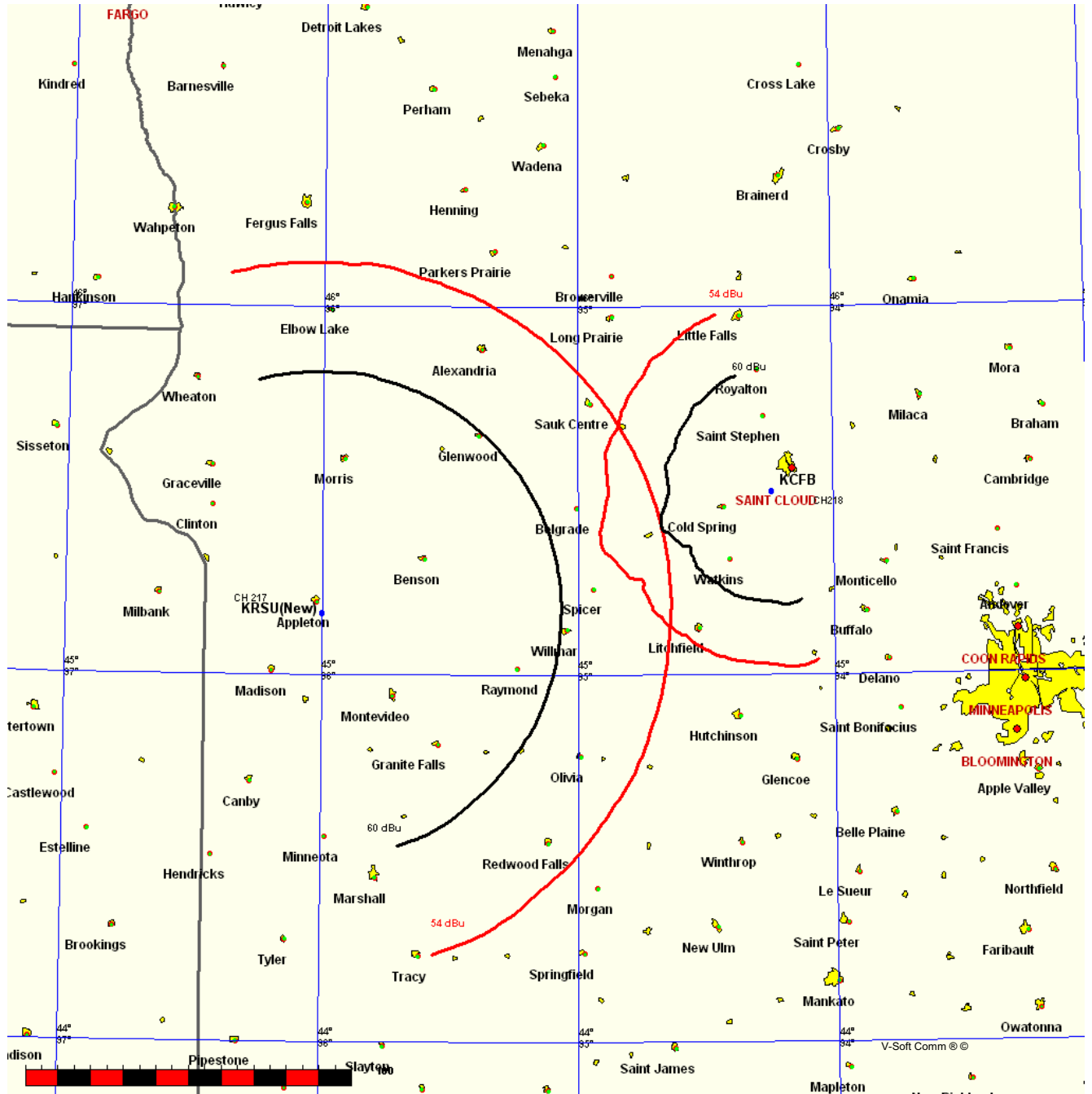
For I.F. relationships the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column follows the **available clear space** separation in kilometers. Minimum separation distances when displayed are 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  
08-31-2007

KRSU(New) CH 217 C0  
82.0 kW 652.5 M COR  
Prot. = 60 dBu  
Intef. = 54 dBu

KCFB CH 218 C3 BLED19991213AAH  
15.0 kW, 435 M COR  
Prot. = 60 dBu  
Intef. = 54 dBu



KRSU (New)  
 Channel = 217C0  
 Max ERP = 82 kW  
 RCAMSL = 652.5 M  
 N. Lat. 45 10 03.1  
 W. Lng. 96 00 01.9  
 Protected  
 60 dBu

KCFB BLED19991213AAH  
 Channel = 218C3  
 Max ERP = 15 kW  
 RCAMSL = 435 M  
 N. Lat. 45 30 02.0  
 W. Lng. 94 14 31.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
014.0	082.0000	0335.3	073.0	286.4	015.0000	0088.0	124.2	35.54
015.0	082.0000	0334.1	072.9	286.4	015.0000	0088.0	122.8	35.78
016.0	082.0000	0333.1	072.8	286.3	015.0000	0088.0	121.6	36.00
017.0	082.0000	0332.9	072.8	286.3	015.0000	0088.0	120.3	36.22
018.0	082.0000	0333.7	072.9	286.3	015.0000	0088.0	119.0	36.44
019.0	082.0000	0334.4	072.9	286.3	015.0000	0088.0	117.8	36.66
020.0	082.0000	0334.7	072.9	286.3	015.0000	0088.0	116.5	36.88
021.0	082.0000	0334.3	072.9	286.2	015.0000	0088.0	115.2	37.10
022.0	082.0000	0334.0	072.9	286.1	015.0000	0087.9	114.0	37.33
023.0	082.0000	0334.7	072.9	286.1	015.0000	0087.9	112.7	37.55
024.0	082.0000	0335.7	073.0	286.0	015.0000	0087.9	111.5	37.79
025.0	082.0000	0335.8	073.0	285.9	015.0000	0087.9	110.2	38.02
026.0	082.0000	0336.0	073.0	285.8	015.0000	0087.9	108.9	38.26
027.0	082.0000	0336.2	073.1	285.6	015.0000	0087.9	107.7	38.50
028.0	082.0000	0336.4	073.1	285.5	015.0000	0087.9	106.5	38.74
029.0	082.0000	0336.6	073.1	285.3	015.0000	0087.9	105.2	38.99
030.0	082.0000	0336.7	073.1	285.1	015.0000	0088.0	104.0	39.25
031.0	082.0000	0336.7	073.1	284.9	015.0000	0088.1	102.8	39.51
032.0	082.0000	0336.8	073.1	284.7	015.0000	0088.2	101.6	39.77
033.0	082.0000	0337.0	073.1	284.5	015.0000	0088.5	100.3	40.04
034.0	082.0000	0337.2	073.1	284.3	015.0000	0088.8	099.1	40.32
035.0	082.0000	0337.1	073.1	284.0	015.0000	0089.1	098.0	40.60
036.0	082.0000	0337.2	073.1	283.7	015.0000	0089.3	096.8	40.89
037.0	082.0000	0337.4	073.1	283.4	015.0000	0089.5	095.6	41.17
038.0	082.0000	0337.8	073.2	283.1	015.0000	0089.8	094.5	41.47
039.0	082.0000	0338.2	073.2	282.8	015.0000	0089.9	093.3	41.76
040.0	082.0000	0338.6	073.2	282.4	015.0000	0089.7	092.2	42.04
041.0	082.0000	0339.0	073.3	282.0	015.0000	0089.4	091.0	42.32
042.0	082.0000	0339.3	073.3	281.6	015.0000	0088.9	089.9	42.59
043.0	082.0000	0339.7	073.3	281.2	015.0000	0088.4	088.8	42.85
044.0	082.0000	0339.9	073.3	280.8	015.0000	0087.9	087.8	43.12
045.0	082.0000	0340.2	073.3	280.3	015.0000	0087.3	086.7	43.37
046.0	082.0000	0340.4	073.4	279.8	015.0000	0086.6	085.7	43.62
047.0	082.0000	0340.5	073.4	279.3	015.0000	0086.0	084.7	43.86
048.0	082.0000	0340.5	073.4	278.7	015.0000	0085.6	083.7	44.11
049.0	082.0000	0340.4	073.4	278.1	015.0000	0085.0	082.7	44.34
050.0	082.0000	0340.5	073.4	277.5	015.0000	0084.9	081.8	44.59

