Federal Communications Commission Washington, D.C. 20554	Approved by OMB 3060-0029 (December 2008)	FOR FCC USE ONLY
FCC 340		
APPLICATION FOR CONSTRUCTION PERMIT FOR RESERVED CHANNEL NONCOMMERCIAL EDUCATIONAL BROADCAST STATION Read INSTRUCTIONS Before Filling Out Form		FOR COMMISSION USE ONLY FILE NO. BMPED - 20091016ABX

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 WGRH	Facility Identifier 172640
2.	Contact Representative (if other than licensee/Permittee) RICHARD J. BODORFF		Firm or Company Name WILEY REIN LLP
	Mailing Address 1776 K STREET NW		
	City WASHINGTON	State or Country (if foreign address) DC	ZIP Code 20006 -
	Telephone Number (include area code) 2027193145		E-Mail Address (if available) RBODORFF@WILEYREIN.COM
3.	Is this application being filed in response to a window? If Yes, specify closing date and/or window number:		○ Yes ◉ No

4 **Application Purpose**

○ New station	○ Major Modification of construction permit
○ Major Change in licensed facility	◉ Minor Modification of construction permit
○ Minor Change in licensed facility	○ Major Amendment to pending application
	○ Minor Amendment to pending application

(a) File number of original construction permit: BNPED-20071016AHK

(b) Service Type: ◉ FM ○ TV ○ DTV ○ DTS

(c) DTV Type: ○ Pre-Transition ○ Post-Transition ○ Both

(d) Community of License:

City: HINCKLEY State: MN

(e) Facility Type ◉ Main ○ 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 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.	(●) Yes ( ) No
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 educational institution; or b. a governmental entity other than a school; or c. a nonprofit educational organization, other than described in a. or b.	 ( ) Yes (●) No ( ) Yes (●) No (●) Yes ( ) No
3.	For applicants checking "Yes" to question 2(c) and applying for a new noncommercial educational television station only, the applicant certifies that the applicant's officers, directors and members of its governing board are broadly representative of the educational, cultural, and civic segments of the principal community to be served.	( ) 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. 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).	( ) Yes ( ) No FCC FileNumber - [Exhibit 2]
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] 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.	 ( ) Yes ( ) 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.	☐ 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: 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 b. any pending broadcast application in which character issues have been raised.	( ) Yes ( ) No See Explanation in [Exhibit 5]
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. 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.	( ) Yes ( ) No 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.	○ Yes ○ No 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.	○ Yes ○ No
12.	**Local Public Notice.** Applicant certifies compliance with the public notice requirements of 47 C.F.R. Section 73.3580.	○ Yes ○ 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.	◉ Yes ○ 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.	○ Yes ○ No ◉ N/A

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

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.	○ Yes ○ No See Explanation in [Exhibit 8]
16.	Is this application contingent upon receipt of a grant from the National Telecommunications and Information Administration?	○ Yes ○ No
17.	Is this application contingent upon receipt of a grant from a charitable organization, the approval of the budget of a school or university, or an appropriation from a state, county, municipality or other political subdivision?	○ Yes ○ No

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

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

Holding Period.

18.	Applicant certifies that this application does not propose a modification to an authorization that was awarded on the basis of a preference for fair distribution of service pursuant to 47 U.S.C. Section 307(b). If "No," answer a. and b. below. If applicant answers "No" to 18. above and cannot answer "Yes" to either a. or b. below, the application is unacceptable.	○ Yes ◉ No
	a. Applicant certifies that the proposed modification will not downgrade service to the area on which the Section 307(b) preference was based.	◉ Yes ○ No
	b. Applicant certifies that although it proposes to downgrade service to the area on which the Section 307(b) preference was based, applicant has provided full service to that area for a period of four years of on-air operations.	○ Yes ◉ No
19.	Applicant certifies that this application does not propose a modification to an authorized station that received a credit for superior technical parameters under the point system selection method in 47 C.F.R. Section 73.7003. If "No," applicant must be able to answer "Yes" to a. below or provide an exhibit that makes a compelling showing that the downgrade would be in the public interest.	◉ Yes ○ No
	a. Applicant certifies that the population and area within the proposed service contour (60 dBu (FM) or grade B (TV)) are greater than or equivalent to those authorized.	○ Yes ○ No [Exhibit 9]

Section III

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

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.	○ Yes ○ No [Exhibit 10]
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.	○ Yes ○ No [Exhibit 11]

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.

1.	**Established Local Applicant:** Applicant certifies that for at least the 24 months immediately prior to application, and continuing through the present, it qualifies as a local applicant pursuant to 47 C.F.R. Section 73.7000, that its governing documents require that such localism be maintained, and that it has placed documentation of its qualifications as an established local applicant in a local public inspection file and has submitted to the Commission copies of the documentation.	○ Yes ○ No
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.	○ Yes ○ No
	(b) Is the application's certification to 2(a) based on its exclusion of translator station(s) that will be replaced with a full service station pursuant to the authorization requested here? If Yes, applicant must include an exhibit identifying the translator station authorization for which it will request cancellation upon commencement of operation of the proposed full service station (i.e., upon its filing of a license application and receipt of program test authority).	○ Yes ○ No [Exhibit 12]
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.	○ Yes ○ No
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)	○ Yes ○ No
	New area served in square kilometers (excluding areas of water):	
	Population served based on the most recent census block data from the United States Bureau of Census using the centroid method:	

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

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

Section VI -- Certification

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

authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
THOMAS J KIGIN	EXECUTIVE VICE PRESIDENT
Signature	Date
	10/16/2009

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	Relationship to Applicant (e.g., Consulting Engineer)	
KATE ENGLISH	TECHNICAL CONSULTANT	
Signature	Date	
	10/12/2009	
Mailing Address DOUG VERNIER TELECOMMUNICATIONS CONSULTANTS 401 MAIN STREET, SUITE 213		
City CEDAR FALLS	State or Country (if foreign address) IA	Zip Code 50613-
Telephone Number (include area code) 3192668402	E-Mail Address (if available) KENGLISH@V-SOFT.COM	

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

Section VII - FM Engineering

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1.	Channel Number: 203	
2.	Class (select one): ○ D ◉ A ○ B1 ○ B ○ C3 ○ C2 ○ C1 ○ C0 ○ C	
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 46 Minutes 1 Seconds 28.2 ◉ North ○ South Longitude: Degrees 93 Minutes 1 Seconds 21.3 ◉ West ○ East	
4.	Proposed Assignment Coordinates: (NAD 27) - RESERVED CHANNELS ABOVE 220 ONLY ☑ Not Applicable Latitude: Degrees Minutes Seconds ○ North ○ South Longitude: Degrees Minutes Seconds ○ West ○ East	
5.	Antenna Structure Registration Number: 1025210 ☐ Not Applicable ☐ Notification filed with FAA	
6.	Overall Tower Height Above Ground Level:	129.5 meters
7.	Height of Radiation Center Above Mean Sea Level:	451.7 meters(H) 451.7 meters(V)
8.	Height of Radiation Center Above Ground Level:	115.8 meters(H) 115.8 meters(V)
9.	Height of Radiation Center Above Average Terrain:	128.7 meters(H) 128.7 meters(V)
10.	Effective Radiated Power:	3.8 kW(H) 3.8 kW(V)
11.	Maximum Effective Radiated Power: (Beam-Tilt Antenna ONLY) ☑ Not Applicable	kW(H) kW(V)
12.	Directional Antenna Relative Field Values: ☑ Not applicable (Nondirectional) Rotation (Degrees): ☐ No Rotation	

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

Relative Field Polar Plot

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

AUXILIARY ANTENNA APPLICANTS ARE NOT REQUIRED TO RESPOND TO ITEMS 13-17. PROCEED TO ITEM 18.

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
If "No," specify the country and provide an exhibit of compliance with all provisions of the relevant International Agreement.
[Exhibit 21]

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)). **An exhibit is required** unless this question is not applicable.	○ Yes ○ No ◉ N/A [Exhibit 23]

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

Exhibits

Exhibit 9
Description: HOLDING PERIOD

AT THE TIME OF ITS ORIGINAL APPLICATION, MINNESOTA PUBLIC RADIO (MPR) HAD WRITTEN PERMISSION FROM THE OWNERS OF TOWER ASR 1020169. IN THE INTERIM, THAT TOWER HAS BEEN SOLD TO VERIZON WIRELESS. MPR WAS IN NEGOTIATIONS WITH VERIZON TO BUILD ON TOWER 1020169 WHEN, IN MARCH 2009, THEY WERE INFORMED BY ELECTRONIC MAIL, THAT VERIZON HAD ELECTED NOT TO MOVE FORWARD WITH LEASING OF SPACE TO MPR. MPR IS MODIFYING CONSTRUCTION PERMIT BNPED-20071016AHK TO MOVE TO NEARBY TOWER 1025210, AT A HEIGHT OF 115.8 METERS ABOVE GROUND. ATTACHED IS THE ORIGINAL LETTER OF ASSURANCE FROM RURAL CELLULAR (PAGE #1) AND THE EMAIL FROM VERIZON TO DOUG THOMPSON OF MPR, DENYING MPR THE USE OF THIS TOWER (PAGES 2-4).

IN THE PROCESS OF PREPARING THIS APPLICATION, IT WAS NOTED THAT DURING THE FILING WINDOW IN OCTOBER OF 2007, THERE WAS AN ERROR IN THE FCC'S CDBS DATABASE WITH REGARD TO THE STATION PARAMETERS FOR KBEM-FM. THE PREVIOUSLY LICENSED FACILITY WAS LISTED IN CDBS, RATHER THAN THE CURRENT LICENSE. AT ITS INITIAL FILING, WGRH SHOULD HAVE AN ERP OF ONLY 4.7 KW, TO PREVENT ANY PROHIBITED CONTOUR OVERLAP WITH KBEM-FM. ALL COMPARISONS TO FIRST AND SECOND SERVICE ARE THEREFORE MADE TO THE 4.7 KW FACILITY, RATHER THAN THE 5.3 KW THAT WOULD NOT HAVE BEEN ELIGIBLE FOR LICENSING. A CHANNEL STUDY SHOWING PROTECTION TO THE CORRECTED KBEM-FM FROM THE CONSTRUCTION PERMIT SITE AND ANTENNA HEIGHT IS ATTACHED AS PAGE #5.

THERE IS NO LOSS TO THE 1ST AND 2ND SERVICE AREA FOR WHICH MPR RECEIVED PREFERENCE. ATTACHED ARE THE PROPOSED 1ST AND 2ND SERVICE AREAS (PAGE #6) AND THE ORIGINAL 1ST AND 2ND SERVICE AREAS, AS MODIFIED TO PROVIDE PROTECTION TO THE CORRECTED KBEM-FM (PAGE #7).

Attachment 9

Description
Exhibit #9, Holding Period

Exhibit 13
Description: MAIN STUDIO LOCATION

IN CONSTRUCTION PERMIT BNPED-20071016AHK, MINNESOTA PUBLIC RADIO WAS GRANTED A WAIVER OF SECTION 73.1125 TO OPERATE WGRH AS A SATELLITE STATION OF KSJN(FM), MINNEAPOLIS. THE APPLIANT REQUESTS A CONTINUATION OF THAT WAIVER.

Attachment 13

Exhibit 14
Description: COMMUNITY COVERAGE

THE PROPOSED FACILITY COMPLIES WITH 47 C.F.R. SECTION 73.515. PLEASE SEE ATTACHED EXHIBIT.

Attachment 14

Description
Exhibit #14, Community Coverage

Exhibit 16
Description: CONTOUR OVERLAP REQUIREMENTS

ALL CONTOUR OVERLAP REQUIREMENTS OF SECTION 73.509 ARE FULLY MET BY THE INSTANT PROPOSAL. PLEASE SEE ATTACHED EXHIBIT.

Attachment 16

Description
Exhibit #16, Contour Overlap Requirements

Exhibit 19
Description: TELEVISION CHANNEL 6 PROTECTION

PUBLIC NOTICE DA09-744, RELEASED 4/1/2009, STATES THAT ANY NEW OR MODIFIED NCE STATION IN THE FM RESERVED BAND MUST PROTECT NEARBY TELEVISION CHANNEL 6 BROADCAST STATIONS IN ACCORDANCE WITH SECTION 73.525. THE PUBLIC NOTICE GOES ON TO STATE THAT AN NCE FM STATION APPLICATION MUST TAKE INTO ACCOUNT ALL STATIONS LICENSED TO OPERATE ON CHANNEL 6 AS OF SEPTEMBER 7, 2008. ON THAT DATE,THERE WAS ONLY ONE PROTECTED TELEVISION CHANNEL 6 STATION WITHIN THE 246 KILOMETER CUTOFF FOR FM STATIONS ON CHANNEL 203, KBJR, SUPERIOR. ATTACHED PLEASE FIND A LETTER FROM KBJR LICENSE, INC.,SHOWING NO OBJECTION TO MPR'S PROPOSED STATION IN HINCKLEY.

Attachment 19

Description
Exhibit #19, Television Channel 6 Protection

Exhibit 21
Description: INTERNATIONAL BORDERS

ALTHOUGH THE PROPOSED FACILITY IS 250.2 KM FROM THE US BORDER WITH CANADA, THERE ARE NO PERTINENT RELATIONSHIPS WITH ANY CANADIAN STATION, APPLICATION OR ALLOCATION. PLEASE SEE CHANNEL STUDY IN EXHIBIT #16.

Attachment 21

Exhibit 22
Description: ENVIRONMENTAL PROTECTION ACT

PLEASE SEE ATTACHED EXHIBIT.

Attachment 22

Description
Exhibit #22, Environmental Protection Act

September 7, 2007

Mitzi T Gramling
Associate General Counsel
Minnesota Public Radio
480 Cedar Street
St. Paul, MN 55101

Re: Collocation at Hinckley, Minnesota
Tower Registration #1020168

Dear Ms. Gramling:

Rural Cellular Corporation is in receipt of Minnesota Public Radio's (MPR) request for collocation at the tower site mentioned above. MPR proposes to construct an FM broadcast station at the site. This confirms that, in the event MPR secures the necessary approvals from the Federal Communications Commission to construct and operate the station, Rural Cellular Corporation would be willing to enter into a lease with MPR for use of the site on mutually acceptable terms and conditions generally applicable to broadcast tower leases. The terms would be finalized at the time the lease is executed and based on then prevailing marketplace rates for comparable facilities. In the event Rural Cellular Corporation's intentions with respect to the site change, it will endeavor to use good faith efforts to notify MPR.

Sincerely,

Rural Cellular Corporation

Kyle Gruis
Sr. Engineering Director

Kate English

From: Thompson, Doug [dthompson@americanpublicmedia.org]
Sent: Thursday, September 17, 2009 12:59 PM
To: kenglish@v-soft.com
Cc: Hendrickson, Michael
Subject: FW: MPR lease of tower space in Hinckley, MN

Douglas Thompson
MPR/American Public Media Engineering
480 Cedar St.
Saint Paul, MN 55101
(651) 290-1599

From: GRPLNTWKRECOLOCATION@VerizonWireless.com
[mailto:GRPLNTWKRECOLOCATION@VerizonWireless.com]
Sent: Thursday, March 12, 2009 10:33 AM
To: Thompson, Doug
Subject: RE: MPR lease of tower space in Hinckley, MN

Doug,

After discussing your requirements with our engineers we have elected not to move forward with the application. I have the application check on my desk and will put it through the shredder.

From: Thompson, Doug [mailto:dthompson@americanpublicmedia.org]
Sent: Thursday, March 12, 2009 9:35 AM
To: GRPL_NTWKRE_COLOCATION
Subject: RE: MPR lease of tower space in Hinckley, MN

Marcus, have you been able to locate the correct site info? I'd like to keep this project moving forward. Thanks!

Douglas Thompson
MPR/American Public Media Engineering
480 Cedar St.
Saint Paul, MN 55101
(651) 290-1599

From: GRPLNTWKRECOLOCATION@VerizonWireless.com
[mailto:GRPLNTWKRECOLOCATION@VerizonWireless.com]
Sent: Friday, February 27, 2009 3:29 PM
To: Thompson, Doug
Cc: Hendrickson, Michael
Subject: RE: MPR lease of tower space in Hinckley, MN

My apologies Doug. I have requested from RF the correct site name so that i can get you the correct CD's.

From: Thompson, Doug [mailto:dthompson@americanpublicmedia.org]
Sent: Friday, February 27, 2009 2:13 PM
To: GRPL_NTWKRE_COLOCATION
Cc: Hendrickson, Michael
Subject: RE: MPR lease of tower space in Hinckley, MN

Marcus, the information you sent me is actually for a different site in Hinckley. The coordinates are close, but not quite right.

If you can send me the site info for the one we're interested in, I will suggest a location our building. Did you need any other info from us for this site?

Thanks!

Douglas Thompson
MPR/American Public Media Engineering
480 Cedar St.
Saint Paul, MN 55101
(651) 290-1599

From: GRPLNTWKRECOLOCATION@VerizonWireless.com
[mailto:GRPLNTWKRECOLOCATION@VerizonWireless.com]
Sent: Thursday, February 26, 2009 10:41 AM
To: Thompson, Doug
Cc: Hendrickson, Michael
Subject: RE: MPR lease of tower space in Hinckley, MN

Doug - I have found our Rev 0 for this site. You can use this to help with completing a site sketch in order to start to collocation process. I have received the hard copy of the app that you sent.

From: Thompson, Doug [mailto:dthompson@americanpublicmedia.org]
Sent: Wednesday, February 18, 2009 5:17 PM
To: GRPL_NTWKRE_COLOCATION; Banks, Marcus
Cc: Edwards, Steve; Hendrickson, Michael
Subject: MPR lease of tower space in Hinckley, MN
Importance: High

Mr. Banks,

Attached is an application from MPR to lease space on a tower owned by Verizon Wireless, located in Hinckley, MN (reg#1020168).

I have attached the completed colocation application to this email, along with specification sheets for the equipment we plan to use at the site. I am also sending a printed version of this application, the spec sheets and a check for the $1500 application fee to you at the Bloomington, MN address.

The proposed Thermo Bond building size is 16' X 24'. The actual location of the building and a site plan has not

been drafted yet since we have not received information about the current site from Verizon Wireless that we need to complete this drawing and site plan.

It would also be very helpful if you could provide me with the name and contact information for an appropriate person at Verizon Wireless who is familiar with this particular tower site. There will no doubt be other technical details that I'll need to clarify before we have a complete agreement, and in preparation for the installation.

Here is information that has not been filled in on the application, that Verizon Wireless can provide:

1. The site address and name
2. Structure Type and Height

3. A sketch of the site with our shelter shown was requested. In order to do this we need to have an existing site plan. Can Verizon supply us with a plan and a recommended location for our building?

Thank you Mr. Banks. I look forward to progressing with this lease so that we can build our station soon. Please confirm receipt of the application and fee when it arrives, and let me know what else you need to process this application.

