

Federal Communications Commission Washington, D.C. 20554 <p style="text-align: center;">FCC 340</p>	Approved by OMB 3060-0029 (February 2007) FOR FCC USE ONLY
<p>APPLICATION FOR CONSTRUCTION PERMIT FOR RESERVED CHANNEL NONCOMMERCIAL EDUCATIONAL BROADCAST STATION</p> <p>Read INSTRUCTIONS Before Filling Out Form</p>	FOR COMMISSION USE ONLY FILE NO. BNPED - 20071016AHL

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	Facility Identifier 172671
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 10/19/2007 and/or window number:		<input checked="" type="radio"/> Yes <input type="radio"/> No
4 Application Purpose		
<input checked="" type="radio"/> New station <input type="radio"/> Major Modification of construction permit		
<input type="radio"/> Major Change in licensed facility <input type="radio"/> Minor Modification of construction permit		
<input type="radio"/> Minor Change in licensed facility <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: GRAND RAPIDS State: MN		
(d) Facility Type <input checked="" type="radio"/> Main <input type="radio"/> Auxiliary		
If an amendment, submit as an Exhibit 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. Certification. Applicant certifies that it has answered each question in this application based on	<input checked="" type="radio"/> Yes <input type="radio"/> No
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its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.

2. **Eligibility.** 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.

The applicant certifies that it is:

a. a nonprofit educationl institution; or Yes No

b. a governmental entity other than a school; or Yes No

c. a nonprofit educationl organization, other than described in a. or b. Yes No

3. For applicants checking "Yes" to question 2(c) and applying for a new noncommercial educationl 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. Yes No N/A

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. Yes No
FCC FileNumber
BMLED- 940420KA
[Exhibit 2]

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).

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. Yes No

6. a. **Parties to the Application.** 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.

[Enter Parties/Owners Information]

Parties to the Application

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.

(a) Name and Residence	(b)Citizen-ship	(c) Positional Interest:	(d) Director or Member of	(e)% of: Ownership(O) or Voting Stock(VS) or Membership (M)			(f) %of: of Total
				Owner-ship (O) or	Voting Stock (VS) or	Member-ship (M)	

						Assets (equity plus debt)	Governing Board	Officer, director, investor/creditor attributable under the Commission's equity/debt plus standard, etc
PLEASE SEE ATTACHMENT TO EXHIBIT 3		<input type="radio"/> Yes <input checked="" type="radio"/> No						
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.							<input checked="" type="radio"/> Yes <input type="radio"/> No [Exhibit 3]	
7. Other Authorizations. 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.							<input type="checkbox"/> N/A [Exhibit 4]	
8. Character Issues. Applicant certifies that neither applicant nor any party to the application has or has had any interest in or connection with:							<input checked="" type="radio"/> Yes <input type="radio"/> No	
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							See Explanation in [Exhibit 5]	
b. any pending broadcast application in which character issues have been raised.								
9. Adverse Findings. 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.							<input checked="" type="radio"/> Yes <input type="radio"/> No	
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 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.							See Explanation in [Exhibit 6]	
10. Alien Ownership and Control. 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.								
See Explanation in [Exhibit 7]								
11. Program Service Certification. 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 checked="" type="radio"/> Yes <input type="radio"/> No	
12. Local Public Notice. Applicant certifies compliance with the public notice requirements of 47 C.F.R. Section 73.3580.							<input checked="" type="radio"/> Yes <input type="radio"/> No	
13. Anti-Drug Abuse Act Certification. 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. Equal Employment Opportunity (EEO). 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.								

<p>15. Financial. 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.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 8]</p>
<p>16. Is this application contingent upon receipt of a grant from the National Telecommunications and Information Administration?</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>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?</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>

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.

<p>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.</p>	<p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No</p>
<p>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 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.</p>	<p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No [Exhibit 9]</p>

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 and (b) to a minimum of 2,000 people. Applicants answering "Yes" must provide an Exhibit.</p>	<p><input type="radio"/> Yes <input checked="" 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 and (b) to a minimum of 2,000 people. Applicants answering "Yes" must provide an Exhibit.</p>	<p><input checked="" 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. Established Local Applicant: Applicant certifies that for at least the 24 months immediately prior to</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
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<p>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>2. Diversity of Ownership: (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 checked="" 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 checked="" type="radio"/> No</p> <p>[Exhibit 12]</p>
<p>3. State-wide Network: 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 checked="" type="radio"/> No</p>
<p>4. Technical Parameters: 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 checked="" type="radio"/> Yes <input type="radio"/> No</p>
<p>New area served in square kilometers (excluding areas of water):</p>	<p>4357</p>
<p>Population served based on the most recent census block data from the United States Bureau of Census using the centroid method:</p>	<p>40969</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)

<p>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.</p> <p>64 (number of commercial and non-commercial licenses and construction permits)</p>
<p>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.</p> <p>11 (number of pending commercial and non-commercial applications)</p>

Section VI -- Certification

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

<p>Typed or Printed Name of Person Signing THOMAS J KIGIN</p>	<p>Typed or Printed Title of Person Signing EXECUTIVE VICE PRESIDENT</p>
<p>Signature</p>	<p>Date 10/15/2007</p>

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 10/12/2007	
Mailing Address DOUG VERNIER TELECOMMUNICATIONS CONSULTANTS 721 WEST 1ST STREET		
City CEDAR FALLS	State or Country (if foreign address) IA	Zip Code 50613-
Telephone Number (include area code) 3192668402	E-Mail Address (if available) KMICHLER@V-SOFT.COM	

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

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]

Spacing Requirements.
b. 47 C.F.R. Section 73.207 with respect to station(s)

Grandfathered Short-Spaced.
c. 47 C.F.R. Section 73.213(a) with respect to station(s)
Exhibit Required. [Exhibit 17]

Contour Protection.
d. 47 C.F.R. Section 73.215(a) with respect to station(s)
Exhibit Required. [Exhibit 18]

Television Channel 6 Protection.
e. 47 C.F.R. Section 73.525 with respect to station(s)
Exhibit Required. [Exhibit 19]

16. **Reserved Channels Above 220.**
a. **Availability of Channels.** The proposed facility complies with the assignment requirements of 47 C.F.R. Section 73.203. Yes No
See Explanation in [Exhibit 20]

17. **International Borders.** The proposed antenna location is not within 320 kilometers of the common border between the United States and Canada or Mexico. Yes No
 Canada
 Mexico
[Exhibit 21]
If "No," specify the country and provide an exhibit of compliance with all provisions of the relevant International Agreement.

18. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Worksheet #7, an **Exhibit is required.** Yes 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. **Community of License Change - Section 307(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)).
- Yes No
 N/A
- [Exhibit 23]

An exhibit is required unless this question is not applicable.

PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.

Exhibits

Exhibit 1

Description: ENGINEERING STATEMENT

PLEASE SEE ATTACHED ENGINEERING EXHIBIT

Attachment 1

Description
Exhibit #1 Engineering Statement

Exhibit 2

Description: EXHIBIT 2 / ELIGIBILITY

PLEASE REFER TO EXHIBIT 4 FOR A COMPLETE LIST OF FACILITIES LICENSED TO THE APPLICANT.

Attachment 2

Exhibit 3

Description: EXHIBIT 3 / PARTIES TO THE APPLICATION

THE ATTACHMENT TO THIS EXHIBIT IS A LISTING OF THE BOARDS OF TRUSTEES OF THE APPLICANT, MINNESOTA PUBLIC RADIO, AS WELL AS ITS PARENT COMPANY, AMERICAN PUBLIC MEDIA GROUP. ADDITIONAL INFORMATION ON BOARD MEMBERS AND THEIR BROADCAST INTERESTS IS CONTAINED IN EXHIBIT 4.

Attachment 3

Description
Exh. 3 / Parties to the Application

Exhibit 4

Description: EXHIBIT 4 / FACILITIES

THE ATTACHMENT TO THIS EXHIBIT IS A COMPLETE LISTING OF FACILITIES LICENSED TO THE APPLICANT, WITH ADDITIONAL INFORMATION ON BOARD MEMBERS AND THEIR BROADCAST INTERESTS.

Attachment 4

Description
Exh. 4 / Facilities list

Exhibit 11**Description:** FAIR DISTRIBUTION OF SERVICE 307(B)

PLEASE SEE ATTACHED EXHIBIT.

POPULATION FOR THIS 307B EXHIBIT WAS CALCULATED USING THE 2000 U.S. CENSUS BLOCK LEVEL SF1 POPULATION DATABASE. THE CENTROID METHOD WAS USED WITH 360 RADIALS AND THE AREA WAS CALCULATED USING NUMERIC INTEGRATION FROM THESE RADIALS.

Attachment 11

Description
Exhibit #11, Fair Distribution of Service - 307(b)

Exhibit 12**Description:** EXHIBIT 12 / TRANSLATOR STATIONS

APPLICANT CURRENTLY OPERATES TRANSLATORS K281AB AND K297AD IN GRAND RAPIDS. 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), APPLICANT WILL REQUEST CANCELLATION OF THE LICENSE FOR ONE OF THESE FACILITIES, BOTH OF WHICH HAVE THE SAME COVERAGE AREA. THERE WOULD STILL BE OVERLAP WITH THE COVERAGE AREAS OF KNBJ AND KCRB (BOTH IN BEMIDJI), WIRN (BUHL), AND WIRR (VIRGINIA-HIBBING).

Attachment 12**Exhibit 13****Description:** EXHIBIT 13 / REQUEST FOR MSR WAIVER

SEE ATTACHED REQUEST

Attachment 13

Description
Exh. 13 / MSR waiver request

Exhibit 14**Description:** COMMUNITY COVERAGE

PLEASE SEE ATTACHED ENGINEERING EXHIBIT

Attachment 14

Description
exhibit #14 Community Service

Exhibit 16**Description:** CONTOUR OVERLAP REQUIREMENTS

PLEASE SEE ATTACHED ENGINEERING EXHIBIT

Attachment 16

Description
Exhibit #16, Contour Overlap Requirements

Exhibit 19**Description:** TELEVISION CHANNEL 6 PROTECTION

PLEASE SEE ATTACHED ENGINEERING EXHIBIT

Attachment 19

Description
Exhibit 19, Television Channel 6 Protection

Exhibit 21

Description: INTERNATIONAL BORDERS

THE PROPOSED FACILITY IS WITHIN 320 KILOMETERS OF THE US BORDER WITH CANADA, HOWEVER THERE ARE NO PERTINENT RELATIONSHIPS WITH CANADIAN STATIONS. PLEASE SEE EXHIBIT #16.

Attachment 21

Exhibit 22

Description: ENVIRONMENTAL PROTECTION ACT

PLEASE SEE ATTACHED ENGINEERING EXHIBIT

Attachment 22

Description
Exhibit #22, Environmental Protection Act



EXHIBIT #1
ENGINEERING STATEMENT

MINNESOTA PUBLIC RADIO
New Station Application
Grand Rapids, Minnesota
September 2007

CH 209C3

9.7 kW H & V Omni

This engineering statement supports application filed by Minnesota Public Radio for a new non-commercial educational FM station to serve Grand Rapids, Minnesota.

Exhibit #11 is a Fair Distribution of Service study, showing that more than 10% of the population within the proposed 60 dBu contour will receive second NCE FM aural service.

Exhibit #14 shows the required coverage of the prospective community of license, Grand Rapids, Minnesota. The coverage map on page #1 of this exhibit 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 USGS 3 arc-second terrain elevation 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 tabular listing of the distance to the 60 dBu contour can be found on page #2 of Exhibit #14.

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 within 320 km of the U.S. border with Canada, but there are no pertinent relationships with Canadian Stations. The proposed station is not within the specific critical distances to AM broadcast towers, FCC monitoring stations, Table Mountain and the West Virginia Quiet Zone. The applicant is aware of its responsibility under the rules to correct any blanketing interference that it may cause within the period of one year from commencement of transmissions of newly authorized facilities.

Exhibit #19 concerns protection to television channel 6.

The applicant proposes the use of registered tower #1024447, constructed in 1990. As this tower was built before March, 2001, it is excluded from environmental testing under 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 September 14, 2007

PARTIES TO THE APPLICATION

The items below correspond to the columns in the following tables:

- (a) Name and Address
- (b) Citizenship
- (c) Positional Interest
- (d) Director or Member of Governing Board
- (e) Percentage of Votes
- (f) Percentage of Assets (equity plus debt)

**MINNESOTA PUBLIC RADIO (MPR)
 AMERICAN PUBLIC MEDIA GROUP (APMG)**

(a)	(b)	(c)	(d)	(e)	(f)
Bradbury H Anderson Best Buy Corporate Campus 7601 Penn Avenue South Richfield, MN 55423	US	Trustee (MPR)	Yes	0	0
Andy Bessette The Travelers Companies, Inc. Mail code NB17A 385 Washington Street St. Paul, MN 55102	US	Trustee (MPR)	Yes	0	0
Susan Boren SpencerStuart Suite 2750 225 South Sixth Street Minneapolis, MN 55402	US	Trustee (MPR)	Yes	0	0
George Buckley 3M 3M Center 220-14W-05 St. Paul, MN 55144-1000	UK	Trustee (MPR)	Yes	0	0
Patrick J Denzer John B Collins Associates, Inc. 8500 Normandale Lake Blvd Suite 2400 Bloomington, MN 55437	US	Trustee (MPR)	Yes	0	0

(a)	(b)	(c)	(d)	(e)	(f)
Janet M Dolan Act III Enterprises William Moore Law Firm 7260 University Avenue NE Suite 160 Fridley, MN 55432	US	Trustee (MPR)	Yes	0	0
Ian R Friendly General Mills, Inc. #1 General Mills Blvd Minneapolis, MN 55426	US	Trustee (MPR)	Yes	0	0
Steve Fritze Ecolab, Inc 370 Wabasha Street North St. Paul, MN 55102	US	Trustee (MPR and APMG)	Yes	0	0
Sara H Gavin Weber Shandwick Minneapolis 8000 Norman Center Drive Suite 400 Minneapolis, MN 55437	US	Trustee (MPR and APMG)	Yes	0	0
Randall J Hogan Pentair, Inc 5500 Wayzata Blvd; Suite 800 Golden Valley, MN 55416	US	Trustee (MPR and APMG)	Yes	0	0
Kim R Jenson UBS Financial Services Inc. 800 Nicollet Mall Suite 700 Minneapolis, MN 55402	US	Trustee (MPR)	Yes	0	0
Anita H Kunin 2843 Burnham Blvd Minneapolis, MN 55416-4331	US	Trustee (MPR)	Yes	0	0
Karin L Larson Capital International Research, Inc. 11100 Santa Monica Blvd; 15 th Floor Los Angeles, CA 90025	US	Trustee (MPR)	Yes	0	0
Thomas R McBurney McBurney Management Advisors 80 South Eighth Street 4900 IDS Center Minneapolis, MN 55402	US	Trustee	Yes	0	0

(a)	(b)	(c)	(d)	(e)	(f)
William R McLaughlin Select Comfort 6105 Trenton Lane North Plymouth, MN 55442	US	Trustee (MPR and APMG)	Yes	0	0
Pamela J Moret Thrivent Financial for Lutherans Mail Stop MS1630 625 4th Avenue South Minneapolis, MN 55415	US	Treasurer, Trustee (MPR and APMG)	Yes	0	0
Glen D Nelson, MD GDN Holdings 301 Carlson Parkway, Suite 315 Minnetonka, MN 55305	US	Chair, Trustee (MPR and APMG)	Yes	0	0
Michael O'Keefe Minneapolis College of Art & Design 2501 Stevens Avenue Minneapolis, MN 55404	US	Trustee (MPR)	Yes	0	0
David John Olderman 25286 Bob White Lane Blackduck, MN 56630	US	Trustee (MPR)	Yes	0	0
James J Phelps Northcrest Corporation 2635 University Avenue West Suite 190 Saint Paul, MN 55114	US	Trustee (MPR)	Yes	0	0
Addison (Tad) Piper Piper Jaffray Companies Inc 800 Nicollet Mall; J09502 Minneapolis, MN 55402	US	Trustee (MPR and APMG)	Yes	0	0
Paul Reyelts The Valspar Corporation 1101 Third Street South Minneapolis, MN 55415	US	Trustee (MPR)	Yes	0	0
Steven M Rothschild Twin Cities RISE! 4525 East Lake Harriett Parkway Minneapolis, MN 55409	US	Trustee (MPR)	Yes	0	0

(a)	(b)	(c)	(d)	(e)	(f)
David R Strand Cleveland Clinic Foundation 9500 Euclid Avenue Mail Code H 18 Cleveland, OH 44195	US	Vice-Chair, Trustee (MPR and APMG)	Yes	0	0
Austin P Sullivan Jr 700 Twelve Oaks Center Drive Suite 252 Wayzata, MN 55391	US	Trustee (MPR and APMG)	Yes	0	0
Dr Richard L Torgerson Luther College 700 College Drive Decorah, IA 52101-1045	US	Trustee (MPR)	Yes	0	0
William Pearce Box 2187 Loop Station Minneapolis, MN 55402	US	Life Trustee (MPR)	Yes	0	0
Robert J Sivertsen 29 Summit Court St. Paul, MN 55102	US	Life Trustee (MPR)	Yes	0	0
Joanne Von Blon 700 Second Street South # 8-1 Minneapolis, MN 55401	US	Life Trustee (MPR)	Yes	0	0
William H Kling Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	President of the Board of Trustees, President (MPR and APMG)	No	0	0
Thomas J Kigin Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	Staff Officer (MPR and APMG)	No	0	0
Jon R McTaggart Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	Staff Officer (MPR and APMG)	No	0	0

(a)	(b)	(c)	(d)	(e)	(f)
Mark E Alfuth Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	Staff Officer (MPR and APMG)	No	0	0
Jon K Gossett Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	Staff Officer	No	0	0
Jana V Kanyadan Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	Staff Officer	No	0	0
Sarah S Lutman Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	Staff Officer	No	0	0
Mary S Nease Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	Staff Officer (MPR and APMG)	No	0	0
Timothy T Roesler Minnesota Public Radio American Public Media Group 480 Cedar Street Saint Paul, MN 55101	US	Staff Officer	No	0	0
JJ Yore American Public Media Los Angeles 261 South Figueroa Street, Suite 200 Los Angeles, CA 90012	US	Staff Officer	No	0	0

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Exhibit 4
Minnesota Public Radio, FRN 0002-6425-10

Page 1

This document is responsive to Section II, item 7 of FCC Form 340. A responsible person for this document is Mitzi T Gramling (mgramling@mpr.org, 651.290.1259).