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
051.0	082.0000	0340.7	073.4	276.9	015.0000	0084.7	080.8	44.83
052.0	082.0000	0340.8	073.4	276.2	015.0000	0084.2	079.9	45.04
053.0	082.0000	0340.9	073.4	275.6	015.0000	0083.6	079.1	45.24
054.0	082.0000	0341.1	073.4	274.9	015.0000	0082.8	078.2	45.44
055.0	082.0000	0341.4	073.4	274.2	015.0000	0082.2	077.4	45.63
056.0	082.0000	0341.6	073.4	273.4	015.0000	0081.9	076.6	45.82
057.0	082.0000	0341.7	073.5	272.6	015.0000	0081.7	075.9	46.01
058.0	082.0000	0341.9	073.5	271.8	015.0000	0081.4	075.1	46.19
059.0	082.0000	0342.2	073.5	271.0	015.0000	0081.1	074.4	46.37
060.0	082.0000	0342.5	073.5	270.1	015.0000	0080.6	073.8	46.52
061.0	082.0000	0342.6	073.5	269.3	015.0000	0080.3	073.2	46.67
062.0	082.0000	0342.8	073.5	268.4	015.0000	0080.8	072.6	46.86
063.0	082.0000	0342.8	073.5	267.4	015.0000	0081.8	072.1	47.06
064.0	082.0000	0342.9	073.5	266.5	015.0000	0082.7	071.6	47.26
065.0	082.0000	0342.9	073.5	265.5	015.0000	0083.5	071.1	47.43
066.0	082.0000	0343.0	073.6	264.5	015.0000	0084.5	070.7	47.61
067.0	082.0000	0343.0	073.6	263.5	015.0000	0085.6	070.3	47.78
068.0	082.0000	0343.1	073.6	262.5	015.0000	0087.1	070.0	47.96
069.0	082.0000	0343.2	073.6	261.5	015.0000	0088.6	069.7	48.13
070.0	082.0000	0343.3	073.6	260.5	015.0000	0090.4	069.5	48.31
071.0	082.0000	0343.4	073.6	259.4	015.0000	0092.2	069.3	48.47
072.0	082.0000	0343.5	073.6	258.3	015.0000	0094.0	069.1	48.62
073.0	082.0000	0343.6	073.6	257.3	015.0000	0096.9	069.0	48.82
074.0	082.0000	0343.6	073.6	256.2	015.0000	0099.0	068.9	48.96
075.0	082.0000	0343.6	073.6	255.1	015.0000	0100.3	068.9	49.04
076.0	082.0000	0343.5	073.6	254.1	015.0000	0101.0	069.0	49.06
077.0	082.0000	0343.4	073.6	253.0	015.0000	0102.0	069.1	49.09
078.0	082.0000	0343.2	073.6	252.0	015.0000	0102.9	069.2	49.10
079.0	082.0000	0342.8	073.5	250.9	015.0000	0103.1	069.4	49.05
080.0	082.0000	0342.4	073.5	249.9	015.0000	0102.4	069.7	48.94
081.0	082.0000	0342.4	073.5	248.8	015.0000	0099.3	069.9	48.68
082.0	082.0000	0342.4	073.5	247.8	015.0000	0095.6	070.2	48.38
083.0	082.0000	0342.5	073.5	246.8	015.0000	0092.9	070.6	48.12
084.0	082.0000	0342.4	073.5	245.8	015.0000	0090.9	071.0	47.89
085.0	082.0000	0342.4	073.5	244.9	015.0000	0090.4	071.4	47.73
086.0	082.0000	0342.5	073.5	243.9	015.0000	0089.1	071.9	47.53
087.0	082.0000	0342.6	073.5	243.0	015.0000	0087.9	072.4	47.31
088.0	082.0000	0342.5	073.5	242.1	015.0000	0086.2	073.0	47.06
089.0	082.0000	0342.4	073.5	241.2	015.0000	0085.2	073.6	46.84
090.0	082.0000	0341.7	073.5	240.3	015.0000	0085.1	074.3	46.64
091.0	082.0000	0341.2	073.4	239.5	015.0000	0085.1	075.0	46.45
092.0	082.0000	0340.8	073.4	238.7	015.0000	0084.2	075.7	46.20
093.0	082.0000	0340.5	073.4	237.9	015.0000	0082.6	076.4	45.90
094.0	082.0000	0340.3	073.4	237.1	015.0000	0079.8	077.2	45.54
095.0	082.0000	0340.1	073.3	236.4	015.0000	0076.4	078.0	45.13
096.0	082.0000	0340.1	073.3	235.7	015.0000	0073.8	078.9	44.77
097.0	082.0000	0340.0	073.3	235.0	015.0000	0073.1	079.7	44.51
098.0	082.0000	0340.1	073.3	234.3	015.0000	0073.9	080.6	44.32
099.0	082.0000	0340.5	073.4	233.7	015.0000	0075.3	081.5	44.16
100.0	082.0000	0340.7	073.4	233.1	015.0000	0076.7	082.4	43.99
101.0	082.0000	0340.9	073.4	232.5	015.0000	0077.9	083.4	43.80

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
102.0	082.0000	0341.3	073.4	231.9	015.0000	0078.9	084.3	43.59
103.0	082.0000	0341.6	073.4	231.4	015.0000	0079.3	085.3	43.35
104.0	082.0000	0341.9	073.5	230.8	015.0000	0079.3	086.4	43.08
105.0	082.0000	0341.9	073.5	230.3	015.0000	0079.4	087.4	42.81
106.0	082.0000	0341.7	073.5	229.9	015.0000	0079.5	088.5	42.53
107.0	082.0000	0341.6	073.4	229.4	015.0000	0080.1	089.6	42.28
108.0	082.0000	0341.4	073.4	229.0	015.0000	0080.5	090.7	42.01
109.0	082.0000	0341.2	073.4	228.6	015.0000	0081.0	091.8	41.75
110.0	082.0000	0341.4	073.4	228.3	015.0000	0081.5	092.9	41.49
111.0	082.0000	0342.2	073.5	227.9	015.0000	0082.1	094.1	41.24
112.0	082.0000	0342.9	073.5	227.5	015.0000	0082.5	095.2	40.98
113.0	082.0000	0343.4	073.6	227.2	015.0000	0082.7	096.4	40.72
114.0	082.0000	0343.7	073.6	226.9	015.0000	0083.0	097.5	40.45
115.0	082.0000	0344.0	073.6	226.6	015.0000	0083.2	098.7	40.20
116.0	082.0000	0344.3	073.7	226.3	015.0000	0083.5	099.9	39.94
117.0	082.0000	0344.7	073.7	226.1	015.0000	0083.8	101.1	39.69
118.0	082.0000	0344.8	073.7	225.9	015.0000	0084.1	102.4	39.44
119.0	082.0000	0344.6	073.7	225.7	015.0000	0084.5	103.6	39.20
120.0	082.0000	0344.3	073.7	225.5	015.0000	0084.9	104.9	38.96
121.0	082.0000	0343.7	073.6	225.3	015.0000	0085.3	106.1	38.72
122.0	082.0000	0342.8	073.5	225.2	015.0000	0085.7	107.4	38.48
123.0	082.0000	0341.8	073.5	225.1	015.0000	0085.9	108.7	38.24
124.0	082.0000	0341.7	073.5	225.0	015.0000	0086.0	109.9	38.01
125.0	082.0000	0341.9	073.5	224.9	015.0000	0086.2	111.2	37.77
126.0	082.0000	0342.2	073.5	224.8	015.0000	0086.3	112.5	37.54
127.0	082.0000	0342.4	073.5	224.7	015.0000	0086.3	113.8	37.31
128.0	082.0000	0342.7	073.5	224.6	015.0000	0086.4	115.0	37.09
129.0	082.0000	0343.1	073.6	224.5	015.0000	0086.4	116.3	36.86
130.0	082.0000	0343.6	073.6	224.5	015.0000	0086.5	117.6	36.64
131.0	082.0000	0344.3	073.6	224.4	015.0000	0086.5	118.9	36.42
132.0	082.0000	0345.1	073.7	224.4	015.0000	0086.5	120.2	36.19
133.0	082.0000	0345.7	073.7	224.3	015.0000	0086.5	121.5	35.97
134.0	082.0000	0346.3	073.8	224.3	015.0000	0086.6	122.8	35.75

08-31-2007 USGS 03 SEC Terrain Data

KCFB BLED19991213AAH  
 Channel = 218C3  
 Max ERP = 15 kW  
 RCAMSL = 435 M  
 N. Lat. 45 30 02.0  
 W. Lng. 94 14 31.0  
 Protected  
 60 dBu

KRSU (New)  
 Channel = 217C0  
 Max ERP = 82 kW  
 RCAMSL = 652.5 M  
 N. Lat. 45 10 03.1  
 W. Lng. 96 00 01.9  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
196.0	015.0000	0091.6	033.6	087.3	082.0000	0342.6	129.0	48.60
197.0	015.0000	0091.7	033.6	087.2	082.0000	0342.6	128.5	48.73
198.0	015.0000	0091.7	033.6	087.2	082.0000	0342.6	127.9	48.86
199.0	015.0000	0091.7	033.6	087.1	082.0000	0342.6	127.4	48.99
200.0	015.0000	0091.4	033.6	086.9	082.0000	0342.6	126.8	49.11
201.0	015.0000	0091.0	033.5	086.8	082.0000	0342.6	126.3	49.23
202.0	015.0000	0090.4	033.4	086.7	082.0000	0342.6	125.8	49.35
203.0	015.0000	0090.0	033.3	086.5	082.0000	0342.6	125.3	49.46
204.0	015.0000	0089.8	033.3	086.4	082.0000	0342.6	124.8	49.58
205.0	015.0000	0089.7	033.2	086.3	082.0000	0342.6	124.3	49.70
206.0	015.0000	0089.2	033.2	086.1	082.0000	0342.5	123.9	49.81
207.0	015.0000	0088.9	033.1	085.9	082.0000	0342.5	123.4	49.92
208.0	015.0000	0087.6	032.9	085.7	082.0000	0342.5	123.0	50.01
209.0	015.0000	0086.2	032.6	085.5	082.0000	0342.5	122.7	50.08
210.0	015.0000	0085.9	032.5	085.3	082.0000	0342.4	122.2	50.19
211.0	015.0000	0086.5	032.6	085.2	082.0000	0342.4	121.7	50.31
212.0	015.0000	0087.5	032.8	085.1	082.0000	0342.4	121.1	50.45
213.0	015.0000	0088.0	032.9	085.0	082.0000	0342.4	120.6	50.57
214.0	015.0000	0087.7	032.9	084.8	082.0000	0342.4	120.2	50.68
215.0	015.0000	0087.4	032.8	084.6	082.0000	0342.5	119.8	50.78
216.0	015.0000	0087.3	032.8	084.4	082.0000	0342.4	119.3	50.88
217.0	015.0000	0087.3	032.8	084.2	082.0000	0342.4	118.9	50.98
218.0	015.0000	0087.9	032.9	084.1	082.0000	0342.4	118.4	51.10
219.0	015.0000	0087.7	032.9	083.9	082.0000	0342.4	118.0	51.20
220.0	015.0000	0086.5	032.6	083.6	082.0000	0342.4	117.8	51.26
221.0	015.0000	0085.2	032.4	083.3	082.0000	0342.4	117.5	51.31
222.0	015.0000	0085.8	032.5	083.1	082.0000	0342.5	117.1	51.42
223.0	015.0000	0086.5	032.6	083.0	082.0000	0342.5	116.6	51.54
224.0	015.0000	0086.7	032.7	082.8	082.0000	0342.5	116.2	51.64
225.0	015.0000	0086.0	032.6	082.5	082.0000	0342.5	115.9	51.71
226.0	015.0000	0083.9	032.1	082.2	082.0000	0342.5	115.9	51.71
227.0	015.0000	0082.9	031.9	081.9	082.0000	0342.4	115.7	51.75
228.0	015.0000	0081.9	031.8	081.6	082.0000	0342.4	115.6	51.80
229.0	015.0000	0080.5	031.5	081.3	082.0000	0342.4	115.5	51.82