Douglas Thompson
American Public Media Engineering
480 Cedar St.
Saint Paul, MN 55101
(651) 290-1599

Minnesota Public Radio
Current CP , ERP corrected to protect KBEM-FM

REFERENCE CH# 203A - 88.5 MHz, Pwr= 4.7 kW, HAAT= 106.4 M, COR= 432.2 M DISPLAY DATES
46 01 39.2 N. Average Protected F(50-50)= 27.57 km DATA 10-09-09
93 01 20.3 W. Omni-directional SEARCH 10-09-09

CH CALL / CITY	TYPE ANT / STATE	AZI <--	DIST / FILE #	LAT / LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) / LICENSEE	*IN* (Overlap in km)	*OUT* (Overlap in km)
203A WGRH	CP _CX	0.0	0.0	46 01 39.2	5.300	82.8	26.1	-108.2*<	-107.0*<
Hinckley	MN	0.0	BNPED20071016AHK	93 01 20.3	106	432	Minnesota Public Radio		
203A KBEM-FM	LIC DCN	186.5	115.1	44 59 54.0	2.900	78.3	26.1	6.3	0.3
Minneapolis	MN	6.4	BLED19981022KA	93 11 18.0	146	413	Board Of Education, Specia		
203A 971211MC	APP NVX	39.1	109.7	46 47 21.0	1.000	69.8	23.1	8.6	1.9
Superior	WI	219.8	BPED19971211MC	92 06 51.0	87	390	State Of Wisconsin - Educa		
204L1 WUSG-LP	LIC ___	196.7	54.8	45 33 18.0	0.100	6.9	4.8	17.5	4.7
Cambridge	MN	16.6	BLL20050316AAA	93 13 31.0	17	306	Cambridge Adventist Broadc		
203A KBEM-FM	USR ___	189.3	118.3	44 58 38.0	2.150	71.0	22.5	17.5	8.3
Minneapolis	MN	9.1		93 15 55.0	113	371			
202C1 WHWC	LIC DCY	140.0	141.7	45 02 49.0	71.000	101.9	70.1	9.9	25.5
Menomonie	WI	320.8	BLED19980904KB	91 51 47.0	320	625	State Of Wisconsin - Educa		
203C1 KCRB-FM	LIC _CX	329.7	217.4	47 42 21.0	83.000	167.9	70.9	24.3	66.3
Bemidji	MN	148.7	BLED20030429AAO	94 29 09.0	301	720	Minnesota Public Radio		
202C3 KBPN	LIC _CX	292.2	119.4	46 25 21.0	5.000	58.7	39.6	34.0	39.3
Brainerd	MN	111.1	BLED20030722ACJ	94 27 41.0	204	597	Minnesota Public Radio		
204A 970331MA	CP _VN	33.6	90.9	46 42 22.0	0.450	11.8	8.3	53.0	40.0
Esko	MN	214.1	BPED19970331MA	92 21 44.0	29	372	Lincoln High School Esko,		
206C2 WGZS	CP DEX	15.1	93.2	46 50 10.7	25.000	4.7	44.3	63.4	46.4
Cloquet	MN	195.4	BNPED20071017ADS	92 42 08.1	134	537	Fond Du Lac Band Of Lake S		
204A WRFW	LIC _CN	167.2	130.1	44 53 08.0	3.000	30.1	20.5	69.8	62.4
River Falls	WI	347.4	BLED1630	92 39 20.0	25	351	Board Of Regents, Universi		
205C1 KNSR	LIC _CN	243.9	131.7	45 29 52.0	100.000	8.7	65.9	94.7	62.8
Collegeville	MN	62.8	BLED19880907KA	94 32 14.0	222	581	Minnesota Public Radio		
201A WWEN	CP _VX	52.0	92.7	46 32 08.0	0.850	1.6	14.2	63.6	75.7
Wentworth	WI	232.7	BMPED20080520AAW	92 04 07.0	139	438	American Family Associatio		
205C1 WOJB	LIC _CN	97.1	130.9	45 52 16.0	100.000	8.2	63.5	92.5	64.2
Reserve	WI	278.3	BLED19820428AH	91 20 56.0	184	595	Lac Courte Oreilles Ojibwa		
201C2 KVSC	LIC _VN	239.2	109.8	45 31 00.0	16.500	4.3	41.9	77.1	65.0
St. Cloud	MN	58.4	BLED19921103KB	94 13 52.0	136	463	St. Cloud State University		
202C3 NONE	CP DCX	207.0	154.1	44 47 20.0	11.000	31.9	21.5	93.3	87.7
Waconia	MN	26.3	BNPED20071016AFZ	93 54 27.0	86	385	Key To Life Center		

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone = 2, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.

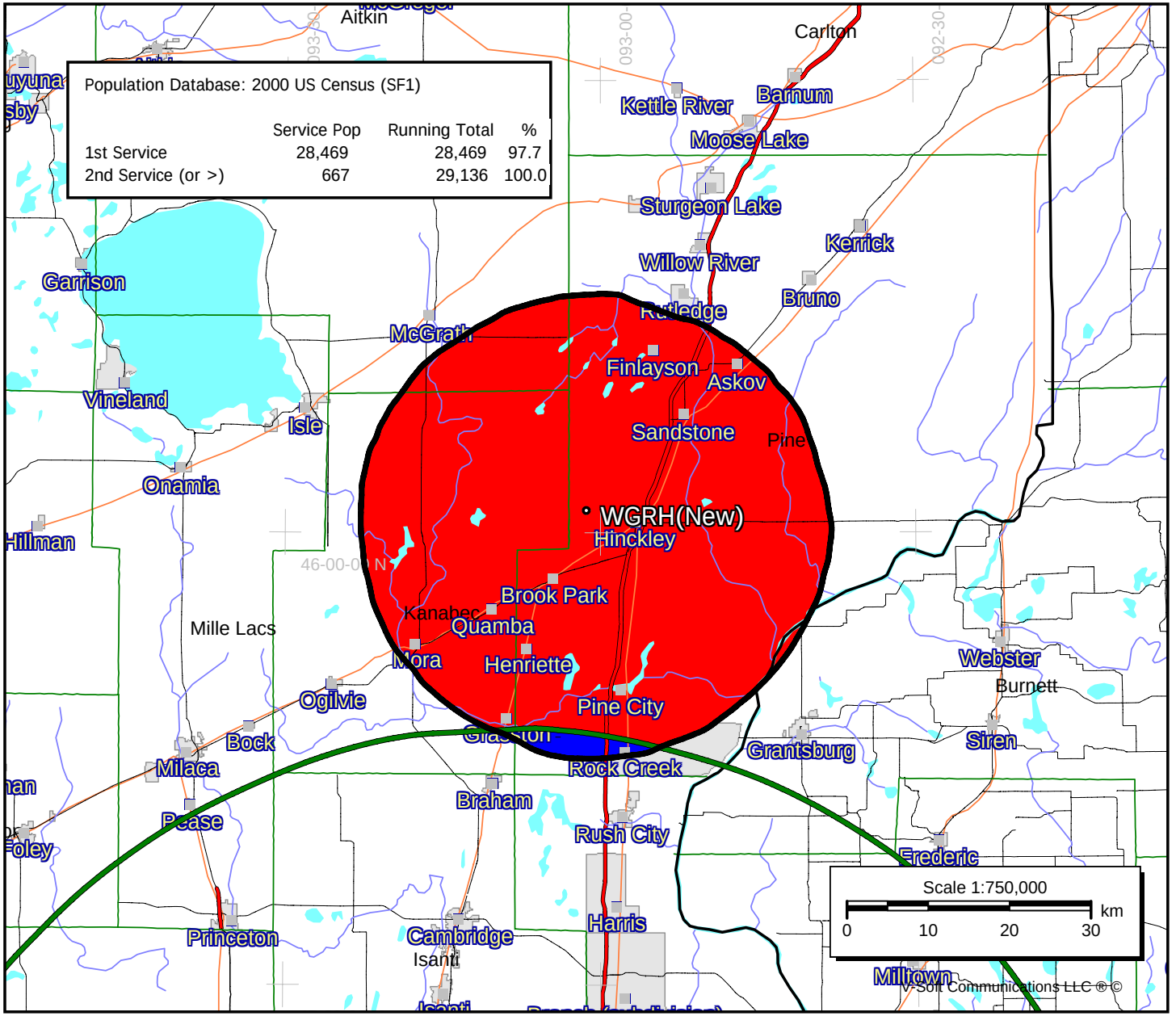
WGRH (Proposed) - 1st/2nd NCE Aural Service

WGRH(New)
BNPED20071016AHK
Latitude: 46-01-28.20 N
Longitude: 093-01-21.30 W
ERP: 3.80 kW
KBEM-FM has full protection
Channel: 203
Frequency: 88.5 MHz
AMSL Height: 451.7 m
HAAT: 128.7 m
Horiz. Pattern: Omni
Prop Model: None

KNOW-FM
BMLED19940420KA
Latitude: 45-03-44 N
Longitude: 093-08-21 W
ERP: 100.00 kW
Channel: 216
Frequency: 91.1 MHz
AMSL Height: 677.0 m
HAAT: 400.0 m
Horiz. Pattern: Omni

10/9/2009

Doug Vernier
401 Main Street, Suite 213
Cedar Falls, Iowa 50613
Telecommunication Consultants
dvernier@v-soft.com (319)266-8402



WGRH (CP as corrected) - 1st/2nd NCE Aural Service

WGRH.C
BNPED20071016AHK
Latitude: 46-01-39.20 N
Longitude: 093-01-20.30 W
ERP: 4.70 kW
Corrected for KBEM-FM protection
Channel: 203
Frequency: 88.5 MHz
AMSL Height: 432.2 m
HAAT: 106.4 m
Horiz. Pattern: Omni
Prop Model: None

KNOW-FM
BMLED19940420KA
Latitude: 45-03-44 N
Longitude: 093-08-21 W
ERP: 100.00 kW
Channel: 216
Frequency: 91.1 MHz
AMSL Height: 677.0 m
HAAT: 400.0 m
Horiz. Pattern: Omni

10/9/2009

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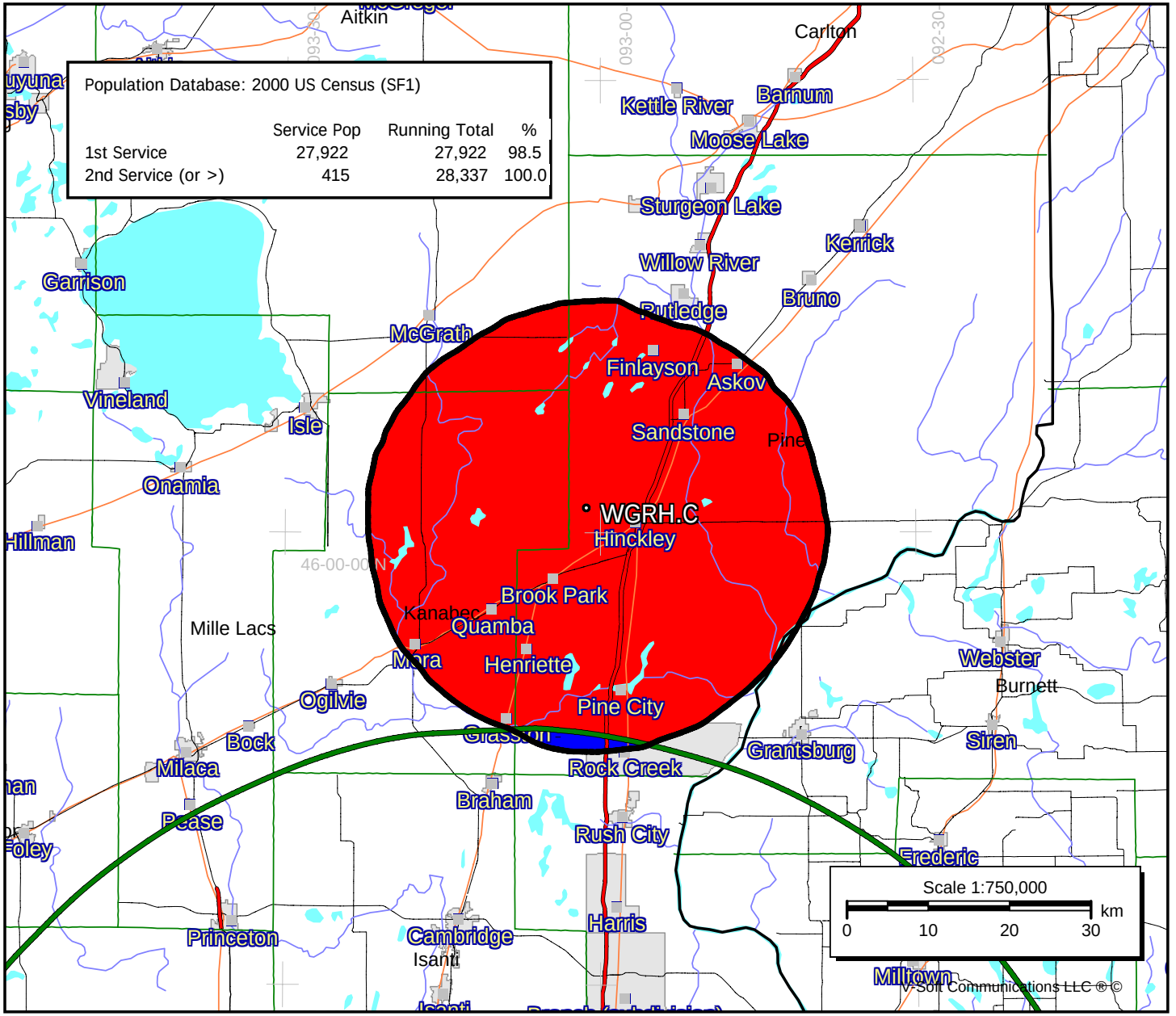
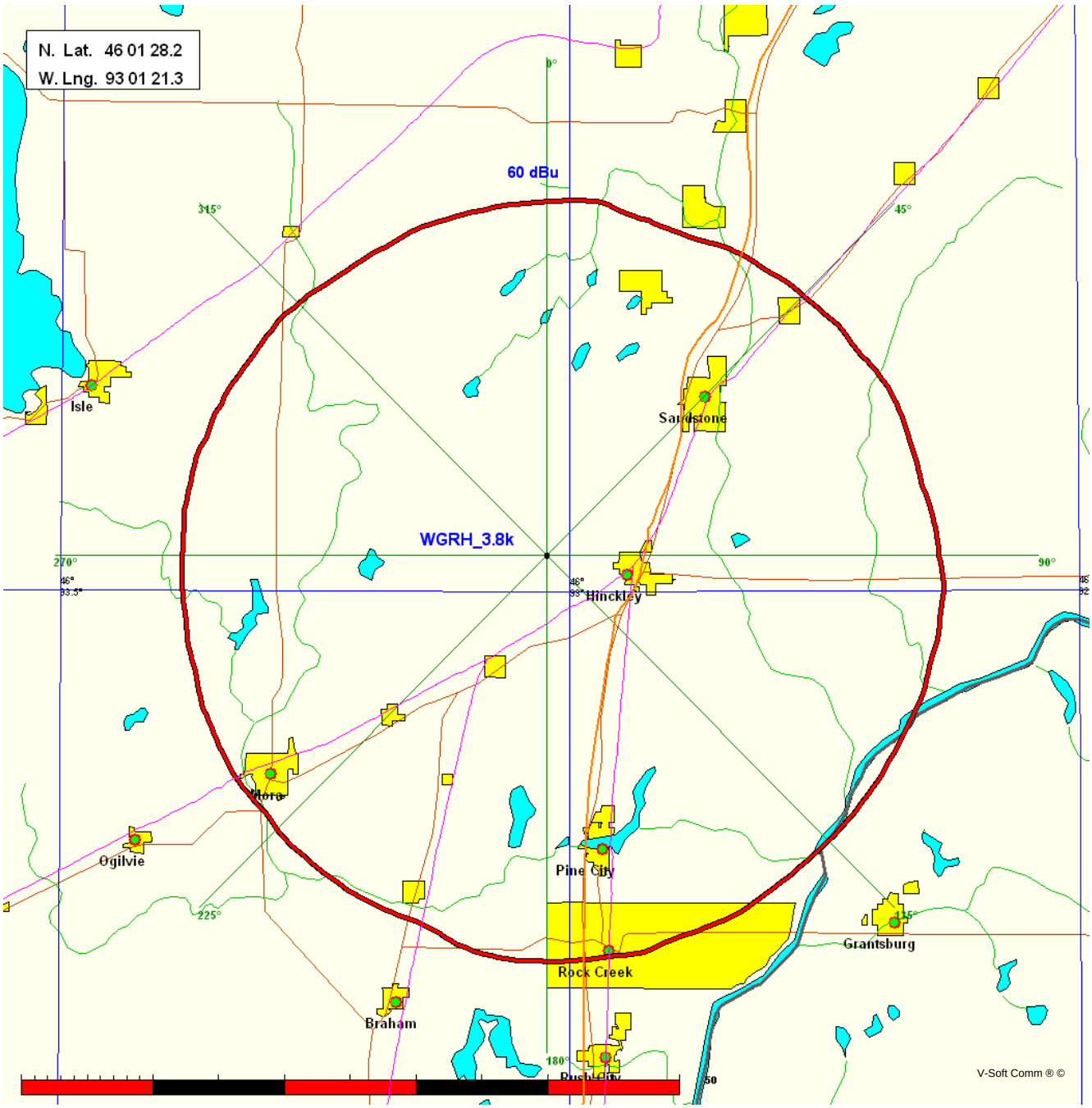


Minnesota Public Radio
Move to 1025210 - 3.8 kW Omni

Coverage Study - FCC NGDC 30 Sec
10-08-2009

WGRH_3.8k CH203 A 3.8 kW 451.7M COR
Prot. = 60 dBu. Population = 29,392



N. Lat. = 460128.2 W. Lng. = 930121.3
HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - FCC 30 SEC
WGRH - Move to 1025210 - 3.8 kW - Distance to 60 dBu Contour

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	343.0	108.7	3.8000	5.80	1.000	26.54
010	341.5	110.2	3.8000	5.80	1.000	26.71
020	346.3	105.4	3.8000	5.80	1.000	26.18
030	340.4	111.3	3.8000	5.80	1.000	26.83
040	335.6	116.1	3.8000	5.80	1.000	27.32
050	329.5	122.2	3.8000	5.80	1.000	27.90
060	322.8	128.9	3.8000	5.80	1.000	28.51
070	318.7	133.0	3.8000	5.80	1.000	28.89
080	316.7	135.0	3.8000	5.80	1.000	29.07
090	308.8	142.9	3.8000	5.80	1.000	29.81
100	303.8	147.9	3.8000	5.80	1.000	30.30
110	302.6	149.1	3.8000	5.80	1.000	30.41
120	304.2	147.5	3.8000	5.80	1.000	30.25
130	303.8	147.9	3.8000	5.80	1.000	30.30
140	304.0	147.7	3.8000	5.80	1.000	30.28
150	301.2	150.5	3.8000	5.80	1.000	30.54
160	303.1	148.6	3.8000	5.80	1.000	30.37
170	301.4	150.3	3.8000	5.80	1.000	30.53
180	302.0	149.7	3.8000	5.80	1.000	30.47
190	304.3	147.4	3.8000	5.80	1.000	30.25
200	315.0	136.7	3.8000	5.80	1.000	29.23
210	314.0	137.7	3.8000	5.80	1.000	29.32
220	315.8	135.9	3.8000	5.80	1.000	29.15
230	318.8	132.9	3.8000	5.80	1.000	28.87
240	320.6	131.1	3.8000	5.80	1.000	28.70
250	325.8	125.9	3.8000	5.80	1.000	28.23
260	329.9	121.8	3.8000	5.80	1.000	27.86
270	331.7	120.0	3.8000	5.80	1.000	27.70
280	332.1	119.6	3.8000	5.80	1.000	27.66
290	335.4	116.3	3.8000	5.80	1.000	27.34
300	338.3	113.4	3.8000	5.80	1.000	27.05
310	339.7	112.0	3.8000	5.80	1.000	26.90
320	344.1	107.6	3.8000	5.80	1.000	26.43
330	345.8	105.9	3.8000	5.80	1.000	26.23
340	344.4	107.3	3.8000	5.80	1.000	26.39
350	344.7	107.0	3.8000	5.80	1.000	26.36

Ave El= 323.05 M HAAT= 128.65 M AMSL= 451.7

Minnesota Public Radio
Move to 1025210 - 3.8 kW Omni

REFERENCE CH# 203A - 88.5 MHz, Pwr= 3.8 kW, HAAT= 128.7 M, COR= 451.7 M DISPLAY DATES
46 01 28.2 N. Average Protected F(50-50)= 28.49 km DATA 10-08-09
93 01 21.3 W. Omni-directional SEARCH 10-08-09