Minnesota Public Radio (MPR) holds licenses and/or construction permits for the following radio broadcast stations, all of which are operated on a noncommercial basis:

<u>CALL SIGN</u>	<u>FACILITY ID</u>	<u>COMMUNITY</u>	<u>FREQUENCY</u>
KRSU-FM	42967	Appleton MN	91.3 MHz
KNCM-FM	42981	Appleton MN	88.5 MHz
KNSE-FM	90889	Austin MN	90.1 MHz
KCRB-FM	42970	Bemidji MN	88.5 MHz
KNBJ-FM	42966	Bemidji MN	91.3 MHz
KBPR-FM	42912	Brainerd MN	90.7 MHz
KBPN-FM	92068	Brainerd MN	88.3 MHz
WIRN-FM	78080	Buhl MN	92.5 MHz
WSCN-FM	42975	Cloquet MN	100.5 MHz
KNSR-FM	42938	Collegeville MN	88.9 MHz
KSJR-FM	42955	Collegeville MN	90.1 MHz
KLCD-FM	42943	Decorah IA	89.5 MHz
KLNI-FM	42932	Decorah IA	88.7 MHz
WSCD-FM	42940	Duluth MN	92.9 MHz
KNWF-FM	92141	Fergus Falls MN	91.5 MHz
KCMF -FM	92307	Fergus Falls MN	89.7 MHz
WMLS -FM	92306	Grand Marais MN	88.7 MHz
WLSN-FM	92302	Grand Marais MN	90.7 MHz
WGGL-FM	42913	Houghton MI	91.1 MHz
KXLC-FM	42918	La Crescent MN	91.1 MHz
KSJN-FM	42911	Minneapolis MN	99.5 MHz
KNOW-FM	42949	Minneapolis/St Paul MN	91.1 MHz
KCCD-FM	42951	Moorhead MN	90.3 MHz
KCCM-FM	42926	Moorhead MN	91.1 MHz
KCMP-FM	62162	Northfield MN	89.3 MHz

<u>CALL SIGN</u>	<u>FACILITY ID</u>	<u>COMMUNITY</u>	<u>FREQUENCY</u>
KMSE-FM	83876	Rochester MN	88.7 MHz
KLSE-FM	42965	Rochester MN	91.7 MHz
KZSE-FM	42929	Rochester MN	90.7 MHz
KRXW-FM	166032	Roseau MN	103.5 MHz
KRSD-FM	42909	Sioux Falls SD	88.1 MHz
KGAC-FM	42910	St Peter MN	90.5 MHz
KNGA-FM	42944	St Peter MN	91.5 MHz
KWRV-FM	42917	Sun Valley ID	91.9 MHz
KNTN-FM	42922	Thief River Falls MN	102.7 MHz
KQMN-FM	42974	Thief River Falls MN	91.5 MHz
WIRR-FM	42957	Virginia/Hibbing MN	90.9 MHz
KNSW-FM	42947	Worthington/Marshall MN	91.7 MHz
KRSW-FM	42958	Worthington MN	89.3 MHz

MPR holds licenses or construction permits for the following noncommercial educational FM translators:

<u>CALL SIGN</u>	<u>FACILITY ID</u>	<u>COMMUNITY</u>	
K280EB	42950	Albert Lea MN	103.9 MHz
K215BL	42971	Alexandria MN	90.9 MHz
K277AD	42979	Austin MN	103.3 MHz
K222BA	141797	Blue Earth MN	92.3 MHz
K270AQ	141824	Blue Earth MN	101.9 MHz
K208CR	86095	Ely MN	89.5 MHz
W269AC	42968	Ely MN	101.7 MHz
K281AB	42969	Grand Rapids MN	104.1 MHz
K297AD	42964	Grand Rapids MN	107.3 MHz
W226AY	141839	Hinckley MN	93.1 MHz
W248AS	141828	Hinckley MN	97.5 MHz
K283AN	141856	Hinckley MN	104.5 MHz

<u>CALL SIGN</u>	<u>FACILITY ID</u>	<u>COMMUNITY</u>	
W293AV	141860	Hinckley MN	106.5 MHz
W224AO	42928	Houghton MI	92.7 MHz
K201CN	42936	International Falls MN	88.1 MHz
K249BK	42973	International Falls MN	97.7 MHz
K201BW	42952	La Crescent MN	88.1 MHz
K276EW	149175	Olivia MN	103.1 MHz
K280ET	152436	Olivia MN	103.9 MHz
K289AE	42948	Owatonna MN	105.7 MHz
K280EC	42961	Owatonna MN	103.9 MHz
K245AK	152818	Redwood Falls MN	96.9 MHz
W215AI	42942	Roseau MN	90.9 MHz
K264AR	141704	Roseau MN	100.7 MHz
K270AB	42978	Winona MN	101.9 MHz
W297AW	42907	Winona MN	107.3 MHz

MPR has the following pending applications for construction permits to build new FM noncommercial radio broadcast stations:

<u>FCC FILE NO.</u>	<u>COMMUNITY</u>	<u>FACILITY ID</u>	<u>FREQUENCY</u>
BNPED 20000119ACU	International Falls, MN	122662	88.3 MHz
BNPED20000119ABW	International Falls, MN	122570	89.7 MHz

MPR has the following pending application for a construction permit to build a new noncommercial translator station:

BNPFT20000316AAE	Minneapolis, MN	122965	91.9 MHz
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MPR holds the following Educational Broadband Service (EBS) licenses or construction permits:

<u>CALL SIGN</u>	<u>COMMUNITY</u>	<u>CHANNEL GROUP</u>
WHR-751	Duluth MN	G1,G2,G3,G4

<u>CALL SIGN</u>	<u>COMMUNITY</u>	<u>CHANNEL GROUP</u>
WHR-765	Fargo ND	C1,C2,C3,C4
WHR-750	St. Cloud MN	B1, B2, B3, B4
WHR-754	Mankato MN	A1,A2,A3,A4
WLX-299	Minneapolis MN	A1,A2,A3,A4
WHR-753	Rochester MN	B1,B2,B3,B4
WHR-752	Sioux Falls SD	B1,B2,B3,B4
WHR-497	St Paul MN	B1,B2,B3,B4

MPR is a wholly owned subsidiary of American Public Media Group (APMG). The Board of Trustees of APMG has certain approval rights with respect to organizational documents of MPR, appointment of certain members of MPR's Board of Trustees, and the sale of all or substantially all of MPR's assets. MPR is a licensee of the Commission. Ownership Reports for MPR and APMG were filed with the Commission most recently on April 30, 2007.

All Trustees and Officers of MPR are US citizens, with the exception of George W Buckley, who is a UK citizen. Trustee/officer William H Kling and officer Thomas J Kigin are on the Board of Directors of Comcast of Saint Paul. Trustee Anita Kunin's four sons and husband collectively own 85% of seven TV stations (KVRR, Fargo, ND; KJRR, Jamestown, ND; KBRR, Thief River Falls, MN; KNRR, Pembina, ND; KDLT, Sioux Falls, SD; KDLV, Mitchell, SD; and KQDS, Duluth, MN) and eighteen radio stations (KQDS-AM, KQDS-FM, KZIO, and WWAX, Duluth, MN; WLMX-FM, Balsam Lake, WI; WXCX, Siren, WI; KGHS and KSDM, International Falls, MN; KKIN-AM and KKIN-FM, Aitkin, MN; KFGI, Crosby, MN; WHSM-AM and WHSM-FM, Hayward, WI; KAOD, Babbitt, MN; KBAJ, Deer River, MN; WXXZ, Grand Marais, MN; WCMP-AM and WCMP-FM, Pine City, MN). Trustee William McLaughlin serves on the Board of Trustees of Carleton College, which is the licensee of KRLX-FM in Northfield, MN.

All Trustees and Officers of APMG are US citizens. Trustee/officer William H Kling and officer Thomas J Kigin are on the Board of Directors of Comcast of Saint Paul.

The Board of Trustees of American Public Media Group (APMG) has certain approval rights with respect to organizational documents of Minnesota Public Radio (MPR), appointment of certain members of MPR's Board of Trustees, and the sale of all or substantially all of MPR's assets.

Fair Distribution of Service Under 307(b) - 60 dBu Contours

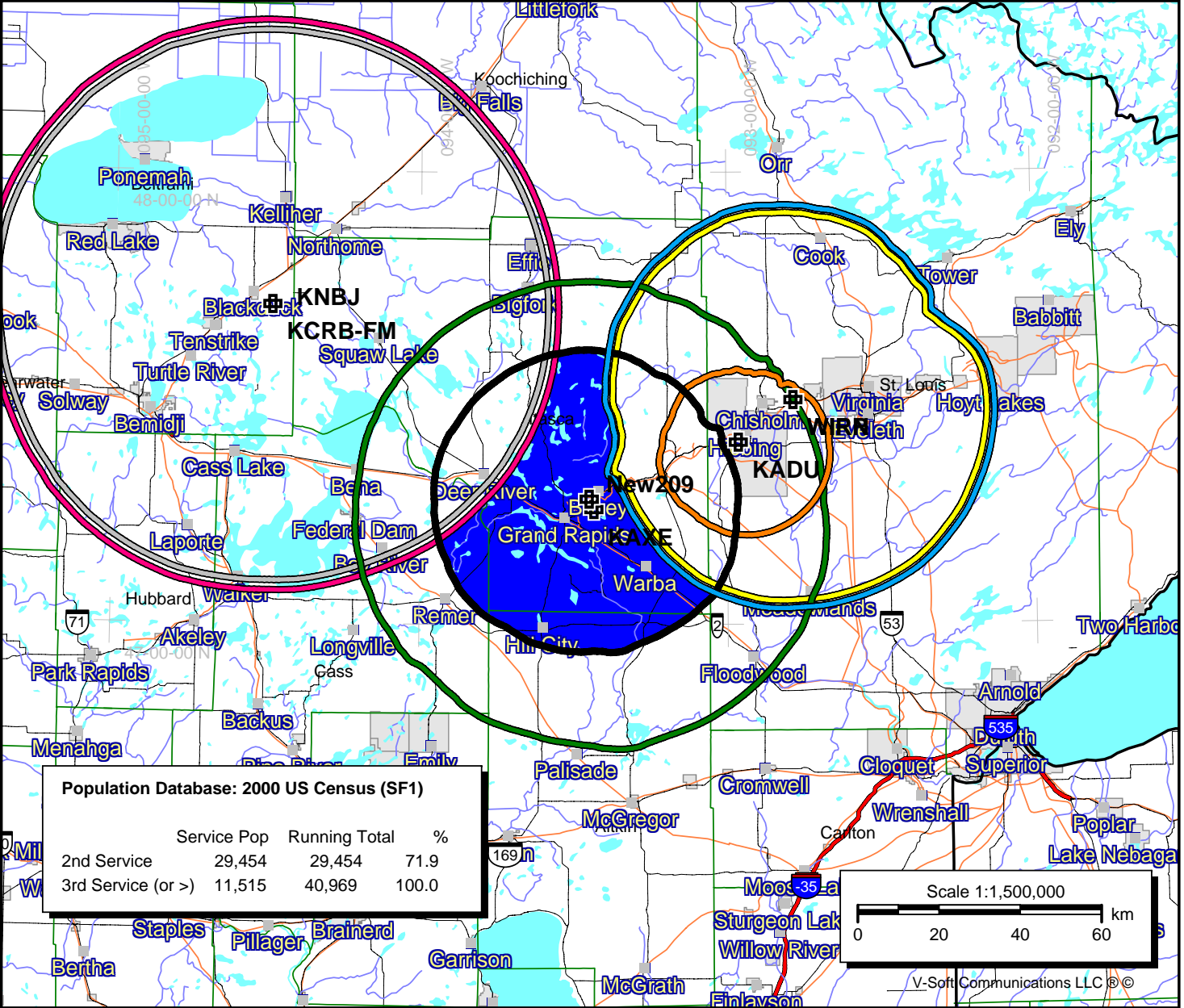
New209

Latitude: 47-16-39.20 N
 Longitude: 093-26-58.30 W
 ERP: 9.70 kW
 Channel: 209
 Frequency: 89.7 MHz
 AMSL Height: 548.0 m
 Elevation: 437.68 m
 Horiz. Pattern: No
 Vert. Pattern: No
 Prop Model: None

US Land Area = 4357.2 sq km

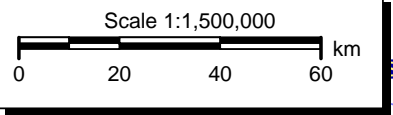
■ First Service
 ■ Second Service

■ New209
 ■ KADU
 ■ KAXE
 ■ KCRB-FM
 ■ KNBJ
 ■ WIRR
 ■ WIRN



Population Database: 2000 US Census (SF1)

	Service Pop	Running Total	%
2nd Service	29,454	29,454	71.9
3rd Service (or >)	11,515	40,969	100.0



V-Soft Communications LLC ©

9/14/2007

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

REQUEST FOR MAIN STUDIO RULE WAIVER

Minnesota Public Radio ("MPR") proposes to operate this facility as new noncommercial educational station to serve Grand Rapids and the surrounding area. MPR proposes that the station be operated as a satellite station of either KSJN (FM), KNOW (FM) or KCMP (FM). MPR is the licensee of all three stations. The main studios for KSJN, KNOW and KCMP are all located at 480 Cedar Street, Saint Paul, Minnesota 55101.

MPR is a nonprofit corporation formed for the purpose of providing noncommercial educational radio service to listeners in Minnesota and surrounding states. MPR's current 37 FM and 26 FM translator operating facilities provide 24-hour-a-day quality programming accessible to 98% of Minnesota's citizens, as well as to substantial numbers of listeners in North and South Dakota, Iowa, Wisconsin, Michigan, Idaho and southern Ontario, Canada. MPR provides programming to its network of stations from its primary Minneapolis/Saint Paul stations—KSJN, Minneapolis, KNOW, Minneapolis/Saint Paul and KCMP, Northfield—and from many of its network stations throughout the region. KNOW is an all-news/information station. KSJN is a classical music station and KCMP is a contemporary music/news station. The proposed new station will be operated by MPR as either a "classical music" station in that it may primarily broadcast KSJN, a "news" station in that it may primarily broadcast KNOW, or a "contemporary music/news" station in that it may primarily broadcast KCMP.

MPR currently operates two translator stations in Grand Rapids: K281AB (rebroadcasting KSJN) and K297AD (rebroadcasting KNOW).

There are currently 194 active members in Grand Rapids who make financial contributions to MPR.

MPR therefore requests a waiver of Section 73.1125 of the Commission's Rules to permit MPR to operate this proposed new station as a satellite station without a main studio in the community of license. As demonstrated below, grant of the instant waiver request would be in the public interest.

The Commission has issued decisions stating that the "main studio must, at a minimum, maintain full-time managerial and full-time staff personnel." Jones Eastern of the Outer Banks, Inc., FCC 91-175, released June 19, 1991, at ¶ 9; see also Salem Broadcasting, Inc., DA 91-804, released July 2, 1991.

Grant of this requested waiver is necessary to permit MPR to operate this proposed new station as a satellite station because the local community cannot otherwise support it as a wholly independent noncommercial educational station. The population of Grand Rapids is only about 7800 (2000 Census). Because of this area's limited economic base, it is highly unlikely that a station with separate staff and studio could provide the same high-quality public radio service

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Re: New station on Channel 209 in Grand Rapids, MN
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that MPR proposes. Therefore, waiver of Section 73.1125 is necessary in this case to ensure that the residents of the area receive the diverse and important programming MPR will provide.

The Commission has recognized the advantages accruing to noncommercial broadcasters from consolidated operations:

In the past, we have recognized the benefits of centralized operations for noncommercial educational stations, given the limited funding available to these stations, and we have granted waivers to state and regional public television and radio networks to operate "satellite" stations that do not necessarily meet the requirements of a main studio.

Main Studio Program Origination Rules, 3 FCC Rcd. 5024, 5027 (1988) (citing Nebraska Educational Television Commission, 4 R.R.2d 771 (1965)). Indeed, the Commission has previously determined that waiver of the main studio rule for other stations in the MPR network serves the public interest. See Letter from Linda Blair, Chief, Audio Services Division to Todd M. Stansbury, June 16, 2000 (attached hereto).

Upon grant of this request, MPR will satisfy the public needs and interests of residents of Grand Rapids by the following means:

- MPR maintains a toll-free telephone line and an email address by which the residents of the Grand Rapids area can reach MPR management to express concerns about the station operations. The toll-free telephone number goes directly to MPR's Member Benefits Department, as do e-mails the public sends to MPR. MPR currently has two live phone lines and three full-time employees who answer the phones and e-mails. In the past year, Member Benefits has handled about 30,000 incoming calls and 35,000 e-mail messages on every subject you can think of related to MPR, including many comments and questions about programming on all three of its services. While the number of phone lines and employees may change with time, MPR's commitment to maintain easy access is strong.
- MPR currently has one person in Saint Paul who is responsible for the final decisions on all programming on MPR stations. MPR has a news director, a classical music director and a director for contemporary music/news who all report to this person. Listener comments from Member Benefits also go to this person, who then distributes comments concerning the various services to their respective directors. Summaries of comments about all three services are widely distributed throughout the company and to the Board of Trustees. The current organizational structure may change with time, but the commitment to maintain control of programming and circulate listener opinions will not change.
- MPR has established a site on the World Wide Web (www.mpr.org) that enables local residents to receive extensive information regarding MPR's programming and provides a

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Re: New station on Channel 209 in Grand Rapids, MN

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link for local residents to e-mail concerns about the station operations to MPR management. The site contains descriptions of special reports, schedules for all MPR programming, and online audio sources (live, and in some cases archived) for MPR programming. MPR has established homepages on the MPR Web site for its network stations. Also, the public inspection file for each MPR station is available on the MPR Web site. When the proposed station is constructed, MPR will add its information to the Web site.

- MPR operates the largest news organization of any radio service in the Midwest. With this extensive news resource, MPR is able to produce news, arts and cultural programming from throughout MPR's service area and distribute it to all stations in the network. MPR's staff located in nearby Duluth and Bemidji and the staff in Saint Paul already subscribe to the local and area publications and maintain ongoing relationships with community residents and leaders, who are periodically contacted regarding local events and developments, including local arts and cultural events. MPR's staff uses information provided by these contacts to keep the communities it serves informed about local and regional arts and cultural events, and to keep classical music hosts informed about these events for broadcast by MPR, either regionally or throughout the MPR multistate network. In addition, MPR broadcasts news reports on its classical music service and on its contemporary music service.
- MPR has a reporter who subscribes to local and area publications and will maintain ongoing relationships with community residents and leaders, who would be contacted on a regular basis. The reporter will use information provided by these publications and contacts to investigate events and to file news stories of interest in Grand Rapids for broadcast by MPR, either regionally or throughout the MPR multi-station network.
- MPR promotes interaction between its management and local community leaders through several advisory boards, including an Institutional Sponsor Council ("ISC"). The ISC is a unique partnership between MPR's stations and colleges and universities throughout their listening areas. This venue enhances MPR's community representation and provides another forum for persons affiliated with the ISC members to discuss public affairs, programming, development, marketing and technology with MPR.
- Another way that MPR promotes interaction between its management and local community leaders is through six advisory boards and, as required by the Corporation for Public Broadcasting ("CPB"). Called Regional Development Advisory Councils ("RDACs"), these groups are managed by MPR station managers currently located in Rochester (southeastern Minnesota), Duluth (northeastern Minnesota), Bemidji (north central Minnesota) and the Twin Cities of Minneapolis and Saint Paul. The RDACs provide input to management on programming, which MPR thoughtfully considers when making program decisions for its stations, including Grand Rapids. It is MPR policy that residents of each of its service areas, including the Grand Rapids area, participate on an RDAC. RDACs currently meet twice a year and summaries of those meetings are supplied to MPR's Board of Trustees. In the past

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Re: New station on Channel 209 in Grand Rapids, MN

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year, most of MPR's vice presidents and management have attended an RDAC meeting. Members of the RDACs serve for a term of office. MPR's RDACs are in full compliance with CPB requirements for this type of advisory council.

The Commission has relied substantially on similar representations by MPR in finding that waivers of the main studio rule for other stations serve the public interest. Thus, the Commission has held that where MPR has pledged to (1) continue its policy for local residents to serve on an RDAC; (2) continue the relationship with the local community through membership; (3) solicit comments from residents regarding station operation and programming; (4) assign a reporter (who would be based in another community within the same region) who will produce and broadcast local inserts of interest to Grand Rapids residents, and will subscribe to local publications and maintain periodic contact with local residents and leaders, who will periodically contact and update the reporter concerning matters of local interest; (5) maintain a local toll-free telephone number for residents of Grand Rapids to contact MPR management in accordance with 47 C.F.R. § 73.1125(c); and (6) operate a site on the World Wide Web that enables local residents to receive extensive information and comment on MPR's programming, a waiver is warranted. See attached Letter dated June 16, 2000 from Linda Blair, Chief, Audio Services Division, Mass Media Bureau, to Todd M Stansbury, waiving the main studio rule for a new FM station at Grand Marais, MN, FCC file no. BPED-19981208MI. MPR is making the same pledges with respect to the Grand Rapids station.