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
230.0	015.0000	0079.4	031.3	081.0	082.0000	0342.4	115.4	51.84
231.0	015.0000	0079.3	031.3	080.8	082.0000	0342.4	115.1	51.91
232.0	015.0000	0078.8	031.1	080.5	082.0000	0342.4	114.9	51.96
233.0	015.0000	0076.9	030.8	080.2	082.0000	0342.4	115.0	51.94
234.0	015.0000	0074.6	030.3	079.9	082.0000	0342.4	115.1	51.91
235.0	015.0000	0073.1	030.1	079.6	082.0000	0342.5	115.1	51.91
236.0	015.0000	0074.6	030.4	079.4	082.0000	0342.6	114.6	52.04
237.0	015.0000	0079.2	031.2	079.3	082.0000	0342.6	113.6	52.29
238.0	015.0000	0082.9	031.9	079.2	082.0000	0342.7	112.8	52.52
239.0	015.0000	0084.7	032.3	079.0	082.0000	0342.8	112.2	52.66
240.0	015.0000	0085.1	032.4	078.7	082.0000	0342.9	112.0	52.74
241.0	015.0000	0085.2	032.4	078.5	082.0000	0343.0	111.7	52.80
242.0	015.0000	0086.1	032.6	078.2	082.0000	0343.1	111.4	52.89
243.0	015.0000	0087.9	032.9	078.0	082.0000	0343.2	110.9	53.02
244.0	015.0000	0089.3	033.2	077.7	082.0000	0343.3	110.5	53.13
245.0	015.0000	0090.4	033.4	077.5	082.0000	0343.3	110.2	53.23
246.0	015.0000	0091.2	033.5	077.2	082.0000	0343.4	109.9	53.30
247.0	015.0000	0093.3	033.9	076.9	082.0000	0343.5	109.4	53.44
248.0	015.0000	0096.3	034.4	076.7	082.0000	0343.5	108.8	53.61
249.0	015.0000	0099.9	035.0	076.4	082.0000	0343.5	108.1	53.80
250.0	015.0000	0102.5	035.4	076.1	082.0000	0343.5	107.6	53.94
251.0	015.0000	0103.1	035.5	075.8	082.0000	0343.6	107.4	53.99
252.0	015.0000	0102.9	035.5	075.5	082.0000	0343.6	107.4	53.99
253.0	015.0000	0102.0	035.4	075.1	082.0000	0343.6	107.5	53.97
254.0	015.0000	0101.0	035.2	074.8	082.0000	0343.6	107.6	53.93
255.0	015.0000	0100.4	035.1	074.5	082.0000	0343.6	107.7	53.91
256.0	015.0000	0099.3	034.9	074.1	082.0000	0343.6	107.9	53.86
257.0	015.0000	0097.6	034.6	073.8	082.0000	0343.6	108.2	53.77
258.0	015.0000	0094.9	034.2	073.5	082.0000	0343.6	108.7	53.64
259.0	015.0000	0092.8	033.8	073.2	082.0000	0343.6	109.1	53.53
260.0	015.0000	0091.2	033.5	072.9	082.0000	0343.6	109.4	53.43
261.0	015.0000	0089.4	033.2	072.6	082.0000	0343.5	109.8	53.32
262.0	015.0000	0087.9	032.9	072.4	082.0000	0343.5	110.2	53.23
263.0	015.0000	0086.3	032.6	072.1	082.0000	0343.5	110.6	53.12
264.0	015.0000	0085.2	032.4	071.8	082.0000	0343.5	110.9	53.04
265.0	015.0000	0083.9	032.1	071.6	082.0000	0343.5	111.3	52.94
266.0	015.0000	0083.2	032.0	071.3	082.0000	0343.5	111.5	52.87
267.0	015.0000	0082.2	031.8	071.0	082.0000	0343.4	111.8	52.79
268.0	015.0000	0081.2	031.6	070.8	082.0000	0343.4	112.2	52.70
269.0	015.0000	0080.3	031.4	070.5	082.0000	0343.4	112.5	52.61
270.0	015.0000	0080.6	031.5	070.3	082.0000	0343.3	112.6	52.58
271.0	015.0000	0081.1	031.6	070.0	082.0000	0343.3	112.7	52.56
272.0	015.0000	0081.5	031.7	069.7	082.0000	0343.3	112.8	52.53
273.0	015.0000	0081.8	031.7	069.4	082.0000	0343.3	113.0	52.49
274.0	015.0000	0082.2	031.8	069.2	082.0000	0343.2	113.1	52.45
275.0	015.0000	0082.9	031.9	068.9	082.0000	0343.2	113.2	52.42
276.0	015.0000	0084.0	032.2	068.6	082.0000	0343.2	113.3	52.41
277.0	015.0000	0084.8	032.3	068.3	082.0000	0343.1	113.4	52.37
278.0	015.0000	0085.0	032.4	068.0	082.0000	0343.1	113.6	52.32
279.0	015.0000	0085.9	032.5	067.7	082.0000	0343.1	113.8	52.28
280.0	015.0000	0086.9	032.7	067.4	082.0000	0343.1	113.9	52.25

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
281.0	015.0000	0088.2	033.0	067.1	082.0000	0343.1	114.0	52.22
282.0	015.0000	0089.4	033.2	066.8	082.0000	0343.0	114.1	52.19
283.0	015.0000	0089.9	033.3	066.6	082.0000	0343.0	114.4	52.12
284.0	015.0000	0089.1	033.1	066.4	082.0000	0343.0	114.8	52.01
285.0	015.0000	0088.1	032.9	066.2	082.0000	0343.0	115.3	51.88
286.0	015.0000	0087.9	032.9	066.0	082.0000	0343.0	115.7	51.79
287.0	015.0000	0087.9	032.9	065.8	082.0000	0343.0	116.1	51.70
288.0	015.0000	0087.0	032.7	065.6	082.0000	0342.9	116.6	51.57
289.0	015.0000	0085.9	032.5	065.5	082.0000	0342.9	117.1	51.44
290.0	015.0000	0085.1	032.4	065.3	082.0000	0342.9	117.6	51.32
291.0	015.0000	0084.5	032.3	065.1	082.0000	0342.9	118.1	51.20
292.0	015.0000	0084.1	032.2	065.0	082.0000	0342.9	118.5	51.09
293.0	015.0000	0084.5	032.3	064.8	082.0000	0342.9	118.9	51.01
294.0	015.0000	0084.8	032.3	064.6	082.0000	0342.9	119.3	50.92
295.0	015.0000	0085.7	032.5	064.3	082.0000	0342.9	119.6	50.84
296.0	015.0000	0086.8	032.7	064.1	082.0000	0342.9	119.9	50.77
297.0	015.0000	0087.8	032.9	063.8	082.0000	0342.8	120.2	50.69
298.0	015.0000	0088.1	033.0	063.6	082.0000	0342.8	120.6	50.59
299.0	015.0000	0088.1	032.9	063.5	082.0000	0342.8	121.1	50.47
300.0	015.0000	0088.3	033.0	063.3	082.0000	0342.8	121.5	50.37
301.0	015.0000	0088.7	033.1	063.1	082.0000	0342.8	122.0	50.26
302.0	015.0000	0089.6	033.2	062.9	082.0000	0342.8	122.4	50.17
303.0	015.0000	0090.0	033.3	062.7	082.0000	0342.8	122.8	50.06
304.0	015.0000	0090.4	033.4	062.6	082.0000	0342.8	123.3	49.95
305.0	015.0000	0090.0	033.3	062.5	082.0000	0342.8	123.8	49.83
306.0	015.0000	0090.1	033.3	062.3	082.0000	0342.8	124.3	49.71
307.0	015.0000	0090.1	033.3	062.2	082.0000	0342.8	124.8	49.59
308.0	015.0000	0090.0	033.3	062.1	082.0000	0342.8	125.4	49.46
309.0	015.0000	0089.9	033.3	062.0	082.0000	0342.8	125.9	49.34
310.0	015.0000	0090.1	033.3	061.9	082.0000	0342.8	126.4	49.22
311.0	015.0000	0090.6	033.4	061.7	082.0000	0342.7	126.9	49.10
312.0	015.0000	0091.9	033.6	061.5	082.0000	0342.7	127.4	48.99
313.0	015.0000	0093.5	033.9	061.3	082.0000	0342.7	127.8	48.88
314.0	015.0000	0094.7	034.1	061.2	082.0000	0342.6	128.3	48.77
315.0	015.0000	0095.9	034.3	061.0	082.0000	0342.6	128.8	48.65
316.0	015.0000	0098.3	034.8	060.7	082.0000	0342.6	129.3	48.54



KRSU (New)  
 Channel = 217C0  
 Max ERP = 82 kW  
 RCAMSL = 652.5 M  
 N. Lat. 45 10 03.1  
 W. Lng. 96 00 01.9  
 Protected  
 60 dBu

KNWF BLED20030430ABU  
 Channel = 218A  
 Max ERP = 2.7 kW  
 RCAMSL = 439 M  
 N. Lat. 46 19 12.0  
 W. Lng. 96 05 32.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
297.0	082.0000	0360.0	074.8	212.4	002.7000	0095.7	111.3	30.63
298.0	082.0000	0359.2	074.7	212.5	002.7000	0095.7	110.1	30.86
299.0	082.0000	0358.3	074.7	212.5	002.7000	0095.7	108.8	31.11
300.0	082.0000	0357.4	074.6	212.5	002.7000	0095.7	107.5	31.36
301.0	082.0000	0356.5	074.5	212.5	002.7000	0095.7	106.2	31.63
302.0	082.0000	0355.7	074.5	212.5	002.7000	0095.7	104.9	31.89
303.0	082.0000	0354.8	074.4	212.4	002.7000	0095.7	103.6	32.17
304.0	082.0000	0353.8	074.3	212.4	002.7000	0095.7	102.3	32.45
305.0	082.0000	0352.7	074.3	212.3	002.7000	0095.8	101.0	32.73
306.0	082.0000	0351.5	074.2	212.2	002.7000	0095.8	099.7	33.03
307.0	082.0000	0350.6	074.1	212.1	002.7000	0095.9	098.4	33.32
308.0	082.0000	0350.1	074.1	212.0	002.7000	0095.9	097.1	33.63
309.0	082.0000	0350.0	074.1	211.9	002.7000	0096.0	095.8	33.94
310.0	082.0000	0350.0	074.1	211.8	002.7000	0096.0	094.6	34.26
311.0	082.0000	0349.9	074.1	211.7	002.7000	0096.1	093.3	34.59
312.0	082.0000	0348.4	073.9	211.5	002.7000	0096.2	092.0	34.92
313.0	082.0000	0346.5	073.8	211.2	002.7000	0096.3	090.8	35.24
314.0	082.0000	0345.1	073.7	211.0	002.7000	0096.4	089.6	35.58
315.0	082.0000	0344.3	073.6	210.7	002.7000	0096.5	088.3	35.91
316.0	082.0000	0343.6	073.6	210.5	002.7000	0096.4	087.1	36.25
317.0	082.0000	0343.0	073.6	210.2	002.7000	0096.4	085.9	36.58
318.0	082.0000	0342.3	073.5	209.9	002.7000	0096.3	084.7	36.91
319.0	082.0000	0341.4	073.4	209.6	002.7000	0096.3	083.5	37.24
320.0	082.0000	0340.8	073.4	209.2	002.7000	0096.3	082.3	37.57
321.0	082.0000	0340.7	073.4	208.9	002.7000	0096.3	081.1	37.90
322.0	082.0000	0340.6	073.4	208.5	002.7000	0096.4	079.9	38.23
323.0	082.0000	0340.3	073.4	208.1	002.7000	0096.4	078.8	38.55
324.0	082.0000	0340.1	073.3	207.7	002.7000	0096.5	077.6	38.87
325.0	082.0000	0339.8	073.3	207.3	002.7000	0096.4	076.5	39.19
326.0	082.0000	0339.7	073.3	206.8	002.7000	0096.4	075.4	39.50
327.0	082.0000	0340.0	073.3	206.3	002.7000	0096.7	074.3	39.84
328.0	082.0000	0340.3	073.4	205.8	002.7000	0096.9	073.1	40.16
329.0	082.0000	0340.5	073.4	205.3	002.7000	0096.9	072.1	40.48
330.0	082.0000	0340.4	073.4	204.7	002.7000	0096.8	071.0	40.78
331.0	082.0000	0340.2	073.3	204.1	002.7000	0096.5	070.0	41.05
332.0	082.0000	0340.0	073.3	203.4	002.7000	0095.9	069.0	41.32
333.0	082.0000	0339.8	073.3	202.7	002.7000	0095.4	068.0	41.57