CH CALL / CITY	TYPE ANT / STATE	AZI <-- / FILE #	DIST / LAT / LNG	PWR(kW) / HAAT(M)	INT(km) / COR(M)	PRO(km) / LICENSEE	*IN* / *OUT* (Overlap in km)
203A WGRH Hinckley	CP _CX MN	3.6 183.6	0.3 BNPED20071016AHK	46 01 39.2 93 01 20.3	5.300 106	89.4 432	30.8 Minnesota Public Radio	-115.8* -111.8*
203A KBEM-FM Minneapolis	LIC DCN MN	186.5 6.4	114.8 BLED19981022KA	44 59 54.0 93 11 18.0	2.900 146	78.3 413	26.1 Board Of Education, Specia	5.4 0.1
203A 971211MC Superior	APP NVX WI	39.0 219.7	110.0 BPED19971211MC	46 47 21.0 92 06 51.0	1.000 87	69.9 390	23.2 State Of Wisconsin - Educa	8.1 2.0
204L1 WUSG-LP Cambridge	LIC ___ MN	196.8 16.7	54.5 BLL20050316AAA	45 33 18.0 93 13 31.0	0.100 17	6.9 306	4.8 Cambridge Adventist Broadc	16.7 3.9
202C1 WHWC Menomonie	LIC DCY WI	139.9 320.7	141.4 BLED19980904KB	45 02 49.0 91 51 47.0	71.000 320	101.9 625	70.1 State Of Wisconsin - Educa	9.2 24.9
203C1 KCRB-FM Bemidji	LIC _CX MN	329.8 148.7	217.7 BLED20030429AAO	47 42 21.0 94 29 09.0	83.000 301	167.9 720	70.9 Minnesota Public Radio	23.3 66.3
202C3 KBPN Brainerd	LIC _CX MN	292.3 111.3	119.5 BLED20030722ACJ	46 25 21.0 94 27 41.0	5.000 204	58.7 597	39.6 Minnesota Public Radio	33.1 37.9
204A 970331MA Esko	CP _VN MN	33.5 214.0	91.2 BPED19970331MA	46 42 22.0 92 21 44.0	0.450 29	11.8 372	8.3 Lincoln High School Esko,	52.3 38.7
206C2 WGZS Cloquet	CP DEX MN	15.1 195.3	93.5 BNPED20071017ADS	46 50 10.7 92 42 08.1	25.000 134	4.7 537	44.3 Fond Du Lac Band Of Lake S	62.5 46.7
204A WRFW River Falls	LIC _CN WI	167.1 347.4	129.8 BLED1630	44 53 08.0 92 39 20.0	3.000 25	30.1 351	20.5 Board Of Regents, Universi	69.0 61.7
205C1 KNSR Collegeville	LIC _CN MN	244.0 63.0	131.6 BLED19880907KA	45 29 52.0 94 32 14.0	100.000 222	8.7 581	65.9 Minnesota Public Radio	94.0 62.7
201A WWEN Wentworth	CP _VX WI	51.9 232.6	92.9 BMPED20080520AAW	46 32 08.0 92 04 07.0	0.850 139	1.6 438	14.2 American Family Associatio	63.1 75.9
205C1 WOJB Reserve	LIC _CN WI	96.9 278.1	130.9 BLED19820428AH	45 52 16.0 91 20 56.0	100.000 184	8.2 595	63.5 Lac Courte Oreilles Ojibwa	92.1 64.2
201C2 KVSC St. Cloud	LIC _VN MN	239.4 58.5	109.6 BLED19921103KB	45 31 00.0 94 13 52.0	16.500 136	4.3 463	41.9 St. Cloud State University	76.3 64.8
202C3 NONE Waconia	CP DCX MN	207.0 26.4	153.8 BNPED20071016AFZ	44 47 20.0 93 54 27.0	11.000 86	31.9 385	21.5 Key To Life Center	92.5 87.0
203C2 KNCM Appleton	LIC _CN MN	248.7 66.6	251.1 BLED19970131KC	45 10 03.0 96 00 02.0	34.000 172	132.5 479	51.8 Minnesota Public Radio	89.7 114.4

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone = 2, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.

HOW TO READ THE FM COMPUTER PRINT-OUT

Full Service Stations

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. Contour distances are in kilometers and are predicted 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 difference in kilometers between of the reference station's protected contour and the data file station's interference contour at the closest point between the contours. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, “IN” column is a measure of incoming interference. Negative distances in this column indicate the presence of contour overlap. Listed antenna heights and power are those given in the FCC database. The column labeled “OUT " shows the greatest distance in kilometers of overlap or smallest of clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap.

Under the "AZI" column, the first row of numbers indicate the True North bearings from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station.

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

For I.F. relationships, some channel-six TV relationships and relationships with commercial channel stations providing clearance the minimum spacings values the "IN" and "OUT" columns can 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** (or lack of it) 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 call letters of stations meeting the minimum separation distances under the rules will be flagged by the characters “<<” appended to the right-hand side of the call sign. The “^” character appended to the call sign means the station has been “max-classed” according to the provisions of section 73.525 of the Rules.

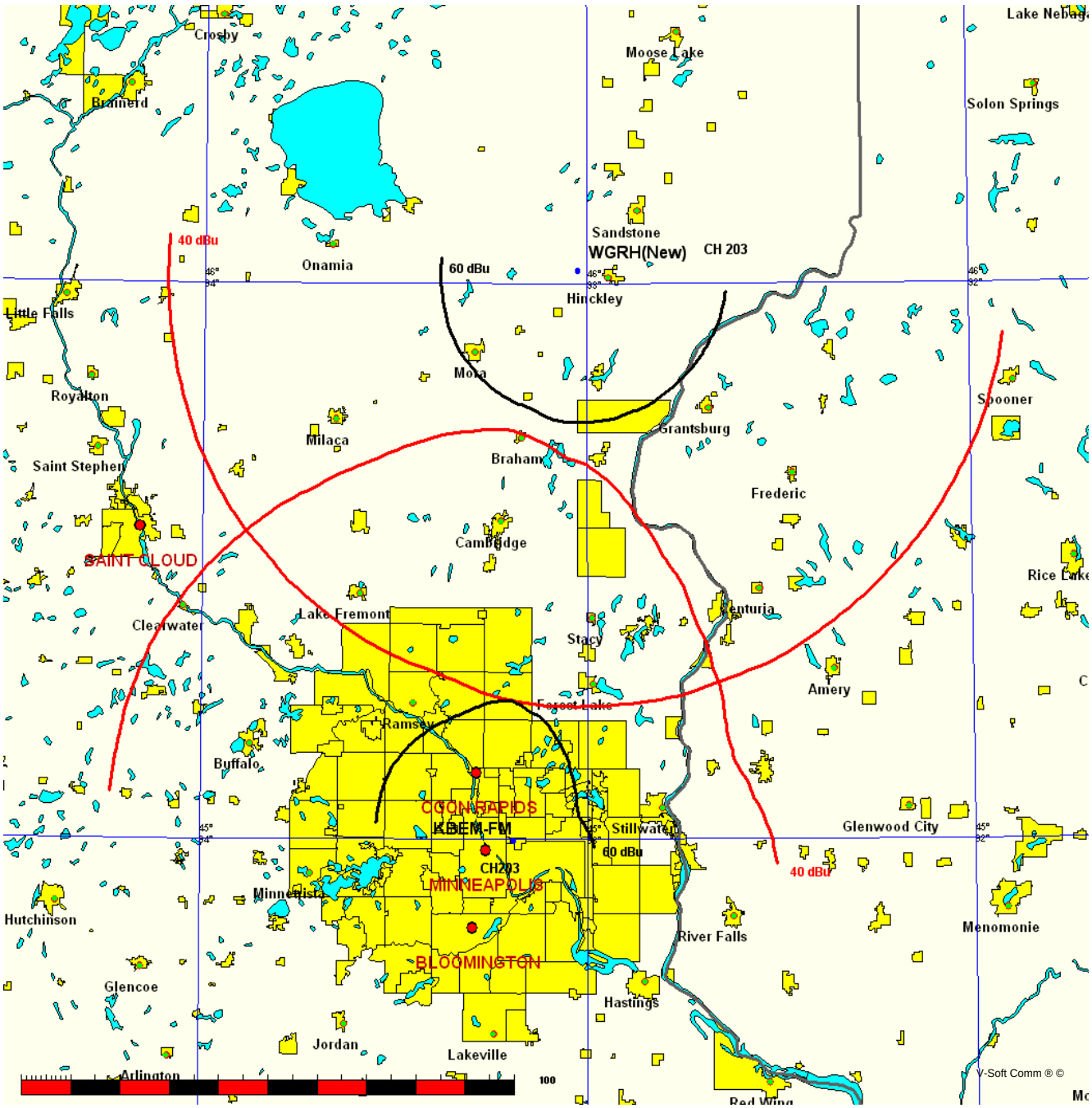
The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. “Z” indicates a 73.215 directional. An “N” indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will 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” or left blank.

Minnesota Public Radio
WGRH(New) v. KBEM-FM

FMCommander Single Allocation Study - 10-08-2009 - FCC NGDC 30 Sec
WGRH(New)'s Overlaps (In= 5.4 km, Out= 0.1 km)

WGRH(New) CH 203 A
Lat= 46 01 28.2, Lng= 93 01 21.3
3.8 kW 128.7 M HAAT, 451.7 M COR
Prot.= 60 dBu, Intef.= 40 dBu

KBEM-FM CH 203 A DA BLED19981022KA
Lat= 44 59 54.0, Lng= 93 11 18.0
2.9 kW 146 M HAAT, 413 M COR
Prot.= 60 dBu, Intef.= 40 dBu



10-08-2009 FCC NGDC 30 Sec Terrain Data FMOver Analysis

WGRH(New)
Channel = 203A
Max ERP = 3.8 kW
RCAMSL = 451.7 M
N. Lat. 46 01 28.2
W. Lng. 93 01 21.3
Protected
60 dBu

KBEM-FM BLED19981022KA
Channel = 203A
Max ERP = 2.9 kW
RCAMSL = 413 M
N. Lat. 44 59 54.0
W. Lng. 93 11 18.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
127.0	003.8000	0148.0	030.3	021.0	001.3096	0133.5	102.8	30.57	
128.0	003.8000	0148.1	030.3	020.9	001.3149	0133.6	102.3	30.71	
129.0	003.8000	0148.0	030.3	020.8	001.3199	0133.7	101.7	30.85	
130.0	003.8000	0147.9	030.3	020.7	001.3253	0133.8	101.3	31.00	
131.0	003.8000	0147.9	030.3	020.6	001.3308	0133.9	100.8	31.14	
132.0	003.8000	0147.9	030.3	020.5	001.3365	0134.0	100.3	31.29	
133.0	003.8000	0147.9	030.3	020.4	001.3427	0134.2	099.8	31.43	
134.0	003.8000	0147.8	030.3	020.3	001.3496	0134.3	099.3	31.58	
135.0	003.8000	0147.7	030.3	020.1	001.3565	0134.4	098.8	31.73	
136.0	003.8000	0147.9	030.3	020.0	001.3634	0134.5	098.3	31.88	
137.0	003.8000	0148.0	030.3	019.9	001.3721	0134.7	097.8	32.04	
138.0	003.8000	0148.0	030.3	019.8	001.3820	0134.8	097.4	32.20	
139.0	003.8000	0147.9	030.3	019.6	001.3928	0135.0	096.9	32.36	
140.0	003.8000	0147.7	030.3	019.4	001.4043	0135.1	096.5	32.52	
141.0	003.8000	0147.7	030.3	019.3	001.4160	0135.3	096.0	32.68	
142.0	003.8000	0147.8	030.3	019.1	001.4275	0135.5	095.6	32.84	
143.0	003.8000	0148.0	030.3	019.0	001.4389	0135.6	095.1	33.01	
144.0	003.8000	0148.3	030.3	018.8	001.4511	0135.8	094.7	33.17	
145.0	003.8000	0148.4	030.3	018.6	001.4640	0136.0	094.2	33.34	
146.0	003.8000	0148.6	030.4	018.4	001.4774	0136.2	093.8	33.50	
147.0	003.8000	0148.8	030.4	018.2	001.4909	0136.4	093.4	33.67	
148.0	003.8000	0149.3	030.4	018.1	001.5043	0136.5	092.9	33.84	
149.0	003.8000	0149.9	030.5	017.9	001.5181	0136.7	092.5	34.01	
150.0	003.8000	0150.5	030.5	017.7	001.5321	0136.9	092.0	34.18	
151.0	003.8000	0150.9	030.6	017.5	001.5474	0137.1	091.6	34.35	
152.0	003.8000	0150.9	030.6	017.3	001.5645	0137.3	091.2	34.51	
153.0	003.8000	0150.7	030.6	017.0	001.5831	0137.5	090.9	34.67	
154.0	003.8000	0150.2	030.5	016.8	001.6030	0137.6	090.5	34.83	
155.0	003.8000	0149.8	030.5	016.5	001.6232	0137.8	090.2	34.98	
156.0	003.8000	0149.6	030.5	016.2	001.6433	0137.9	089.9	35.13	
157.0	003.8000	0149.4	030.4	016.0	001.6638	0137.9	089.6	35.28	
158.0	003.8000	0149.1	030.4	015.7	001.6853	0138.0	089.3	35.43	
159.0	003.8000	0148.7	030.4	015.4	001.7073	0138.0	089.0	35.57	
160.0	003.8000	0148.6	030.4	015.1	001.7293	0138.0	088.7	35.71	
161.0	003.8000	0148.7	030.4	014.9	001.7513	0138.0	088.4	35.85	
162.0	003.8000	0148.9	030.4	014.6	001.7734	0138.0	088.0	36.00	
163.0	003.8000	0149.5	030.5	014.3	001.7952	0138.0	087.7	36.14	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
164.0	003.8000	0150.5	030.5	014.0	001.8166	0137.9	087.4	36.30
165.0	003.8000	0151.4	030.6	013.8	001.8388	0137.9	087.0	36.45
166.0	003.8000	0151.9	030.7	013.5	001.8630	0137.9	086.7	36.59
167.0	003.8000	0151.7	030.7	013.2	001.8890	0137.8	086.5	36.71
168.0	003.8000	0151.3	030.6	012.8	001.9163	0137.7	086.3	36.83
169.0	003.8000	0150.8	030.6	012.5	001.9444	0137.6	086.1	36.94
170.0	003.8000	0150.3	030.5	012.2	001.9727	0137.4	086.0	37.04
171.0	003.8000	0150.1	030.5	011.8	002.0009	0137.2	085.8	37.14
172.0	003.8000	0150.0	030.5	011.5	002.0294	0136.9	085.6	37.24
173.0	003.8000	0150.0	030.5	011.2	002.0581	0136.5	085.4	37.33
174.0	003.8000	0150.1	030.5	010.8	002.0873	0135.9	085.3	37.42
175.0	003.8000	0149.8	030.5	010.5	002.1174	0135.3	085.1	37.49
176.0	003.8000	0149.8	030.5	010.1	002.1477	0134.7	085.0	37.57
177.0	003.8000	0150.0	030.5	009.8	002.1738	0134.1	084.9	37.64
178.0	003.8000	0149.9	030.5	009.4	002.1980	0133.4	084.8	37.68
179.0	003.8000	0149.7	030.5	009.1	002.2224	0132.8	084.7	37.73
180.0	003.8000	0149.7	030.5	008.7	002.2469	0132.2	084.6	37.77
181.0	003.8000	0149.6	030.5	008.4	002.2718	0131.8	084.5	37.82
182.0	003.8000	0149.6	030.5	008.0	002.2968	0131.7	084.5	37.89
183.0	003.8000	0149.8	030.5	007.7	002.3219	0131.8	084.4	37.96
184.0	003.8000	0149.8	030.5	007.3	002.3474	0132.1	084.4	38.03
185.0	003.8000	0149.5	030.5	007.0	002.3730	0132.5	084.4	38.09
186.0	003.8000	0149.2	030.4	006.6	002.3988	0133.0	084.4	38.15
187.0	003.8000	0148.8	030.4	006.2	002.4247	0133.5	084.4	38.21
188.0	003.8000	0148.6	030.4	005.9	002.4506	0134.0	084.5	38.27
189.0	003.8000	0148.1	030.3	005.5	002.4765	0134.6	084.5	38.32
190.0	003.8000	0147.4	030.2	005.2	002.5023	0135.1	084.6	38.36
191.0	003.8000	0146.7	030.2	004.8	002.5280	0135.5	084.8	38.39
192.0	003.8000	0145.8	030.1	004.5	002.5535	0135.8	084.9	38.40
193.0	003.8000	0144.8	030.0	004.2	002.5787	0136.0	085.1	38.40
194.0	003.8000	0143.3	029.9	003.8	002.6034	0136.3	085.3	38.39
195.0	003.8000	0141.8	029.7	003.5	002.6276	0136.5	085.5	38.37
196.0	003.8000	0140.3	029.6	003.2	002.6515	0136.8	085.8	38.35
197.0	003.8000	0139.1	029.4	002.9	002.6754	0137.1	086.0	38.33
198.0	003.8000	0138.2	029.4	002.6	002.6993	0137.4	086.2	38.32
199.0	003.8000	0137.3	029.3	002.3	002.7231	0137.7	086.5	38.31
200.0	003.8000	0136.7	029.2	002.0	002.7468	0138.0	086.7	38.30
201.0	003.8000	0136.7	029.2	001.6	002.7713	0138.2	086.8	38.29
202.0	003.8000	0137.0	029.3	001.3	002.7961	0138.4	087.0	38.30
203.0	003.8000	0137.3	029.3	001.0	002.8209	0138.7	087.1	38.31
204.0	003.8000	0137.5	029.3	000.7	002.8455	0139.0	087.3	38.31
205.0	003.8000	0137.6	029.3	000.4	002.8696	0139.3	087.5	38.30
206.0	003.8000	0137.6	029.3	000.1	002.8933	0139.6	087.7	38.28
207.0	003.8000	0137.7	029.3	359.8	002.9000	0139.9	088.0	38.24
208.0	003.8000	0137.8	029.3	359.5	002.9000	0140.2	088.2	38.18
209.0	003.8000	0137.8	029.3	359.2	002.9000	0140.4	088.4	38.12
210.0	003.8000	0137.7	029.3	358.9	002.9000	0140.7	088.7	38.06
211.0	003.8000	0137.6	029.3	358.7	002.9000	0140.8	089.0	37.98
212.0	003.8000	0137.4	029.3	358.4	002.9000	0141.0	089.3	37.90
213.0	003.8000	0137.2	029.3	358.1	002.9000	0141.1	089.6	37.82
214.0	003.8000	0137.0	029.3	357.9	002.9000	0141.2	089.9	37.74

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
215.0	003.8000	0136.8	029.2	357.6	002.9000	0141.3	090.2	37.65
216.0	003.8000	0136.7	029.2	357.4	002.9000	0141.4	090.5	37.56
217.0	003.8000	0136.6	029.2	357.1	002.9000	0141.5	090.9	37.47
218.0	003.8000	0136.4	029.2	356.9	002.9000	0141.7	091.2	37.38
219.0	003.8000	0136.2	029.2	356.7	002.9000	0141.8	091.6	37.28
220.0	003.8000	0135.9	029.2	356.4	002.9000	0141.8	091.9	37.18
221.0	003.8000	0135.8	029.1	356.2	002.9000	0141.8	092.3	37.08
222.0	003.8000	0135.9	029.2	356.0	002.9000	0141.9	092.6	36.98
223.0	003.8000	0136.0	029.2	355.8	002.9000	0141.9	093.0	36.88
224.0	003.8000	0135.6	029.1	355.6	002.9000	0141.9	093.4	36.77
225.0	003.8000	0134.6	029.0	355.4	002.9000	0141.9	093.9	36.64
226.0	003.8000	0133.6	028.9	355.3	002.9000	0141.9	094.3	36.52
227.0	003.8000	0132.8	028.9	355.1	002.9000	0141.9	094.7	36.40
228.0	003.8000	0132.5	028.8	355.0	002.9000	0141.9	095.2	36.29
229.0	003.8000	0132.7	028.9	354.8	002.9000	0141.9	095.6	36.18
230.0	003.8000	0132.9	028.9	354.6	002.9000	0141.8	096.0	36.07
231.0	003.8000	0133.2	028.9	354.4	002.9000	0141.8	096.4	35.95
232.0	003.8000	0133.4	028.9	354.2	002.9000	0141.8	096.8	35.84
233.0	003.8000	0133.7	028.9	354.1	002.9000	0141.7	097.2	35.73
234.0	003.8000	0133.8	029.0	353.9	002.9000	0141.7	097.6	35.62
235.0	003.8000	0133.7	028.9	353.8	002.9000	0141.7	098.1	35.50
236.0	003.8000	0133.3	028.9	353.7	002.9000	0141.7	098.5	35.38
237.0	003.8000	0132.8	028.9	353.6	002.9000	0141.7	099.0	35.26
238.0	003.8000	0132.3	028.8	353.4	002.9000	0141.7	099.5	35.13
239.0	003.8000	0131.7	028.8	353.4	002.9000	0141.7	100.0	35.01
240.0	003.8000	0131.1	028.7	353.3	002.9000	0141.7	100.4	34.89
241.0	003.8000	0130.5	028.7	353.2	002.9000	0141.7	100.9	34.77
242.0	003.8000	0130.0	028.6	353.1	002.9000	0141.7	101.4	34.65
243.0	003.8000	0129.8	028.6	353.0	002.9000	0141.7	101.9	34.53
244.0	003.8000	0129.5	028.6	352.9	002.9000	0141.7	102.4	34.42
245.0	003.8000	0129.3	028.5	352.9	002.9000	0141.7	102.8	34.30
246.0	003.8000	0129.1	028.5	352.8	002.9000	0141.7	103.3	34.18
247.0	003.8000	0118.7	027.6	353.2	002.9000	0141.7	104.1	34.01