For the foregoing reasons, MPR submits that it will be able to ascertain and satisfy the interests and needs of residents of the Grand Rapids area and, therefore, respectfully requests that the Commission grant this waiver of the main studio rule for this station.

Prepared by Mitzi T Gramling, Associate General Counsel
October 2007

WMLS

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C. 20554

JUN 16 2000

IN REPLY REFER TO:
1800B3-ALM

Todd M. Stansbury, Esquire
Wiley, Rein & Fielding
1776 K Street, N.W.
Washington, D. C. 20006

In Re: NEW (Ed. FM), Grand Marais, MN
Minnesota Public Radio
Facility ID No. 92306
File No. BPED-19981208MI

Dear Mr. Stansbury:

The staff has under consideration the application of Minnesota Public Radio ("MPR) for a new noncommercial educational FM station in Grand Marais, Minnesota. The application requests a waiver of the Commission's main studio requirement, *see* 47 C.F.R. § 73.1125, in order to operate the proposed Grand Marais station as a satellite of its commonly owned NCE station KSJN(FM), Minneapolis, Minnesota.¹ For the reasons set forth below, we shall grant MPR's application and its request for waiver.

Section 73.1125(a) requires each broadcast station to maintain a main studio within the station's principal community contour to ensure that the station will serve the needs and interests of the residents of its community of license. *Amendment of Sections 73.1125 and 73.1130*, 3 FCC Rcd 5024, 5027 (1988). However, under Section 73.1125(a)(4), the Commission will waive this requirement where "good cause" exists to do so and where the proposed studio location "would be consistent with the operation of the station in the public interest." Each waiver request by an NCE station seeking to operate as the satellite of another NCE station is considered on a case-by-case basis. The Commission has recognized the benefits of centralized operations for NCE stations, given their limited funding, and thus found "good cause" exists to waive the main studio location requirement where satellite operations are proposed. *Id.* A satellite station must, however, demonstrate that it will meet its local service obligation to satisfy the Section 73.1125 "public interest" standard. *Id.*

MPR's request is based on the economies of scale that would be realized by grant of its waiver. We agree and conclude that there is "good cause" to waive 47 C.F.R.

¹ A "satellite" station meets all of the Commission's technical rules, however, it originates no programming and instead rebroadcasts the parent station's programming. *See Amendment of Multiple Ownership Rules, Memorandum Opinion and Order*, 3 RR2d 1554, 1562 (1964).

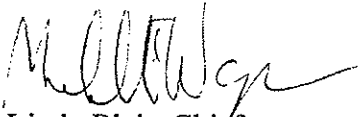
§ 73.1125(a)(4) in these circumstances.

MPR proposes to operate the proposed Grand Marais, Minnesota station, as a satellite of KSJN(FM), Minneapolis, Minnesota, approximately 220 miles from Grand Marais. Where there is a great distance between parent and satellite stations, as here, we are particularly concerned that the licensee take adequate measures to maintain its awareness of the satellite community's needs and interests. To that end, MPR has pledged to: (1) continue its policy that residents of each service area participate on a regional advisory council which provides input to management on programming issues of interest to the residents throughout MPR's service area, including Grand Marais; (2) continue its existing relationship with the community of Grand Marais which has been established by means of membership in MPR; (3) solicit comments from MPR members in Grand Marais concerning programming and station operation; (4) assign to Grand Marais a local news reporter currently based in Duluth, Minnesota who will produce and broadcast local inserts of interest to Grand Marais and who will subscribe to local and area publications and maintain ongoing relationships with community residents and leaders, who will periodically contact and update the reporter concerning matters of local interest; (5) maintain a toll-free telephone number for residents of Grand Marais to contact MPR management in accordance with 47 C.F.R. § 73.1125(c); and (6) operate a site on the World Wide Web, which enables local residents to receive extensive information and comment on MPR's programming.

In these circumstances, we are persuaded that MPR will meet its local service obligations and thus, that grant of the requested waiver is consistent with the public interest. We remind MPR, however, of the requirement that it maintain a public file for the Grand Marais station at the main studio of the "parent" station KSJN(FM). *See Review of the Commission's Rules Regarding the Main Studio and Local Public Inspection Files of Broadcast Television and Radio Stations*, 64 Fed. Reg. 35941 (July 2, 1999). We further remind MPR that notwithstanding the grant of the waiver requested here, the public file for the Grand Marais station must contain the quarterly issues and programs list required by 47 C.F.R. § 73.3527(e)(8).

Accordingly, the application of Minnesota Public Radio for a new noncommercial, educational FM station at Grand Marais, Minnesota (BPED-19981208MI), being in all respects acceptable, and its request for waiver of 47 C.F.R. § 73.1125 ARE HEREBY GRANTED.

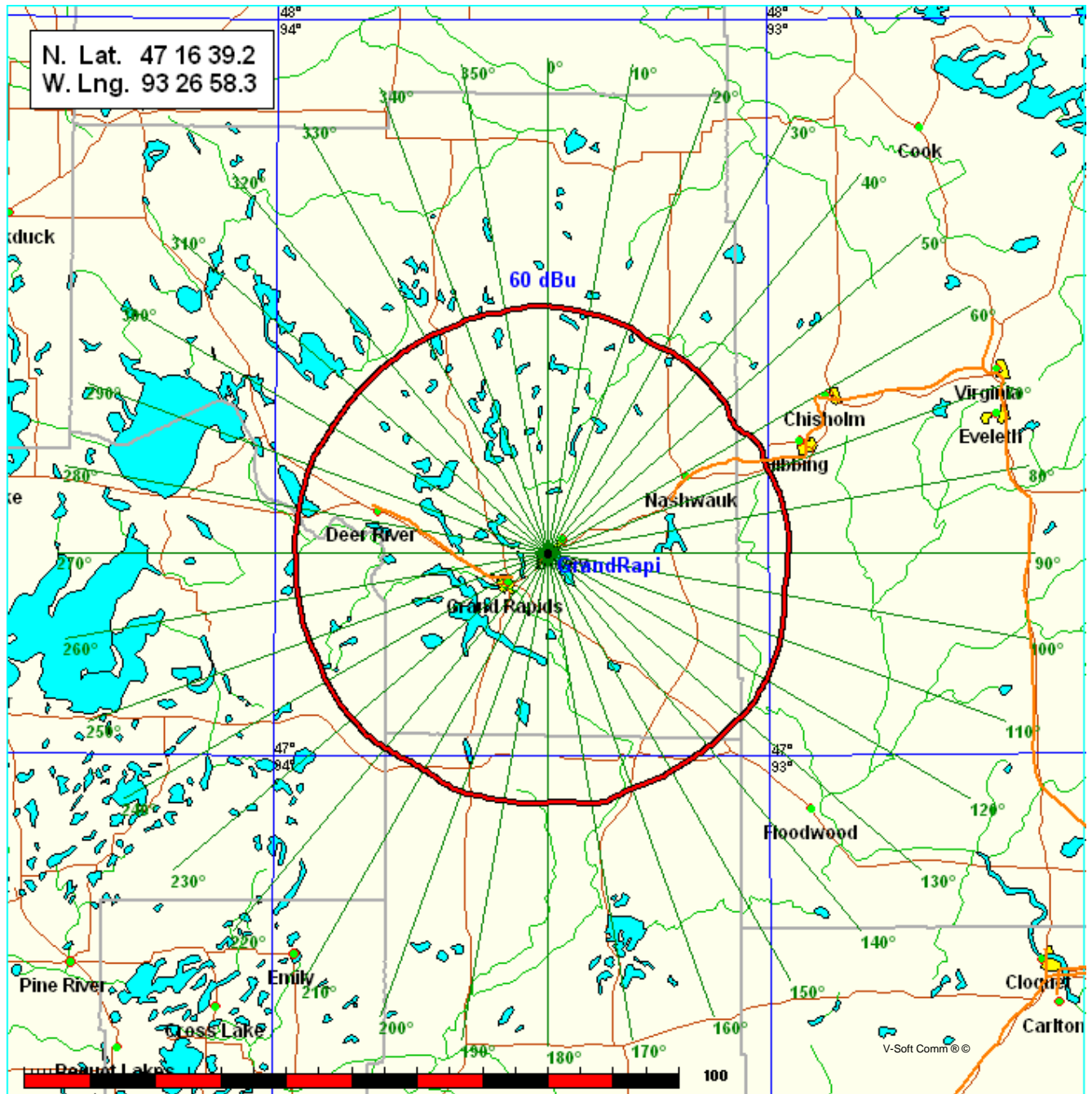
Sincerely,


Linda Blair, Chief
Audio Services Division
Mass Media Bureau

Minnesota Public Radio
Grand Rapids 209 - 60 dBu Coverage

Coverage Study
09-14-2007

GrandRapi CH209 C3 9.7 kW 548M COR
Prot. = 60 dBu. Population = 40,969 Area = 4357.2 sq km



N. Lat. = 471639.2 W. Lng. = 932658.3

HAAT and Distance to Contour - FCC Method - USGS 03 SEC
Grand Rapids 209 - Distance to 60 dBu Contour

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

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	409.1	138.9	9.7000	9.87	1.000	36.67
010	411.9	136.1	9.7000	9.87	1.000	36.35
020	416.4	131.6	9.7000	9.87	1.000	35.80
030	422.7	125.3	9.7000	9.87	1.000	35.07
040	419.8	128.2	9.7000	9.87	1.000	35.41
050	422.8	125.2	9.7000	9.87	1.000	35.06
060	421.1	126.9	9.7000	9.87	1.000	35.25
070	418.4	129.6	9.7000	9.87	1.000	35.57
080	411.0	137.0	9.7000	9.87	1.000	36.45
090	409.3	138.7	9.7000	9.87	1.000	36.66
100	408.5	139.5	9.7000	9.87	1.000	36.75
110	401.0	147.0	9.7000	9.87	1.000	37.65
120	396.0	152.0	9.7000	9.87	1.000	38.24
130	393.9	154.1	9.7000	9.87	1.000	38.49
140	397.5	150.5	9.7000	9.87	1.000	38.06
150	400.8	147.2	9.7000	9.87	1.000	37.66
160	401.1	146.9	9.7000	9.87	1.000	37.63
170	396.2	151.8	9.7000	9.87	1.000	38.22
180	402.6	145.4	9.7000	9.87	1.000	37.45
190	399.0	149.0	9.7000	9.87	1.000	37.88
200	398.7	149.3	9.7000	9.87	1.000	37.92
210	401.5	146.5	9.7000	9.87	1.000	37.58
220	395.4	152.6	9.7000	9.87	1.000	38.31
230	392.6	155.4	9.7000	9.87	1.000	38.64
240	393.1	154.9	9.7000	9.87	1.000	38.58
250	395.1	152.9	9.7000	9.87	1.000	38.35
260	395.3	152.7	9.7000	9.87	1.000	38.32
270	397.3	150.7	9.7000	9.87	1.000	38.08
280	395.0	153.0	9.7000	9.87	1.000	38.36
290	397.7	150.3	9.7000	9.87	1.000	38.04
300	403.1	144.9	9.7000	9.87	1.000	37.40
310	403.5	144.5	9.7000	9.87	1.000	37.34
320	406.6	141.4	9.7000	9.87	1.000	36.97
330	407.5	140.5	9.7000	9.87	1.000	36.87
340	409.0	139.0	9.7000	9.87	1.000	36.69
350	410.3	137.7	9.7000	9.87	1.000	36.54

Ave El= 404.46 M HAAT= 143.54 M AMSL= 548

Minnesota Public Radio
Grand Rapids 209

REFERENCE
47 16 39.2 N.
93 26 58.3 W.

CH# 209C3 - 89.7 MHz, Pwr= 9.7 kW, HAAT= 143.5 M, COR= 548 M
Average Protected F(50-50)= 37.58 km

DISPLAY DATES
DATA 09-11-07
SEARCH 09-11-07

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
209A Bemidji	KBSB	LIC _HN MN		282.6 101.5	109.99 BLED19790913AB	47 29 00.0 94 52 27.0	0.120 38	23.2 460	6.9 Bemidji State College	48.45	0.51
211A Hibbing	KADU	LIC _CX MN		69.0 249.3	39.25 BLED20070629AAJ	47 24 10.0 92 57 50.0	1.500 103	1.8 540	20.4 Heartland Christian Broadc	1.93	15.38
06+2C Superior	KBRTV	LI _HY WI		117.7 298.7	115.11 BLCT20000517AEX	46 47 21.0 92 06 51.0	100.000 302	604	91.0 Kbjr License, Inc.	110.5R	4.6M
209A International Falls	AP7622	APP _CX MN		3.7 183.8	133.24 BNPED20000119ABW	48 28 24.0 93 20 00.0	6.000 47	74.6 397	19.3 Minnesota Public Radio	22.09	13.53
208C1 Duluth	WJRF	APP DVX MN		117.8 298.8	114.78 BPED20070906AEZ	46 47 21.0 92 07 09.0	100.000 154	59.1 461	31.0 Refuge Media Group	17.65	27.00
209C2 Princeton	KPCS	CP DVN MN		182.5 2.4	186.84 BPED19990518MB	45 35 54.0 93 33 18.0	50.000 32	115.0 334	26.5 Pensacola Christian Colleg	34.19	58.62
208C3 Duluth	WJRF	LIC _VX MN		117.8 298.8	114.78 BMLED20050204ABB	46 47 21.0 92 07 09.0	2.850 156	19.3 463	13.1 Refuge Media Group	57.47	44.91
210C2 Brule	WHSB	LIC _CN WI		121.5 302.9	169.60 BLED1040	46 27 59.0 91 33 56.0	38.000 168	77.2 525	52.2 State Of Wisconsin - Educa	54.06	60.29
207C1 Sebeka	KOPJ	LIC _C_ MN		229.0 48.1	121.97 BLED20051005AAI	46 33 08.0 94 39 03.0	100.000 143	6.3 560	53.6 Lifetalk Radio, Inc.	77.03	64.51
206B Fort Frances	CKSB9F	OPE _CN ON		352.5 172.3	152.74	48 38 22.0 93 43 14.0	50.000 142	7.0 493	64.5 97.48		82.93
263C1 Cloquet	WSCN	LIC _CN MN		117.7 298.7	115.11 BLED19900717KA	46 47 21.0 92 06 51.0	97.000 267	0.0 572	0.0 Minnesota Public Radio	23.5R	91.6M
206C3 Hi nckley2 Hi nckley		LIC _ MN		166.6 347.0	142.75	46 01 39.2 93 01 20.3	11.000 109	3.0 432	30.4	101.43	108.61
209C3 Grand Marais	WLSN	LIC _CX MN		75.7 258.0	239.98 BLED20020411AAL	47 46 04.0 90 20 47.0	6.000 194	88.9 537	30.0 Minnesota Public Radio	114.88	110.01
209A Fergus Falls	KCMF	LIC _CX MN		243.1 61.1	228.11 BLED20030610ACR	46 19 12.0 96 05 32.0	2.700 66	52.2 439	13.1 Minnesota Public Radio	137.35	112.15

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)
"◀" = Station meets FCC minimum distance spacing for its class.
Reference station has protected zone issue: Canada

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".

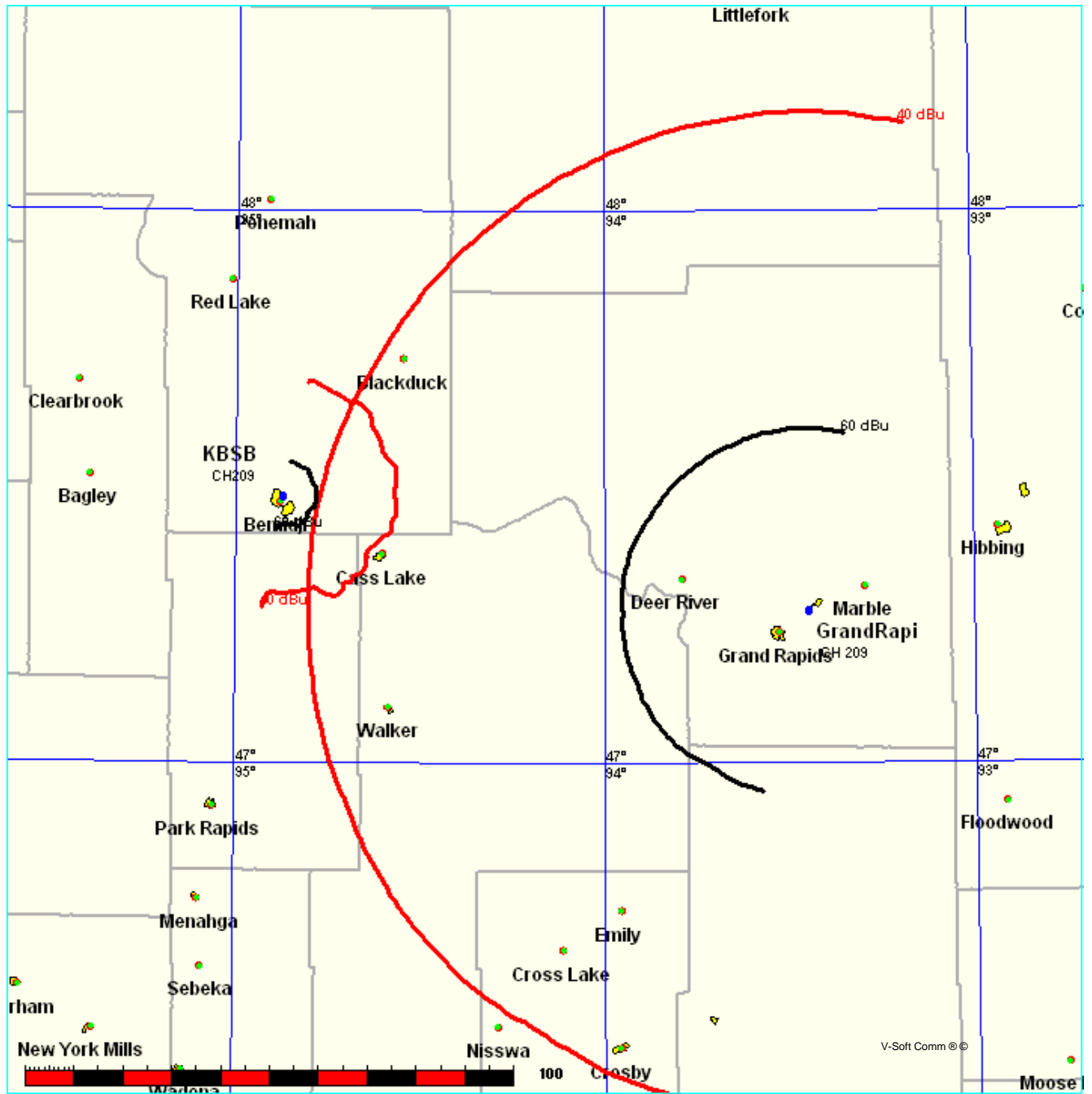
The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates omni. The fifth letter will be an E, H or V depending 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".