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
334.0	082.0000	0339.9	073.3	202.0	002.7000	0094.7	067.0	41.82
335.0	082.0000	0340.2	073.3	201.2	002.7000	0094.0	066.1	42.06
336.0	082.0000	0340.3	073.4	200.5	002.7000	0093.4	065.2	42.30
337.0	082.0000	0340.3	073.4	199.6	002.7000	0092.5	064.3	42.50
338.0	082.0000	0340.3	073.4	198.8	002.7000	0091.2	063.4	42.68
339.0	082.0000	0340.2	073.3	197.9	002.7000	0090.1	062.6	42.86
340.0	082.0000	0339.4	073.3	196.9	002.7000	0089.3	061.9	43.04
341.0	082.0000	0338.8	073.2	195.9	002.7000	0089.2	061.2	43.27
342.0	082.0000	0338.6	073.2	194.9	002.7000	0089.2	060.5	43.50
343.0	082.0000	0338.4	073.2	193.9	002.7000	0089.1	059.8	43.72
344.0	082.0000	0338.3	073.2	192.8	002.7000	0089.0	059.2	43.93
345.0	082.0000	0337.9	073.2	191.7	002.7000	0088.4	058.6	44.09
346.0	082.0000	0337.4	073.1	190.5	002.7000	0086.9	058.1	44.15
347.0	082.0000	0337.3	073.1	189.4	002.7000	0085.1	057.6	44.19
348.0	082.0000	0337.6	073.2	188.2	002.7000	0083.4	057.1	44.24
349.0	082.0000	0338.1	073.2	187.0	002.7000	0082.4	056.7	44.32
350.0	082.0000	0337.8	073.2	185.7	002.7000	0082.1	056.3	44.42
351.0	082.0000	0337.3	073.1	184.5	002.7000	0082.0	056.0	44.51
352.0	082.0000	0336.9	073.1	183.2	002.7000	0081.9	055.8	44.59
353.0	082.0000	0336.4	073.1	181.9	002.7000	0081.8	055.6	44.64
354.0	082.0000	0336.0	073.0	180.6	002.7000	0081.6	055.5	44.68
355.0	082.0000	0335.6	073.0	179.2	002.7000	0081.1	055.4	44.67
356.0	082.0000	0335.3	073.0	177.9	002.7000	0080.9	055.3	44.67
357.0	082.0000	0334.9	073.0	176.6	002.7000	0079.3	055.3	44.53
358.0	082.0000	0334.6	072.9	175.3	002.7000	0077.8	055.4	44.39
359.0	082.0000	0334.4	072.9	174.0	002.7000	0076.1	055.5	44.22
000.0	082.0000	0334.1	072.9	172.7	002.7000	0074.6	055.7	44.04
001.0	082.0000	0334.6	072.9	171.4	002.7000	0073.0	055.8	43.86
002.0	082.0000	0334.2	072.9	170.1	002.7000	0071.6	056.1	43.65
003.0	082.0000	0333.9	072.9	168.8	002.7000	0070.2	056.4	43.43
004.0	082.0000	0333.7	072.9	167.6	002.7000	0069.3	056.7	43.24
005.0	082.0000	0333.1	072.8	166.4	002.7000	0069.0	057.1	43.08
006.0	082.0000	0333.8	072.9	165.2	002.7000	0069.4	057.5	42.99
007.0	082.0000	0336.4	073.1	163.9	002.7000	0070.1	057.8	42.95
008.0	082.0000	0338.5	073.2	162.7	002.7000	0070.1	058.2	42.83
009.0	082.0000	0339.6	073.3	161.5	002.7000	0068.4	058.7	42.53
010.0	082.0000	0339.2	073.3	160.5	002.7000	0067.7	059.3	42.28
011.0	082.0000	0338.7	073.2	159.4	002.7000	0067.8	060.0	42.07
012.0	082.0000	0338.2	073.2	158.4	002.7000	0067.7	060.7	41.85
013.0	082.0000	0336.8	073.1	157.5	002.7000	0066.9	061.6	41.54
014.0	082.0000	0335.3	073.0	156.6	002.7000	0065.9	062.4	41.22
015.0	082.0000	0334.1	072.9	155.7	002.7000	0065.0	063.3	40.92
016.0	082.0000	0333.1	072.8	154.9	002.7000	0065.1	064.1	40.68
017.0	082.0000	0332.9	072.8	154.0	002.7000	0065.7	065.0	40.49
018.0	082.0000	0333.7	072.9	153.2	002.7000	0067.1	065.8	40.36
019.0	082.0000	0334.4	072.9	152.4	002.7000	0069.0	066.7	40.26
020.0	082.0000	0334.7	072.9	151.6	002.7000	0070.5	067.6	40.12
021.0	082.0000	0334.3	072.9	151.0	002.7000	0071.6	068.6	39.92
022.0	082.0000	0334.0	072.9	150.3	002.7000	0072.3	069.6	39.70
023.0	082.0000	0334.7	072.9	149.6	002.7000	0072.2	070.6	39.43
024.0	082.0000	0335.7	073.0	149.0	002.7000	0071.8	071.6	39.14

## FMOver Analysis

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
025.0	082.0000	0335.8	073.0	148.4	002.7000	0070.9	072.6	38.81
026.0	082.0000	0336.0	073.0	147.8	002.7000	0069.6	073.7	38.45
027.0	082.0000	0336.2	073.1	147.3	002.7000	0068.1	074.8	38.07
028.0	082.0000	0336.4	073.1	146.8	002.7000	0066.6	075.9	37.70
029.0	082.0000	0336.6	073.1	146.4	002.7000	0065.3	077.0	37.33
030.0	082.0000	0336.7	073.1	145.9	002.7000	0064.2	078.1	36.98
031.0	082.0000	0336.7	073.1	145.5	002.7000	0063.1	079.3	36.63
032.0	082.0000	0336.8	073.1	145.1	002.7000	0062.3	080.4	36.29
033.0	082.0000	0337.0	073.1	144.8	002.7000	0061.5	081.6	35.96
034.0	082.0000	0337.2	073.1	144.4	002.7000	0061.0	082.8	35.63
035.0	082.0000	0337.1	073.1	144.1	002.7000	0060.6	084.0	35.31
036.0	082.0000	0337.2	073.1	143.9	002.7000	0060.2	085.2	34.99
037.0	082.0000	0337.4	073.1	143.6	002.7000	0059.8	086.4	34.66
038.0	082.0000	0337.8	073.2	143.3	002.7000	0059.3	087.6	34.34
039.0	082.0000	0338.2	073.2	143.1	002.7000	0058.8	088.9	34.01
040.0	082.0000	0338.6	073.2	142.9	002.7000	0058.2	090.1	33.68
041.0	082.0000	0339.0	073.3	142.7	002.7000	0057.7	091.3	33.36
042.0	082.0000	0339.3	073.3	142.5	002.7000	0057.2	092.6	33.04
043.0	082.0000	0339.7	073.3	142.3	002.7000	0056.7	093.9	32.74
044.0	082.0000	0339.9	073.3	142.2	002.7000	0056.4	095.1	32.44
045.0	082.0000	0340.2	073.3	142.1	002.7000	0056.1	096.4	32.15
046.0	082.0000	0340.4	073.4	142.0	002.7000	0055.8	097.7	31.86
047.0	082.0000	0340.5	073.4	141.9	002.7000	0055.5	098.9	31.59
048.0	082.0000	0340.5	073.4	141.8	002.7000	0055.3	100.2	31.32
049.0	082.0000	0340.4	073.4	141.8	002.7000	0055.2	101.5	31.07
050.0	082.0000	0340.5	073.4	141.8	002.7000	0055.0	102.8	30.82
051.0	082.0000	0340.7	073.4	141.7	002.7000	0055.0	104.0	30.57
052.0	082.0000	0340.8	073.4	141.7	002.7000	0054.9	105.3	30.33
053.0	082.0000	0340.9	073.4	141.7	002.7000	0054.9	106.6	30.09
054.0	082.0000	0341.1	073.4	141.7	002.7000	0054.9	107.9	29.86
055.0	082.0000	0341.4	073.4	141.7	002.7000	0055.0	109.2	29.62
056.0	082.0000	0341.6	073.4	141.8	002.7000	0055.1	110.4	29.40
057.0	082.0000	0341.7	073.5	141.8	002.7000	0055.2	111.7	29.17

KNWF BLED20030430ABU  
 Channel = 218A  
 Max ERP = 2.7 kW  
 RCAMSL = 439 M  
 N. Lat. 46 19 12.0  
 W. Lng. 96 05 32.0  
 Protected  
 60 dBu