10-08-2009 FCC NGDC 30 Sec Terrain Data

KBEM-FM BLED19981022KA
Channel = 203A
Max ERP = 2.9 kW
RCAMSL = 413 M
N. Lat. 44 59 54.0
W. Lng. 93 11 18.0
Protected
   60 dBu

WGRH(New)
Channel = 203A
Max ERP = 3.8 kW
RCAMSL = 451.7 M
N. Lat. 46 01 28.2
W. Lng. 93 01 21.3
Interfering
   40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
306.0	002.9000	0147.5	028.4	200.4	003.8000	0136.6	103.7	35.08	
307.0	002.9000	0147.1	028.4	200.3	003.8000	0136.6	103.3	35.18	
308.0	002.9000	0146.8	028.4	200.2	003.8000	0136.6	102.8	35.29	
309.0	002.9000	0146.7	028.4	200.1	003.8000	0136.7	102.4	35.41	
310.0	002.9000	0146.5	028.4	200.0	003.8000	0136.7	101.9	35.52	
311.0	002.9000	0146.3	028.3	199.9	003.8000	0136.7	101.4	35.63	
312.0	002.9000	0145.9	028.3	199.7	003.8000	0136.8	101.0	35.74	
313.0	002.9000	0145.3	028.3	199.6	003.8000	0136.9	100.6	35.85	
314.0	002.9000	0144.7	028.2	199.5	003.8000	0137.0	100.1	35.97	
315.0	002.9000	0144.1	028.1	199.3	003.8000	0137.1	099.7	36.08	
316.0	002.9000	0143.7	028.1	199.2	003.8000	0137.2	099.3	36.19	
317.0	002.9000	0143.3	028.1	199.0	003.8000	0137.3	098.9	36.30	
318.0	002.9000	0142.7	028.0	198.9	003.8000	0137.4	098.5	36.41	
319.0	002.9000	0142.2	028.0	198.7	003.8000	0137.6	098.1	36.52	
320.0	002.9000	0141.8	027.9	198.5	003.8000	0137.7	097.7	36.63	
321.0	002.9000	0141.4	027.9	198.4	003.8000	0137.9	097.3	36.74	
322.0	002.9000	0141.3	027.9	198.2	003.8000	0138.0	096.9	36.85	
323.0	002.9000	0141.2	027.9	198.0	003.8000	0138.2	096.5	36.96	
324.0	002.9000	0141.1	027.9	197.8	003.8000	0138.3	096.1	37.07	
325.0	002.9000	0140.5	027.8	197.6	003.8000	0138.5	095.7	37.17	
326.0	002.9000	0139.7	027.8	197.4	003.8000	0138.7	095.4	37.27	
327.0	002.9000	0138.8	027.7	197.2	003.8000	0138.9	095.1	37.37	
328.0	002.9000	0137.9	027.6	197.0	003.8000	0139.1	094.7	37.46	
329.0	002.9000	0136.8	027.5	196.7	003.8000	0139.3	094.4	37.55	
330.0	002.9000	0135.8	027.4	196.5	003.8000	0139.6	094.2	37.64	
331.0	002.9000	0135.3	027.4	196.3	003.8000	0139.9	093.8	37.74	
332.0	002.9000	0135.4	027.4	196.1	003.8000	0140.1	093.5	37.85	
333.0	002.9000	0135.7	027.4	195.9	003.8000	0140.4	093.2	37.95	
334.0	002.9000	0135.7	027.4	195.7	003.8000	0140.8	092.8	38.06	
335.0	002.9000	0135.5	027.4	195.4	003.8000	0141.1	092.5	38.16	
336.0	002.9000	0135.0	027.4	195.2	003.8000	0141.5	092.3	38.25	
337.0	002.9000	0134.5	027.3	194.9	003.8000	0141.9	092.0	38.34	
338.0	002.9000	0134.4	027.3	194.7	003.8000	0142.3	091.7	38.43	
339.0	002.9000	0134.7	027.3	194.5	003.8000	0142.7	091.4	38.53	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
340.0	002.9000	0135.3	027.4	194.2	003.8000	0143.0	091.1	38.64
341.0	002.9000	0136.0	027.4	194.0	003.8000	0143.4	090.8	38.74
342.0	002.9000	0136.7	027.5	193.8	003.8000	0143.7	090.5	38.84
343.0	002.9000	0137.4	027.6	193.5	003.8000	0144.1	090.2	38.94
344.0	002.9000	0137.8	027.6	193.3	003.8000	0144.4	089.9	39.04
345.0	002.9000	0138.1	027.6	193.0	003.8000	0144.8	089.7	39.12
346.0	002.9000	0138.6	027.7	192.7	003.8000	0145.1	089.4	39.21
347.0	002.9000	0139.7	027.8	192.5	003.8000	0145.4	089.1	39.31
348.0	002.9000	0140.8	027.9	192.2	003.8000	0145.6	088.8	39.40
349.0	002.9000	0141.6	027.9	191.9	003.8000	0145.9	088.6	39.49
350.0	002.9000	0141.8	028.0	191.7	003.8000	0146.2	088.4	39.56
351.0	002.9000	0141.7	027.9	191.4	003.8000	0146.4	088.2	39.62
352.0	002.9000	0141.6	027.9	191.1	003.8000	0146.6	088.0	39.67
353.0	002.9000	0141.7	027.9	190.8	003.8000	0146.8	087.9	39.73
354.0	002.9000	0141.7	027.9	190.4	003.8000	0147.1	087.7	39.78
355.0	002.9000	0141.9	028.0	190.1	003.8000	0147.3	087.6	39.83
356.0	002.9000	0141.9	028.0	189.8	003.8000	0147.6	087.5	39.88
357.0	002.9000	0141.6	027.9	189.5	003.8000	0147.8	087.4	39.91
358.0	002.9000	0141.2	027.9	189.2	003.8000	0148.0	087.3	39.94
359.0	002.9000	0140.6	027.8	188.9	003.8000	0148.2	087.3	39.96
000.0	002.9000	0139.7	027.8	188.5	003.8000	0148.4	087.3	39.97
001.0	002.8211	0138.7	027.5	188.2	003.8000	0148.6	087.5	39.92
002.0	002.7433	0138.0	027.3	187.9	003.8000	0148.6	087.6	39.87
003.0	002.6665	0137.0	027.0	187.6	003.8000	0148.7	087.8	39.81
004.0	002.5909	0136.2	026.8	187.2	003.8000	0148.8	088.1	39.75
005.0	002.5163	0135.4	026.5	186.9	003.8000	0148.8	088.3	39.69
006.0	002.4428	0133.8	026.2	186.6	003.8000	0148.9	088.6	39.61
007.0	002.3705	0132.5	026.0	186.3	003.8000	0149.0	088.8	39.53
008.0	002.2992	0131.7	025.7	186.0	003.8000	0149.2	089.1	39.46
009.0	002.2289	0132.6	025.6	185.8	003.8000	0149.3	089.2	39.43
010.0	002.1598	0134.5	025.6	185.5	003.8000	0149.4	089.3	39.42
011.0	002.0721	0136.2	025.5	185.2	003.8000	0149.5	089.4	39.38
012.0	001.9863	0137.3	025.3	184.9	003.8000	0149.6	089.6	39.33
013.0	001.9022	0137.8	025.1	184.7	003.8000	0149.6	089.9	39.26
014.0	001.8200	0137.9	024.9	184.4	003.8000	0149.7	090.2	39.17
015.0	001.7396	0138.0	024.7	184.2	003.8000	0149.8	090.5	39.08
016.0	001.6610	0137.9	024.4	183.9	003.8000	0149.8	090.8	38.99
017.0	001.5842	0137.5	024.1	183.7	003.8000	0149.9	091.2	38.88
018.0	001.5092	0136.6	023.8	183.5	003.8000	0149.9	091.6	38.76
019.0	001.4361	0135.6	023.4	183.3	003.8000	0149.8	092.1	38.63
020.0	001.3647	0134.6	023.1	183.1	003.8000	0149.8	092.5	38.51
021.0	001.3092	0133.5	022.8	182.9	003.8000	0149.8	092.9	38.39
022.0	001.2548	0132.5	022.5	182.8	003.8000	0149.8	093.3	38.27
023.0	001.2016	0131.8	022.2	182.6	003.8000	0149.7	093.7	38.16
024.0	001.1495	0131.6	022.0	182.4	003.8000	0149.7	094.1	38.06
025.0	001.0986	0131.4	021.7	182.3	003.8000	0149.7	094.5	37.95
026.0	001.0489	0130.8	021.5	182.1	003.8000	0149.7	094.9	37.84
027.0	001.0003	0129.9	021.1	182.0	003.8000	0149.6	095.3	37.72
028.0	000.9528	0129.1	020.8	181.9	003.8000	0149.6	095.7	37.60
029.0	000.9065	0128.9	020.6	181.8	003.8000	0149.6	096.1	37.49
030.0	000.8614	0129.5	020.4	181.6	003.8000	0149.6	096.5	37.39

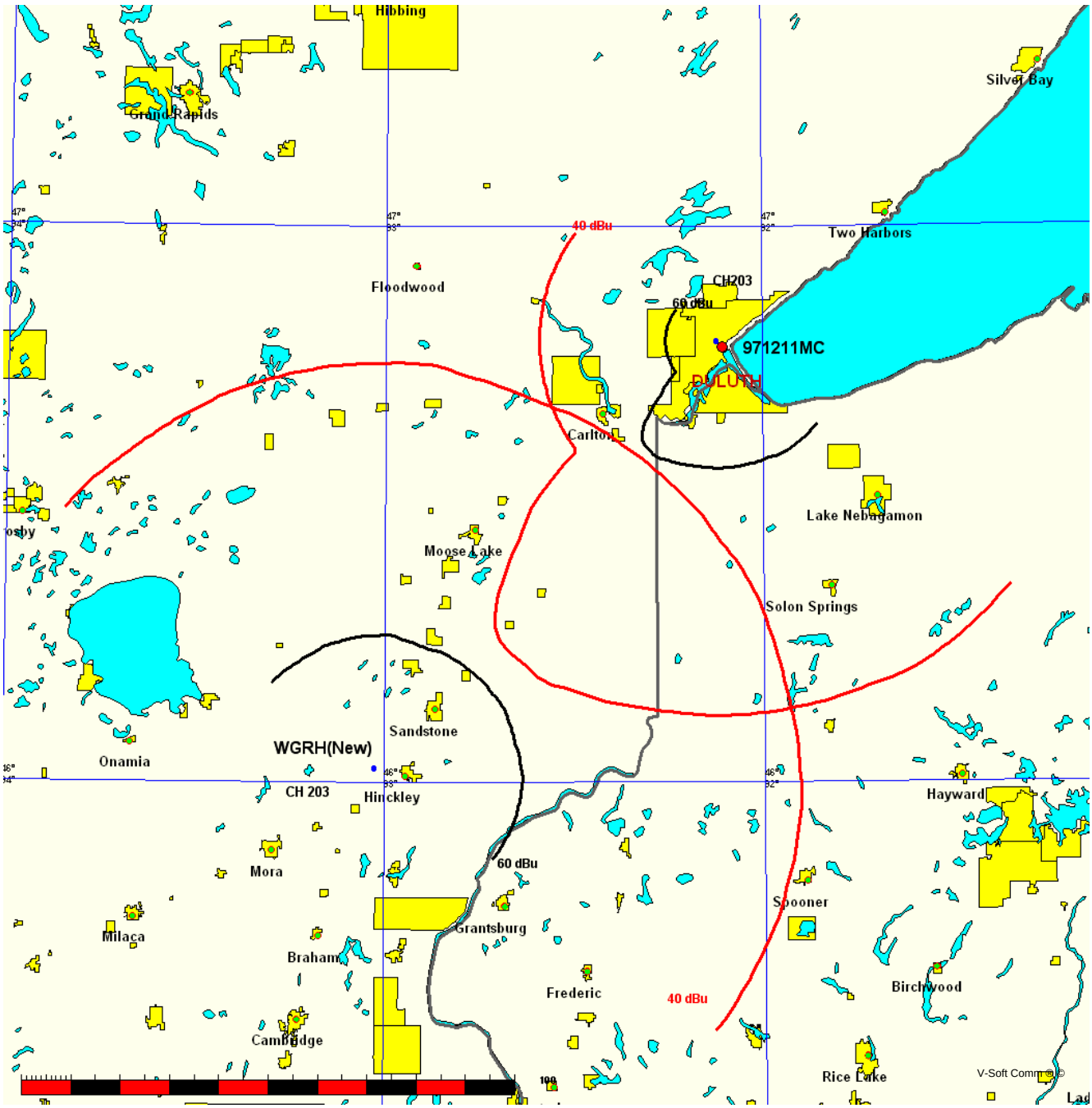
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
031.0	000.8263	0130.3	020.2	181.5	003.8000	0149.5	096.8	37.31
032.0	000.7920	0130.9	020.1	181.4	003.8000	0149.5	097.1	37.22
033.0	000.7584	0130.9	019.8	181.3	003.8000	0149.5	097.5	37.12
034.0	000.7256	0130.7	019.6	181.2	003.8000	0149.5	097.8	37.02
035.0	000.6935	0130.5	019.4	181.1	003.8000	0149.6	098.2	36.92
036.0	000.6620	0130.0	019.1	181.0	003.8000	0149.6	098.6	36.81
037.0	000.6314	0128.9	018.8	180.9	003.8000	0149.6	099.1	36.70
038.0	000.6014	0127.8	018.5	180.9	003.8000	0149.6	099.5	36.58
039.0	000.5722	0127.1	018.2	180.9	003.8000	0149.6	100.0	36.47
040.0	000.5437	0127.1	017.9	180.8	003.8000	0149.7	100.3	36.38
041.0	000.5216	0127.6	017.8	180.7	003.8000	0149.7	100.7	36.29
042.0	000.4999	0128.3	017.6	180.6	003.8000	0149.7	101.0	36.22
043.0	000.4787	0129.2	017.5	180.6	003.8000	0149.7	101.3	36.14
044.0	000.4580	0130.0	017.3	180.5	003.8000	0149.7	101.6	36.06
045.0	000.4377	0130.6	017.2	180.5	003.8000	0149.7	101.9	35.97
046.0	000.4179	0131.1	017.0	180.4	003.8000	0149.7	102.3	35.89
047.0	000.3985	0131.5	016.8	180.4	003.8000	0149.7	102.6	35.81
048.0	000.3796	0132.0	016.6	180.3	003.8000	0149.7	103.0	35.72
049.0	000.3612	0132.5	016.4	180.3	003.8000	0149.7	103.3	35.64
050.0	000.3432	0133.1	016.2	180.3	003.8000	0149.7	103.7	35.55
051.0	000.3327	0133.6	016.1	180.2	003.8000	0149.7	104.0	35.49
052.0	000.3224	0134.1	016.0	180.2	003.8000	0149.7	104.3	35.42
053.0	000.3122	0134.6	015.9	180.1	003.8000	0149.7	104.5	35.35
054.0	000.3022	0135.1	015.8	180.1	003.8000	0149.7	104.8	35.28
055.0	000.2923	0135.5	015.6	180.1	003.8000	0149.7	105.1	35.21
056.0	000.2827	0135.6	015.5	180.1	003.8000	0149.7	105.4	35.14
057.0	000.2731	0135.4	015.3	180.0	003.8000	0149.7	105.7	35.07
058.0	000.2638	0135.1	015.2	180.0	003.8000	0149.7	106.0	35.00
059.0	000.2546	0134.5	015.0	180.1	003.8000	0149.7	106.4	34.93
060.0	000.2456	0133.8	014.8	180.1	003.8000	0149.7	106.7	34.86
061.0	000.2430	0132.8	014.7	180.0	003.8000	0149.7	107.0	34.80
062.0	000.2405	0131.7	014.6	180.0	003.8000	0149.7	107.2	34.73
063.0	000.2380	0130.6	014.5	180.0	003.8000	0149.7	107.5	34.67
064.0	000.2356	0129.8	014.4	180.0	003.8000	0149.7	107.8	34.61
065.0	000.2331	0129.5	014.3	180.0	003.8000	0149.7	108.0	34.56
066.0	000.2306	0080.0	011.4	181.4	003.8000	0149.5	109.5	34.24

Minnesota Public Radio
WGRH(New) v. App 971211MC

FMCommander Single Allocation Study - 10-08-2009 - FCC NGDC 30 Sec
WGRH(New)'s Overlaps (In= 8.12 km, Out= 2.04 km)

WGRH(New) CH 203 A
Lat= 46 01 28.2, Lng= 93 01 21.3
3.8 kW 128.7 M HAAT, 451.7 M COR
Prot.= 60 dBu, Intef.= 40 dBu

971211MC CH 203 A 73.215 N BPED19971211MC
Lat= 46 47 21.0, Lng= 92 06 51.0
1.0 kW 87 M HAAT, 390.2 M COR
Prot.= 60 dBu, Intef.= 40 dBu



10-08-2009 FCC NGDC 30 Sec Terrain Data FMOver Analysis

WGRH(New)
Channel = 203A
Max ERP = 3.8 kW
RCAMSL = 451.7 M
N. Lat. 46 01 28.2
W. Lng. 93 01 21.3
Protected
60 dBu