Minnesota Public Radio
Grand Rapids 209 v KBSB

FMCommander Single Allocation Study
09-14-2007

GrandRapi CH 209 C3
9.7 kW 548 M COR
Prot. = 60 dBu
Intef. = 40 dBu

KBSB CH 209 A BLED19790913AB
0.12 kW, 460 M COR
Prot. = 60 dBu
Intef. = 40 dBu



09-14-2007

USGS 03 SEC Terrain Data

FMOver Analysis

GrandRapi
 Channel = 209C3
 Max ERP = 9.7 kW
 RCAMSL = 548 M
 N. Lat. 47 16 39.2
 W. Lng. 93 26 58.3
 Protected
 60 dBu

KBSB BLED19790913AB
 Channel = 209A
 Max ERP = 0.12 kW
 RCAMSL = 460 M
 N. Lat. 47 29 00.0
 W. Lng. 94 52 27.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
223.0	009.7000	0154.5	038.5	121.8	000.1200	0033.8	096.2	17.71
224.0	009.7000	0154.9	038.6	121.7	000.1200	0033.8	095.6	17.84
225.0	009.7000	0155.1	038.6	121.6	000.1200	0033.8	094.9	17.98
226.0	009.7000	0154.8	038.6	121.5	000.1200	0033.8	094.2	18.11
227.0	009.7000	0154.8	038.6	121.4	000.1200	0033.9	093.6	18.25
228.0	009.7000	0155.2	038.6	121.3	000.1200	0033.9	092.9	18.38
229.0	009.7000	0155.4	038.6	121.2	000.1200	0033.9	092.3	18.52
230.0	009.7000	0155.4	038.6	121.1	000.1200	0033.9	091.6	18.66
231.0	009.7000	0155.8	038.7	121.0	000.1200	0033.9	091.0	18.80
232.0	009.7000	0156.4	038.8	120.9	000.1200	0034.0	090.3	18.94
233.0	009.7000	0156.6	038.8	120.7	000.1200	0034.0	089.7	19.08
234.0	009.7000	0156.9	038.8	120.6	000.1200	0034.1	089.0	19.22
235.0	009.7000	0157.1	038.8	120.4	000.1200	0034.2	088.4	19.36
236.0	009.7000	0156.8	038.8	120.2	000.1200	0034.3	087.8	19.50
237.0	009.7000	0155.7	038.7	120.0	000.1200	0034.4	087.2	19.62
238.0	009.7000	0155.2	038.6	119.7	000.1200	0034.6	086.6	19.75
239.0	009.7000	0155.0	038.6	119.5	000.1200	0034.7	086.1	19.89
240.0	009.7000	0154.9	038.6	119.3	000.1200	0034.8	085.5	20.02
241.0	009.7000	0155.1	038.6	119.1	000.1200	0035.0	084.9	20.15
242.0	009.7000	0155.0	038.6	118.8	000.1200	0035.1	084.3	20.29
243.0	009.7000	0154.6	038.5	118.5	000.1200	0035.3	083.8	20.41
244.0	009.7000	0154.0	038.5	118.2	000.1200	0035.5	083.3	20.54
245.0	009.7000	0152.9	038.3	117.9	000.1200	0035.7	082.8	20.65
246.0	009.7000	0151.5	038.2	117.5	000.1200	0036.0	082.4	20.76
247.0	009.7000	0151.6	038.2	117.2	000.1200	0036.3	081.8	20.89
248.0	009.7000	0152.1	038.3	117.0	000.1200	0036.5	081.3	21.02
249.0	009.7000	0152.4	038.3	116.7	000.1200	0036.7	080.7	21.15
250.0	009.7000	0152.9	038.3	116.4	000.1200	0036.9	080.2	21.28
251.0	009.7000	0153.3	038.4	116.1	000.1200	0037.1	079.7	21.40
252.0	009.7000	0153.4	038.4	115.7	000.1200	0037.2	079.2	21.51
253.0	009.7000	0153.2	038.4	115.4	000.1200	0037.4	078.8	21.62
254.0	009.7000	0153.0	038.4	115.0	000.1200	0037.5	078.3	21.72
255.0	009.7000	0152.8	038.3	114.6	000.1200	0037.6	077.9	21.81
256.0	009.7000	0152.5	038.3	114.2	000.1200	0037.7	077.5	21.90
257.0	009.7000	0152.5	038.3	113.8	000.1200	0037.8	077.1	21.99
258.0	009.7000	0152.7	038.3	113.5	000.1200	0037.8	076.7	22.09
259.0	009.7000	0152.8	038.3	113.0	000.1200	0037.9	076.3	22.18

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
260.0	009.7000	0152.7	038.3	112.6	000.1200	0038.2	075.9	22.28
261.0	009.7000	0152.6	038.3	112.2	000.1200	0038.7	075.5	22.39
262.0	009.7000	0152.1	038.3	111.7	000.1200	0039.2	075.2	22.48
263.0	009.7000	0152.1	038.2	111.3	000.1200	0039.6	074.9	22.59
264.0	009.7000	0152.4	038.3	110.9	000.1200	0040.1	074.6	22.69
265.0	009.7000	0152.2	038.3	110.4	000.1200	0040.4	074.3	22.78
266.0	009.7000	0151.6	038.2	109.9	000.1200	0040.9	074.1	22.87
267.0	009.7000	0151.1	038.1	109.4	000.1200	0041.7	073.8	22.98
268.0	009.7000	0150.6	038.1	108.9	000.1200	0042.3	073.6	23.06
269.0	009.7000	0150.4	038.0	108.4	000.1200	0042.4	073.4	23.12
270.0	009.7000	0150.7	038.1	107.9	000.1200	0042.3	073.2	23.17
271.0	009.7000	0151.1	038.1	107.4	000.1200	0042.2	072.9	23.21
272.0	009.7000	0151.5	038.2	107.0	000.1200	0042.1	072.7	23.25
273.0	009.7000	0151.8	038.2	106.5	000.1200	0041.8	072.5	23.28
274.0	009.7000	0152.3	038.3	105.9	000.1200	0041.3	072.3	23.29
275.0	009.7000	0152.2	038.3	105.4	000.1200	0041.0	072.1	23.29
276.0	009.7000	0152.5	038.3	104.9	000.1200	0040.9	072.0	23.31
277.0	009.7000	0152.8	038.3	104.4	000.1200	0041.0	071.8	23.35
278.0	009.7000	0152.3	038.3	103.8	000.1200	0041.2	071.8	23.37
279.0	009.7000	0152.3	038.3	103.3	000.1200	0041.5	071.7	23.41
280.0	009.7000	0153.0	038.4	102.8	000.1200	0041.9	071.6	23.47
281.0	009.7000	0153.2	038.4	102.3	000.1200	0041.9	071.6	23.49
282.0	009.7000	0152.9	038.3	101.7	000.1200	0042.0	071.6	23.49
283.0	009.7000	0152.5	038.3	101.2	000.1200	0042.2	071.6	23.49
284.0	009.7000	0152.1	038.3	100.6	000.1200	0042.3	071.7	23.49
285.0	009.7000	0151.7	038.2	100.1	000.1200	0042.6	071.8	23.50
286.0	009.7000	0151.7	038.2	099.6	000.1200	0042.9	071.8	23.51
287.0	009.7000	0151.8	038.2	099.1	000.1200	0043.0	071.9	23.50
288.0	009.7000	0151.5	038.2	098.5	000.1200	0042.9	072.0	23.47
289.0	009.7000	0151.0	038.1	098.0	000.1200	0042.7	072.2	23.42
290.0	009.7000	0150.3	038.0	097.5	000.1200	0042.5	072.4	23.35
291.0	009.7000	0149.8	038.0	097.0	000.1200	0042.3	072.6	23.29
292.0	009.7000	0149.9	038.0	096.5	000.1200	0042.0	072.7	23.24
293.0	009.7000	0149.7	038.0	096.0	000.1200	0042.1	072.9	23.20
294.0	009.7000	0149.3	037.9	095.5	000.1200	0042.1	073.2	23.16
295.0	009.7000	0149.3	037.9	095.0	000.1200	0042.1	073.4	23.11
296.0	009.7000	0147.6	037.7	094.6	000.1200	0042.0	073.8	23.01
297.0	009.7000	0146.5	037.6	094.1	000.1200	0042.0	074.2	22.93
298.0	009.7000	0146.0	037.5	093.7	000.1200	0042.0	074.5	22.86
299.0	009.7000	0145.3	037.4	093.3	000.1200	0041.9	074.8	22.78
300.0	009.7000	0144.9	037.4	092.8	000.1200	0041.8	075.1	22.71
301.0	009.7000	0144.7	037.4	092.4	000.1200	0041.6	075.5	22.62
302.0	009.7000	0144.5	037.4	092.0	000.1200	0041.4	075.8	22.54
303.0	009.7000	0144.5	037.3	091.5	000.1200	0041.3	076.1	22.45
304.0	009.7000	0144.5	037.3	091.1	000.1200	0041.1	076.5	22.37
305.0	009.7000	0144.4	037.3	090.7	000.1200	0041.0	076.8	22.29
306.0	009.7000	0144.4	037.3	090.3	000.1200	0041.0	077.2	22.20
307.0	009.7000	0144.4	037.3	089.9	000.1200	0040.9	077.6	22.11
308.0	009.7000	0144.5	037.3	089.5	000.1200	0040.9	077.9	22.03
309.0	009.7000	0144.5	037.3	089.2	000.1200	0040.9	078.4	21.94
310.0	009.7000	0144.5	037.3	088.8	000.1200	0040.9	078.8	21.86

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
311.0	009.7000	0144.4	037.3	088.4	000.1200	0040.9	079.2	21.76
312.0	009.7000	0144.1	037.3	088.1	000.1200	0040.9	079.7	21.66
313.0	009.7000	0143.9	037.3	087.8	000.1200	0040.9	080.1	21.56
314.0	009.7000	0143.4	037.2	087.5	000.1200	0040.9	080.6	21.45
315.0	009.7000	0143.0	037.2	087.2	000.1200	0041.0	081.1	21.34
316.0	009.7000	0142.7	037.1	086.9	000.1200	0041.1	081.6	21.24
317.0	009.7000	0142.3	037.1	086.6	000.1200	0041.2	082.2	21.13
318.0	009.7000	0142.0	037.0	086.4	000.1200	0041.4	082.7	21.03
319.0	009.7000	0141.7	037.0	086.1	000.1200	0041.6	083.2	20.92
320.0	009.7000	0141.4	037.0	085.9	000.1200	0041.7	083.7	20.81
321.0	009.7000	0141.1	036.9	085.6	000.1200	0041.8	084.3	20.69
322.0	009.7000	0140.9	036.9	085.4	000.1200	0041.9	084.8	20.57
323.0	009.7000	0140.9	036.9	085.1	000.1200	0042.0	085.4	20.45
324.0	009.7000	0140.9	036.9	084.9	000.1200	0042.0	085.9	20.33
325.0	009.7000	0141.0	036.9	084.7	000.1200	0042.0	086.4	20.21
326.0	009.7000	0141.2	037.0	084.4	000.1200	0042.1	087.0	20.09
327.0	009.7000	0141.2	036.9	084.2	000.1200	0042.1	087.6	19.96
328.0	009.7000	0141.0	036.9	084.1	000.1200	0042.1	088.1	19.83
329.0	009.7000	0140.8	036.9	083.9	000.1200	0042.1	088.7	19.70
330.0	009.7000	0140.5	036.9	083.7	000.1200	0042.2	089.3	19.56
331.0	009.7000	0140.2	036.8	083.6	000.1200	0042.2	089.9	19.43
332.0	009.7000	0139.7	036.8	083.5	000.1200	0042.2	090.5	19.29
333.0	009.7000	0139.2	036.7	083.3	000.1200	0042.2	091.2	19.16
334.0	009.7000	0139.0	036.7	083.2	000.1200	0042.2	091.8	19.02
335.0	009.7000	0138.9	036.7	083.1	000.1200	0042.2	092.4	18.89
336.0	009.7000	0138.9	036.7	083.0	000.1200	0042.2	093.0	18.76
337.0	009.7000	0138.9	036.7	082.8	000.1200	0042.2	093.6	18.63
338.0	009.7000	0139.0	036.7	082.7	000.1200	0042.2	094.2	18.49
339.0	009.7000	0138.9	036.7	082.6	000.1200	0042.3	094.8	18.36
340.0	009.7000	0139.0	036.7	082.5	000.1200	0042.3	095.4	18.23
341.0	009.7000	0139.0	036.7	082.4	000.1200	0042.3	096.1	18.10
342.0	009.7000	0138.8	036.7	082.4	000.1200	0042.3	096.7	17.98
343.0	009.7000	0139.1	036.7	082.3	000.1200	0042.3	097.3	17.85

09-14-2007 USGS 03 SEC Terrain Data

KBSB BLED19790913AB
 Channel = 209A
 Max ERP = 0.12 kW
 RCAMSL = 460 M
 N. Lat. 47 29 00.0
 W. Lng. 94 52 27.0
 Protected
 60 dBu

GrandRapi
 Channel = 209C3
 Max ERP = 9.7 kW
 RCAMSL = 548 M
 N. Lat. 47 16 39.2
 W. Lng. 93 26 58.3
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
042.0	000.1200	0046.5	007.3	286.0	009.7000	0151.6	106.5	39.04
043.0	000.1200	0046.6	007.3	285.9	009.7000	0151.6	106.4	39.06
044.0	000.1200	0046.5	007.3	285.9	009.7000	0151.6	106.3	39.09
045.0	000.1200	0046.4	007.3	285.9	009.7000	0151.6	106.1	39.11
046.0	000.1200	0046.3	007.3	285.8	009.7000	0151.6	106.0	39.14
047.0	000.1200	0045.9	007.3	285.8	009.7000	0151.6	106.0	39.16
048.0	000.1200	0045.2	007.2	285.7	009.7000	0151.6	105.9	39.17
049.0	000.1200	0044.8	007.2	285.6	009.7000	0151.7	105.8	39.19
050.0	000.1200	0044.3	007.1	285.6	009.7000	0151.7	105.7	39.21
051.0	000.1200	0043.2	007.0	285.5	009.7000	0151.7	105.7	39.22
052.0	000.1200	0042.3	006.9	285.4	009.7000	0151.7	105.6	39.23
053.0	000.1200	0041.7	006.9	285.4	009.7000	0151.7	105.6	39.25
054.0	000.1200	0041.4	006.9	285.3	009.7000	0151.7	105.5	39.27
055.0	000.1200	0041.3	006.9	285.3	009.7000	0151.7	105.4	39.29
056.0	000.1200	0041.5	006.9	285.2	009.7000	0151.7	105.3	39.31
057.0	000.1200	0041.3	006.9	285.2	009.7000	0151.7	105.2	39.33
058.0	000.1200	0041.2	006.8	285.1	009.7000	0151.7	105.1	39.35
059.0	000.1200	0041.2	006.8	285.1	009.7000	0151.7	105.1	39.37
060.0	000.1200	0041.1	006.8	285.0	009.7000	0151.7	105.0	39.39
061.0	000.1200	0040.8	006.8	285.0	009.7000	0151.7	104.9	39.40
062.0	000.1200	0040.5	006.8	284.9	009.7000	0151.7	104.9	39.42
063.0	000.1200	0040.0	006.7	284.9	009.7000	0151.7	104.8	39.43
064.0	000.1200	0039.7	006.7	284.8	009.7000	0151.8	104.7	39.44
065.0	000.1200	0039.5	006.7	284.8	009.7000	0151.8	104.7	39.46
066.0	000.1200	0039.3	006.7	284.7	009.7000	0151.8	104.6	39.47
067.0	000.1200	0039.4	006.7	284.6	009.7000	0151.8	104.6	39.49
068.0	000.1200	0039.6	006.7	284.6	009.7000	0151.8	104.5	39.51
069.0	000.1200	0039.9	006.7	284.6	009.7000	0151.9	104.4	39.53
070.0	000.1200	0040.4	006.8	284.5	009.7000	0151.9	104.3	39.56
071.0	000.1200	0041.1	006.8	284.5	009.7000	0151.9	104.2	39.58
072.0	000.1200	0041.9	006.9	284.4	009.7000	0151.9	104.0	39.61
073.0	000.1200	0042.6	007.0	284.4	009.7000	0151.9	103.9	39.64
074.0	000.1200	0043.1	007.0	284.4	009.7000	0151.9	103.8	39.66
075.0	000.1200	0043.5	007.0	284.3	009.7000	0152.0	103.7	39.69

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
076.0	000.1200	0043.8	007.1	284.3	009.7000	0152.0	103.7	39.71
077.0	000.1200	0044.0	007.1	284.2	009.7000	0152.0	103.6	39.72
078.0	000.1200	0044.1	007.1	284.1	009.7000	0152.1	103.5	39.74
079.0	000.1200	0043.8	007.1	284.1	009.7000	0152.1	103.5	39.75
080.0	000.1200	0043.2	007.0	284.0	009.7000	0152.1	103.5	39.75
081.0	000.1200	0042.7	007.0	283.9	009.7000	0152.2	103.5	39.75
082.0	000.1200	0042.3	006.9	283.9	009.7000	0152.2	103.5	39.76
083.0	000.1200	0042.2	006.9	283.8	009.7000	0152.3	103.4	39.77
084.0	000.1200	0042.1	006.9	283.7	009.7000	0152.3	103.4	39.78
085.0	000.1200	0042.0	006.9	283.7	009.7000	0152.3	103.4	39.78
086.0	000.1200	0041.7	006.9	283.6	009.7000	0152.3	103.4	39.79
087.0	000.1200	0041.0	006.8	283.5	009.7000	0152.4	103.4	39.78
088.0	000.1200	0040.9	006.8	283.4	009.7000	0152.4	103.4	39.79
089.0	000.1200	0040.9	006.8	283.4	009.7000	0152.4	103.4	39.80
090.0	000.1200	0040.9	006.8	283.3	009.7000	0152.4	103.3	39.80
091.0	000.1200	0041.1	006.8	283.3	009.7000	0152.5	103.3	39.81
092.0	000.1200	0041.4	006.9	283.2	009.7000	0152.5	103.2	39.83
093.0	000.1200	0041.9	006.9	283.1	009.7000	0152.5	103.2	39.84
094.0	000.1200	0042.0	006.9	283.1	009.7000	0152.5	103.1	39.85
095.0	000.1200	0042.1	006.9	283.0	009.7000	0152.5	103.1	39.86
096.0	000.1200	0042.1	006.9	282.9	009.7000	0152.5	103.1	39.86
097.0	000.1200	0042.3	006.9	282.9	009.7000	0152.6	103.1	39.87
098.0	000.1200	0042.7	007.0	282.8	009.7000	0152.6	103.0	39.88
099.0	000.1200	0043.0	007.0	282.7	009.7000	0152.6	103.0	39.89
100.0	000.1200	0042.7	007.0	282.7	009.7000	0152.6	103.0	39.88
101.0	000.1200	0042.2	006.9	282.6	009.7000	0152.7	103.1	39.87
102.0	000.1200	0042.0	006.9	282.5	009.7000	0152.7	103.1	39.87
103.0	000.1200	0041.8	006.9	282.5	009.7000	0152.7	103.1	39.87
104.0	000.1200	0041.1	006.8	282.4	009.7000	0152.8	103.2	39.85
105.0	000.1200	0040.9	006.8	282.3	009.7000	0152.8	103.2	39.85
106.0	000.1200	0041.4	006.9	282.3	009.7000	0152.8	103.2	39.86
107.0	000.1200	0042.1	006.9	282.2	009.7000	0152.8	103.1	39.87
108.0	000.1200	0042.3	006.9	282.1	009.7000	0152.9	103.1	39.87
109.0	000.1200	0042.2	006.9	282.1	009.7000	0152.9	103.1	39.87
110.0	000.1200	0040.8	006.8	282.0	009.7000	0152.9	103.3	39.84
111.0	000.1200	0039.9	006.7	281.9	009.7000	0152.9	103.4	39.81
112.0	000.1200	0038.9	006.7	281.9	009.7000	0152.9	103.5	39.79
113.0	000.1200	0038.0	006.6	281.8	009.7000	0153.0	103.6	39.76
114.0	000.1200	0037.7	006.6	281.8	009.7000	0153.0	103.6	39.75
115.0	000.1200	0037.5	006.5	281.7	009.7000	0153.0	103.7	39.74
116.0	000.1200	0037.1	006.5	281.7	009.7000	0153.0	103.7	39.73
117.0	000.1200	0036.4	006.4	281.6	009.7000	0153.0	103.8	39.71
118.0	000.1200	0035.6	006.4	281.6	009.7000	0153.0	103.9	39.69
119.0	000.1200	0035.0	006.3	281.5	009.7000	0153.0	104.0	39.67
120.0	000.1200	0034.4	006.3	281.5	009.7000	0153.1	104.1	39.65
121.0	000.1200	0033.9	006.2	281.4	009.7000	0153.1	104.1	39.63
122.0	000.1200	0033.8	006.2	281.4	009.7000	0153.1	104.2	39.62
123.0	000.1200	0033.8	006.2	281.3	009.7000	0153.1	104.2	39.61
124.0	000.1200	0033.9	006.2	281.3	009.7000	0153.1	104.3	39.60
125.0	000.1200	0034.4	006.3	281.2	009.7000	0153.1	104.3	39.60
126.0	000.1200	0035.5	006.4	281.1	009.7000	0153.2	104.2	39.61