KRSU (New)  
 Channel = 217C0  
 Max ERP = 82 kW  
 RCAMSL = 652.5 M  
 N. Lat. 45 10 03.1  
 W. Lng. 96 00 01.9  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
117.0	002.7000	0054.1	017.5	004.0	082.0000	0333.7	120.4	50.27
118.0	002.7000	0053.7	017.4	003.9	082.0000	0333.7	120.2	50.33
119.0	002.7000	0053.2	017.3	003.8	082.0000	0333.7	120.0	50.38
120.0	002.7000	0052.5	017.2	003.7	082.0000	0333.8	119.7	50.43
121.0	002.7000	0052.3	017.2	003.6	082.0000	0333.8	119.5	50.49
122.0	002.7000	0052.3	017.2	003.5	082.0000	0333.8	119.2	50.56
123.0	002.7000	0051.9	017.1	003.4	082.0000	0333.8	119.0	50.61
124.0	002.7000	0051.1	017.0	003.3	082.0000	0333.8	118.8	50.66
125.0	002.7000	0049.9	016.7	003.1	082.0000	0333.9	118.7	50.69
126.0	002.7000	0048.3	016.4	002.9	082.0000	0333.9	118.6	50.70
127.0	002.7000	0046.9	016.1	002.7	082.0000	0334.0	118.5	50.72
128.0	002.7000	0045.0	015.7	002.5	082.0000	0334.0	118.5	50.73
129.0	002.7000	0043.6	015.4	002.3	082.0000	0334.1	118.5	50.74
130.0	002.7000	0043.6	015.4	002.2	082.0000	0334.1	118.3	50.79
131.0	002.7000	0044.0	015.5	002.2	082.0000	0334.1	118.0	50.86
132.0	002.7000	0044.2	015.5	002.1	082.0000	0334.2	117.8	50.91
133.0	002.7000	0044.4	015.6	002.1	082.0000	0334.2	117.5	50.97
134.0	002.7000	0045.0	015.7	002.0	082.0000	0334.2	117.2	51.04
135.0	002.7000	0046.2	016.0	002.0	082.0000	0334.2	116.9	51.13
136.0	002.7000	0047.5	016.2	002.0	082.0000	0334.2	116.5	51.22
137.0	002.7000	0048.8	016.5	002.0	082.0000	0334.2	116.1	51.32
138.0	002.7000	0050.3	016.8	002.0	082.0000	0334.2	115.7	51.42
139.0	002.7000	0051.2	017.0	002.0	082.0000	0334.2	115.4	51.50
140.0	002.7000	0051.1	016.9	001.8	082.0000	0334.2	115.2	51.55
141.0	002.7000	0053.1	017.3	001.9	082.0000	0334.2	114.7	51.67
142.0	002.7000	0055.8	017.8	001.9	082.0000	0334.2	114.1	51.81
143.0	002.7000	0058.5	018.2	001.9	082.0000	0334.2	113.6	51.95
144.0	002.7000	0060.4	018.5	001.9	082.0000	0334.2	113.2	52.05
145.0	002.7000	0062.0	018.8	001.8	082.0000	0334.2	112.8	52.15
146.0	002.7000	0064.4	019.1	001.8	082.0000	0334.2	112.3	52.27
147.0	002.7000	0067.1	019.5	001.8	082.0000	0334.2	111.8	52.40
148.0	002.7000	0070.0	019.9	001.7	082.0000	0334.3	111.3	52.54
149.0	002.7000	0071.8	020.1	001.6	082.0000	0334.3	110.9	52.65
150.0	002.7000	0072.3	020.2	001.5	082.0000	0334.4	110.7	52.72

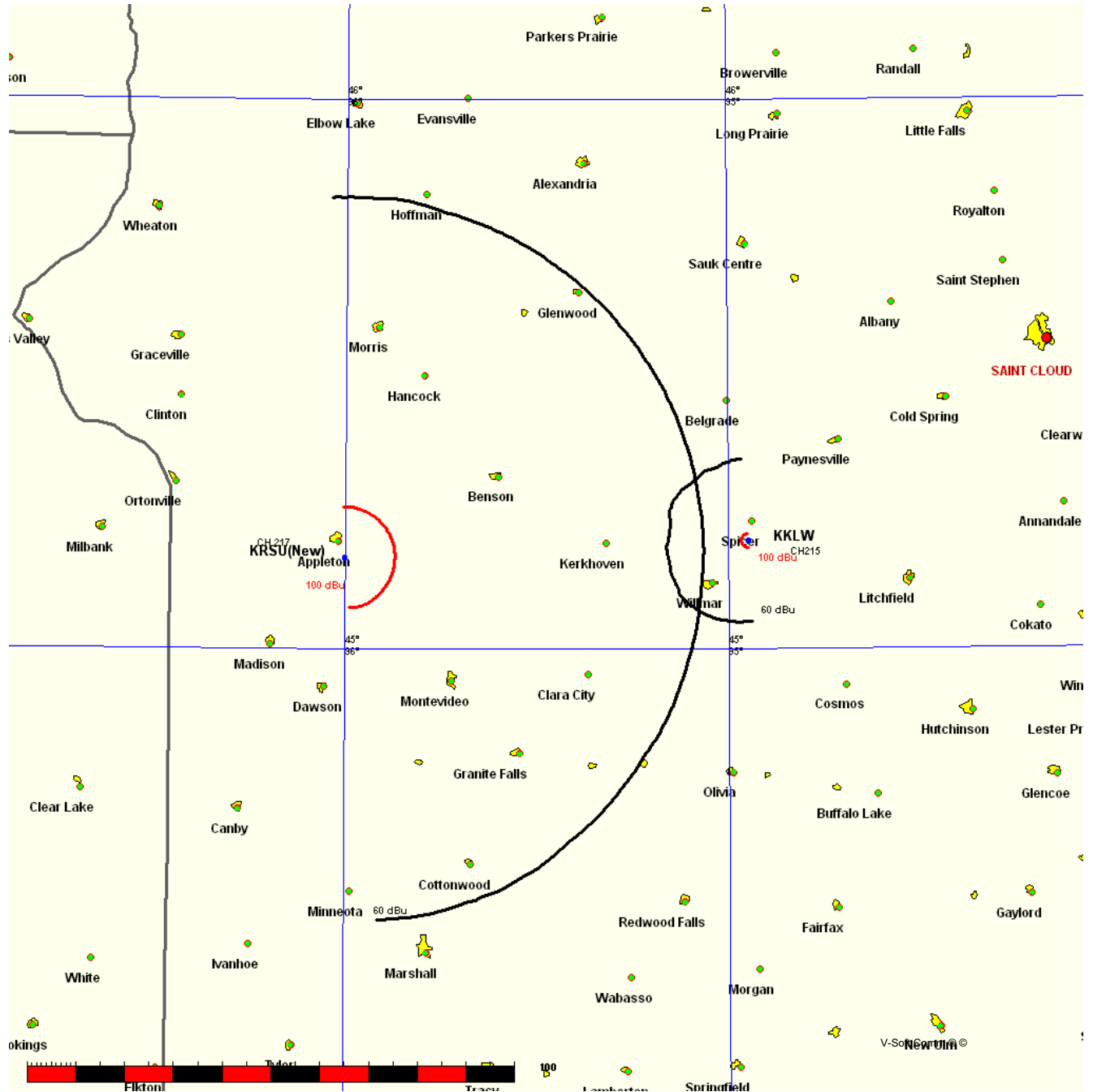
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
151.0	002.7000	0071.6	020.1	001.3	082.0000	0334.5	110.6	52.75
152.0	002.7000	0069.8	019.8	001.1	082.0000	0334.6	110.6	52.75
153.0	002.7000	0067.5	019.5	000.9	082.0000	0334.6	110.7	52.71
154.0	002.7000	0065.7	019.3	000.7	082.0000	0334.5	110.8	52.69
155.0	002.7000	0065.1	019.2	000.5	082.0000	0334.5	110.7	52.71
156.0	002.7000	0065.2	019.2	000.3	082.0000	0334.4	110.6	52.75
157.0	002.7000	0066.4	019.4	000.2	082.0000	0334.3	110.3	52.82
158.0	002.7000	0067.4	019.5	000.1	082.0000	0334.1	110.0	52.88
159.0	002.7000	0067.8	019.6	359.9	082.0000	0334.1	109.8	52.93
160.0	002.7000	0067.7	019.5	359.8	082.0000	0334.2	109.7	52.96
161.0	002.7000	0067.9	019.6	359.6	082.0000	0334.3	109.6	53.01
162.0	002.7000	0069.2	019.8	359.5	082.0000	0334.3	109.3	53.08
163.0	002.7000	0070.3	019.9	359.3	082.0000	0334.4	109.1	53.15
164.0	002.7000	0070.1	019.9	359.1	082.0000	0334.4	109.0	53.17
165.0	002.7000	0069.5	019.8	358.9	082.0000	0334.4	109.0	53.18
166.0	002.7000	0068.9	019.7	358.8	082.0000	0334.4	109.0	53.18
167.0	002.7000	0069.1	019.7	358.6	082.0000	0334.4	108.9	53.21
168.0	002.7000	0069.5	019.8	358.4	082.0000	0334.5	108.8	53.24
169.0	002.7000	0070.4	019.9	358.3	082.0000	0334.5	108.6	53.29
170.0	002.7000	0071.5	020.1	358.1	082.0000	0334.5	108.4	53.35
171.0	002.7000	0072.6	020.2	357.9	082.0000	0334.6	108.2	53.41
172.0	002.7000	0073.5	020.3	357.7	082.0000	0334.6	108.0	53.45
173.0	002.7000	0075.0	020.5	357.6	082.0000	0334.6	107.8	53.52
174.0	002.7000	0076.1	020.7	357.4	082.0000	0334.7	107.6	53.57
175.0	002.7000	0077.4	020.9	357.2	082.0000	0334.8	107.4	53.63
176.0	002.7000	0078.4	021.0	357.0	082.0000	0334.9	107.3	53.67
177.0	002.7000	0079.9	021.2	356.8	082.0000	0335.0	107.1	53.73
178.0	002.7000	0080.9	021.3	356.6	082.0000	0335.0	107.0	53.77
179.0	002.7000	0081.0	021.3	356.4	082.0000	0335.1	107.0	53.77
180.0	002.7000	0081.4	021.4	356.2	082.0000	0335.2	107.0	53.78
181.0	002.7000	0081.7	021.4	356.0	082.0000	0335.3	106.9	53.79
182.0	002.7000	0081.8	021.4	355.8	082.0000	0335.3	107.0	53.79
183.0	002.7000	0081.9	021.4	355.6	082.0000	0335.4	107.0	53.78
184.0	002.7000	0081.9	021.4	355.4	082.0000	0335.5	107.1	53.77
185.0	002.7000	0082.1	021.5	355.2	082.0000	0335.5	107.1	53.76
186.0	002.7000	0082.2	021.5	355.0	082.0000	0335.6	107.1	53.74
187.0	002.7000	0082.4	021.5	354.8	082.0000	0335.7	107.2	53.74
188.0	002.7000	0083.2	021.6	354.6	082.0000	0335.7	107.2	53.74
189.0	002.7000	0084.6	021.8	354.4	082.0000	0335.8	107.1	53.77
190.0	002.7000	0086.0	022.0	354.2	082.0000	0335.9	107.0	53.80
191.0	002.7000	0087.6	022.2	354.0	082.0000	0336.0	106.9	53.82
192.0	002.7000	0088.7	022.3	353.7	082.0000	0336.1	106.9	53.83
193.0	002.7000	0089.0	022.3	353.5	082.0000	0336.2	107.0	53.81
194.0	002.7000	0089.1	022.4	353.3	082.0000	0336.3	107.1	53.77
195.0	002.7000	0089.2	022.4	353.2	082.0000	0336.4	107.3	53.74
196.0	002.7000	0089.2	022.4	353.0	082.0000	0336.4	107.4	53.70
197.0	002.7000	0089.4	022.4	352.8	082.0000	0336.5	107.6	53.67
198.0	002.7000	0090.3	022.5	352.6	082.0000	0336.6	107.6	53.65
199.0	002.7000	0091.5	022.7	352.3	082.0000	0336.7	107.7	53.64
200.0	002.7000	0092.9	022.8	352.1	082.0000	0336.8	107.7	53.64
201.0	002.7000	0093.8	022.9	351.9	082.0000	0336.9	107.8	53.62