971211MC BPED19971211MC
Channel = 203A
Max ERP = 1 kW
RCAMSL = 390.2 M
N. Lat. 46 47 21.0
W. Lng. 92 06 51.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
339.0	003.8000	0107.4	026.4	233.0	001.0000	0025.6	099.4	26.12	
340.0	003.8000	0107.3	026.4	232.9	001.0000	0026.0	098.9	26.20	
341.0	003.8000	0107.2	026.4	232.8	001.0000	0026.5	098.5	26.29	
342.0	003.8000	0106.9	026.3	232.7	001.0000	0027.0	098.1	26.38	
343.0	003.8000	0106.7	026.3	232.6	001.0000	0027.6	097.7	26.46	
344.0	003.8000	0106.7	026.3	232.5	001.0000	0028.1	097.2	26.55	
345.0	003.8000	0106.9	026.3	232.4	001.0000	0028.7	096.8	26.63	
346.0	003.8000	0106.8	026.3	232.3	001.0000	0029.3	096.4	26.72	
347.0	003.8000	0106.9	026.3	232.2	001.0000	0030.0	095.9	26.80	
348.0	003.8000	0107.0	026.4	232.0	001.0000	0030.6	095.5	26.91	
349.0	003.8000	0107.1	026.4	231.9	001.0000	0031.4	095.1	27.03	
350.0	003.8000	0107.0	026.4	231.8	001.0000	0032.2	094.7	27.15	
351.0	003.8000	0107.3	026.4	231.7	001.0000	0032.9	094.3	27.27	
352.0	003.8000	0107.9	026.5	231.6	001.0000	0033.6	093.9	27.39	
353.0	003.8000	0108.2	026.5	231.4	001.0000	0034.5	093.5	27.51	
354.0	003.8000	0108.1	026.5	231.3	001.0000	0035.5	093.1	27.64	
355.0	003.8000	0108.1	026.5	231.1	001.0000	0036.6	092.7	27.76	
356.0	003.8000	0108.1	026.5	230.9	001.0000	0037.7	092.3	27.90	
357.0	003.8000	0108.2	026.5	230.8	001.0000	0038.8	091.9	28.03	
358.0	003.8000	0108.2	026.5	230.6	001.0000	0040.0	091.6	28.17	
359.0	003.8000	0108.4	026.5	230.4	001.0000	0041.1	091.2	28.30	
000.0	003.8000	0108.7	026.5	230.3	001.0000	0042.3	090.8	28.44	
001.0	003.8000	0108.7	026.6	230.1	001.0000	0043.6	090.5	28.59	
002.0	003.8000	0109.0	026.6	229.9	001.0000	0044.9	090.1	28.73	
003.0	003.8000	0109.8	026.7	229.7	001.0000	0046.0	089.7	28.88	
004.0	003.8000	0110.3	026.7	229.5	001.0000	0047.4	089.3	29.03	
005.0	003.8000	0110.6	026.8	229.3	001.0000	0048.8	089.0	29.18	
006.0	003.8000	0110.7	026.8	229.1	001.0000	0050.3	088.6	29.33	
007.0	003.8000	0111.0	026.8	228.9	001.0000	0051.8	088.3	29.49	
008.0	003.8000	0111.3	026.8	228.7	001.0000	0053.3	088.0	29.64	
009.0	003.8000	0111.2	026.8	228.4	001.0000	0055.0	087.7	29.80	
010.0	003.8000	0110.2	026.7	228.2	001.0000	0056.9	087.5	29.94	
011.0	003.8000	0109.1	026.6	227.9	001.0000	0058.8	087.3	30.08	
012.0	003.8000	0108.1	026.5	227.6	001.0000	0060.8	087.1	30.22	
013.0	003.8000	0107.3	026.4	227.3	001.0000	0062.7	086.9	30.37	
014.0	003.8000	0106.6	026.3	227.0	001.0000	0064.6	086.7	30.51	
015.0	003.8000	0106.4	026.3	226.7	001.0000	0066.5	086.5	30.65	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
016.0	003.8000	0106.4	026.3	226.5	001.0000	0068.3	086.3	30.80
017.0	003.8000	0106.4	026.3	226.2	001.0000	0070.3	086.1	30.96
018.0	003.8000	0105.9	026.2	225.9	001.0000	0072.5	085.9	31.11
019.0	003.8000	0105.5	026.2	225.6	001.0000	0074.9	085.7	31.27
020.0	003.8000	0105.4	026.2	225.4	001.0000	0077.5	085.5	31.45
021.0	003.8000	0105.5	026.2	225.1	001.0000	0080.3	085.3	31.64
022.0	003.8000	0105.7	026.2	224.8	001.0000	0083.6	085.2	31.85
023.0	003.8000	0105.8	026.2	224.5	001.0000	0087.0	085.0	32.06
024.0	003.8000	0105.9	026.2	224.2	001.0000	0090.7	084.8	32.29
025.0	003.8000	0106.2	026.3	224.0	001.0000	0094.6	084.6	32.52
026.0	003.8000	0106.7	026.3	223.7	001.0000	0098.7	084.4	32.78
027.0	003.8000	0107.7	026.4	223.4	001.0000	0102.8	084.2	33.04
028.0	003.8000	0109.0	026.6	223.1	001.0000	0106.9	083.9	33.31
029.0	003.8000	0110.3	026.7	222.8	001.0000	0111.2	083.7	33.58
030.0	003.8000	0111.3	026.8	222.5	001.0000	0115.8	083.5	33.85
031.0	003.8000	0111.9	026.9	222.2	001.0000	0120.7	083.3	34.12
032.0	003.8000	0112.3	026.9	221.9	001.0000	0125.5	083.2	34.37
033.0	003.8000	0112.8	027.0	221.6	001.0000	0130.5	083.1	34.63
034.0	003.8000	0113.3	027.0	221.3	001.0000	0135.5	083.0	34.89
035.0	003.8000	0113.7	027.1	220.9	001.0000	0140.4	082.9	35.13
036.0	003.8000	0114.0	027.1	220.6	001.0000	0145.2	082.8	35.37
037.0	003.8000	0114.1	027.1	220.3	001.0000	0149.8	082.8	35.58
038.0	003.8000	0114.3	027.1	220.0	001.0000	0154.3	082.7	35.79
039.0	003.8000	0115.0	027.2	219.6	001.0000	0158.4	082.6	35.99
040.0	003.8000	0116.1	027.3	219.3	001.0000	0162.4	082.5	36.19
041.0	003.8000	0117.0	027.4	219.0	001.0000	0166.1	082.5	36.37
042.0	003.8000	0117.6	027.5	218.6	001.0000	0169.5	082.4	36.53
043.0	003.8000	0117.9	027.5	218.3	001.0000	0172.8	082.4	36.66
044.0	003.8000	0118.2	027.5	218.0	001.0000	0175.9	082.5	36.78
045.0	003.8000	0118.7	027.6	217.6	001.0000	0178.7	082.5	36.89
046.0	003.8000	0119.3	027.6	217.3	001.0000	0181.3	082.5	37.00
047.0	003.8000	0119.8	027.7	217.0	001.0000	0183.8	082.5	37.09
048.0	003.8000	0120.4	027.7	216.6	001.0000	0186.0	082.6	37.16
049.0	003.8000	0121.2	027.8	216.3	001.0000	0188.0	082.6	37.23
050.0	003.8000	0122.2	027.9	215.9	001.0000	0189.8	082.6	37.30
051.0	003.8000	0123.3	028.0	215.6	001.0000	0191.3	082.7	37.35
052.0	003.8000	0124.3	028.1	215.3	001.0000	0192.4	082.7	37.37
053.0	003.8000	0124.9	028.1	214.9	001.0000	0193.3	082.8	37.38
054.0	003.8000	0124.9	028.1	214.6	001.0000	0194.0	083.0	37.36
055.0	003.8000	0124.5	028.1	214.3	001.0000	0194.5	083.2	37.31
056.0	003.8000	0124.4	028.1	214.0	001.0000	0195.0	083.4	37.27
057.0	003.8000	0124.9	028.1	213.7	001.0000	0195.4	083.5	37.24
058.0	003.8000	0126.3	028.3	213.3	001.0000	0195.9	083.6	37.23
059.0	003.8000	0127.7	028.4	213.0	001.0000	0196.4	083.7	37.22
060.0	003.8000	0128.9	028.5	212.6	001.0000	0196.9	083.8	37.20
061.0	003.8000	0129.9	028.6	212.3	001.0000	0197.3	084.0	37.16
062.0	003.8000	0130.6	028.7	212.0	001.0000	0197.8	084.2	37.12
063.0	003.8000	0131.4	028.7	211.7	001.0000	0198.4	084.4	37.08
064.0	003.8000	0132.1	028.8	211.4	001.0000	0198.9	084.6	37.03
065.0	003.8000	0132.7	028.9	211.1	001.0000	0199.5	084.8	36.98
066.0	003.8000	0133.1	028.9	210.8	001.0000	0200.0	085.1	36.92

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
067.0	003.8000	0133.4	028.9	210.5	001.0000	0200.6	085.4	36.86
068.0	003.8000	0133.5	028.9	210.2	001.0000	0201.1	085.7	36.78
069.0	003.8000	0133.3	028.9	210.0	001.0000	0201.7	086.0	36.70
070.0	003.8000	0133.0	028.9	209.7	001.0000	0202.3	086.3	36.62
071.0	003.8000	0132.9	028.9	209.5	001.0000	0202.9	086.7	36.53
072.0	003.8000	0132.9	028.9	209.2	001.0000	0203.4	087.0	36.45
073.0	003.8000	0133.1	028.9	209.0	001.0000	0204.1	087.3	36.37
074.0	003.8000	0133.4	028.9	208.7	001.0000	0204.7	087.7	36.28
075.0	003.8000	0133.8	029.0	208.5	001.0000	0205.2	088.0	36.20
076.0	003.8000	0134.0	029.0	208.3	001.0000	0205.7	088.4	36.10
077.0	003.8000	0133.9	029.0	208.0	001.0000	0206.1	088.8	36.00
078.0	003.8000	0133.9	029.0	207.8	001.0000	0206.5	089.2	35.89
079.0	003.8000	0134.3	029.0	207.6	001.0000	0206.8	089.5	35.79
080.0	003.8000	0135.0	029.1	207.4	001.0000	0207.1	089.9	35.69
081.0	003.8000	0136.0	029.2	207.1	001.0000	0207.2	090.2	35.58
082.0	003.8000	0136.9	029.2	206.9	001.0000	0207.3	090.6	35.47
083.0	003.8000	0137.9	029.3	206.7	001.0000	0207.4	091.0	35.36
084.0	003.8000	0139.0	029.4	206.5	001.0000	0207.3	091.4	35.24
085.0	003.8000	0139.8	029.5	206.2	001.0000	0207.2	091.8	35.12
086.0	003.8000	0140.5	029.6	206.0	001.0000	0207.0	092.2	34.98
087.0	003.8000	0141.1	029.6	205.9	001.0000	0206.9	092.6	34.85
088.0	003.8000	0141.6	029.7	205.7	001.0000	0206.7	093.0	34.71
089.0	003.8000	0142.2	029.7	205.5	001.0000	0206.4	093.5	34.57
090.0	003.8000	0142.9	029.8	205.3	001.0000	0206.1	093.9	34.42
091.0	003.8000	0144.1	029.9	205.1	001.0000	0205.8	094.3	34.28
092.0	003.8000	0145.3	030.0	205.0	001.0000	0205.4	094.8	34.14
093.0	003.8000	0146.6	030.2	204.8	001.0000	0205.0	095.2	33.99
094.0	003.8000	0147.2	030.2	204.6	001.0000	0204.7	095.7	33.84
095.0	003.8000	0147.5	030.3	204.5	001.0000	0204.4	096.2	33.68
096.0	003.8000	0147.5	030.3	204.4	001.0000	0204.2	096.7	33.53
097.0	003.8000	0147.5	030.3	204.3	001.0000	0204.0	097.2	33.37
098.0	003.8000	0147.3	030.2	204.2	001.0000	0203.8	097.7	33.22
099.0	003.8000	0118.7	027.6	205.7	001.0000	0206.6	098.9	32.95

10-08-2009 FCC NGDC 30 Sec Terrain Data

971211MC BPED19971211MC
Channel = 203A
Max ERP = 1 kW
RCAMSL = 390.2 M
N. Lat. 46 47 21.0
W. Lng. 92 06 51.0
Protected
60 dBu

WGRH(New)
Channel = 203A
Max ERP = 3.8 kW
RCAMSL = 451.7 M
N. Lat. 46 01 28.2
W. Lng. 93 01 21.3
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
160.0	001.0000	0198.6	025.6	051.8	003.8000	0124.1	099.4	35.66	
161.0	001.0000	0198.6	025.6	051.7	003.8000	0124.1	099.0	35.77	
162.0	001.0000	0198.4	025.6	051.6	003.8000	0124.0	098.6	35.87	
163.0	001.0000	0197.8	025.6	051.5	003.8000	0123.9	098.1	35.97	
164.0	001.0000	0197.4	025.5	051.4	003.8000	0123.7	097.7	36.07	
165.0	001.0000	0197.3	025.5	051.3	003.8000	0123.6	097.3	36.17	
166.0	001.0000	0196.9	025.5	051.2	003.8000	0123.5	096.9	36.26	
167.0	001.0000	0196.4	025.5	051.1	003.8000	0123.4	096.6	36.36	
168.0	001.0000	0195.9	025.4	051.0	003.8000	0123.3	096.2	36.45	
169.0	001.0000	0195.8	025.4	050.8	003.8000	0123.1	095.8	36.55	
170.0	001.0000	0195.8	025.4	050.7	003.8000	0123.0	095.4	36.65	
171.0	001.0000	0195.9	025.4	050.6	003.8000	0122.8	095.0	36.74	
172.0	001.0000	0195.6	025.4	050.4	003.8000	0122.7	094.6	36.84	
173.0	001.0000	0195.4	025.4	050.3	003.8000	0122.5	094.3	36.93	
174.0	001.0000	0195.5	025.4	050.1	003.8000	0122.4	093.9	37.02	
175.0	001.0000	0195.6	025.4	050.0	003.8000	0122.2	093.5	37.12	
176.0	001.0000	0195.6	025.4	049.9	003.8000	0122.1	093.2	37.21	
177.0	001.0000	0195.5	025.4	049.7	003.8000	0121.9	092.8	37.30	
178.0	001.0000	0195.4	025.4	049.5	003.8000	0121.7	092.5	37.38	
179.0	001.0000	0195.6	025.4	049.4	003.8000	0121.6	092.1	37.47	
180.0	001.0000	0195.8	025.4	049.2	003.8000	0121.4	091.8	37.56	
181.0	001.0000	0195.8	025.4	049.0	003.8000	0121.2	091.4	37.64	
182.0	001.0000	0194.9	025.4	048.8	003.8000	0121.0	091.1	37.72	
183.0	001.0000	0194.2	025.3	048.6	003.8000	0120.9	090.8	37.79	
184.0	001.0000	0194.0	025.3	048.4	003.8000	0120.7	090.5	37.87	
185.0	001.0000	0194.0	025.3	048.2	003.8000	0120.5	090.2	37.95	
186.0	001.0000	0194.1	025.3	048.0	003.8000	0120.4	089.9	38.02	
187.0	001.0000	0193.9	025.3	047.8	003.8000	0120.3	089.6	38.10	
188.0	001.0000	0194.0	025.3	047.6	003.8000	0120.1	089.3	38.17	
189.0	001.0000	0194.2	025.3	047.4	003.8000	0120.0	089.1	38.25	
190.0	001.0000	0194.6	025.4	047.1	003.8000	0119.9	088.8	38.32	
191.0	001.0000	0194.6	025.4	046.9	003.8000	0119.8	088.5	38.39	
192.0	001.0000	0194.8	025.4	046.7	003.8000	0119.7	088.2	38.46	
193.0	001.0000	0195.3	025.4	046.5	003.8000	0119.5	088.0	38.54	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
194.0	001.0000	0196.2	025.5	046.2	003.8000	0119.4	087.7	38.61
195.0	001.0000	0197.6	025.5	046.0	003.8000	0119.3	087.4	38.69
196.0	001.0000	0199.0	025.6	045.8	003.8000	0119.2	087.1	38.77
197.0	001.0000	0199.5	025.7	045.6	003.8000	0119.0	086.8	38.83
198.0	001.0000	0199.8	025.7	045.3	003.8000	0118.8	086.6	38.89
199.0	001.0000	0200.2	025.7	045.1	003.8000	0118.7	086.4	38.95
200.0	001.0000	0200.4	025.7	044.8	003.8000	0118.6	086.2	39.00
201.0	001.0000	0200.3	025.7	044.5	003.8000	0118.4	086.0	39.05
202.0	001.0000	0200.4	025.7	044.2	003.8000	0118.3	085.8	39.09
203.0	001.0000	0201.4	025.8	044.0	003.8000	0118.2	085.6	39.15
204.0	001.0000	0203.3	025.9	043.7	003.8000	0118.1	085.3	39.22
205.0	001.0000	0205.5	026.0	043.5	003.8000	0118.1	085.0	39.30
206.0	001.0000	0207.0	026.1	043.2	003.8000	0118.0	084.8	39.36
207.0	001.0000	0207.3	026.1	042.9	003.8000	0117.9	084.7	39.40
208.0	001.0000	0206.2	026.1	042.6	003.8000	0117.9	084.6	39.41
209.0	001.0000	0204.0	025.9	042.3	003.8000	0117.8	084.6	39.40
210.0	001.0000	0201.6	025.8	042.0	003.8000	0117.6	084.7	39.39
211.0	001.0000	0199.6	025.7	041.7	003.8000	0117.5	084.7	39.37
212.0	001.0000	0197.8	025.6	041.4	003.8000	0117.3	084.7	39.36
213.0	001.0000	0196.3	025.5	041.0	003.8000	0117.1	084.7	39.34
214.0	001.0000	0195.0	025.4	040.7	003.8000	0116.8	084.8	39.33
215.0	001.0000	0193.1	025.3	040.4	003.8000	0116.5	084.8	39.30
216.0	001.0000	0189.5	025.1	040.1	003.8000	0116.2	085.0	39.23
217.0	001.0000	0183.6	024.7	039.8	003.8000	0115.9	085.3	39.13
218.0	001.0000	0175.7	024.3	039.5	003.8000	0115.6	085.7	38.99
219.0	001.0000	0165.9	023.7	039.2	003.8000	0115.2	086.3	38.81
220.0	001.0000	0153.9	022.9	039.0	003.8000	0115.0	087.1	38.57
221.0	001.0000	0139.6	021.9	038.7	003.8000	0114.7	088.1	38.28
222.0	001.0000	0124.1	020.7	038.5	003.8000	0114.6	089.3	37.95
223.0	001.0000	0108.5	019.4	038.3	003.8000	0114.4	090.6	37.58
224.0	001.0000	0093.9	018.0	038.2	003.8000	0114.4	092.1	37.17
225.0	001.0000	0081.3	016.5	038.1	003.8000	0114.3	093.5	36.78
226.0	001.0000	0072.0	015.4	038.0	003.8000	0114.3	094.6	36.49
227.0	001.0000	0064.7	014.7	037.9	003.8000	0114.2	095.5	36.27
228.0	001.0000	0058.0	013.9	037.8	003.8000	0114.2	096.2	36.08
229.0	001.0000	0051.1	013.1	037.8	003.8000	0114.2	097.0	35.86
230.0	001.0000	0044.1	012.2	037.8	003.8000	0114.2	098.0	35.62
231.0	001.0000	0037.2	011.2	037.8	003.8000	0114.2	099.0	35.38
232.0	001.0000	0030.9	010.3	037.8	003.8000	0114.2	099.9	35.16
233.0	001.0000	0025.4	010.2	037.7	003.8000	0114.1	100.1	35.12
234.0	001.0000	0020.8	010.2	037.6	003.8000	0114.1	100.1	35.10
235.0	001.0000	0017.3	010.2	037.5	003.8000	0114.1	100.2	35.09
236.0	001.0000	0014.3	010.2	037.4	003.8000	0114.1	100.2	35.08
237.0	001.0000	0011.6	010.2	037.3	003.8000	0114.1	100.3	35.06
238.0	001.0000	0009.5	010.2	037.2	003.8000	0114.1	100.4	35.05
239.0	001.0000	0007.6	010.2	037.1	003.8000	0114.1	100.4	35.03
240.0	001.0000	0006.0	010.2	037.0	003.8000	0114.1	100.5	35.02
241.0	001.0000	0004.8	010.2	036.9	003.8000	0114.1	100.6	35.00
242.0	001.0000	0003.8	010.2	036.8	003.8000	0114.0	100.6	34.98
243.0	001.0000	0003.0	010.2	036.7	003.8000	0114.0	100.7	34.97
244.0	001.0000	0002.3	010.2	036.6	003.8000	0114.0	100.8	34.95