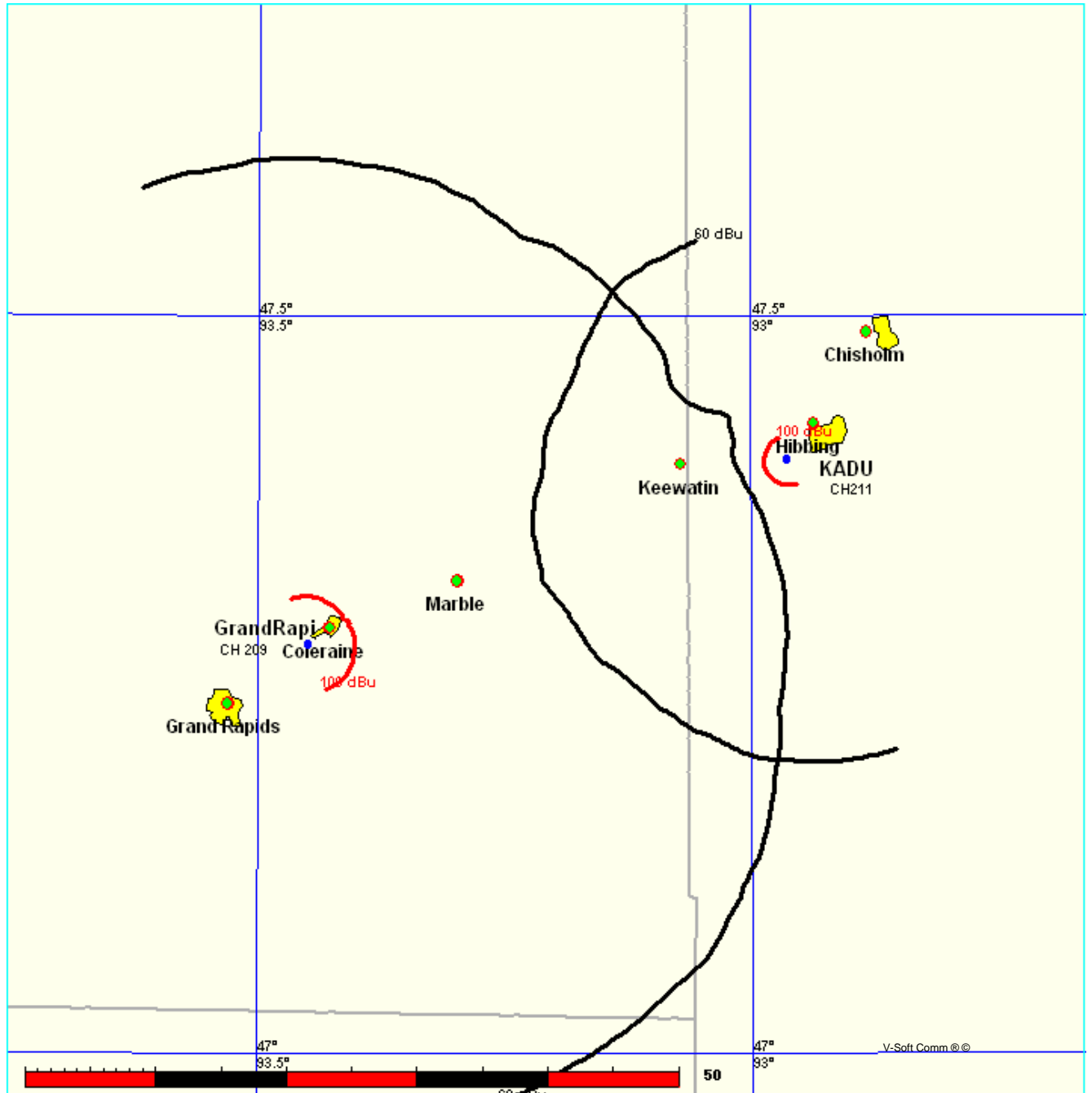
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
127.0	000.1200	0036.1	006.4	281.0	009.7000	0153.2	104.2	39.61
128.0	000.1200	0036.8	006.5	281.0	009.7000	0153.2	104.2	39.61
129.0	000.1200	0037.3	006.5	280.9	009.7000	0153.2	104.3	39.61
130.0	000.1200	0038.0	006.6	280.8	009.7000	0153.2	104.3	39.61
131.0	000.1200	0038.7	006.6	280.8	009.7000	0153.2	104.3	39.60
132.0	000.1200	0039.0	006.7	280.7	009.7000	0153.2	104.3	39.60
133.0	000.1200	0039.2	006.7	280.6	009.7000	0153.2	104.4	39.58
134.0	000.1200	0039.1	006.7	280.6	009.7000	0153.2	104.4	39.57
135.0	000.1200	0039.0	006.7	280.5	009.7000	0153.2	104.5	39.55
136.0	000.1200	0038.2	006.6	280.5	009.7000	0153.2	104.6	39.52
137.0	000.1200	0036.8	006.5	280.5	009.7000	0153.2	104.8	39.48
138.0	000.1200	0037.0	006.5	280.4	009.7000	0153.2	104.9	39.47
139.0	000.1200	0037.5	006.5	280.4	009.7000	0153.2	104.9	39.46
140.0	000.1200	0038.5	006.6	280.3	009.7000	0153.2	104.9	39.45
141.0	000.1200	0039.0	006.7	280.2	009.7000	0153.1	104.9	39.44
142.0	000.1200	0038.5	006.6	280.2	009.7000	0153.1	105.1	39.42
143.0	000.1200	0037.6	006.5	280.2	009.7000	0153.1	105.2	39.39
144.0	000.1200	0037.2	006.5	280.2	009.7000	0153.1	105.3	39.36
145.0	000.1200	0037.2	006.5	280.1	009.7000	0153.1	105.4	39.34
146.0	000.1200	0038.6	006.6	280.0	009.7000	0153.0	105.4	39.34
147.0	000.1200	0040.2	006.8	279.9	009.7000	0153.0	105.4	39.34
148.0	000.1200	0040.5	006.8	279.9	009.7000	0152.9	105.4	39.32
149.0	000.1200	0040.9	006.8	279.8	009.7000	0152.9	105.5	39.30
150.0	000.1200	0041.2	006.9	279.8	009.7000	0152.9	105.6	39.29
151.0	000.1200	0041.2	006.8	279.7	009.7000	0152.8	105.7	39.26
152.0	000.1200	0040.6	006.8	279.7	009.7000	0152.8	105.8	39.23
153.0	000.1200	0039.9	006.7	279.7	009.7000	0152.8	105.9	39.20
154.0	000.1200	0039.2	006.7	279.7	009.7000	0152.8	106.1	39.17
155.0	000.1200	0038.2	006.6	279.7	009.7000	0152.8	106.2	39.14
156.0	000.1200	0037.3	006.5	279.7	009.7000	0152.8	106.3	39.11
157.0	000.1200	0036.2	006.4	279.7	009.7000	0152.8	106.5	39.08
158.0	000.1200	0034.3	006.3	279.7	009.7000	0152.9	106.7	39.04
159.0	000.1200	0032.6	006.1	279.8	009.7000	0152.9	106.8	39.00
160.0	000.1200	0030.9	006.0	279.8	009.7000	0152.9	107.0	38.96
161.0	000.1200	0029.7	005.9	279.8	009.7000	0152.9	107.1	38.94
162.0	000.1200	0028.8	005.9	279.8	009.7000	0152.9	107.2	38.92

Minnesota Public Radio
Grand Rapids 209 v KADU

FMCommander Single Allocation Study
09-14-2007

GrandRapi CH 209 C3
9.7 kW 548 M COR
Prot. = 60 dBu
Intef. = 100 dBu

KADU CH 211 A BLED20070629AAJ
1.5 kW, 540 M COR
Prot. = 60 dBu
Intef. = 100 dBu



09-14-2007

USGS 03 SEC Terrain Data

FMOver Analysis

GrandRapi
 Channel = 209C3
 Max ERP = 9.7 kW
 RCAMSL = 548 M
 N. Lat. 47 16 39.2
 W. Lng. 93 26 58.3
 Protected
 60 dBu

KADU BLED20070629AAJ
 Channel = 211A
 Max ERP = 1.5 kW
 RCAMSL = 540 M
 N. Lat. 47 24 10.0
 W. Lng. 92 57 50.0
 Interfering
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
009.0	009.7000	0136.2	036.4	305.6	001.5000	0076.8	037.9	48.15
010.0	009.7000	0136.1	036.3	306.1	001.5000	0077.0	037.4	48.42
011.0	009.7000	0136.2	036.4	306.5	001.5000	0077.2	036.8	48.68
012.0	009.7000	0136.0	036.3	306.9	001.5000	0077.4	036.2	48.95
013.0	009.7000	0135.7	036.3	307.3	001.5000	0077.5	035.6	49.22
014.0	009.7000	0135.5	036.3	307.6	001.5000	0077.7	035.0	49.50
015.0	009.7000	0135.1	036.2	308.0	001.5000	0077.9	034.4	49.78
016.0	009.7000	0134.5	036.1	308.2	001.5000	0078.0	033.8	50.07
017.0	009.7000	0133.5	036.0	308.4	001.5000	0078.1	033.2	50.36
018.0	009.7000	0132.3	035.9	308.6	001.5000	0078.1	032.5	50.65
019.0	009.7000	0131.7	035.8	308.9	001.5000	0078.2	031.9	50.95
020.0	009.7000	0131.6	035.8	309.2	001.5000	0078.4	031.3	51.25
021.0	009.7000	0131.0	035.7	309.5	001.5000	0078.5	030.7	51.57
022.0	009.7000	0129.6	035.6	309.5	001.5000	0078.5	030.1	51.91
023.0	009.7000	0128.1	035.4	309.5	001.5000	0078.5	029.4	52.27
024.0	009.7000	0127.4	035.3	309.7	001.5000	0078.6	028.8	52.63
025.0	009.7000	0126.3	035.2	309.8	001.5000	0078.6	028.2	53.01
026.0	009.7000	0125.2	035.1	309.8	001.5000	0078.6	027.6	53.40
027.0	009.7000	0124.0	034.9	309.8	001.5000	0078.6	026.9	53.80
028.0	009.7000	0123.4	034.9	310.0	001.5000	0078.7	026.3	54.21
029.0	009.7000	0124.0	034.9	310.4	001.5000	0078.9	025.8	54.63
030.0	009.7000	0125.3	035.1	311.0	001.5000	0079.2	025.2	55.06
031.0	009.7000	0126.7	035.2	311.6	001.5000	0079.6	024.6	55.51
032.0	009.7000	0128.0	035.4	312.2	001.5000	0080.0	024.0	55.97
033.0	009.7000	0128.3	035.4	312.5	001.5000	0080.1	023.4	56.43
034.0	009.7000	0128.4	035.4	312.8	001.5000	0080.2	022.8	56.90
035.0	009.7000	0128.6	035.5	313.1	001.5000	0080.4	022.2	57.38
036.0	009.7000	0128.8	035.5	313.3	001.5000	0080.6	021.6	57.88
037.0	009.7000	0128.9	035.5	313.5	001.5000	0080.7	021.0	58.38
038.0	009.7000	0128.6	035.5	313.6	001.5000	0080.8	020.4	58.88
039.0	009.7000	0128.3	035.4	313.7	001.5000	0080.8	019.8	59.38
040.0	009.7000	0128.2	035.4	313.8	001.5000	0080.9	019.1	59.89
041.0	009.7000	0127.7	035.3	313.7	001.5000	0080.8	018.5	60.40
042.0	009.7000	0127.4	035.3	313.6	001.5000	0080.8	017.9	60.92
043.0	009.7000	0127.2	035.3	313.6	001.5000	0080.8	017.3	61.43
044.0	009.7000	0127.1	035.3	313.5	001.5000	0080.7	016.7	61.95
045.0	009.7000	0127.0	035.3	313.5	001.5000	0080.7	016.1	62.47

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
046.0	009.7000	0126.6	035.2	313.2	001.5000	0080.5	015.4	62.99
047.0	009.7000	0125.8	035.1	312.7	001.5000	0080.2	014.8	63.34
048.0	009.7000	0125.5	035.1	312.3	001.5000	0080.0	014.2	64.03
049.0	009.7000	0125.4	035.1	312.0	001.5000	0079.9	013.6	64.78
050.0	009.7000	0125.2	035.1	311.5	001.5000	0079.6	013.0	65.57
051.0	009.7000	0124.3	035.0	310.6	001.5000	0079.0	012.4	66.35
052.0	009.7000	0122.8	034.8	309.2	001.5000	0078.4	011.9	67.12
053.0	009.7000	0119.8	034.4	306.8	001.5000	0077.3	011.4	67.79
054.0	009.7000	0117.1	034.1	304.2	001.5000	0076.3	010.9	68.43
055.0	009.7000	0116.3	034.0	302.5	001.5000	0075.8	010.4	69.23
056.0	009.7000	0116.5	034.0	301.3	001.5000	0075.6	009.9	70.18
057.0	009.7000	0117.6	034.2	300.5	001.5000	0075.5	009.3	71.24
058.0	009.7000	0119.4	034.4	299.9	001.5000	0075.5	008.6	72.39
059.0	009.7000	0122.3	034.7	300.0	001.5000	0075.5	007.9	73.72
060.0	009.7000	0126.9	035.3	301.3	001.5000	0075.6	007.2	75.53
061.0	009.7000	0134.4	036.1	305.7	001.5000	0076.8	006.2	78.28
062.0	009.7000	0137.6	036.5	306.4	001.5000	0077.1	005.5	80.61
063.0	009.7000	0134.7	036.2	299.6	001.5000	0075.4	005.1	81.66
064.0	009.7000	0134.4	036.1	294.9	001.5000	0074.5	004.6	83.25
065.0	009.7000	0133.3	036.0	288.0	001.5000	0074.3	004.2	84.64
066.0	009.7000	0129.2	035.5	277.2	001.5000	0081.1	004.2	85.32
067.0	009.7000	0127.8	035.4	268.5	001.5000	0082.8	004.1	85.97
068.0	009.7000	0128.3	035.4	260.3	001.5000	0091.1	003.9	87.74
069.0	009.7000	0128.8	035.5	251.1	001.5000	0097.1	003.7	88.88
070.0	009.7000	0129.6	035.6	241.5	001.5000	0100.8	003.7	89.40
071.0	009.7000	0130.9	035.7	231.5	001.5000	0098.8	003.7	89.26
072.0	009.7000	0132.0	035.9	222.0	001.5000	0101.5	003.8	88.84
073.0	009.7000	0132.8	036.0	213.8	001.5000	0100.7	004.1	87.65
074.0	009.7000	0133.6	036.0	206.8	001.5000	0105.6	004.5	86.67
075.0	009.7000	0134.7	036.2	200.7	001.5000	0109.2	004.9	85.56
076.0	009.7000	0134.9	036.2	196.7	001.5000	0111.1	005.4	84.08
077.0	009.7000	0135.0	036.2	193.6	001.5000	0112.9	005.9	82.55
078.0	009.7000	0135.8	036.3	190.3	001.5000	0117.2	006.5	81.34
079.0	009.7000	0136.2	036.4	188.0	001.5000	0119.6	007.1	79.96
080.0	009.7000	0137.0	036.5	185.9	001.5000	0121.5	007.6	78.65
081.0	009.7000	0137.8	036.5	184.1	001.5000	0122.6	008.2	77.43
082.0	009.7000	0138.4	036.6	182.7	001.5000	0122.8	008.8	76.23
083.0	009.7000	0139.1	036.7	181.6	001.5000	0123.0	009.5	75.06
084.0	009.7000	0139.2	036.7	181.0	001.5000	0123.1	010.1	73.91
085.0	009.7000	0139.1	036.7	180.7	001.5000	0123.1	010.7	72.81
086.0	009.7000	0138.7	036.7	180.6	001.5000	0123.1	011.4	71.76
087.0	009.7000	0138.6	036.6	180.5	001.5000	0123.1	012.0	70.77
088.0	009.7000	0139.1	036.7	180.1	001.5000	0123.3	012.6	69.86
089.0	009.7000	0139.2	036.7	180.0	001.5000	0123.3	013.3	68.99
090.0	009.7000	0138.7	036.7	180.2	001.5000	0123.2	013.9	68.17
091.0	009.7000	0138.1	036.6	180.5	001.5000	0123.1	014.6	67.41
092.0	009.7000	0137.8	036.5	180.7	001.5000	0123.1	015.2	66.89
093.0	009.7000	0137.8	036.5	180.8	001.5000	0123.1	015.8	66.35
094.0	009.7000	0137.8	036.5	180.9	001.5000	0123.1	016.5	65.82
095.0	009.7000	0137.7	036.5	181.1	001.5000	0123.0	017.1	65.29
096.0	009.7000	0137.3	036.5	181.4	001.5000	0123.0	017.7	64.77

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
097.0	009.7000	0136.6	036.4	181.8	001.5000	0123.0	018.4	64.26
098.0	009.7000	0136.9	036.4	181.9	001.5000	0123.0	019.0	63.74
099.0	009.7000	0138.0	036.6	181.7	001.5000	0123.0	019.7	63.23
100.0	009.7000	0139.5	036.7	181.5	001.5000	0123.0	020.3	62.71
101.0	009.7000	0140.4	036.9	181.5	001.5000	0123.0	021.0	62.19
102.0	009.7000	0141.1	036.9	181.6	001.5000	0123.0	021.6	61.69
103.0	009.7000	0141.4	037.0	181.8	001.5000	0123.0	022.3	61.20
104.0	009.7000	0141.8	037.0	182.0	001.5000	0123.0	022.9	60.72
105.0	009.7000	0142.2	037.1	182.2	001.5000	0122.9	023.5	60.24
106.0	009.7000	0143.0	037.2	182.4	001.5000	0122.9	024.2	59.76
107.0	009.7000	0144.1	037.3	182.4	001.5000	0122.9	024.9	59.29
108.0	009.7000	0145.2	037.4	182.6	001.5000	0122.9	025.5	58.82
109.0	009.7000	0146.1	037.5	182.7	001.5000	0122.8	026.2	58.37
110.0	009.7000	0147.0	037.6	182.9	001.5000	0122.8	026.8	57.93
111.0	009.7000	0147.9	037.8	183.1	001.5000	0122.8	027.5	57.50
112.0	009.7000	0148.8	037.9	183.3	001.5000	0122.7	028.2	57.08
113.0	009.7000	0149.6	037.9	183.6	001.5000	0122.6	028.8	56.67
114.0	009.7000	0150.2	038.0	183.9	001.5000	0122.6	029.5	56.28
115.0	009.7000	0150.8	038.1	184.2	001.5000	0122.5	030.1	55.91
116.0	009.7000	0150.6	038.1	184.7	001.5000	0122.3	030.7	55.55
117.0	009.7000	0150.5	038.1	185.2	001.5000	0121.9	031.3	55.20
118.0	009.7000	0150.5	038.1	185.7	001.5000	0121.6	031.9	54.86
119.0	009.7000	0150.7	038.1	186.1	001.5000	0121.4	032.6	54.54
120.0	009.7000	0152.0	038.2	186.3	001.5000	0121.4	033.2	54.21
121.0	009.7000	0152.7	038.3	186.6	001.5000	0121.1	033.9	53.88
122.0	009.7000	0152.7	038.3	187.1	001.5000	0120.7	034.5	53.56
123.0	009.7000	0152.9	038.3	187.5	001.5000	0120.2	035.1	53.23
124.0	009.7000	0153.6	038.4	187.9	001.5000	0119.8	035.7	52.90
125.0	009.7000	0154.4	038.5	188.2	001.5000	0119.4	036.4	52.58
126.0	009.7000	0155.3	038.6	188.6	001.5000	0119.0	037.0	52.26
127.0	009.7000	0155.8	038.7	189.0	001.5000	0118.6	037.7	51.94
128.0	009.7000	0155.8	038.7	189.5	001.5000	0118.1	038.3	51.64
129.0	009.7000	0155.0	038.6	190.1	001.5000	0117.4	038.8	51.35