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
202.0	002.7000	0094.7	023.0	351.7	082.0000	0337.0	107.9	53.59
203.0	002.7000	0095.6	023.1	351.5	082.0000	0337.1	108.0	53.56
204.0	002.7000	0096.4	023.2	351.3	082.0000	0337.2	108.1	53.53
205.0	002.7000	0096.9	023.3	351.1	082.0000	0337.3	108.3	53.48
206.0	002.7000	0096.8	023.3	350.9	082.0000	0337.3	108.6	53.42
207.0	002.7000	0096.3	023.2	350.8	082.0000	0337.4	108.8	53.34
208.0	002.7000	0096.4	023.2	350.6	082.0000	0337.5	109.1	53.28
209.0	002.7000	0096.3	023.2	350.4	082.0000	0337.5	109.3	53.21
210.0	002.7000	0096.4	023.2	350.3	082.0000	0337.6	109.6	53.14
211.0	002.7000	0096.4	023.2	350.1	082.0000	0337.7	109.9	53.08
212.0	002.7000	0095.9	023.2	350.0	082.0000	0337.9	110.2	53.00
213.0	002.7000	0095.5	023.1	349.8	082.0000	0338.0	110.5	52.92
214.0	002.7000	0095.5	023.1	349.7	082.0000	0338.1	110.7	52.85
215.0	002.7000	0096.1	023.2	349.5	082.0000	0338.1	111.0	52.79
216.0	002.7000	0096.7	023.3	349.3	082.0000	0338.1	111.2	52.72
217.0	002.7000	0097.4	023.3	349.2	082.0000	0338.1	111.5	52.66
218.0	002.7000	0097.6	023.4	349.0	082.0000	0338.1	111.8	52.58
219.0	002.7000	0097.8	023.4	348.9	082.0000	0338.1	112.1	52.50
220.0	002.7000	0097.3	023.3	348.8	082.0000	0338.1	112.4	52.41
221.0	002.7000	0096.8	023.3	348.7	082.0000	0338.0	112.8	52.32
222.0	002.7000	0096.1	023.2	348.6	082.0000	0338.0	113.1	52.22
223.0	002.7000	0095.6	023.1	348.5	082.0000	0338.0	113.5	52.12
224.0	002.7000	0095.3	023.1	348.4	082.0000	0337.9	113.9	52.03
225.0	002.7000	0095.1	023.1	348.3	082.0000	0337.8	114.2	51.94
226.0	002.7000	0095.0	023.1	348.2	082.0000	0337.8	114.6	51.85
227.0	002.7000	0095.2	023.1	348.1	082.0000	0337.7	114.9	51.76
228.0	002.7000	0095.4	023.1	348.0	082.0000	0337.6	115.2	51.68
229.0	002.7000	0095.5	023.1	347.9	082.0000	0337.5	115.6	51.59
230.0	002.7000	0095.7	023.2	347.8	082.0000	0337.4	115.9	51.50
231.0	002.7000	0096.0	023.2	347.7	082.0000	0337.4	116.3	51.41
232.0	002.7000	0096.5	023.2	347.5	082.0000	0337.3	116.6	51.33
233.0	002.7000	0097.4	023.4	347.4	082.0000	0337.3	116.9	51.25
234.0	002.7000	0098.0	023.4	347.3	082.0000	0337.3	117.3	51.17
235.0	002.7000	0098.2	023.4	347.2	082.0000	0337.3	117.6	51.08
236.0	002.7000	0098.1	023.4	347.2	082.0000	0337.3	118.0	50.98
237.0	002.7000	0097.6	023.4	347.1	082.0000	0337.3	118.4	50.89

FMCommander Single Allocation Study  
08-31-2007

KRSU(New) CH 217 C0  
82.0 kW 652.5 M COR  
Prot. = 60 dBu  
Intef. = 100 dBu

KKLW CH 215 A BLED20040204ABY  
0.4 kW, 491 M COR  
Prot. = 60 dBu  
Intef. = 100 dBu



KRSU (New)  
 Channel = 217C0  
 Max ERP = 82 kW  
 RCAMSL = 652.5 M  
 N. Lat. 45 10 03.1  
 W. Lng. 96 00 01.9  
 Protected  
 60 dBu

KKLW BLED20040204ABY  
 Channel = 215A  
 Max ERP = 0.4 kW  
 RCAMSL = 491 M  
 N. Lat. 45 11 52.0  
 W. Lng. 94 56 58.0  
 Interfering  
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
027.0	082.0000	0336.2	073.1	321.8	000.4000	0125.5	078.9	31.64
028.0	082.0000	0336.4	073.1	322.2	000.4000	0125.7	077.7	32.02
029.0	082.0000	0336.6	073.1	322.6	000.4000	0125.8	076.5	32.37
030.0	082.0000	0336.7	073.1	323.0	000.4000	0126.0	075.3	32.73
031.0	082.0000	0336.7	073.1	323.4	000.4000	0126.2	074.2	33.09
032.0	082.0000	0336.8	073.1	323.7	000.4000	0126.4	073.0	33.46
033.0	082.0000	0337.0	073.1	324.1	000.4000	0126.6	071.8	33.83
034.0	082.0000	0337.2	073.1	324.5	000.4000	0126.8	070.6	34.21
035.0	082.0000	0337.1	073.1	324.8	000.4000	0127.0	069.4	34.59
036.0	082.0000	0337.2	073.1	325.2	000.4000	0127.3	068.2	34.98
037.0	082.0000	0337.4	073.1	325.5	000.4000	0127.5	067.0	35.38
038.0	082.0000	0337.8	073.2	325.9	000.4000	0127.7	065.8	35.77
039.0	082.0000	0338.2	073.2	326.2	000.4000	0127.8	064.6	36.16
040.0	082.0000	0338.6	073.2	326.6	000.4000	0127.8	063.4	36.57
041.0	082.0000	0339.0	073.3	326.9	000.4000	0127.8	062.2	36.98
042.0	082.0000	0339.3	073.3	327.2	000.4000	0127.8	060.9	37.41
043.0	082.0000	0339.7	073.3	327.5	000.4000	0127.8	059.7	37.85
044.0	082.0000	0339.9	073.3	327.8	000.4000	0127.8	058.5	38.30
045.0	082.0000	0340.2	073.3	328.1	000.4000	0127.8	057.2	38.76
046.0	082.0000	0340.4	073.4	328.4	000.4000	0127.8	056.0	39.24
047.0	082.0000	0340.5	073.4	328.7	000.4000	0127.8	054.8	39.71
048.0	082.0000	0340.5	073.4	328.9	000.4000	0127.8	053.5	40.20
049.0	082.0000	0340.4	073.4	329.2	000.4000	0127.7	052.2	40.69
050.0	082.0000	0340.5	073.4	329.4	000.4000	0127.7	051.0	41.17
051.0	082.0000	0340.7	073.4	329.6	000.4000	0127.5	049.7	41.66
052.0	082.0000	0340.8	073.4	329.9	000.4000	0127.3	048.5	42.14
053.0	082.0000	0340.9	073.4	330.0	000.4000	0127.1	047.2	42.62
054.0	082.0000	0341.1	073.4	330.2	000.4000	0126.8	045.9	43.11
055.0	082.0000	0341.4	073.4	330.4	000.4000	0126.5	044.7	43.62
056.0	082.0000	0341.6	073.4	330.5	000.4000	0126.2	043.4	44.14
057.0	082.0000	0341.7	073.5	330.7	000.4000	0126.0	042.1	44.67
058.0	082.0000	0341.9	073.5	330.8	000.4000	0125.8	040.8	45.21
059.0	082.0000	0342.2	073.5	330.9	000.4000	0125.6	039.6	45.77
060.0	082.0000	0342.5	073.5	330.9	000.4000	0125.5	038.3	46.34
061.0	082.0000	0342.6	073.5	330.9	000.4000	0125.5	037.0	46.93
062.0	082.0000	0342.8	073.5	330.9	000.4000	0125.5	035.7	47.53
063.0	082.0000	0342.8	073.5	330.8	000.4000	0125.6	034.4	48.16