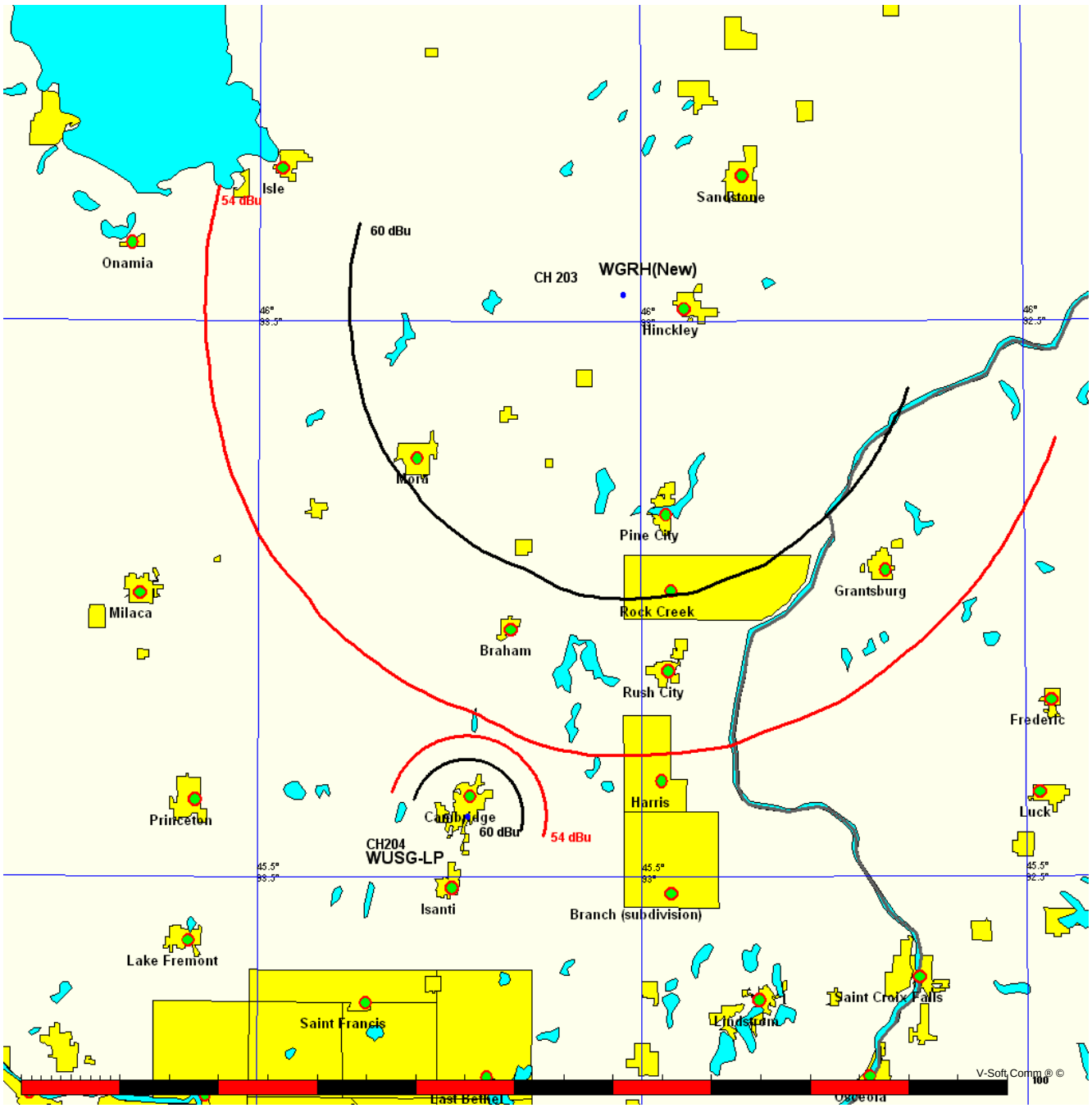
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
245.0	001.0000	0001.7	010.2	036.6	003.8000	0114.0	100.9	34.93
246.0	001.0000	0001.3	010.2	036.5	003.8000	0114.0	101.0	34.91
247.0	001.0000	0001.1	010.2	036.4	003.8000	0114.0	101.0	34.89
248.0	001.0000	0001.0	010.2	036.3	003.8000	0114.0	101.1	34.87
249.0	001.0000	0001.3	010.2	036.2	003.8000	0114.0	101.2	34.84
250.0	001.0000	0001.7	010.2	036.1	003.8000	0114.0	101.3	34.82
251.0	001.0000	0002.2	010.2	036.0	003.8000	0114.0	101.4	34.80
252.0	001.0000	0002.3	010.2	036.0	003.8000	0114.0	101.5	34.77
253.0	001.0000	0002.0	010.2	035.9	003.8000	0114.0	101.6	34.75
254.0	001.0000	0001.5	010.2	035.8	003.8000	0114.0	101.7	34.72
255.0	001.0000	0000.9	010.2	035.7	003.8000	0113.9	101.8	34.70
256.0	001.0000	0000.3	010.2	035.6	003.8000	0113.9	102.0	34.67
257.0	001.0000	-0000.9	010.2	035.6	003.8000	0113.9	102.1	34.64
258.0	001.0000	-0002.8	010.2	035.5	003.8000	0113.9	102.2	34.62
259.0	001.0000	-0005.0	010.2	035.4	003.8000	0113.9	102.3	34.59
260.0	001.0000	-0007.3	010.2	035.4	003.8000	0113.9	102.4	34.56
261.0	001.0000	-0008.7	010.2	035.3	003.8000	0113.8	102.6	34.53
262.0	001.0000	-0009.5	010.2	035.2	003.8000	0113.8	102.7	34.50
263.0	001.0000	-0010.3	010.2	035.1	003.8000	0113.8	102.8	34.47
264.0	001.0000	-0010.9	010.2	035.1	003.8000	0113.8	102.9	34.44
265.0	001.0000	-0011.1	010.2	035.0	003.8000	0113.7	103.1	34.41
266.0	001.0000	-0010.9	010.2	035.0	003.8000	0113.7	103.2	34.38
267.0	001.0000	-0010.7	010.2	034.9	003.8000	0113.7	103.3	34.34
268.0	001.0000	-0011.3	010.2	034.8	003.8000	0113.6	103.5	34.31
269.0	001.0000	-0012.2	010.2	034.8	003.8000	0113.6	103.6	34.28
270.0	001.0000	-0013.0	010.2	034.7	003.8000	0113.6	103.8	34.25
271.0	001.0000	-0013.9	010.2	034.7	003.8000	0113.6	103.9	34.21
272.0	001.0000	-0015.0	010.2	034.6	003.8000	0113.6	104.1	34.18
273.0	001.0000	-0016.0	010.2	034.5	003.8000	0113.5	104.2	34.15
274.0	001.0000	-0017.2	010.2	034.5	003.8000	0113.5	104.4	34.11
275.0	001.0000	-0018.6	010.2	034.4	003.8000	0113.5	104.5	34.08
276.0	001.0000	-0020.0	010.2	034.4	003.8000	0113.5	104.7	34.04
277.0	001.0000	-0021.3	010.2	034.4	003.8000	0113.4	104.8	34.01
278.0	001.0000	-0022.4	010.2	034.3	003.8000	0113.4	105.0	33.97
279.0	001.0000	-0023.6	010.2	034.3	003.8000	0113.4	105.1	33.94
280.0	001.0000	0057.2	013.9	032.4	003.8000	0112.5	103.8	34.19

Minnesota Public Radio
WGRH(New) v. WUSG-LP

FMCommander Single Allocation Study - 10-08-2009 - FCC NGDC 30 Sec
WGRH(New)'s Overlaps (In= 16.67 km, Out= 3.92 km)

WGRH(New) CH 203 A
Lat= 46 01 28.2, Lng= 93 01 21.3
3.8 kW 128.7 M HAAT, 451.7 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WUSG-LP CH 204 L1 BLL20050316AAA
Lat= 45 33 18.0, Lng= 93 13 31.0
0.1 kW 17.36924 M HAAT, 306 M COR
Prot.= 60 dBu, Intef.= 54 dBu



10-08-2009 FCC NGDC 30 Sec Terrain Data FMOver Analysis

WGRH(New)
Channel = 203A
Max ERP = 3.8 kW
RCAMSL = 451.7 M
N. Lat. 46 01 28.2
W. Lng. 93 01 21.3
Protected
60 dBu

WUSG-LP BLL20050316AAA
Channel = 204L1
Max ERP = 0.1 kW
RCAMSL = 306 M
N. Lat. 45 33 18.0
W. Lng. 93 13 31.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
137.0	003.8000	0148.0	030.3	050.3	000.1000	0016.4	047.2	26.56	
138.0	003.8000	0148.0	030.3	050.3	000.1000	0016.4	046.6	26.69	
139.0	003.8000	0147.9	030.3	050.3	000.1000	0016.4	046.1	26.82	
140.0	003.8000	0147.7	030.3	050.3	000.1000	0016.4	045.6	26.95	
141.0	003.8000	0147.7	030.3	050.3	000.1000	0016.4	045.0	27.08	
142.0	003.8000	0147.8	030.3	050.3	000.1000	0016.4	044.5	27.22	
143.0	003.8000	0148.0	030.3	050.3	000.1000	0016.4	044.0	27.36	
144.0	003.8000	0148.3	030.3	050.3	000.1000	0016.4	043.5	27.51	
145.0	003.8000	0148.4	030.3	050.3	000.1000	0016.4	042.9	27.65	
146.0	003.8000	0148.6	030.4	050.3	000.1000	0016.3	042.4	27.80	
147.0	003.8000	0148.8	030.4	050.2	000.1000	0016.3	041.9	27.96	
148.0	003.8000	0149.3	030.4	050.2	000.1000	0016.3	041.3	28.12	
149.0	003.8000	0149.9	030.5	050.2	000.1000	0016.3	040.8	28.28	
150.0	003.8000	0150.5	030.5	050.1	000.1000	0016.3	040.3	28.45	
151.0	003.8000	0150.9	030.6	050.1	000.1000	0016.3	039.7	28.61	
152.0	003.8000	0150.9	030.6	049.9	000.1000	0016.3	039.2	28.78	
153.0	003.8000	0150.7	030.6	049.7	000.1000	0016.2	038.7	28.95	
154.0	003.8000	0150.2	030.5	049.5	000.1000	0016.2	038.2	29.12	
155.0	003.8000	0149.8	030.5	049.2	000.1000	0016.2	037.7	29.29	
156.0	003.8000	0149.6	030.5	048.9	000.1000	0016.2	037.2	29.46	
157.0	003.8000	0149.4	030.4	048.7	000.1000	0016.1	036.7	29.63	
158.0	003.8000	0149.1	030.4	048.4	000.1000	0016.1	036.2	29.80	
159.0	003.8000	0148.7	030.4	048.0	000.1000	0016.1	035.7	29.98	
160.0	003.8000	0148.6	030.4	047.7	000.1000	0016.1	035.2	30.15	
161.0	003.8000	0148.7	030.4	047.4	000.1000	0016.1	034.7	30.33	
162.0	003.8000	0148.9	030.4	047.1	000.1000	0016.1	034.2	30.51	
163.0	003.8000	0149.5	030.5	046.8	000.1000	0016.1	033.7	30.70	
164.0	003.8000	0150.5	030.5	046.5	000.1000	0016.0	033.2	30.89	
165.0	003.8000	0151.4	030.6	046.2	000.1000	0016.0	032.7	31.09	
166.0	003.8000	0151.9	030.7	045.8	000.1000	0016.0	032.2	31.28	
167.0	003.8000	0151.7	030.7	045.3	000.1000	0016.0	031.8	31.45	
168.0	003.8000	0151.3	030.6	044.7	000.1000	0016.0	031.3	31.63	
169.0	003.8000	0150.8	030.6	044.1	000.1000	0016.1	030.9	31.81	
170.0	003.8000	0150.3	030.5	043.5	000.1000	0016.2	030.5	32.00	
171.0	003.8000	0150.1	030.5	042.8	000.1000	0016.4	030.1	32.19	
172.0	003.8000	0150.0	030.5	042.2	000.1000	0016.6	029.7	32.39	
173.0	003.8000	0150.0	030.5	041.5	000.1000	0016.8	029.3	32.60	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
174.0	003.8000	0150.1	030.5	040.8	000.1000	0017.0	028.9	32.80
175.0	003.8000	0149.8	030.5	040.1	000.1000	0017.3	028.5	33.00
176.0	003.8000	0149.8	030.5	039.3	000.1000	0017.6	028.2	33.20
177.0	003.8000	0150.0	030.5	038.5	000.1000	0017.8	027.8	33.42
178.0	003.8000	0149.9	030.5	037.7	000.1000	0018.0	027.5	33.61
179.0	003.8000	0149.7	030.5	036.8	000.1000	0018.1	027.1	33.80
180.0	003.8000	0149.7	030.5	035.9	000.1000	0018.2	026.8	33.99
181.0	003.8000	0149.6	030.5	034.9	000.1000	0018.3	026.5	34.17
182.0	003.8000	0149.6	030.5	034.0	000.1000	0018.5	026.2	34.36
183.0	003.8000	0149.8	030.5	033.0	000.1000	0018.6	026.0	34.54
184.0	003.8000	0149.8	030.5	032.0	000.1000	0018.7	025.7	34.70
185.0	003.8000	0149.5	030.5	030.9	000.1000	0019.1	025.5	34.85
186.0	003.8000	0149.2	030.4	029.8	000.1000	0019.7	025.3	34.97
187.0	003.8000	0148.8	030.4	028.6	000.1000	0020.4	025.1	35.09
188.0	003.8000	0148.6	030.4	027.5	000.1000	0021.0	024.9	35.20
189.0	003.8000	0148.1	030.3	026.3	000.1000	0021.8	024.8	35.28
190.0	003.8000	0147.4	030.2	025.1	000.1000	0022.5	024.7	35.34
191.0	003.8000	0146.7	030.2	023.9	000.1000	0022.9	024.7	35.37
192.0	003.8000	0145.8	030.1	022.6	000.1000	0022.9	024.7	35.39
193.0	003.8000	0144.8	030.0	021.4	000.1000	0022.8	024.7	35.38
194.0	003.8000	0143.3	029.9	020.2	000.1000	0022.8	024.7	35.34
195.0	003.8000	0141.8	029.7	019.0	000.1000	0022.7	024.8	35.27
196.0	003.8000	0140.3	029.6	017.8	000.1000	0022.8	025.0	35.19
197.0	003.8000	0139.1	029.4	016.6	000.1000	0023.1	025.1	35.12
198.0	003.8000	0138.2	029.4	015.4	000.1000	0023.4	025.2	35.05
199.0	003.8000	0137.3	029.3	014.3	000.1000	0023.5	025.3	34.98
200.0	003.8000	0136.7	029.2	013.1	000.1000	0023.3	025.4	34.90
201.0	003.8000	0136.7	029.2	012.0	000.1000	0022.7	025.5	34.86
202.0	003.8000	0137.0	029.3	010.9	000.1000	0022.7	025.5	34.82
203.0	003.8000	0137.3	029.3	009.7	000.1000	0022.9	025.6	34.76
204.0	003.8000	0137.5	029.3	008.6	000.1000	0022.5	025.7	34.70
205.0	003.8000	0137.6	029.3	007.5	000.1000	0021.9	025.8	34.61
206.0	003.8000	0137.6	029.3	006.5	000.1000	0021.8	026.0	34.50
207.0	003.8000	0137.7	029.3	005.4	000.1000	0021.9	026.2	34.39
208.0	003.8000	0137.8	029.3	004.4	000.1000	0022.0	026.4	34.28
209.0	003.8000	0137.8	029.3	003.4	000.1000	0022.4	026.6	34.14
210.0	003.8000	0137.7	029.3	002.4	000.1000	0022.6	026.8	34.00
211.0	003.8000	0137.6	029.3	001.5	000.1000	0022.7	027.1	33.84
212.0	003.8000	0137.4	029.3	000.6	000.1000	0022.8	027.3	33.68
213.0	003.8000	0137.2	029.3	359.7	000.1000	0023.0	027.6	33.51
214.0	003.8000	0137.0	029.3	358.8	000.1000	0023.3	027.9	33.34
215.0	003.8000	0136.8	029.2	358.0	000.1000	0023.6	028.3	33.16
216.0	003.8000	0136.7	029.2	357.2	000.1000	0023.8	028.6	32.98
217.0	003.8000	0136.6	029.2	356.5	000.1000	0024.1	028.9	32.80
218.0	003.8000	0136.4	029.2	355.7	000.1000	0024.0	029.3	32.62
219.0	003.8000	0136.2	029.2	355.0	000.1000	0023.4	029.6	32.43
220.0	003.8000	0135.9	029.2	354.4	000.1000	0022.9	030.0	32.25
221.0	003.8000	0135.8	029.1	353.7	000.1000	0022.3	030.4	32.07
222.0	003.8000	0135.9	029.2	353.1	000.1000	0021.6	030.7	31.90
223.0	003.8000	0136.0	029.2	352.5	000.1000	0020.9	031.1	31.73
224.0	003.8000	0135.6	029.1	351.9	000.1000	0020.5	031.6	31.55

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
225.0	003.8000	0134.6	029.0	351.5	000.1000	0020.4	032.0	31.36
226.0	003.8000	0133.6	028.9	351.1	000.1000	0020.5	032.5	31.18
227.0	003.8000	0132.8	028.9	350.8	000.1000	0020.6	032.9	31.00
228.0	003.8000	0132.5	028.8	350.3	000.1000	0020.9	033.4	30.84
229.0	003.8000	0132.7	028.9	349.9	000.1000	0021.4	033.8	30.68
230.0	003.8000	0132.9	028.9	349.4	000.1000	0021.7	034.2	30.52
231.0	003.8000	0133.2	028.9	349.0	000.1000	0021.9	034.7	30.36
232.0	003.8000	0133.4	028.9	348.5	000.1000	0022.1	035.1	30.20
233.0	003.8000	0133.7	028.9	348.2	000.1000	0022.2	035.5	30.04
234.0	003.8000	0133.8	029.0	347.8	000.1000	0022.2	036.0	29.88
235.0	003.8000	0133.7	028.9	347.5	000.1000	0022.2	036.5	29.71
236.0	003.8000	0133.3	028.9	347.3	000.1000	0022.2	036.9	29.54
237.0	003.8000	0132.8	028.9	347.1	000.1000	0022.2	037.4	29.38
238.0	003.8000	0132.3	028.8	346.9	000.1000	0022.1	037.9	29.21
239.0	003.8000	0131.7	028.8	346.7	000.1000	0022.1	038.4	29.04
240.0	003.8000	0131.1	028.7	346.6	000.1000	0022.1	038.9	28.88
241.0	003.8000	0130.5	028.7	346.5	000.1000	0022.1	039.4	28.72
242.0	003.8000	0130.0	028.6	346.3	000.1000	0022.1	039.9	28.56
243.0	003.8000	0129.8	028.6	346.2	000.1000	0022.1	040.4	28.41
244.0	003.8000	0129.5	028.6	346.1	000.1000	0022.2	040.9	28.26
245.0	003.8000	0129.3	028.5	346.0	000.1000	0022.2	041.4	28.11
246.0	003.8000	0129.1	028.5	345.9	000.1000	0022.2	041.9	27.96
247.0	003.8000	0128.6	028.5	345.8	000.1000	0022.2	042.4	27.81
248.0	003.8000	0127.9	028.4	345.8	000.1000	0022.2	042.9	27.67
249.0	003.8000	0126.9	028.3	345.9	000.1000	0022.2	043.4	27.53
250.0	003.8000	0125.9	028.2	345.9	000.1000	0022.2	043.9	27.39
251.0	003.8000	0125.2	028.2	345.9	000.1000	0022.2	044.4	27.26
252.0	003.8000	0124.7	028.1	345.9	000.1000	0022.2	044.9	27.13
253.0	003.8000	0124.5	028.1	345.9	000.1000	0022.2	045.4	27.00
254.0	003.8000	0124.3	028.1	345.9	000.1000	0022.2	045.8	26.88
255.0	003.8000	0124.3	028.1	345.9	000.1000	0022.2	046.3	26.76
256.0	003.8000	0124.0	028.1	345.9	000.1000	0022.2	046.8	26.64
257.0	003.8000	0118.7	027.6	346.5	000.1000	0022.1	047.3	26.53

10-08-2009 FCC NGDC 30 Sec Terrain Data

WUSG-LP BLL20050316AAA
Channel = 204L1
Max ERP = 0.1 kW
RCAMSL = 306 M
N. Lat. 45 33 18.0
W. Lng. 93 13 31.0
Protected
60 dBu