09-14-2007 USGS 03 SEC Terrain Data

KADU BLED20070629AAJ
 Channel = 211A
 Max ERP = 1.5 kW
 RCAMSL = 540 M
 N. Lat. 47 24 10.0
 W. Lng. 92 57 50.0
 Protected
 60 dBu

GrandRapi
 Channel = 209C3
 Max ERP = 9.7 kW
 RCAMSL = 548 M
 N. Lat. 47 16 39.2
 W. Lng. 93 26 58.3
 Interfering
 100 dBu

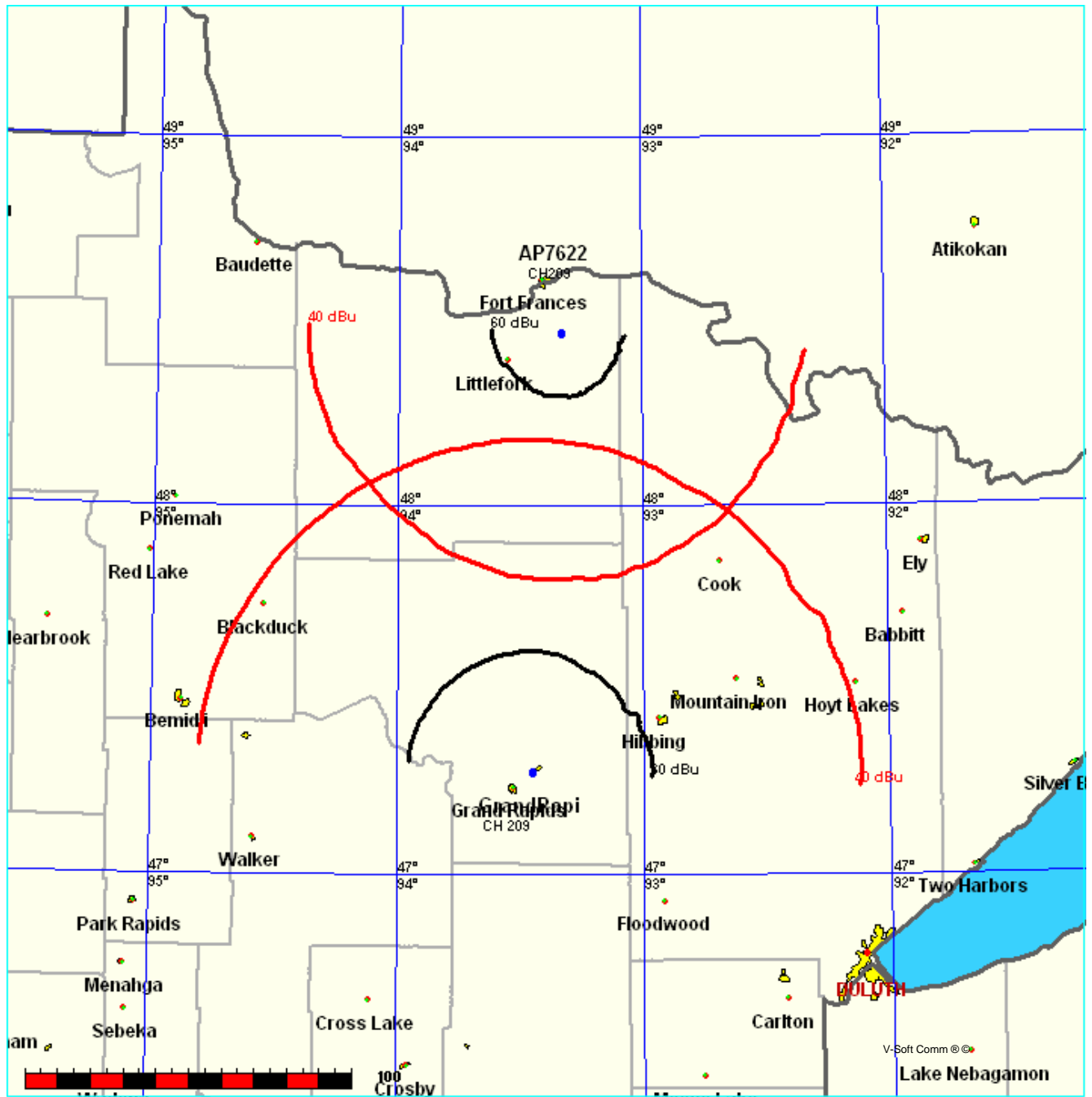
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
189.0	001.5000	0118.6	022.4	103.7	009.7000	0141.6	034.3	63.08
190.0	001.5000	0117.5	022.3	103.6	009.7000	0141.6	033.9	63.27
191.0	001.5000	0116.4	022.2	103.4	009.7000	0141.5	033.5	63.46
192.0	001.5000	0115.1	022.1	103.3	009.7000	0141.5	033.1	63.65
193.0	001.5000	0113.7	021.9	103.1	009.7000	0141.4	032.7	63.85
194.0	001.5000	0112.5	021.8	102.9	009.7000	0141.4	032.3	64.04
195.0	001.5000	0112.0	021.8	102.8	009.7000	0141.4	031.9	64.23
196.0	001.5000	0111.5	021.7	102.7	009.7000	0141.3	031.6	64.43
197.0	001.5000	0110.9	021.7	102.5	009.7000	0141.3	031.2	64.62
198.0	001.5000	0110.9	021.7	102.5	009.7000	0141.3	030.8	64.83
199.0	001.5000	0110.6	021.7	102.3	009.7000	0141.2	030.4	65.03
200.0	001.5000	0109.9	021.6	102.1	009.7000	0141.1	030.1	65.24
201.0	001.5000	0108.9	021.5	101.8	009.7000	0141.0	029.7	65.44
202.0	001.5000	0108.2	021.4	101.6	009.7000	0140.8	029.3	65.64
203.0	001.5000	0107.3	021.3	101.3	009.7000	0140.6	029.0	65.84
204.0	001.5000	0106.1	021.2	100.9	009.7000	0140.4	028.7	66.03
205.0	001.5000	0105.5	021.2	100.6	009.7000	0140.1	028.3	66.23
206.0	001.5000	0105.5	021.2	100.4	009.7000	0140.0	028.0	66.44
207.0	001.5000	0105.7	021.2	100.2	009.7000	0139.8	027.6	66.66
208.0	001.5000	0105.3	021.1	099.9	009.7000	0139.4	027.3	66.86
209.0	001.5000	0103.5	021.0	099.3	009.7000	0138.5	027.0	66.99
210.0	001.5000	0102.0	020.8	098.7	009.7000	0137.6	026.7	67.12
211.0	001.5000	0101.5	020.8	098.3	009.7000	0137.2	026.4	67.30
212.0	001.5000	0101.1	020.7	097.9	009.7000	0136.9	026.0	67.50
213.0	001.5000	0100.8	020.7	097.6	009.7000	0136.7	025.7	67.70
214.0	001.5000	0100.7	020.7	097.2	009.7000	0136.5	025.4	67.91
215.0	001.5000	0100.4	020.6	096.7	009.7000	0136.7	025.1	68.14
216.0	001.5000	0100.1	020.6	096.3	009.7000	0137.1	024.8	68.37
217.0	001.5000	0100.0	020.6	095.8	009.7000	0137.4	024.5	68.61
218.0	001.5000	0100.0	020.6	095.4	009.7000	0137.6	024.2	68.85
219.0	001.5000	0100.1	020.6	094.9	009.7000	0137.7	023.9	69.08
220.0	001.5000	0100.4	020.6	094.5	009.7000	0137.7	023.6	69.31
221.0	001.5000	0100.9	020.7	094.1	009.7000	0137.8	023.2	69.55
222.0	001.5000	0101.5	020.8	093.7	009.7000	0137.8	022.9	69.79

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
223.0	001.5000	0102.5	020.9	093.3	009.7000	0137.8	022.6	70.05
224.0	001.5000	0102.4	020.8	092.7	009.7000	0137.8	022.3	70.26
225.0	001.5000	0101.9	020.8	091.9	009.7000	0137.8	022.1	70.44
226.0	001.5000	0101.5	020.8	091.2	009.7000	0138.0	021.8	70.63
227.0	001.5000	0101.1	020.7	090.4	009.7000	0138.4	021.6	70.83
228.0	001.5000	0100.7	020.7	089.6	009.7000	0139.0	021.4	71.04
229.0	001.5000	0100.1	020.6	088.8	009.7000	0139.2	021.2	71.20
230.0	001.5000	0099.6	020.6	088.0	009.7000	0139.1	021.0	71.33
231.0	001.5000	0099.1	020.5	087.1	009.7000	0138.6	020.8	71.44
232.0	001.5000	0098.8	020.5	086.2	009.7000	0138.6	020.7	71.58
233.0	001.5000	0098.9	020.5	085.4	009.7000	0139.0	020.5	71.77
234.0	001.5000	0098.6	020.4	084.5	009.7000	0139.1	020.3	71.90
235.0	001.5000	0098.3	020.4	083.6	009.7000	0139.3	020.1	72.03
236.0	001.5000	0098.2	020.4	082.7	009.7000	0138.8	020.0	72.12
237.0	001.5000	0098.2	020.4	081.7	009.7000	0138.2	019.8	72.21
238.0	001.5000	0098.4	020.4	080.8	009.7000	0137.6	019.7	72.30
239.0	001.5000	0099.0	020.5	079.9	009.7000	0136.9	019.5	72.41
240.0	001.5000	0099.8	020.6	079.0	009.7000	0136.2	019.3	72.53
241.0	001.5000	0100.4	020.6	078.0	009.7000	0135.9	019.1	72.64
242.0	001.5000	0101.3	020.7	077.1	009.7000	0135.0	018.9	72.73
243.0	001.5000	0102.2	020.8	076.1	009.7000	0134.9	018.7	72.88
244.0	001.5000	0102.5	020.9	075.0	009.7000	0134.7	018.6	72.95
245.0	001.5000	0101.2	020.7	073.8	009.7000	0133.4	018.7	72.81
246.0	001.5000	0099.4	020.5	072.6	009.7000	0132.6	018.8	72.65
247.0	001.5000	0098.7	020.5	071.5	009.7000	0131.6	018.8	72.55
248.0	001.5000	0098.3	020.4	070.4	009.7000	0130.1	018.9	72.44
249.0	001.5000	0098.1	020.4	069.4	009.7000	0129.0	018.9	72.35
250.0	001.5000	0097.7	020.4	068.3	009.7000	0128.4	018.9	72.27
251.0	001.5000	0097.2	020.3	067.2	009.7000	0127.9	019.0	72.18
252.0	001.5000	0096.7	020.2	066.2	009.7000	0128.7	019.1	72.18
253.0	001.5000	0096.6	020.2	065.1	009.7000	0133.0	019.1	72.42
254.0	001.5000	0096.4	020.2	064.1	009.7000	0134.5	019.2	72.46
255.0	001.5000	0095.9	020.2	063.1	009.7000	0134.6	019.3	72.37
256.0	001.5000	0095.3	020.1	062.1	009.7000	0137.3	019.5	72.44
257.0	001.5000	0094.2	020.0	061.2	009.7000	0135.7	019.7	72.17
258.0	001.5000	0093.0	019.8	060.3	009.7000	0129.3	019.9	71.56
259.0	001.5000	0092.0	019.7	059.5	009.7000	0123.7	020.1	71.02
260.0	001.5000	0091.3	019.6	058.7	009.7000	0121.1	020.3	70.69
261.0	001.5000	0090.5	019.5	057.9	009.7000	0119.1	020.5	70.38
262.0	001.5000	0089.2	019.4	057.2	009.7000	0117.9	020.8	70.08
263.0	001.5000	0087.9	019.2	056.5	009.7000	0116.9	021.1	69.79
264.0	001.5000	0086.7	019.1	055.9	009.7000	0116.5	021.3	69.55
265.0	001.5000	0085.3	018.9	055.3	009.7000	0116.3	021.7	69.30
266.0	001.5000	0084.2	018.8	054.7	009.7000	0116.3	021.9	69.09
267.0	001.5000	0083.5	018.7	054.1	009.7000	0116.9	022.2	68.95
268.0	001.5000	0083.0	018.7	053.5	009.7000	0118.3	022.4	68.88
269.0	001.5000	0082.6	018.6	052.9	009.7000	0120.1	022.6	68.83
270.0	001.5000	0082.6	018.6	052.2	009.7000	0122.1	022.8	68.82
271.0	001.5000	0082.7	018.6	051.6	009.7000	0123.6	023.0	68.77
272.0	001.5000	0082.5	018.6	051.0	009.7000	0124.3	023.2	68.66
273.0	001.5000	0082.1	018.6	050.5	009.7000	0125.0	023.5	68.52

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
274.0	001.5000	0082.2	018.6	049.9	009.7000	0125.2	023.7	68.38
275.0	001.5000	0082.0	018.5	049.4	009.7000	0125.3	023.9	68.20
276.0	001.5000	0081.6	018.5	048.9	009.7000	0125.4	024.2	68.01
277.0	001.5000	0081.2	018.4	048.5	009.7000	0125.4	024.5	67.82
278.0	001.5000	0080.8	018.4	048.1	009.7000	0125.5	024.8	67.63
279.0	001.5000	0080.2	018.3	047.8	009.7000	0125.5	025.1	67.42
280.0	001.5000	0079.3	018.2	047.5	009.7000	0125.5	025.4	67.20
281.0	001.5000	0078.2	018.1	047.3	009.7000	0125.6	025.7	66.98
282.0	001.5000	0077.0	017.9	047.2	009.7000	0125.6	026.0	66.75
283.0	001.5000	0076.2	017.8	046.9	009.7000	0125.8	026.4	66.55
284.0	001.5000	0075.9	017.8	046.6	009.7000	0126.2	026.6	66.39
285.0	001.5000	0075.5	017.7	046.4	009.7000	0126.4	026.9	66.21
286.0	001.5000	0075.0	017.7	046.2	009.7000	0126.6	027.2	66.03
287.0	001.5000	0074.7	017.6	045.9	009.7000	0126.7	027.5	65.85
288.0	001.5000	0074.3	017.6	045.7	009.7000	0126.8	027.8	65.67
289.0	001.5000	0074.0	017.5	045.5	009.7000	0126.9	028.1	65.50
290.0	001.5000	0073.8	017.5	045.3	009.7000	0127.0	028.4	65.32
291.0	001.5000	0073.6	017.5	045.0	009.7000	0127.0	028.7	65.15
292.0	001.5000	0073.6	017.5	044.8	009.7000	0127.0	028.9	64.98
293.0	001.5000	0073.7	017.5	044.5	009.7000	0127.0	029.2	64.81
294.0	001.5000	0074.0	017.5	044.2	009.7000	0127.0	029.5	64.66
295.0	001.5000	0074.6	017.6	043.9	009.7000	0127.1	029.8	64.51
296.0	001.5000	0074.9	017.7	043.6	009.7000	0127.2	030.0	64.35
297.0	001.5000	0075.1	017.7	043.4	009.7000	0127.2	030.3	64.19
298.0	001.5000	0075.1	017.7	043.3	009.7000	0127.2	030.6	64.03
299.0	001.5000	0075.3	017.7	043.1	009.7000	0127.2	030.9	63.87
300.0	001.5000	0075.5	017.7	042.9	009.7000	0127.2	031.2	63.71
301.0	001.5000	0075.6	017.7	042.7	009.7000	0127.2	031.5	63.55
302.0	001.5000	0075.7	017.8	042.6	009.7000	0127.3	031.8	63.40
303.0	001.5000	0075.8	017.8	042.5	009.7000	0127.3	032.1	63.25
304.0	001.5000	0076.2	017.8	042.3	009.7000	0127.4	032.4	63.11
305.0	001.5000	0076.6	017.9	042.1	009.7000	0127.4	032.7	62.96
306.0	001.5000	0077.0	017.9	042.0	009.7000	0127.4	033.0	62.81
307.0	001.5000	0077.4	018.0	041.8	009.7000	0127.5	033.3	62.67
308.0	001.5000	0077.9	018.0	041.7	009.7000	0127.5	033.6	62.52
309.0	001.5000	0078.3	018.1	041.6	009.7000	0127.6	033.9	62.37

GrandRapi CH 209 C3
9.7 kW 548 M COR
Prot. = 60 dBu
Intef. = 40 dBu

AP7622 CH 209 A BNPED20000119ABW
6.0 kW, 397 M COR
Prot. = 60 dBu
Intef. = 40 dBu



09-14-2007

USGS 03 SEC Terrain Data

FMOver Analysis

GrandRapi
 Channel = 209C3
 Max ERP = 9.7 kW
 RCAMSL = 548 M
 N. Lat. 47 16 39.2
 W. Lng. 93 26 58.3
 Protected
 60 dBu

AP7622 BNPED20000119ABW
 Channel = 209A
 Max ERP = 6 kW
 RCAMSL = 397 M
 N. Lat. 48 28 24.0
 W. Lng. 93 20 00.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
304.0	009.7000	0144.5	037.3	199.6	006.0000	0044.1	118.9	30.82
305.0	009.7000	0144.4	037.3	199.5	006.0000	0044.0	118.2	30.93
306.0	009.7000	0144.4	037.3	199.4	006.0000	0044.0	117.6	31.04
307.0	009.7000	0144.4	037.3	199.3	006.0000	0044.0	117.0	31.16
308.0	009.7000	0144.5	037.3	199.2	006.0000	0044.0	116.4	31.27
309.0	009.7000	0144.5	037.3	199.1	006.0000	0044.0	115.8	31.39
310.0	009.7000	0144.5	037.3	199.0	006.0000	0044.0	115.2	31.50
311.0	009.7000	0144.4	037.3	198.9	006.0000	0044.0	114.6	31.61
312.0	009.7000	0144.1	037.3	198.8	006.0000	0044.0	114.0	31.72
313.0	009.7000	0143.9	037.3	198.6	006.0000	0044.0	113.4	31.83
314.0	009.7000	0143.4	037.2	198.4	006.0000	0044.0	112.8	31.94
315.0	009.7000	0143.0	037.2	198.3	006.0000	0044.0	112.3	32.04
316.0	009.7000	0142.7	037.1	198.1	006.0000	0044.1	111.7	32.15
317.0	009.7000	0142.3	037.1	197.9	006.0000	0044.1	111.2	32.25
318.0	009.7000	0142.0	037.0	197.7	006.0000	0044.1	110.6	32.36
319.0	009.7000	0141.7	037.0	197.5	006.0000	0044.3	110.1	32.46
320.0	009.7000	0141.4	037.0	197.3	006.0000	0044.4	109.5	32.57
321.0	009.7000	0141.1	036.9	197.1	006.0000	0044.6	109.0	32.67
322.0	009.7000	0140.9	036.9	196.9	006.0000	0044.7	108.5	32.77
323.0	009.7000	0140.9	036.9	196.7	006.0000	0044.8	108.0	32.88
324.0	009.7000	0140.9	036.9	196.5	006.0000	0044.9	107.5	32.98
325.0	009.7000	0141.0	036.9	196.3	006.0000	0045.0	107.0	33.08
326.0	009.7000	0141.2	037.0	196.1	006.0000	0045.1	106.4	33.18
327.0	009.7000	0141.2	036.9	195.9	006.0000	0045.2	106.0	33.28
328.0	009.7000	0141.0	036.9	195.6	006.0000	0045.4	105.5	33.37
329.0	009.7000	0140.8	036.9	195.4	006.0000	0045.4	105.0	33.46
330.0	009.7000	0140.5	036.9	195.1	006.0000	0045.5	104.6	33.55
331.0	009.7000	0140.2	036.8	194.8	006.0000	0045.6	104.2	33.63
332.0	009.7000	0139.7	036.8	194.6	006.0000	0045.7	103.8	33.71
333.0	009.7000	0139.2	036.7	194.3	006.0000	0045.8	103.4	33.78
334.0	009.7000	0139.0	036.7	194.0	006.0000	0045.8	103.0	33.86
335.0	009.7000	0138.9	036.7	193.7	006.0000	0045.9	102.6	33.94
336.0	009.7000	0138.9	036.7	193.4	006.0000	0045.9	102.2	34.02
337.0	009.7000	0138.9	036.7	193.1	006.0000	0045.9	101.8	34.09
338.0	009.7000	0139.0	036.7	192.8	006.0000	0045.9	101.5	34.17
339.0	009.7000	0138.9	036.7	192.5	006.0000	0045.9	101.1	34.23
340.0	009.7000	0139.0	036.7	192.2	006.0000	0045.9	100.7	34.30