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
064.0	082.0000	0342.9	073.5	330.7	000.4000	0125.9	033.2	48.79
065.0	082.0000	0342.9	073.5	330.6	000.4000	0126.2	031.9	49.45
066.0	082.0000	0343.0	073.6	330.3	000.4000	0126.6	030.6	50.15
067.0	082.0000	0343.0	073.6	330.1	000.4000	0127.1	029.3	50.90
068.0	082.0000	0343.1	073.6	329.7	000.4000	0127.5	028.1	51.70
069.0	082.0000	0343.2	073.6	329.3	000.4000	0127.7	026.8	52.54
070.0	082.0000	0343.3	073.6	328.7	000.4000	0127.8	025.5	53.39
071.0	082.0000	0343.4	073.6	328.1	000.4000	0127.8	024.3	54.27
072.0	082.0000	0343.5	073.6	327.4	000.4000	0127.8	023.0	55.19
073.0	082.0000	0343.6	073.6	326.5	000.4000	0127.8	021.8	56.12
074.0	082.0000	0343.6	073.6	325.4	000.4000	0127.5	020.6	57.04
075.0	082.0000	0343.6	073.6	324.2	000.4000	0126.6	019.4	57.94
076.0	082.0000	0343.5	073.6	322.6	000.4000	0125.8	018.2	58.84
077.0	082.0000	0343.4	073.6	320.8	000.4000	0125.2	017.0	59.75
078.0	082.0000	0343.2	073.6	318.7	000.4000	0123.9	015.9	60.59
079.0	082.0000	0342.8	073.5	316.1	000.4000	0125.5	014.8	61.51
080.0	082.0000	0342.4	073.5	313.0	000.4000	0127.1	013.8	62.81
081.0	082.0000	0342.4	073.5	309.5	000.4000	0130.5	012.8	64.33
082.0	082.0000	0342.4	073.5	305.3	000.4000	0133.1	011.9	65.84
083.0	082.0000	0342.5	073.5	300.4	000.4000	0137.0	011.1	67.40
084.0	082.0000	0342.4	073.5	294.7	000.4000	0137.9	010.4	68.64
085.0	082.0000	0342.4	073.5	288.2	000.4000	0134.4	009.8	69.41
086.0	082.0000	0342.5	073.5	280.9	000.4000	0123.8	009.4	69.47
087.0	082.0000	0342.6	073.5	273.1	000.4000	0123.6	009.2	69.90
088.0	082.0000	0342.5	073.5	265.0	000.4000	0131.0	009.1	70.43
089.0	082.0000	0342.4	073.5	257.1	000.4000	0130.5	009.3	70.04
090.0	082.0000	0341.7	073.5	249.8	000.4000	0132.2	009.7	69.39
091.0	082.0000	0341.2	073.4	243.2	000.4000	0136.2	010.3	68.66
092.0	082.0000	0340.8	073.4	237.4	000.4000	0138.1	011.0	67.62
093.0	082.0000	0340.5	073.4	232.4	000.4000	0144.3	011.8	66.76
094.0	082.0000	0340.3	073.4	228.1	000.4000	0145.0	012.7	65.50
095.0	082.0000	0340.1	073.3	224.4	000.4000	0143.8	013.7	64.12
096.0	082.0000	0340.1	073.3	221.3	000.4000	0141.9	014.7	62.77
097.0	082.0000	0340.0	073.3	218.7	000.4000	0140.6	015.8	61.83
098.0	082.0000	0340.1	073.3	216.5	000.4000	0139.6	016.9	60.84
099.0	082.0000	0340.5	073.4	214.5	000.4000	0139.2	018.0	59.89
100.0	082.0000	0340.7	073.4	212.9	000.4000	0138.8	019.2	58.91
101.0	082.0000	0340.9	073.4	211.5	000.4000	0138.4	020.4	57.94
102.0	082.0000	0341.3	073.4	210.3	000.4000	0138.1	021.6	56.98
103.0	082.0000	0341.6	073.4	209.2	000.4000	0137.8	022.8	56.03
104.0	082.0000	0341.9	073.5	208.4	000.4000	0137.5	024.0	55.10
105.0	082.0000	0341.9	073.5	207.7	000.4000	0137.2	025.3	54.20
106.0	082.0000	0341.7	073.5	207.2	000.4000	0137.0	026.5	53.32
107.0	082.0000	0341.6	073.4	206.7	000.4000	0136.9	027.8	52.48
108.0	082.0000	0341.4	073.4	206.3	000.4000	0136.8	029.1	51.69
109.0	082.0000	0341.2	073.4	206.1	000.4000	0136.7	030.4	50.94
110.0	082.0000	0341.4	073.4	205.8	000.4000	0136.7	031.6	50.25
111.0	082.0000	0342.2	073.5	205.5	000.4000	0136.6	032.9	49.60
112.0	082.0000	0342.9	073.5	205.3	000.4000	0136.6	034.2	48.96
113.0	082.0000	0343.4	073.6	205.1	000.4000	0136.5	035.5	48.33
114.0	082.0000	0343.7	073.6	205.0	000.4000	0136.5	036.8	47.70

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
115.0	082.0000	0344.0	073.6	205.0	000.4000	0136.5	038.0	47.10
116.0	082.0000	0344.3	073.7	205.0	000.4000	0136.5	039.3	46.50
117.0	082.0000	0344.7	073.7	205.0	000.4000	0136.5	040.6	45.91
118.0	082.0000	0344.8	073.7	205.1	000.4000	0136.5	041.9	45.34
119.0	082.0000	0344.6	073.7	205.2	000.4000	0136.6	043.2	44.78
120.0	082.0000	0344.3	073.7	205.4	000.4000	0136.6	044.5	44.24
121.0	082.0000	0343.7	073.6	205.6	000.4000	0136.6	045.8	43.71
122.0	082.0000	0342.8	073.5	205.8	000.4000	0136.7	047.0	43.20
123.0	082.0000	0341.8	073.5	206.1	000.4000	0136.7	048.3	42.70
124.0	082.0000	0341.7	073.5	206.3	000.4000	0136.8	049.6	42.21
125.0	082.0000	0341.9	073.5	206.5	000.4000	0136.8	050.9	41.72
126.0	082.0000	0342.2	073.5	206.7	000.4000	0136.9	052.1	41.22
127.0	082.0000	0342.4	073.5	207.0	000.4000	0136.9	053.4	40.73
128.0	082.0000	0342.7	073.5	207.2	000.4000	0137.0	054.7	40.25
129.0	082.0000	0343.1	073.6	207.4	000.4000	0137.1	055.9	39.77
130.0	082.0000	0343.6	073.6	207.7	000.4000	0137.2	057.2	39.30
131.0	082.0000	0344.3	073.6	207.9	000.4000	0137.3	058.5	38.83
132.0	082.0000	0345.1	073.7	208.2	000.4000	0137.4	059.7	38.37
133.0	082.0000	0345.7	073.7	208.4	000.4000	0137.5	061.0	37.92
134.0	082.0000	0346.3	073.8	208.7	000.4000	0137.6	062.3	37.49
135.0	082.0000	0347.4	073.9	209.0	000.4000	0137.7	063.5	37.06
136.0	082.0000	0347.5	073.9	209.3	000.4000	0137.8	064.8	36.66
137.0	082.0000	0346.7	073.8	209.7	000.4000	0137.9	066.0	36.26
138.0	082.0000	0346.2	073.8	210.1	000.4000	0138.0	067.2	35.88
139.0	082.0000	0346.1	073.8	210.4	000.4000	0138.1	068.4	35.49
140.0	082.0000	0345.9	073.8	210.8	000.4000	0138.2	069.6	35.11
141.0	082.0000	0345.9	073.8	211.1	000.4000	0138.3	070.8	34.73
142.0	082.0000	0346.5	073.8	211.5	000.4000	0138.4	072.1	34.35
143.0	082.0000	0347.4	073.9	211.8	000.4000	0138.5	073.3	33.97
144.0	082.0000	0348.8	074.0	212.1	000.4000	0138.5	074.5	33.59
145.0	082.0000	0350.1	074.1	212.4	000.4000	0138.6	075.8	33.21
146.0	082.0000	0351.9	074.2	212.7	000.4000	0138.7	077.0	32.84
147.0	082.0000	0353.6	074.3	213.0	000.4000	0138.8	078.3	32.46

08-31-2007 USGS 03 SEC Terrain Data

KKLW BLED20040204ABY  
 Channel = 215A  
 Max ERP = 0.4 kW  
 RCAMSL = 491 M  
 N. Lat. 45 11 52.0  
 W. Lng. 94 56 58.0  
 Protected  
 60 dBu

KRSU (New)  
 Channel = 217C0  
 Max ERP = 82 kW  
 RCAMSL = 652.5 M  
 N. Lat. 45 10 03.1  
 W. Lng. 96 00 01.9  
 Interfering  
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
208.0	000.4000	0137.3	017.2	098.7	082.0000	0340.4	075.6	63.88
209.0	000.4000	0137.7	017.2	098.7	082.0000	0340.3	075.3	63.98
210.0	000.4000	0138.0	017.3	098.6	082.0000	0340.3	075.0	64.08
211.0	000.4000	0138.3	017.3	098.5	082.0000	0340.3	074.7	64.18
212.0	000.4000	0138.5	017.3	098.4	082.0000	0340.3	074.4	64.28
213.0	000.4000	0138.8	017.3	098.4	082.0000	0340.2	074.1	64.38
214.0	000.4000	0139.1	017.3	098.3	082.0000	0340.2	073.8	64.48
215.0	000.4000	0139.3	017.4	098.2	082.0000	0340.2	073.6	64.58
216.0	000.4000	0139.5	017.4	098.1	082.0000	0340.1	073.3	64.67
217.0	000.4000	0139.8	017.4	098.0	082.0000	0340.1	073.0	64.77
218.0	000.4000	0140.1	017.4	097.9	082.0000	0340.1	072.7	64.87
219.0	000.4000	0140.7	017.5	097.8	082.0000	0340.1	072.4	64.97
220.0	000.4000	0141.1	017.5	097.7	082.0000	0340.1	072.2	65.07
221.0	000.4000	0141.6	017.5	097.6	082.0000	0340.1	071.9	65.17
222.0	000.4000	0142.4	017.6	097.5	082.0000	0340.0	071.6	65.27
223.0	000.4000	0143.1	017.6	097.4	082.0000	0340.0	071.3	65.37
224.0	000.4000	0143.7	017.7	097.3	082.0000	0340.0	071.0	65.46
225.0	000.4000	0144.0	017.7	097.1	082.0000	0340.0	070.8	65.56
226.0	000.4000	0144.4	017.7	097.0	082.0000	0340.0	070.5	65.65
227.0	000.4000	0144.8	017.7	096.8	082.0000	0340.0	070.3	65.74
228.0	000.4000	0145.0	017.7	096.7	082.0000	0340.0	070.0	65.83
229.0	000.4000	0145.2	017.8	096.5	082.0000	0340.1	069.8	65.92
230.0	000.4000	0145.5	017.8	096.4	082.0000	0340.1	069.5	66.01
231.0	000.4000	0145.5	017.8	096.2	082.0000	0340.1	069.3	66.09
232.0	000.4000	0144.8	017.7	096.0	082.0000	0340.1	069.1	66.15
233.0	000.4000	0143.5	017.6	095.8	082.0000	0340.1	069.0	66.21
234.0	000.4000	0141.9	017.5	095.5	082.0000	0340.1	068.8	66.25
235.0	000.4000	0139.4	017.4	095.2	082.0000	0340.1	068.8	66.28
236.0	000.4000	0138.7	017.3	095.0	082.0000	0340.1	068.6	66.34
237.0	000.4000	0138.2	017.3	094.8	082.0000	0340.1	068.4	66.40
238.0	000.4000	0138.0	017.3	094.6	082.0000	0340.2	068.3	66.46
239.0	000.4000	0137.4	017.2	094.3	082.0000	0340.2	068.1	66.52
240.0	000.4000	0136.9	017.2	094.1	082.0000	0340.3	068.0	66.57
241.0	000.4000	0136.6	017.2	093.9	082.0000	0340.3	067.8	66.62