WGRH(New)
Channel = 203A
Max ERP = 3.8 kW
RCAMSL = 451.7 M
N. Lat. 46 01 28.2
W. Lng. 93 01 21.3
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
317.0	000.1000	0019.7	005.6	202.2	003.8000	0137.0	051.9	51.10	
318.0	000.1000	0020.3	005.6	202.2	003.8000	0137.0	051.8	51.13	
319.0	000.1000	0020.8	005.6	202.1	003.8000	0137.0	051.7	51.16	
320.0	000.1000	0021.0	005.6	202.1	003.8000	0137.0	051.6	51.20	
321.0	000.1000	0020.9	005.6	202.0	003.8000	0137.0	051.5	51.23	
322.0	000.1000	0020.7	005.6	202.0	003.8000	0136.9	051.5	51.26	
323.0	000.1000	0020.7	005.6	201.9	003.8000	0136.9	051.4	51.29	
324.0	000.1000	0021.0	005.6	201.8	003.8000	0136.9	051.3	51.33	
325.0	000.1000	0021.6	005.6	201.8	003.8000	0136.9	051.2	51.36	
326.0	000.1000	0022.2	005.6	201.7	003.8000	0136.9	051.1	51.39	
327.0	000.1000	0022.7	005.6	201.7	003.8000	0136.8	051.0	51.42	
328.0	000.1000	0023.1	005.6	201.6	003.8000	0136.8	051.0	51.45	
329.0	000.1000	0023.3	005.6	201.5	003.8000	0136.8	050.9	51.48	
330.0	000.1000	0023.4	005.6	201.5	003.8000	0136.8	050.8	51.51	
331.0	000.1000	0023.5	005.6	201.4	003.8000	0136.8	050.7	51.53	
332.0	000.1000	0023.3	005.6	201.3	003.8000	0136.7	050.7	51.56	
333.0	000.1000	0023.1	005.6	201.2	003.8000	0136.7	050.6	51.59	
334.0	000.1000	0022.9	005.6	201.2	003.8000	0136.7	050.5	51.62	
335.0	000.1000	0022.7	005.6	201.1	003.8000	0136.7	050.4	51.64	
336.0	000.1000	0022.5	005.6	201.0	003.8000	0136.7	050.4	51.67	
337.0	000.1000	0022.5	005.6	200.9	003.8000	0136.6	050.3	51.70	
338.0	000.1000	0022.8	005.6	200.9	003.8000	0136.6	050.2	51.72	
339.0	000.1000	0023.1	005.6	200.8	003.8000	0136.6	050.2	51.75	
340.0	000.1000	0023.1	005.6	200.7	003.8000	0136.6	050.1	51.77	
341.0	000.1000	0023.1	005.6	200.6	003.8000	0136.6	050.0	51.80	
342.0	000.1000	0023.1	005.6	200.5	003.8000	0136.6	050.0	51.82	
343.0	000.1000	0023.1	005.6	200.4	003.8000	0136.6	049.9	51.84	
344.0	000.1000	0022.8	005.6	200.3	003.8000	0136.6	049.9	51.87	
345.0	000.1000	0022.5	005.6	200.2	003.8000	0136.6	049.8	51.89	
346.0	000.1000	0022.2	005.6	200.1	003.8000	0136.7	049.7	51.91	
347.0	000.1000	0022.2	005.6	200.0	003.8000	0136.7	049.7	51.94	
348.0	000.1000	0022.2	005.6	200.0	003.8000	0136.7	049.6	51.96	
349.0	000.1000	0021.9	005.6	199.9	003.8000	0136.8	049.6	51.98	
350.0	000.1000	0021.2	005.6	199.8	003.8000	0136.8	049.5	52.00	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
351.0	000.1000	0020.5	005.6	199.7	003.8000	0136.9	049.5	52.02
352.0	000.1000	0020.6	005.6	199.6	003.8000	0136.9	049.4	52.04
353.0	000.1000	0021.5	005.6	199.5	003.8000	0137.0	049.4	52.07
354.0	000.1000	0022.5	005.6	199.4	003.8000	0137.1	049.4	52.09
355.0	000.1000	0023.4	005.6	199.2	003.8000	0137.1	049.3	52.11
356.0	000.1000	0024.1	005.6	199.1	003.8000	0137.2	049.3	52.13
357.0	000.1000	0023.9	005.6	199.0	003.8000	0137.3	049.2	52.15
358.0	000.1000	0023.6	005.6	198.9	003.8000	0137.4	049.2	52.16
359.0	000.1000	0023.2	005.6	198.8	003.8000	0137.5	049.2	52.18
000.0	000.1000	0022.9	005.6	198.7	003.8000	0137.6	049.1	52.20
001.0	000.1000	0022.7	005.6	198.6	003.8000	0137.7	049.1	52.22
002.0	000.1000	0022.6	005.6	198.5	003.8000	0137.8	049.1	52.23
003.0	000.1000	0022.5	005.6	198.4	003.8000	0137.8	049.1	52.25
004.0	000.1000	0022.1	005.6	198.3	003.8000	0137.9	049.0	52.26
005.0	000.1000	0021.9	005.6	198.2	003.8000	0138.0	049.0	52.28
006.0	000.1000	0021.9	005.6	198.0	003.8000	0138.1	049.0	52.29
007.0	000.1000	0021.8	005.6	197.9	003.8000	0138.2	049.0	52.30
008.0	000.1000	0022.1	005.6	197.8	003.8000	0138.3	048.9	52.31
009.0	000.1000	0022.6	005.6	197.7	003.8000	0138.4	048.9	52.33
010.0	000.1000	0022.9	005.6	197.6	003.8000	0138.5	048.9	52.34
011.0	000.1000	0022.6	005.6	197.5	003.8000	0138.6	048.9	52.35
012.0	000.1000	0022.7	005.6	197.4	003.8000	0138.7	048.9	52.35
013.0	000.1000	0023.2	005.6	197.3	003.8000	0138.8	048.9	52.36
014.0	000.1000	0023.5	005.6	197.1	003.8000	0138.9	048.9	52.37
015.0	000.1000	0023.4	005.6	197.0	003.8000	0139.0	048.9	52.38
016.0	000.1000	0023.2	005.6	196.9	003.8000	0139.2	048.9	52.39
017.0	000.1000	0023.0	005.6	196.8	003.8000	0139.3	048.9	52.39
018.0	000.1000	0022.8	005.6	196.7	003.8000	0139.4	048.9	52.40
019.0	000.1000	0022.7	005.6	196.6	003.8000	0139.5	048.9	52.40
020.0	000.1000	0022.8	005.6	196.4	003.8000	0139.7	048.9	52.41
021.0	000.1000	0022.8	005.6	196.3	003.8000	0139.8	048.9	52.41
022.0	000.1000	0022.8	005.6	196.2	003.8000	0140.0	048.9	52.42
023.0	000.1000	0022.9	005.6	196.1	003.8000	0140.1	048.9	52.42
024.0	000.1000	0022.9	005.6	196.0	003.8000	0140.3	048.9	52.42
025.0	000.1000	0022.6	005.6	195.9	003.8000	0140.4	048.9	52.43
026.0	000.1000	0022.0	005.6	195.8	003.8000	0140.6	049.0	52.43
027.0	000.1000	0021.3	005.6	195.6	003.8000	0140.8	049.0	52.43
028.0	000.1000	0020.7	005.6	195.5	003.8000	0141.0	049.0	52.43
029.0	000.1000	0020.2	005.6	195.4	003.8000	0141.1	049.0	52.43
030.0	000.1000	0019.6	005.6	195.3	003.8000	0141.3	049.0	52.43
031.0	000.1000	0019.0	005.6	195.2	003.8000	0141.5	049.1	52.43
032.0	000.1000	0018.7	005.6	195.1	003.8000	0141.7	049.1	52.43
033.0	000.1000	0018.6	005.6	195.0	003.8000	0141.9	049.1	52.43
034.0	000.1000	0018.5	005.6	194.9	003.8000	0142.0	049.2	52.43
035.0	000.1000	0018.3	005.6	194.8	003.8000	0142.2	049.2	52.42
036.0	000.1000	0018.2	005.6	194.7	003.8000	0142.4	049.2	52.42
037.0	000.1000	0018.0	005.6	194.5	003.8000	0142.5	049.3	52.41
038.0	000.1000	0017.9	005.6	194.4	003.8000	0142.7	049.3	52.41
039.0	000.1000	0017.7	005.6	194.3	003.8000	0142.8	049.3	52.40
040.0	000.1000	0017.4	005.6	194.2	003.8000	0143.0	049.4	52.39
041.0	000.1000	0017.0	005.6	194.1	003.8000	0143.1	049.4	52.38

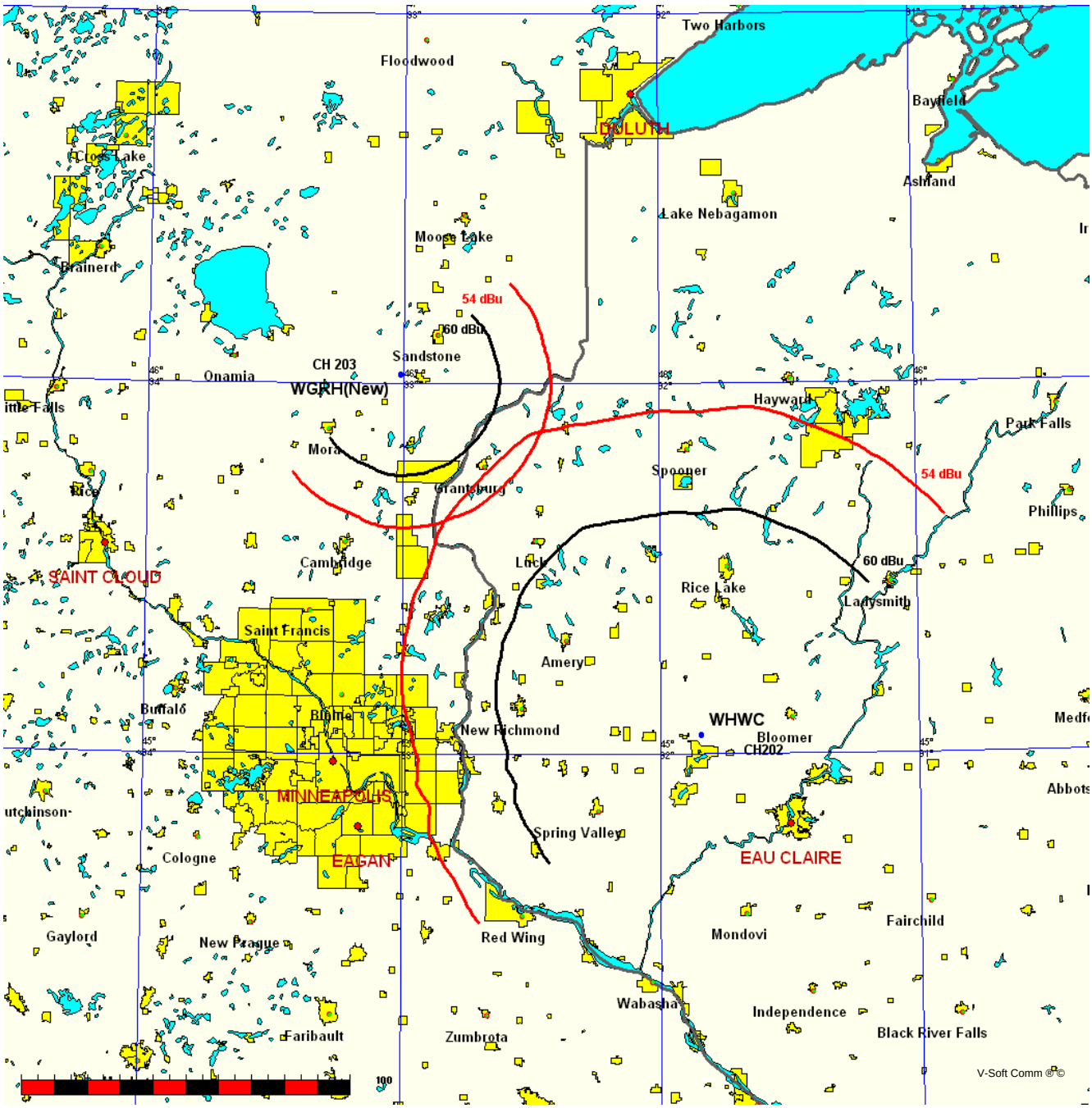
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
042.0	000.1000	0016.6	005.6	194.0	003.8000	0143.3	049.5	52.37
043.0	000.1000	0016.3	005.6	193.9	003.8000	0143.4	049.5	52.36
044.0	000.1000	0016.1	005.6	193.8	003.8000	0143.6	049.6	52.35
045.0	000.1000	0016.0	005.6	193.7	003.8000	0143.7	049.6	52.34
046.0	000.1000	0016.0	005.6	193.6	003.8000	0143.9	049.7	52.32
047.0	000.1000	0016.1	005.6	193.5	003.8000	0144.0	049.7	52.31
048.0	000.1000	0016.1	005.6	193.4	003.8000	0144.2	049.8	52.30
049.0	000.1000	0016.2	005.6	193.4	003.8000	0144.3	049.8	52.28
050.0	000.1000	0016.3	005.6	193.3	003.8000	0144.4	049.9	52.26
051.0	000.1000	0016.6	005.6	193.2	003.8000	0144.5	050.0	52.25
052.0	000.1000	0016.9	005.6	193.1	003.8000	0144.7	050.0	52.23
053.0	000.1000	0016.9	005.6	193.0	003.8000	0144.8	050.1	52.21
054.0	000.1000	0016.7	005.6	192.9	003.8000	0144.9	050.1	52.19
055.0	000.1000	0016.5	005.6	192.8	003.8000	0145.0	050.2	52.17
056.0	000.1000	0016.3	005.6	192.7	003.8000	0145.1	050.3	52.15
057.0	000.1000	0016.4	005.6	192.7	003.8000	0145.2	050.3	52.13
058.0	000.1000	0016.7	005.6	192.6	003.8000	0145.2	050.4	52.11
059.0	000.1000	0017.1	005.6	192.5	003.8000	0145.3	050.5	52.08
060.0	000.1000	0017.4	005.6	192.4	003.8000	0145.4	050.6	52.06
061.0	000.1000	0017.5	005.6	192.4	003.8000	0145.5	050.6	52.04
062.0	000.1000	0017.4	005.6	192.3	003.8000	0145.6	050.7	52.01
063.0	000.1000	0017.1	005.6	192.2	003.8000	0145.6	050.8	51.98
064.0	000.1000	0016.6	005.6	192.1	003.8000	0145.7	050.9	51.96
065.0	000.1000	0016.1	005.6	192.1	003.8000	0145.8	050.9	51.93
066.0	000.1000	0015.8	005.6	192.0	003.8000	0145.8	051.0	51.90
067.0	000.1000	0015.6	005.6	192.0	003.8000	0145.9	051.1	51.88
068.0	000.1000	0015.6	005.6	191.9	003.8000	0145.9	051.2	51.85
069.0	000.1000	0015.7	005.6	191.8	003.8000	0146.0	051.3	51.82
070.0	000.1000	0015.9	005.6	191.8	003.8000	0146.0	051.3	51.79
071.0	000.1000	0016.3	005.6	191.7	003.8000	0146.1	051.4	51.76
072.0	000.1000	0016.6	005.6	191.7	003.8000	0146.2	051.5	51.73
073.0	000.1000	0017.0	005.6	191.6	003.8000	0146.2	051.6	51.70
074.0	000.1000	0017.2	005.6	191.6	003.8000	0146.2	051.7	51.67
075.0	000.1000	0017.3	005.6	191.5	003.8000	0146.3	051.8	51.64
076.0	000.1000	0017.4	005.6	191.5	003.8000	0146.3	051.9	51.60
077.0	000.1000	-0027.0	005.6	191.4	003.8000	0146.4	051.9	51.57

Minnesota Public Radio
WGRH(New) v. WHWC

FMCommander Single Allocation Study - 10-08-2009 - FCC NGDC 30 Sec
WGRH(New)'s Overlaps (In= 9.18 km, Out= 24.94 km)

WGRH(New) CH 203 A
Lat= 46 01 28.2, Lng= 93 01 21.3
3.8 kW 128.7 M HAAT, 451.7 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WHWC CH 202 C1 DA BLED19980904KB
Lat= 45 02 49.0, Lng= 91 51 47.0
71.0 kW 320 M HAAT, 625 M COR
Prot.= 60 dBu, Intef.= 54 dBu



10-08-2009 FCC NGDC 30 Sec Terrain Data FMOver Analysis

WGRH(New)
Channel = 203A
Max ERP = 3.8 kW
RCAMSL = 451.7 M
N. Lat. 46 01 28.2
W. Lng. 93 01 21.3
Protected
60 dBu

WHWC BLED19980904KB
Channel = 202C1
Max ERP = 71 kW
RCAMSL = 625 M
N. Lat. 45 02 49.0
W. Lng. 91 51 47.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
080.0	003.8000	0135.0	029.1	331.8	068.9822	0328.4	129.4	47.30	
081.0	003.8000	0136.0	029.2	331.8	069.0154	0328.5	128.9	47.42	
082.0	003.8000	0136.9	029.2	331.7	069.0665	0328.6	128.4	47.54	
083.0	003.8000	0137.9	029.3	331.7	069.1192	0328.8	127.9	47.66	
084.0	003.8000	0139.0	029.4	331.6	069.1684	0328.9	127.4	47.78	
085.0	003.8000	0139.8	029.5	331.6	069.2387	0329.1	126.9	47.91	
086.0	003.8000	0140.5	029.6	331.5	069.3185	0329.3	126.4	48.03	
087.0	003.8000	0141.1	029.6	331.4	069.4088	0329.5	125.9	48.15	
088.0	003.8000	0141.6	029.7	331.3	069.5044	0329.8	125.4	48.28	
089.0	003.8000	0142.2	029.7	331.2	069.6052	0330.0	124.9	48.40	
090.0	003.8000	0142.9	029.8	331.1	069.7083	0330.3	124.4	48.52	
091.0	003.8000	0144.1	029.9	331.1	069.7916	0330.4	123.9	48.65	
092.0	003.8000	0145.3	030.0	331.0	069.8808	0330.6	123.4	48.78	
093.0	003.8000	0146.6	030.2	330.9	069.9753	0330.8	122.9	48.91	
094.0	003.8000	0147.2	030.2	330.8	070.1002	0331.1	122.4	49.03	
095.0	003.8000	0147.5	030.3	330.7	070.2480	0331.4	122.0	49.15	
096.0	003.8000	0147.5	030.3	330.5	070.4080	0331.7	121.5	49.27	
097.0	003.8000	0147.5	030.3	330.4	070.5778	0331.9	121.1	49.39	
098.0	003.8000	0147.3	030.2	330.2	070.7583	0332.2	120.7	49.50	
099.0	003.8000	0147.6	030.3	330.1	070.9283	0332.3	120.3	49.62	
100.0	003.8000	0147.9	030.3	329.9	070.9628	0332.5	119.9	49.73	
101.0	003.8000	0148.3	030.3	329.8	070.8971	0332.6	119.4	49.83	
102.0	003.8000	0148.2	030.3	329.6	070.8231	0332.7	119.1	49.92	
103.0	003.8000	0147.8	030.3	329.4	070.7424	0332.7	118.7	49.99	
104.0	003.8000	0147.4	030.2	329.2	070.6602	0332.6	118.4	50.07	
105.0	003.8000	0147.2	030.2	329.0	070.5792	0332.5	118.0	50.14	
106.0	003.8000	0147.5	030.3	328.8	070.5038	0332.4	117.6	50.23	
107.0	003.8000	0148.1	030.3	328.7	070.4296	0332.2	117.2	50.31	
108.0	003.8000	0148.5	030.4	328.5	070.3521	0332.0	116.8	50.39	
109.0	003.8000	0148.9	030.4	328.3	070.2713	0331.8	116.5	50.46	
110.0	003.8000	0149.1	030.4	328.1	070.1863	0331.5	116.1	50.53	
111.0	003.8000	0149.0	030.4	327.9	070.0964	0331.2	115.8	50.58	
112.0	003.8000	0148.7	030.4	327.7	070.0032	0330.9	115.5	50.64	
113.0	003.8000	0148.3	030.3	327.4	069.9071	0330.6	115.3	50.68	
114.0	003.8000	0147.9	030.3	327.2	069.8100	0330.2	115.0	50.73	
115.0	003.8000	0147.6	030.3	327.0	069.7130	0329.9	114.8	50.77	
116.0	003.8000	0147.5	030.3	326.7	069.6162	0329.6	114.5	50.82	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
117.0	003.8000	0147.5	030.3	326.5	069.5195	0329.3	114.2	50.87
118.0	003.8000	0147.6	030.3	326.3	069.4218	0329.0	114.0	50.91
119.0	003.8000	0147.5	030.3	326.0	069.3221	0328.7	113.7	50.95
120.0	003.8000	0147.5	030.3	325.8	069.2209	0328.4	113.5	50.99
121.0	003.8000	0147.5	030.3	325.6	069.1194	0328.1	113.3	51.03
122.0	003.8000	0147.7	030.3	325.3	069.0181	0327.9	113.1	51.07
123.0	003.8000	0147.9	030.3	325.1	068.9158	0327.6	112.8	51.11
124.0	003.8000	0148.0	030.3	324.8	068.8117	0327.2	112.6	51.14
125.0	003.8000	0148.0	030.3	324.6	068.7056	0326.9	112.5	51.17
126.0	003.8000	0148.0	030.3	324.3	068.5986	0326.6	112.3	51.19
127.0	003.8000	0148.0	030.3	324.1	068.4911	0326.2	112.1	51.21
128.0	003.8000	0148.1	030.3	323.8	068.3829	0325.9	112.0	51.23
129.0	003.8000	0148.0	030.3	323.5	068.2734	0325.5	111.9	51.24
130.0	003.8000	0147.9	030.3	323.3	068.1634	0325.2	111.7	51.25
131.0	003.8000	0147.9	030.3	323.0	068.0530	0324.9	111.6	51.26
132.0	003.8000	0147.9	030.3	322.7	067.9423	0324.6	111.5	51.27
133.0	003.8000	0147.9	030.3	322.5	067.8311	0324.4	111.4	51.28
134.0	003.8000	0147.8	030.3	322.2	067.7191	0324.3	111.4	51.29
135.0	003.8000	0147.7	030.3	321.9	067.6073	0324.2	111.3	51.29
136.0	003.8000	0147.9	030.3	321.7	067.4954	0324.1	111.2	51.30
137.0	003.8000	0148.0	030.3	321.4	067.3834	0324.0	111.2	51.30
138.0	003.8000	0148.0	030.3	321.1	067.2710	0324.0	111.2	51.30
139.0	003.8000	0147.9	030.3	320.9	067.1585	0323.9	111.2	51.30
140.0	003.8000	0147.7	030.3	320.6	067.0462	0323.9	111.2	51.29
141.0	003.8000	0147.7	030.3	320.3	066.9340	0323.9	111.2	51.28
142.0	003.8000	0147.8	030.3	320.0	066.8220	0323.8	111.2	51.26
143.0	003.8000	0148.0	030.3	319.8	066.8039	0323.7	111.2	51.26
144.0	003.8000	0148.3	030.3	319.5	066.8039	0323.5	111.2	51.25
145.0	003.8000	0148.4	030.3	319.2	066.8039	0323.2	111.2	51.23
146.0	003.8000	0148.6	030.4	319.0	066.8039	0322.9	111.3	51.20
147.0	003.8000	0148.8	030.4	318.7	066.8039	0322.6	111.3	51.17
148.0	003.8000	0149.3	030.4	318.4	066.8039	0322.1	111.4	51.15
149.0	003.8000	0149.9	030.5	318.1	066.8039	0321.5	111.4	51.11
150.0	003.8000	0150.5	030.5	317.9	066.8039	0320.9	111.5	51.08
151.0	003.8000	0150.9	030.6	317.6	066.8039	0320.3	111.6	51.03
152.0	003.8000	0150.9	030.6	317.3	066.8039	0319.6	111.7	50.97
153.0	003.8000	0150.7	030.6	317.1	066.8039	0318.9	111.8	50.90
154.0	003.8000	0150.2	030.5	316.8	066.8039	0318.3	112.0	50.83
155.0	003.8000	0149.8	030.5	316.6	066.8039	0317.7	112.2	50.75
156.0	003.8000	0149.6	030.5	316.3	066.8039	0317.2	112.4	50.68
157.0	003.8000	0149.4	030.4	316.1	066.8039	0316.8	112.6	50.62
158.0	003.8000	0149.1	030.4	315.8	066.8039	0316.5	112.9	50.55
159.0	003.8000	0148.7	030.4	315.6	066.8039	0316.2	113.1	50.48
160.0	003.8000	0148.6	030.4	315.4	066.8039	0316.1	113.3	50.42
161.0	003.8000	0148.7	030.4	315.1	066.8039	0316.1	113.6	50.36
162.0	003.8000	0148.9	030.4	314.9	066.7032	0316.3	113.8	50.31
163.0	003.8000	0149.5	030.5	314.6	066.4994	0316.5	114.0	50.25
164.0	003.8000	0150.5	030.5	314.4	066.2898	0316.8	114.2	50.20
165.0	003.8000	0151.4	030.6	314.1	066.0826	0317.3	114.4	50.16
166.0	003.8000	0151.9	030.7	313.9	065.8888	0317.8	114.6	50.10
167.0	003.8000	0151.7	030.7	313.7	065.7098	0318.2	114.9	50.03