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
341.0	009.7000	0139.0	036.7	191.9	006.0000	0045.8	100.4	34.36
342.0	009.7000	0138.8	036.7	191.6	006.0000	0045.7	100.1	34.42
343.0	009.7000	0139.1	036.7	191.3	006.0000	0045.6	099.8	34.48
344.0	009.7000	0139.0	036.7	190.9	006.0000	0045.5	099.5	34.54
345.0	009.7000	0139.5	036.7	190.6	006.0000	0045.5	099.1	34.60
346.0	009.7000	0139.0	036.7	190.3	006.0000	0045.3	098.9	34.64
347.0	009.7000	0138.1	036.6	189.9	006.0000	0045.2	098.8	34.67
348.0	009.7000	0137.9	036.6	189.6	006.0000	0045.1	098.6	34.71
349.0	009.7000	0137.8	036.5	189.2	006.0000	0045.1	098.3	34.75
350.0	009.7000	0137.7	036.5	188.8	006.0000	0045.0	098.1	34.79
351.0	009.7000	0137.9	036.6	188.5	006.0000	0045.0	097.9	34.83
352.0	009.7000	0138.2	036.6	188.1	006.0000	0044.9	097.7	34.87
353.0	009.7000	0138.8	036.7	187.8	006.0000	0044.9	097.5	34.92
354.0	009.7000	0139.1	036.7	187.4	006.0000	0044.9	097.3	34.96
355.0	009.7000	0139.2	036.7	187.1	006.0000	0044.8	097.1	34.99
356.0	009.7000	0139.2	036.7	186.7	006.0000	0044.8	097.0	35.01
357.0	009.7000	0138.9	036.7	186.3	006.0000	0044.7	096.9	35.02
358.0	009.7000	0138.6	036.6	185.9	006.0000	0044.7	096.9	35.03
359.0	009.7000	0138.7	036.7	185.5	006.0000	0044.6	096.8	35.05
000.0	009.7000	0138.9	036.7	185.2	006.0000	0044.5	096.7	35.06
001.0	009.7000	0138.5	036.6	184.8	006.0000	0044.4	096.7	35.06
002.0	009.7000	0138.3	036.6	184.4	006.0000	0044.3	096.7	35.06
003.0	009.7000	0138.3	036.6	184.0	006.0000	0044.3	096.6	35.06
004.0	009.7000	0137.9	036.6	183.6	006.0000	0044.2	096.7	35.04
005.0	009.7000	0137.4	036.5	183.3	006.0000	0044.1	096.8	35.03
006.0	009.7000	0136.9	036.4	182.9	006.0000	0044.0	096.8	35.01
007.0	009.7000	0136.5	036.4	182.5	006.0000	0043.9	096.9	34.98
008.0	009.7000	0136.3	036.4	182.1	006.0000	0043.9	097.0	34.96
009.0	009.7000	0136.2	036.4	181.8	006.0000	0043.8	097.1	34.94
010.0	009.7000	0136.1	036.3	181.4	006.0000	0043.7	097.2	34.92
011.0	009.7000	0136.2	036.4	181.0	006.0000	0043.7	097.3	34.90
012.0	009.7000	0136.0	036.3	180.7	006.0000	0043.6	097.4	34.87
013.0	009.7000	0135.7	036.3	180.3	006.0000	0043.6	097.6	34.84
014.0	009.7000	0135.5	036.3	179.9	006.0000	0044.0	097.8	34.82
015.0	009.7000	0135.1	036.2	179.6	006.0000	0044.3	098.0	34.79
016.0	009.7000	0134.5	036.1	179.2	006.0000	0044.3	098.2	34.74
017.0	009.7000	0133.5	036.0	178.9	006.0000	0044.3	098.5	34.68
018.0	009.7000	0132.3	035.9	178.6	006.0000	0044.2	098.8	34.61
019.0	009.7000	0131.7	035.8	178.3	006.0000	0044.2	099.1	34.55
020.0	009.7000	0131.6	035.8	177.9	006.0000	0044.2	099.4	34.50
021.0	009.7000	0131.0	035.7	177.6	006.0000	0044.1	099.7	34.44
022.0	009.7000	0129.6	035.6	177.3	006.0000	0043.8	100.1	34.35
023.0	009.7000	0128.1	035.4	177.0	006.0000	0043.6	100.5	34.25
024.0	009.7000	0127.4	035.3	176.7	006.0000	0043.4	100.9	34.18
025.0	009.7000	0126.3	035.2	176.5	006.0000	0043.3	101.3	34.10
026.0	009.7000	0125.2	035.1	176.2	006.0000	0043.2	101.7	34.01
027.0	009.7000	0124.0	034.9	175.9	006.0000	0043.1	102.1	33.92
028.0	009.7000	0123.4	034.9	175.7	006.0000	0043.1	102.5	33.85
029.0	009.7000	0124.0	034.9	175.4	006.0000	0043.4	102.8	33.81
030.0	009.7000	0125.3	035.1	175.0	006.0000	0043.7	103.0	33.78
031.0	009.7000	0126.7	035.2	174.7	006.0000	0044.3	103.2	33.76

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
032.0	009.7000	0128.0	035.4	174.4	006.0000	0044.9	103.4	33.74
033.0	009.7000	0128.3	035.4	174.1	006.0000	0045.3	103.8	33.69
034.0	009.7000	0128.4	035.4	173.8	006.0000	0045.7	104.2	33.63
035.0	009.7000	0128.6	035.5	173.6	006.0000	0046.0	104.6	33.57
036.0	009.7000	0128.8	035.5	173.3	006.0000	0046.2	105.0	33.50
037.0	009.7000	0128.9	035.5	173.0	006.0000	0046.4	105.4	33.44
038.0	009.7000	0128.6	035.5	172.8	006.0000	0046.5	105.8	33.35
039.0	009.7000	0128.3	035.4	172.6	006.0000	0046.5	106.3	33.27
040.0	009.7000	0128.2	035.4	172.4	006.0000	0046.5	106.8	33.18
041.0	009.7000	0127.7	035.3	172.2	006.0000	0046.5	107.3	33.09
042.0	009.7000	0127.4	035.3	172.0	006.0000	0046.3	107.8	32.99
043.0	009.7000	0127.2	035.3	171.8	006.0000	0046.1	108.3	32.88
044.0	009.7000	0127.1	035.3	171.6	006.0000	0045.7	108.7	32.78
045.0	009.7000	0127.0	035.3	171.4	006.0000	0045.4	109.2	32.67
046.0	009.7000	0126.6	035.2	171.2	006.0000	0045.3	109.8	32.57
047.0	009.7000	0125.8	035.1	171.1	006.0000	0045.3	110.3	32.46
048.0	009.7000	0125.5	035.1	170.9	006.0000	0045.3	110.9	32.36
049.0	009.7000	0125.4	035.1	170.7	006.0000	0045.3	111.4	32.27
050.0	009.7000	0125.2	035.1	170.6	006.0000	0045.3	111.9	32.17
051.0	009.7000	0124.3	035.0	170.5	006.0000	0045.3	112.5	32.06
052.0	009.7000	0122.8	034.8	170.4	006.0000	0045.2	113.1	31.94
053.0	009.7000	0119.8	034.4	170.4	006.0000	0045.2	113.8	31.81
054.0	009.7000	0117.1	034.1	170.4	006.0000	0045.2	114.5	31.69
055.0	009.7000	0116.3	034.0	170.3	006.0000	0045.2	115.1	31.58
056.0	009.7000	0116.5	034.0	170.2	006.0000	0045.2	115.6	31.48
057.0	009.7000	0117.6	034.2	170.0	006.0000	0045.2	116.1	31.39
058.0	009.7000	0119.4	034.4	169.8	006.0000	0045.2	116.6	31.30
059.0	009.7000	0122.3	034.7	169.5	006.0000	0045.2	117.0	31.22
060.0	009.7000	0126.9	035.3	169.2	006.0000	0045.3	117.4	31.15
061.0	009.7000	0134.4	036.1	168.7	006.0000	0045.4	117.7	31.10
062.0	009.7000	0137.6	036.5	168.4	006.0000	0045.6	118.2	31.02
063.0	009.7000	0134.7	036.2	168.5	006.0000	0045.6	118.9	30.89
064.0	009.7000	0134.4	036.1	168.4	006.0000	0045.6	119.5	30.78

09-14-2007 USGS 03 SEC Terrain Data

AP7622 BNPED20000119ABW
 Channel = 209A
 Max ERP = 6 kW
 RCAMSL = 397 M
 N. Lat. 48 28 24.0
 W. Lng. 93 20 00.0
 Protected
 60 dBu

GrandRapi
 Channel = 209C3
 Max ERP = 9.7 kW
 RCAMSL = 548 M
 N. Lat. 47 16 39.2
 W. Lng. 93 26 58.3
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
124.0	006.0000	0039.9	018.2	010.8	009.7000	0136.2	125.0	34.95
125.0	006.0000	0039.8	018.2	010.8	009.7000	0136.2	124.8	35.00
126.0	006.0000	0040.1	018.3	010.7	009.7000	0136.2	124.4	35.06
127.0	006.0000	0040.5	018.4	010.7	009.7000	0136.2	124.1	35.12
128.0	006.0000	0041.1	018.5	010.7	009.7000	0136.2	123.8	35.19
129.0	006.0000	0041.2	018.6	010.7	009.7000	0136.2	123.5	35.24
130.0	006.0000	0041.0	018.5	010.6	009.7000	0136.2	123.2	35.29
131.0	006.0000	0041.1	018.5	010.5	009.7000	0136.2	122.9	35.34
132.0	006.0000	0041.1	018.5	010.4	009.7000	0136.2	122.6	35.39
133.0	006.0000	0041.1	018.5	010.3	009.7000	0136.2	122.4	35.44
134.0	006.0000	0041.4	018.6	010.3	009.7000	0136.2	122.0	35.50
135.0	006.0000	0041.8	018.7	010.2	009.7000	0136.2	121.7	35.56
136.0	006.0000	0042.3	018.8	010.2	009.7000	0136.2	121.4	35.62
137.0	006.0000	0042.9	019.0	010.2	009.7000	0136.2	121.0	35.68
138.0	006.0000	0043.4	019.1	010.1	009.7000	0136.2	120.7	35.74
139.0	006.0000	0043.7	019.2	010.0	009.7000	0136.2	120.4	35.80
140.0	006.0000	0043.8	019.2	010.0	009.7000	0136.1	120.1	35.84
141.0	006.0000	0043.4	019.1	009.8	009.7000	0136.1	119.9	35.88
142.0	006.0000	0043.1	019.0	009.7	009.7000	0136.1	119.7	35.92
143.0	006.0000	0042.9	019.0	009.6	009.7000	0136.1	119.5	35.96
144.0	006.0000	0042.7	018.9	009.4	009.7000	0136.1	119.3	35.99
145.0	006.0000	0042.5	018.9	009.3	009.7000	0136.2	119.1	36.03
146.0	006.0000	0042.5	018.9	009.2	009.7000	0136.2	118.9	36.07
147.0	006.0000	0042.8	018.9	009.1	009.7000	0136.2	118.6	36.12
148.0	006.0000	0043.0	019.0	009.0	009.7000	0136.2	118.3	36.17
149.0	006.0000	0043.3	019.1	008.9	009.7000	0136.2	118.1	36.22
150.0	006.0000	0043.4	019.1	008.8	009.7000	0136.2	117.8	36.26
151.0	006.0000	0043.1	019.0	008.6	009.7000	0136.2	117.7	36.29
152.0	006.0000	0042.7	018.9	008.5	009.7000	0136.2	117.6	36.31
153.0	006.0000	0042.6	018.9	008.4	009.7000	0136.3	117.4	36.34
154.0	006.0000	0042.6	018.9	008.2	009.7000	0136.3	117.2	36.38
155.0	006.0000	0043.1	019.0	008.1	009.7000	0136.3	116.9	36.43
156.0	006.0000	0044.0	019.2	008.0	009.7000	0136.3	116.6	36.50
157.0	006.0000	0044.7	019.4	007.9	009.7000	0136.3	116.2	36.56

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
158.0	006.0000	0045.2	019.5	007.8	009.7000	0136.3	116.0	36.61
159.0	006.0000	0045.6	019.6	007.7	009.7000	0136.3	115.7	36.65
160.0	006.0000	0045.8	019.6	007.6	009.7000	0136.3	115.5	36.69
161.0	006.0000	0045.4	019.6	007.4	009.7000	0136.4	115.4	36.71
162.0	006.0000	0044.5	019.3	007.2	009.7000	0136.4	115.5	36.70
163.0	006.0000	0044.0	019.2	007.0	009.7000	0136.5	115.5	36.71
164.0	006.0000	0045.1	019.5	006.9	009.7000	0136.5	115.1	36.78
165.0	006.0000	0046.3	019.8	006.8	009.7000	0136.6	114.7	36.85
166.0	006.0000	0046.8	019.9	006.7	009.7000	0136.6	114.5	36.90
167.0	006.0000	0046.7	019.8	006.5	009.7000	0136.7	114.4	36.92
168.0	006.0000	0046.1	019.7	006.3	009.7000	0136.7	114.4	36.92
169.0	006.0000	0045.3	019.5	006.2	009.7000	0136.8	114.5	36.91
170.0	006.0000	0045.2	019.5	006.0	009.7000	0136.9	114.4	36.92
171.0	006.0000	0045.3	019.5	005.8	009.7000	0136.9	114.3	36.94
172.0	006.0000	0046.3	019.8	005.7	009.7000	0137.0	113.9	37.01
173.0	006.0000	0046.4	019.8	005.5	009.7000	0137.1	113.9	37.03
174.0	006.0000	0045.4	019.6	005.3	009.7000	0137.2	114.0	37.00
175.0	006.0000	0043.8	019.2	005.1	009.7000	0137.3	114.3	36.95
176.0	006.0000	0043.1	019.0	005.0	009.7000	0137.4	114.4	36.94
177.0	006.0000	0043.6	019.1	004.8	009.7000	0137.5	114.3	36.96
178.0	006.0000	0044.2	019.3	004.7	009.7000	0137.5	114.1	37.00
179.0	006.0000	0044.3	019.3	004.5	009.7000	0137.6	114.0	37.02
180.0	006.0000	0043.9	019.2	004.3	009.7000	0137.7	114.1	37.01
181.0	006.0000	0043.7	019.2	004.2	009.7000	0137.7	114.1	37.00
182.0	006.0000	0043.8	019.2	004.0	009.7000	0137.9	114.1	37.02
183.0	006.0000	0044.0	019.2	003.8	009.7000	0138.0	114.0	37.03
184.0	006.0000	0044.3	019.3	003.7	009.7000	0138.1	113.9	37.04
185.0	006.0000	0044.5	019.3	003.5	009.7000	0138.2	113.9	37.06
186.0	006.0000	0044.7	019.4	003.3	009.7000	0138.2	113.9	37.07
187.0	006.0000	0044.8	019.4	003.2	009.7000	0138.3	113.9	37.07
188.0	006.0000	0044.9	019.5	003.0	009.7000	0138.3	113.8	37.07
189.0	006.0000	0045.1	019.5	002.8	009.7000	0138.3	113.9	37.07
190.0	006.0000	0045.3	019.5	002.6	009.7000	0138.3	113.8	37.07
191.0	006.0000	0045.5	019.6	002.5	009.7000	0138.3	113.8	37.07
192.0	006.0000	0045.8	019.6	002.3	009.7000	0138.3	113.8	37.07
193.0	006.0000	0045.9	019.7	002.1	009.7000	0138.3	113.9	37.07
194.0	006.0000	0045.8	019.7	002.0	009.7000	0138.3	113.9	37.05
195.0	006.0000	0045.6	019.6	001.8	009.7000	0138.3	114.1	37.02
196.0	006.0000	0045.2	019.5	001.6	009.7000	0138.3	114.2	36.99
197.0	006.0000	0044.6	019.4	001.5	009.7000	0138.3	114.5	36.96
198.0	006.0000	0044.1	019.2	001.4	009.7000	0138.4	114.7	36.92
199.0	006.0000	0044.0	019.2	001.2	009.7000	0138.4	114.8	36.90
200.0	006.0000	0044.1	019.3	001.0	009.7000	0138.5	114.9	36.88
201.0	006.0000	0044.2	019.3	000.9	009.7000	0138.5	115.0	36.86
202.0	006.0000	0044.3	019.3	000.7	009.7000	0138.6	115.1	36.85
203.0	006.0000	0044.5	019.4	000.6	009.7000	0138.7	115.1	36.84
204.0	006.0000	0044.6	019.4	000.4	009.7000	0138.9	115.2	36.82
205.0	006.0000	0044.9	019.5	000.2	009.7000	0138.9	115.3	36.81
206.0	006.0000	0045.2	019.5	000.1	009.7000	0138.9	115.4	36.79
207.0	006.0000	0045.1	019.5	359.9	009.7000	0138.9	115.6	36.76
208.0	006.0000	0045.0	019.5	359.8	009.7000	0138.8	115.8	36.73