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
242.0	000.4000	0136.5	017.2	093.7	082.0000	0340.4	067.7	66.68
243.0	000.4000	0136.2	017.1	093.5	082.0000	0340.4	067.5	66.73
244.0	000.4000	0136.3	017.1	093.2	082.0000	0340.4	067.4	66.79
245.0	000.4000	0136.3	017.1	093.0	082.0000	0340.5	067.2	66.85
246.0	000.4000	0136.4	017.2	092.8	082.0000	0340.6	067.1	66.90
247.0	000.4000	0136.4	017.2	092.6	082.0000	0340.6	067.0	66.95
248.0	000.4000	0136.1	017.1	092.3	082.0000	0340.7	066.8	66.99
249.0	000.4000	0134.4	017.0	092.1	082.0000	0340.8	066.8	67.00
250.0	000.4000	0132.0	016.8	091.8	082.0000	0340.9	066.9	66.99
251.0	000.4000	0131.1	016.8	091.5	082.0000	0341.0	066.8	67.01
252.0	000.4000	0131.4	016.8	091.3	082.0000	0341.1	066.7	67.06
253.0	000.4000	0131.7	016.8	091.0	082.0000	0341.1	066.6	67.10
254.0	000.4000	0131.3	016.8	090.8	082.0000	0341.2	066.5	67.13
255.0	000.4000	0130.7	016.7	090.5	082.0000	0341.4	066.5	67.15
256.0	000.4000	0130.2	016.7	090.3	082.0000	0341.5	066.4	67.17
257.0	000.4000	0130.4	016.7	090.0	082.0000	0341.6	066.3	67.21
258.0	000.4000	0130.7	016.7	089.8	082.0000	0341.8	066.3	67.24
259.0	000.4000	0130.9	016.8	089.6	082.0000	0342.1	066.2	67.28
260.0	000.4000	0131.0	016.8	089.3	082.0000	0342.3	066.1	67.31
261.0	000.4000	0131.1	016.8	089.1	082.0000	0342.4	066.1	67.33
262.0	000.4000	0131.2	016.8	088.8	082.0000	0342.4	066.0	67.35
263.0	000.4000	0131.3	016.8	088.6	082.0000	0342.5	066.0	67.37
264.0	000.4000	0131.2	016.8	088.3	082.0000	0342.5	066.0	67.38
265.0	000.4000	0131.1	016.8	088.0	082.0000	0342.5	065.9	67.38
266.0	000.4000	0130.3	016.7	087.8	082.0000	0342.5	066.0	67.37
267.0	000.4000	0129.1	016.6	087.5	082.0000	0342.6	066.1	67.34
268.0	000.4000	0127.7	016.5	087.3	082.0000	0342.6	066.2	67.31
269.0	000.4000	0126.4	016.4	087.0	082.0000	0342.6	066.3	67.27
270.0	000.4000	0125.6	016.4	086.8	082.0000	0342.6	066.3	67.25
271.0	000.4000	0124.8	016.3	086.5	082.0000	0342.6	066.4	67.22
272.0	000.4000	0124.1	016.3	086.3	082.0000	0342.6	066.5	67.20
273.0	000.4000	0123.7	016.2	086.1	082.0000	0342.5	066.5	67.17
274.0	000.4000	0123.5	016.2	085.8	082.0000	0342.5	066.6	67.15
275.0	000.4000	0123.6	016.2	085.6	082.0000	0342.5	066.6	67.14
276.0	000.4000	0123.7	016.2	085.3	082.0000	0342.4	066.6	67.13
277.0	000.4000	0123.6	016.2	085.1	082.0000	0342.4	066.7	67.11
278.0	000.4000	0123.5	016.2	084.9	082.0000	0342.4	066.8	67.08
279.0	000.4000	0123.3	016.2	084.6	082.0000	0342.5	066.8	67.06
280.0	000.4000	0123.4	016.2	084.4	082.0000	0342.4	066.9	67.03
281.0	000.4000	0123.8	016.3	084.1	082.0000	0342.4	067.0	67.01
282.0	000.4000	0124.4	016.3	083.9	082.0000	0342.4	067.0	67.00
283.0	000.4000	0125.4	016.4	083.6	082.0000	0342.4	067.0	66.99
284.0	000.4000	0127.0	016.5	083.4	082.0000	0342.4	067.0	67.00
285.0	000.4000	0128.5	016.6	083.1	082.0000	0342.5	067.0	67.00
286.0	000.4000	0130.0	016.7	082.9	082.0000	0342.5	067.0	67.00
287.0	000.4000	0132.4	016.9	082.6	082.0000	0342.5	067.0	67.01
288.0	000.4000	0134.2	017.0	082.3	082.0000	0342.5	067.0	67.01
289.0	000.4000	0135.6	017.1	082.0	082.0000	0342.4	067.0	66.99
290.0	000.4000	0136.5	017.2	081.8	082.0000	0342.4	067.1	66.96
291.0	000.4000	0136.8	017.2	081.5	082.0000	0342.4	067.2	66.92
292.0	000.4000	0136.8	017.2	081.3	082.0000	0342.4	067.4	66.87

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
293.0	000.4000	0136.8	017.2	081.1	082.0000	0342.4	067.5	66.81
294.0	000.4000	0137.3	017.2	080.9	082.0000	0342.4	067.6	66.77
295.0	000.4000	0138.2	017.3	080.6	082.0000	0342.4	067.8	66.73
296.0	000.4000	0138.5	017.3	080.4	082.0000	0342.4	067.9	66.67
297.0	000.4000	0138.5	017.3	080.2	082.0000	0342.4	068.1	66.61
298.0	000.4000	0138.2	017.3	080.0	082.0000	0342.4	068.3	66.54
299.0	000.4000	0137.7	017.2	079.8	082.0000	0342.4	068.5	66.46
300.0	000.4000	0137.3	017.2	079.6	082.0000	0342.5	068.7	66.39
301.0	000.4000	0136.6	017.2	079.5	082.0000	0342.5	068.9	66.31
302.0	000.4000	0135.8	017.1	079.3	082.0000	0342.6	069.2	66.22
303.0	000.4000	0134.9	017.0	079.2	082.0000	0342.7	069.4	66.14
304.0	000.4000	0134.0	017.0	079.0	082.0000	0342.8	069.7	66.05
305.0	000.4000	0133.3	016.9	078.9	082.0000	0342.9	069.9	65.97
306.0	000.4000	0132.7	016.9	078.7	082.0000	0342.9	070.2	65.88
307.0	000.4000	0132.0	016.8	078.6	082.0000	0343.0	070.4	65.79
308.0	000.4000	0131.5	016.8	078.5	082.0000	0343.0	070.6	65.71
309.0	000.4000	0130.8	016.7	078.3	082.0000	0343.1	070.9	65.62
310.0	000.4000	0130.3	016.7	078.2	082.0000	0343.1	071.2	65.53
311.0	000.4000	0129.6	016.7	078.1	082.0000	0343.1	071.4	65.44
312.0	000.4000	0128.1	016.6	078.0	082.0000	0343.2	071.7	65.34
313.0	000.4000	0127.1	016.5	077.9	082.0000	0343.2	072.0	65.24
314.0	000.4000	0126.4	016.4	077.8	082.0000	0343.2	072.2	65.15
315.0	000.4000	0126.0	016.4	077.7	082.0000	0343.3	072.5	65.06
316.0	000.4000	0125.6	016.4	077.6	082.0000	0343.3	072.8	64.97
317.0	000.4000	0124.7	016.3	077.6	082.0000	0343.3	073.0	64.87
318.0	000.4000	0123.8	016.3	077.5	082.0000	0343.3	073.3	64.77
319.0	000.4000	0124.2	016.3	077.3	082.0000	0343.4	073.5	64.69
320.0	000.4000	0124.8	016.3	077.2	082.0000	0343.4	073.8	64.61
321.0	000.4000	0125.2	016.4	077.1	082.0000	0343.4	074.0	64.53
322.0	000.4000	0125.6	016.4	077.0	082.0000	0343.4	074.2	64.45
323.0	000.4000	0126.0	016.4	076.9	082.0000	0343.5	074.5	64.36
324.0	000.4000	0126.5	016.4	076.7	082.0000	0343.5	074.7	64.27
325.0	000.4000	0127.1	016.5	076.6	082.0000	0343.5	075.0	64.19
326.0	000.4000	0127.8	016.5	076.5	082.0000	0343.5	075.2	64.10
327.0	000.4000	0127.8	016.5	076.4	082.0000	0343.5	075.5	64.01
328.0	000.4000	0127.8	016.5	076.4	082.0000	0343.5	075.8	63.91

## EXHIBIT #22

### R.F. EMISSION COMPLIANCE STATEMENT

**Minnesota Public Radio**  
Minor Change to Licensed Station  
KRSU  
BLED-19891031KB  
Appleton, MN  
August 2007

CH 217C0

82 kW H & V Omni

The applicant proposes the continued use of registered tower ASR#1031878. This tower was constructed before March, 2001, and is therefore exempt from environmental processing. There is a fence surrounding the tower, and RF warning signs posted on the fence.

The proposed ten-bay, circularly polarized antenna will be energized such that it produces 82 kW effective radiated power from a center of radiation of 337 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 10-bay Harris (ERI) FMH10AC (Type #3) antenna is 1.465 microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ), which is 0.15 percent of maximum for this controlled area.

After researching the CDBS and ULS databases, it was determined that there are four other sources of RF emissions on the tower. The cellular service KNKN375 was determined to be categorically excluded. The contributions to the level of RF emission at ground level from the other sources are:

Call	Ch/ Freq	Power (kW)	Height (m)	Level ( $\mu\text{W}/\text{cm}^2$ )	Max ( $\mu\text{W}/\text{cm}^2$ )	Percent (Cont.)
KRSU(New)	217	85 H/V	337	1.465	1000	0.15
KNCM*	203	34 H/V	168	0.412	1000	0.04
KWCM-TV**	31	316 H	379	0.461	1916.7	0.02
KWCM-DT***	31	288 H	357.5	0.761	1916.7	0.04
Total				3.099		0.25

\* Shively 6810-4-R

\*\* Assumes use of high gain UHF antenna with 0.1 VEF at -90° and 22% aural power.

\*\*\* Assumes use of high gain UHF antenna with 0.1 VEF at -90°.

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.