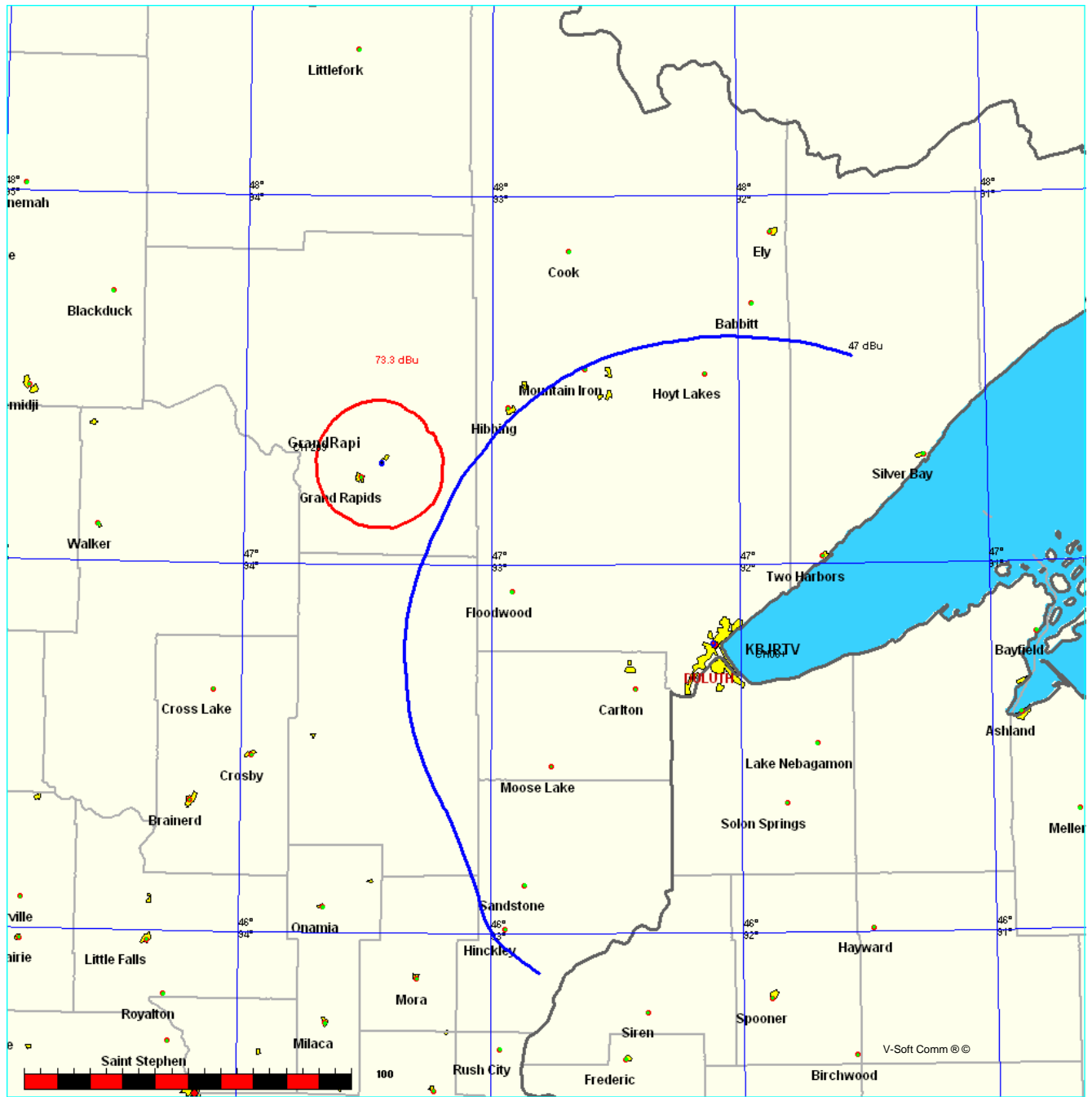
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
209.0	006.0000	0044.8	019.4	359.7	009.7000	0138.8	116.0	36.69
210.0	006.0000	0044.6	019.4	359.5	009.7000	0138.8	116.2	36.65
211.0	006.0000	0044.4	019.3	359.4	009.7000	0138.8	116.4	36.61
212.0	006.0000	0043.7	019.2	359.3	009.7000	0138.8	116.7	36.55
213.0	006.0000	0042.7	018.9	359.2	009.7000	0138.7	117.1	36.48
214.0	006.0000	0042.4	018.8	359.1	009.7000	0138.7	117.3	36.43
215.0	006.0000	0042.2	018.8	359.0	009.7000	0138.7	117.6	36.39
216.0	006.0000	0042.1	018.8	358.9	009.7000	0138.7	117.8	36.35
217.0	006.0000	0042.1	018.8	358.8	009.7000	0138.6	118.0	36.31
218.0	006.0000	0042.0	018.8	358.6	009.7000	0138.6	118.2	36.27
219.0	006.0000	0042.1	018.8	358.5	009.7000	0138.6	118.4	36.23
220.0	006.0000	0042.2	018.8	358.4	009.7000	0138.6	118.6	36.19
221.0	006.0000	0042.3	018.8	358.3	009.7000	0138.6	118.8	36.16
222.0	006.0000	0042.5	018.9	358.1	009.7000	0138.6	119.0	36.12
223.0	006.0000	0042.7	018.9	358.0	009.7000	0138.6	119.2	36.09
224.0	006.0000	0042.9	019.0	357.9	009.7000	0138.6	119.4	36.05
225.0	006.0000	0043.0	019.0	357.8	009.7000	0138.6	119.6	36.01
226.0	006.0000	0043.1	019.0	357.7	009.7000	0138.7	119.8	35.97
227.0	006.0000	0043.1	019.0	357.5	009.7000	0138.7	120.1	35.93
228.0	006.0000	0043.2	019.1	357.4	009.7000	0138.7	120.3	35.88
229.0	006.0000	0043.3	019.1	357.3	009.7000	0138.8	120.6	35.84
230.0	006.0000	0043.3	019.1	357.2	009.7000	0138.8	120.8	35.79
231.0	006.0000	0043.2	019.0	357.2	009.7000	0138.8	121.1	35.74
232.0	006.0000	0043.1	019.0	357.1	009.7000	0138.8	121.4	35.69
233.0	006.0000	0043.3	019.1	357.0	009.7000	0138.9	121.7	35.65
234.0	006.0000	0043.6	019.1	356.9	009.7000	0138.9	121.9	35.60
235.0	006.0000	0043.8	019.2	356.7	009.7000	0138.9	122.1	35.56
236.0	006.0000	0044.1	019.3	356.6	009.7000	0139.0	122.4	35.51
237.0	006.0000	0044.3	019.3	356.5	009.7000	0139.0	122.7	35.47
238.0	006.0000	0044.6	019.4	356.4	009.7000	0139.1	122.9	35.42
239.0	006.0000	0045.1	019.5	356.3	009.7000	0139.1	123.2	35.37
240.0	006.0000	0045.8	019.7	356.2	009.7000	0139.1	123.4	35.33
241.0	006.0000	0047.1	019.9	356.0	009.7000	0139.2	123.6	35.30
242.0	006.0000	0048.1	020.2	355.8	009.7000	0139.2	123.8	35.26
243.0	006.0000	0048.9	020.3	355.7	009.7000	0139.2	124.1	35.21
244.0	006.0000	0049.6	020.5	355.6	009.7000	0139.2	124.3	35.16

Minnesota Public Radio
Grand Rapids 209 v. KBJR-TV

FMCommander Single Allocation Study
09-14-2007

GrandRapi CH 209 C3
9.943 kW 548 M COR
Intef. = 73.3 dBu

KBJRTV CH 06+ 2C BLCT20000517AEX
100.0 kW, 603.8 M COR
Prot. = 47 dBu



09-14-2007 USGS 03 SEC Terrain Data

KBJRTV BLCT20000517AEX
 Channel = 06+2C
 Max ERP = 100 kW
 RCAMSL = 603.8 M
 N. Lat. 46 47 21.0
 W. Lng. 92 06 51.0
 Protected
 47 dBu

GrandRapi
 Channel = 209C3
 Max ERP = 9.9425 kW
 RCAMSL = 548 M
 N. Lat. 47 16 39.2
 W. Lng. 93 26 58.3
 Interfering
 73.3 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
239.0	100.0000	0218.4	095.9	169.4	009.9425	0152.1	105.5	39.39
240.0	100.0000	0217.2	095.8	169.4	009.9425	0152.0	103.9	39.75
241.0	100.0000	0216.4	095.7	169.7	009.9425	0151.9	102.3	40.14
242.0	100.0000	0215.7	095.6	170.0	009.9425	0151.8	100.7	40.54
243.0	100.0000	0214.4	095.5	170.2	009.9425	0151.8	099.1	40.96
244.0	100.0000	0213.1	095.4	170.4	009.9425	0151.7	097.5	41.39
245.0	100.0000	0212.2	095.3	170.7	009.9425	0151.6	095.8	41.83
246.0	100.0000	0211.4	095.2	170.9	009.9425	0151.5	094.2	42.27
247.0	100.0000	0211.0	095.2	171.1	009.9425	0151.5	092.6	42.73
248.0	100.0000	0211.2	095.2	171.4	009.9425	0151.4	091.0	43.19
249.0	100.0000	0211.5	095.2	171.7	009.9425	0151.2	089.4	43.65
250.0	100.0000	0211.8	095.3	171.9	009.9425	0151.0	087.7	44.12
251.0	100.0000	0211.9	095.3	172.2	009.9425	0150.7	086.1	44.59
252.0	100.0000	0212.0	095.3	172.4	009.9425	0150.5	084.5	45.07
253.0	100.0000	0212.3	095.3	172.6	009.9425	0150.1	082.8	45.54
254.0	100.0000	0212.2	095.3	172.8	009.9425	0149.8	081.2	46.03
255.0	100.0000	0211.2	095.2	172.9	009.9425	0149.6	079.5	46.53
256.0	100.0000	0209.8	095.1	173.0	009.9425	0149.5	077.9	47.04
257.0	100.0000	0208.4	094.9	173.0	009.9425	0149.5	076.2	47.55
258.0	100.0000	0207.3	094.8	173.1	009.9425	0149.4	074.5	48.07
259.0	100.0000	0206.6	094.7	173.2	009.9425	0149.3	072.9	48.59
260.0	100.0000	0204.9	094.6	173.1	009.9425	0149.3	071.2	49.12
261.0	100.0000	0202.2	094.3	173.0	009.9425	0149.5	069.6	49.66
262.0	100.0000	0201.1	094.2	172.9	009.9425	0149.6	067.9	50.20
263.0	100.0000	0201.8	094.3	173.0	009.9425	0149.5	066.3	50.73
264.0	100.0000	0201.8	094.3	173.0	009.9425	0149.5	064.6	51.28
265.0	100.0000	0202.1	094.3	173.0	009.9425	0149.5	063.0	51.83
266.0	100.0000	0202.3	094.3	173.0	009.9425	0149.5	061.3	52.41
267.0	100.0000	0202.3	094.3	172.9	009.9425	0149.7	059.7	53.00
268.0	100.0000	0201.6	094.3	172.7	009.9425	0150.0	058.1	53.62
269.0	100.0000	0200.9	094.2	172.5	009.9425	0150.3	056.4	54.24
270.0	100.0000	0200.3	094.1	172.2	009.9425	0150.6	054.8	54.88
271.0	100.0000	0199.4	094.0	171.9	009.9425	0151.0	053.2	55.51
272.0	100.0000	0198.3	093.9	171.5	009.9425	0151.3	051.6	56.15
273.0	100.0000	0196.8	093.8	171.0	009.9425	0151.5	050.0	56.77

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
274.0	100.0000	0194.8	093.6	170.4	009.9425	0151.7	048.5	57.38
275.0	100.0000	0193.0	093.4	169.7	009.9425	0151.9	046.9	58.00
276.0	100.0000	0191.7	093.3	169.0	009.9425	0152.4	045.4	58.64
277.0	100.0000	0190.2	093.1	168.2	009.9425	0152.7	043.9	59.30
278.0	100.0000	0189.2	093.0	167.3	009.9425	0152.6	042.4	59.95
279.0	100.0000	0188.2	092.9	166.4	009.9425	0152.4	040.9	60.60
280.0	100.0000	0186.3	092.7	165.2	009.9425	0150.7	039.5	61.16
281.0	100.0000	0184.9	092.6	164.0	009.9425	0149.4	038.1	61.75
282.0	100.0000	0183.6	092.4	162.7	009.9425	0148.0	036.7	62.33
283.0	100.0000	0181.7	092.2	161.1	009.9425	0147.2	035.5	62.92
284.0	100.0000	0180.1	092.1	159.5	009.9425	0146.7	034.2	63.52
285.0	100.0000	0178.6	091.9	157.7	009.9425	0146.7	033.0	64.13
286.0	100.0000	0176.9	091.7	155.7	009.9425	0146.9	031.8	64.72
287.0	100.0000	0175.6	091.6	153.5	009.9425	0147.3	030.7	65.34
288.0	100.0000	0174.8	091.5	151.3	009.9425	0147.3	029.7	65.96
289.0	100.0000	0173.7	091.4	148.8	009.9425	0147.1	028.7	66.54
290.0	100.0000	0172.4	091.2	146.1	009.9425	0148.1	027.8	67.16
291.0	100.0000	0171.1	091.1	143.2	009.9425	0149.1	027.0	67.72
292.0	100.0000	0169.8	090.9	140.1	009.9425	0150.4	026.4	68.26
293.0	100.0000	0169.2	090.9	137.0	009.9425	0151.3	025.7	68.76
294.0	100.0000	0169.2	090.9	133.6	009.9425	0151.6	025.1	69.20
295.0	100.0000	0169.6	090.9	130.2	009.9425	0154.0	024.6	69.72
296.0	100.0000	0169.9	091.0	126.6	009.9425	0155.7	024.2	70.11
297.0	100.0000	0170.2	091.0	122.9	009.9425	0152.8	023.9	70.13
298.0	100.0000	0170.4	091.0	119.1	009.9425	0150.7	023.8	70.10
299.0	100.0000	0170.8	091.1	115.2	009.9425	0150.8	023.8	70.11
300.0	100.0000	0171.5	091.1	111.4	009.9425	0148.4	023.8	69.90
301.0	100.0000	0172.4	091.2	107.6	009.9425	0144.8	024.0	69.53
302.0	100.0000	0173.0	091.3	104.0	009.9425	0141.7	024.4	69.08
303.0	100.0000	0173.0	091.3	100.5	009.9425	0140.0	024.9	68.58
304.0	100.0000	0172.7	091.3	097.2	009.9425	0136.5	025.6	67.87
305.0	100.0000	0171.6	091.1	094.3	009.9425	0137.7	026.5	67.36
306.0	100.0000	0170.1	091.0	091.6	009.9425	0137.9	027.5	66.73
307.0	100.0000	0169.0	090.9	089.1	009.9425	0139.2	028.5	66.17
308.0	100.0000	0167.9	090.7	086.8	009.9425	0138.5	029.6	65.46
309.0	100.0000	0167.2	090.7	084.7	009.9425	0139.1	030.7	64.87
310.0	100.0000	0167.5	090.7	082.6	009.9425	0138.7	031.8	64.25
311.0	100.0000	0169.0	090.9	080.5	009.9425	0137.4	032.9	63.62
312.0	100.0000	0170.6	091.0	078.6	009.9425	0136.2	034.0	62.99
313.0	100.0000	0173.4	091.4	076.6	009.9425	0134.9	035.1	62.36
314.0	100.0000	0174.3	091.4	075.1	009.9425	0134.7	036.4	61.74
315.0	100.0000	0174.6	091.5	073.8	009.9425	0133.4	037.7	61.02
316.0	100.0000	0174.9	091.5	072.6	009.9425	0132.6	039.1	60.33
317.0	100.0000	0175.1	091.5	071.6	009.9425	0131.6	040.5	59.63
318.0	100.0000	0175.3	091.6	070.6	009.9425	0130.4	042.0	58.93
319.0	100.0000	0175.4	091.6	069.8	009.9425	0129.4	043.4	58.24
320.0	100.0000	0175.5	091.6	069.1	009.9425	0128.9	044.9	57.59
321.0	100.0000	0175.7	091.6	068.4	009.9425	0128.5	046.4	56.95
322.0	100.0000	0175.9	091.6	067.8	009.9425	0128.1	048.0	56.34
323.0	100.0000	0176.1	091.6	067.3	009.9425	0127.9	049.5	55.73
324.0	100.0000	0176.6	091.7	066.8	009.9425	0127.7	051.0	55.12

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
325.0	100.0000	0177.3	091.8	066.3	009.9425	0128.3	052.6	54.55
326.0	100.0000	0178.3	091.9	065.9	009.9425	0129.8	054.1	54.03
327.0	100.0000	0178.5	091.9	065.5	009.9425	0131.2	055.7	53.50
328.0	100.0000	0178.7	091.9	065.3	009.9425	0132.3	057.2	52.96
329.0	100.0000	0179.2	092.0	065.0	009.9425	0133.2	058.8	52.43
330.0	100.0000	0179.8	092.0	064.8	009.9425	0133.7	060.4	51.88
331.0	100.0000	0180.1	092.1	064.6	009.9425	0134.0	062.0	51.33
332.0	100.0000	0180.5	092.1	064.5	009.9425	0134.2	063.6	50.80
333.0	100.0000	0180.9	092.1	064.4	009.9425	0134.3	065.2	50.28
334.0	100.0000	0181.0	092.2	064.4	009.9425	0134.3	066.8	49.76
335.0	100.0000	0181.0	092.2	064.3	009.9425	0134.4	068.4	49.25
336.0	100.0000	0180.8	092.1	064.4	009.9425	0134.3	070.0	48.74
337.0	100.0000	0180.4	092.1	064.4	009.9425	0134.2	071.6	48.24
338.0	100.0000	0179.9	092.0	064.5	009.9425	0134.1	073.2	47.74
339.0	100.0000	0179.8	092.0	064.6	009.9425	0134.1	074.8	47.24
340.0	100.0000	0179.7	092.0	064.7	009.9425	0133.9	076.4	46.75
341.0	100.0000	0179.6	092.0	064.8	009.9425	0133.7	078.0	46.26
342.0	100.0000	0179.4	092.0	064.9	009.9425	0133.5	079.6	45.77
343.0	100.0000	0179.1	092.0	065.1	009.9425	0133.0	081.2	45.28
344.0	100.0000	0178.7	091.9	065.3	009.9425	0132.4	082.7	44.79
345.0	100.0000	0178.0	091.8	065.5	009.9425	0131.5	084.3	44.29
346.0	100.0000	0177.9	091.8	065.6	009.9425	0130.8	085.9	43.80
347.0	100.0000	0177.9	091.8	065.8	009.9425	0129.9	087.5	43.31
348.0	100.0000	0177.4	091.8	066.1	009.9425	0129.0	089.0	42.82
349.0	100.0000	0176.5	091.7	066.3	009.9425	0128.3	090.6	42.36
350.0	100.0000	0176.2	091.6	066.5	009.9425	0127.9	092.1	41.91
351.0	100.0000	0176.6	091.7	066.7	009.9425	0127.7	093.7	41.47
352.0	100.0000	0177.1	091.7	066.9	009.9425	0127.7	095.2	41.05
353.0	100.0000	0177.4	091.8	067.2	009.9425	0127.8	096.8	40.65
354.0	100.0000	0177.6	091.8	067.4	009.9425	0127.9	098.3	40.25
355.0	100.0000	0177.9	091.8	067.6	009.9425	0128.0	099.9	39.87
356.0	100.0000	0179.2	092.0	067.8	009.9425	0128.2	101.5	39.49
357.0	100.0000	0180.9	092.1	068.0	009.9425	0128.3	103.0	39.12
358.0	100.0000	0182.0	092.3	068.2	009.9425	0128.4	104.6	38.76
359.0	100.0000	0182.4	092.3	068.5	009.9425	0128.5	106.1	38.42

Exhibit #22

R.F. EMISSION COMPLIANCE STATEMENT

MINNESOTA PUBLIC RADIO

New Station Application
Grand Rapids, Minnesota
September 2007

CH 209C3

9.7 kW H & V Omni

The proposed antenna is energized so that it radiates 9.7 kW in both the horizontal and vertical planes, from a height above ground of 100 meters. Based on 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, the existing facility produces a worst-case maximum R.F. non-ionization radiation level at a position six feet above the tower base (head level - based on the C.O.R. of 100 meters above ground minus 2 meters) of 67.488 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). This figure is without regard for the antenna's vertical elevation field value toward the nadir, which will cause a reduction in the predicted "worst case" calculations. 67.488 $\mu\text{W}/\text{cm}^2$ is 6.75 percent of the maximum standard value for the frequency in use for a controlled area and 33.74 percent of maximum for an uncontrolled area

There are two other sources of RF emissions on the tower. FM translator K236AD, operating with 0.017 kW ERP from an antenna height above ground of 101 meters is categorically excluded from environmental evaluation. Cellular license KNKN352 is also excluded, due to the antenna height above ground of 135 meters and power of 0.173 kW.

Since "worst case" calculations were used, and since it is well known that the actual RF power density level is considerably reduced at vertical angles toward the nadir the applicant is confident that actual RF contribution of this antenna will be less than is predicted here.

The applicant will protect workers at the site by either reducing ERP or terminating transmission.

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