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
168.0	003.8000	0151.3	030.6	313.5	065.5407	0318.6	115.2	49.96
169.0	003.8000	0150.8	030.6	313.3	065.3796	0319.0	115.6	49.87
170.0	003.8000	0150.3	030.5	313.1	065.2198	0319.4	115.9	49.79
171.0	003.8000	0150.1	030.5	312.9	065.0586	0319.8	116.3	49.71
172.0	003.8000	0150.0	030.5	312.7	064.8979	0320.1	116.6	49.63
173.0	003.8000	0150.0	030.5	312.5	064.7373	0320.4	117.0	49.55
174.0	003.8000	0150.1	030.5	312.3	064.5800	0320.5	117.3	49.46
175.0	003.8000	0149.8	030.5	312.1	064.4329	0320.7	117.7	49.37
176.0	003.8000	0149.8	030.5	311.9	064.2862	0320.9	118.1	49.28
177.0	003.8000	0150.0	030.5	311.7	064.1335	0321.0	118.4	49.19
178.0	003.8000	0149.9	030.5	311.6	063.9962	0321.1	118.8	49.10
179.0	003.8000	0149.7	030.5	311.4	063.8622	0321.2	119.2	49.00
180.0	003.8000	0149.7	030.5	311.2	063.7290	0321.3	119.6	48.90
181.0	003.8000	0149.6	030.5	311.1	063.6030	0321.4	120.0	48.80
182.0	003.8000	0149.6	030.5	310.9	063.4751	0321.5	120.4	48.70
183.0	003.8000	0149.8	030.5	310.8	063.3480	0321.6	120.9	48.61
184.0	003.8000	0149.8	030.5	310.6	063.2287	0321.7	121.3	48.51
185.0	003.8000	0149.5	030.5	310.5	063.1216	0321.8	121.7	48.40
186.0	003.8000	0149.2	030.4	310.4	063.0213	0321.8	122.2	48.30
187.0	003.8000	0148.8	030.4	310.2	062.9251	0321.9	122.6	48.19
188.0	003.8000	0148.6	030.4	310.1	062.8278	0321.9	123.1	48.09
189.0	003.8000	0148.1	030.3	310.0	062.7436	0322.0	123.6	47.98
190.0	003.8000	0147.4	030.2	309.9	062.6480	0322.1	124.1	47.86
191.0	003.8000	0146.7	030.2	309.8	062.5574	0322.1	124.6	47.75
192.0	003.8000	0145.8	030.1	309.8	062.4753	0322.1	125.1	47.63
193.0	003.8000	0144.8	030.0	309.7	062.4089	0322.2	125.6	47.52
194.0	003.8000	0143.3	029.9	309.6	062.3612	0322.2	126.1	47.40
195.0	003.8000	0141.8	029.7	309.6	062.3233	0322.2	126.6	47.28
196.0	003.8000	0140.3	029.6	309.6	062.2926	0322.2	127.2	47.16
197.0	003.8000	0139.1	029.4	309.5	062.2506	0322.2	127.7	47.05
198.0	003.8000	0138.2	029.4	309.5	062.2009	0322.2	128.2	46.93
199.0	003.8000	0137.3	029.3	309.5	062.1539	0322.3	128.7	46.82
200.0	003.8000	0118.7	027.6	310.1	062.8151	0322.0	129.7	46.62

10-08-2009 FCC NGDC 30 Sec Terrain Data

WHWC BLED19980904KB
Channel = 202C1
Max ERP = 71 kW
RCAMSL = 625 M
N. Lat. 45 02 49.0
W. Lng. 91 51 47.0
Protected
60 dBu

WGRH(New)
Channel = 203A
Max ERP = 3.8 kW
RCAMSL = 451.7 M
N. Lat. 46 01 28.2
W. Lng. 93 01 21.3
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
261.0	024.2150	0320.5	059.7	164.9	003.8000	0151.4	122.2	31.85	
262.0	023.3114	0323.5	059.6	164.8	003.8000	0151.2	121.2	32.03	
263.0	022.4249	0326.2	059.4	164.6	003.8000	0151.1	120.2	32.22	
264.0	021.5557	0329.1	059.2	164.4	003.8000	0151.0	119.2	32.40	
265.0	020.7036	0331.3	059.0	164.3	003.8000	0150.8	118.2	32.58	
266.0	021.0115	0333.5	059.2	164.3	003.8000	0150.8	117.1	32.78	
267.0	021.3216	0335.2	059.5	164.3	003.8000	0150.8	116.0	32.98	
268.0	021.6340	0336.7	059.8	164.3	003.8000	0150.9	115.0	33.19	
269.0	021.9487	0337.6	059.9	164.3	003.8000	0150.8	113.9	33.39	
270.0	022.2656	0338.4	060.1	164.3	003.8000	0150.8	112.8	33.60	
271.0	022.9870	0339.2	060.5	164.3	003.8000	0150.8	111.7	33.82	
272.0	023.7200	0339.7	060.8	164.3	003.8000	0150.8	110.6	34.05	
273.0	024.4644	0340.4	061.2	164.3	003.8000	0150.8	109.5	34.28	
274.0	025.2203	0341.3	061.5	164.3	003.8000	0150.8	108.4	34.52	
275.0	025.9878	0342.1	061.9	164.3	003.8000	0150.8	107.2	34.77	
276.0	026.7667	0343.0	062.2	164.3	003.8000	0150.8	106.1	35.03	
277.0	027.5572	0343.3	062.6	164.2	003.8000	0150.7	105.0	35.29	
278.0	028.3591	0343.0	062.8	164.1	003.8000	0150.6	103.8	35.54	
279.0	029.1725	0342.3	063.0	164.0	003.8000	0150.5	102.7	35.80	
280.0	029.9975	0341.3	063.3	163.8	003.8000	0150.3	101.7	36.07	
281.0	030.9276	0339.8	063.5	163.6	003.8000	0150.1	100.6	36.33	
282.0	031.8719	0338.7	063.7	163.5	003.8000	0149.9	099.5	36.60	
283.0	032.8304	0337.3	063.9	163.3	003.8000	0149.7	098.4	36.88	
284.0	033.8031	0335.5	064.0	163.0	003.8000	0149.5	097.4	37.15	
285.0	034.7900	0334.2	064.2	162.8	003.8000	0149.4	096.3	37.43	
286.0	035.7911	0332.6	064.4	162.5	003.8000	0149.2	095.3	37.71	
287.0	036.8064	0331.0	064.6	162.2	003.8000	0149.0	094.2	37.99	
288.0	037.8359	0329.4	064.7	161.9	003.8000	0148.9	093.2	38.27	
289.0	038.8796	0327.0	064.8	161.5	003.8000	0148.8	092.3	38.54	
290.0	039.9375	0324.4	064.9	161.1	003.8000	0148.7	091.3	38.81	
291.0	041.1176	0322.6	065.1	160.8	003.8000	0148.7	090.3	39.09	
292.0	042.3149	0321.7	065.3	160.4	003.8000	0148.7	089.3	39.38	
293.0	043.5293	0322.0	065.6	160.1	003.8000	0148.6	088.3	39.69	
294.0	044.7610	0322.0	065.9	159.7	003.8000	0148.6	087.2	39.99	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
295.0	046.0098	0321.1	066.1	159.2	003.8000	0148.7	086.3	40.28
296.0	047.2758	0318.6	066.2	158.7	003.8000	0148.8	085.4	40.54
297.0	048.5590	0314.9	066.2	158.2	003.8000	0149.0	084.6	40.78
298.0	049.8593	0311.1	066.2	157.6	003.8000	0149.2	083.9	41.02
299.0	051.1769	0308.3	066.2	157.0	003.8000	0149.4	083.1	41.26
300.0	052.5116	0306.5	066.4	156.4	003.8000	0149.5	082.3	41.50
301.0	053.4931	0305.9	066.5	155.8	003.8000	0149.6	081.5	41.75
302.0	054.4837	0306.6	066.7	155.2	003.8000	0149.7	080.6	42.02
303.0	055.4834	0308.5	067.1	154.6	003.8000	0149.9	079.7	42.30
304.0	056.4921	0311.3	067.5	154.1	003.8000	0150.2	078.8	42.60
305.0	057.5100	0314.8	067.9	153.5	003.8000	0150.5	077.8	42.92
306.0	058.5369	0318.2	068.3	152.8	003.8000	0150.7	076.9	43.22
307.0	059.5730	0320.8	068.7	152.2	003.8000	0150.9	076.0	43.50
308.0	060.6181	0322.1	069.0	151.4	003.8000	0150.9	075.3	43.73
309.0	061.6723	0322.3	069.2	150.6	003.8000	0150.7	074.6	43.93
310.0	062.7356	0322.0	069.3	149.8	003.8000	0150.4	074.1	44.09
311.0	063.5390	0321.4	069.4	148.9	003.8000	0149.8	073.6	44.22
312.0	064.3476	0320.8	069.5	148.1	003.8000	0149.3	073.1	44.33
313.0	065.1612	0319.5	069.5	147.2	003.8000	0148.9	072.8	44.43
314.0	065.9800	0317.5	069.5	146.2	003.8000	0148.6	072.5	44.50
315.0	066.8039	0316.2	069.5	145.3	003.8000	0148.4	072.2	44.57
316.0	066.8039	0316.7	069.5	144.3	003.8000	0148.3	072.0	44.64
317.0	066.8039	0318.7	069.7	143.4	003.8000	0148.1	071.7	44.74
318.0	066.8039	0321.2	069.9	142.4	003.8000	0147.9	071.4	44.82
319.0	066.8039	0323.0	070.0	141.5	003.8000	0147.7	071.2	44.88
320.0	066.8039	0323.8	070.1	140.5	003.8000	0147.7	071.1	44.91
321.0	067.2178	0324.0	070.1	139.5	003.8000	0147.8	071.0	44.94
322.0	067.6329	0324.2	070.2	138.5	003.8000	0148.0	071.0	44.96
323.0	068.0493	0324.9	070.3	137.5	003.8000	0148.0	070.9	44.97
324.0	068.4670	0326.1	070.5	136.5	003.8000	0147.9	070.9	44.98
325.0	068.8860	0327.5	070.7	135.5	003.8000	0147.8	070.9	44.97
326.0	069.3062	0328.7	070.8	134.5	003.8000	0147.7	071.0	44.94
327.0	069.7278	0330.0	071.0	133.5	003.8000	0147.8	071.1	44.91
328.0	070.1506	0331.4	071.1	132.5	003.8000	0147.9	071.2	44.88
329.0	070.5746	0332.5	071.3	131.5	003.8000	0147.9	071.4	44.81
330.0	071.0000	0332.4	071.3	130.6	003.8000	0147.9	071.8	44.70
331.0	069.8685	0330.6	071.0	129.7	003.8000	0147.9	072.5	44.48
332.0	068.7462	0327.8	070.7	128.9	003.8000	0148.0	073.3	44.23
333.0	067.6329	0325.2	070.3	128.2	003.8000	0148.1	074.1	43.98
334.0	066.5287	0323.2	070.0	127.4	003.8000	0148.1	074.9	43.72
335.0	065.4336	0321.7	069.7	126.7	003.8000	0148.0	075.7	43.47
336.0	064.3476	0320.3	069.4	126.0	003.8000	0148.0	076.5	43.22
337.0	063.2707	0318.9	069.2	125.3	003.8000	0148.0	077.3	42.96
338.0	062.2028	0317.0	068.9	124.7	003.8000	0148.0	078.2	42.68
339.0	061.1441	0314.5	068.5	124.1	003.8000	0148.0	079.2	42.38
340.0	060.0944	0311.7	068.1	123.5	003.8000	0148.0	080.2	42.08
341.0	060.0944	0309.4	067.9	122.9	003.8000	0147.9	081.0	41.81
342.0	060.0944	0307.2	067.8	122.3	003.8000	0147.8	081.9	41.55
343.0	060.0944	0304.9	067.6	121.8	003.8000	0147.6	082.8	41.27
344.0	060.0944	0303.2	067.5	121.2	003.8000	0147.5	083.7	41.01
345.0	060.0944	0302.6	067.4	120.7	003.8000	0147.5	084.5	40.75

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
346.0	060.0944	0302.5	067.4	120.1	003.8000	0147.5	085.3	40.50
347.0	060.0944	0301.4	067.3	119.6	003.8000	0147.5	086.2	40.24
348.0	060.0944	0299.5	067.2	119.1	003.8000	0147.5	087.2	39.95
349.0	060.0944	0298.4	067.1	118.7	003.8000	0147.6	088.1	39.68
350.0	060.0944	0298.7	067.1	118.2	003.8000	0147.6	089.0	39.42
351.0	060.0944	0299.2	067.2	117.7	003.8000	0147.6	089.9	39.16
352.0	060.0944	0298.6	067.1	117.3	003.8000	0147.5	090.9	38.88
353.0	060.0944	0296.8	067.0	116.9	003.8000	0147.5	091.9	38.58
354.0	060.0944	0294.7	066.8	116.6	003.8000	0147.5	093.0	38.28
355.0	060.0944	0292.9	066.7	116.3	003.8000	0147.5	094.0	37.99
356.0	060.0944	0291.4	066.6	116.0	003.8000	0147.5	095.1	37.69
357.0	060.0944	0289.8	066.4	115.7	003.8000	0147.5	096.2	37.40
358.0	060.0944	0287.9	066.3	115.4	003.8000	0147.6	097.2	37.11
359.0	060.0944	0287.3	066.2	115.2	003.8000	0147.6	098.3	36.83
000.0	060.0944	0287.9	066.3	114.8	003.8000	0147.7	099.3	36.57
001.0	061.1441	0288.6	066.5	114.4	003.8000	0147.8	100.3	36.33
002.0	062.2028	0289.1	066.7	114.1	003.8000	0147.9	101.2	36.08
003.0	063.2707	0289.6	066.9	113.7	003.8000	0148.0	102.2	35.84
004.0	064.3476	0290.2	067.2	113.4	003.8000	0148.1	103.3	35.60
005.0	065.4336	0291.4	067.4	113.0	003.8000	0148.3	104.3	35.36
006.0	066.5287	0292.8	067.7	112.7	003.8000	0148.4	105.3	35.12
007.0	067.6329	0293.5	067.9	112.4	003.8000	0148.6	106.4	34.88
008.0	068.7462	0293.6	068.1	112.1	003.8000	0148.7	107.5	34.64
009.0	069.8685	0293.5	068.3	111.9	003.8000	0148.7	108.6	34.40
010.0	071.0000	0293.3	068.4	111.6	003.8000	0148.8	109.7	34.16
011.0	071.0000	0292.5	068.3	111.5	003.8000	0148.8	110.9	33.92
012.0	071.0000	0291.7	068.3	111.5	003.8000	0148.8	112.1	33.68
013.0	071.0000	0291.3	068.2	111.4	003.8000	0148.9	113.3	33.45
014.0	071.0000	0290.1	068.1	111.3	003.8000	0148.9	114.5	33.22
015.0	071.0000	0288.4	068.0	111.3	003.8000	0148.9	115.7	33.00
016.0	071.0000	0287.2	067.9	111.3	003.8000	0148.9	116.8	32.77
017.0	071.0000	0285.9	067.8	111.3	003.8000	0148.9	118.0	32.55
018.0	071.0000	0284.3	067.7	111.3	003.8000	0148.9	119.2	32.32
019.0	071.0000	0283.5	067.6	111.3	003.8000	0148.9	120.4	32.10
020.0	071.0000	0283.1	067.6	111.3	003.8000	0148.9	121.6	31.88
021.0	071.0000	0292.0	068.3	110.9	003.8000	0149.0	122.7	31.67

CONSENT TO APPLICATION

KBJR License, Inc., licensee of KBJR-TV, Superior, Wisconsin, TV Channel 6, pursuant to Section 73.525(a) of the rules of the Federal Communications Commission, hereby consents to the filing by Minnesota Public Radio of an application for a construction permit for a new noncommercial FM station to serve the community of Hinckley, Minnesota on Channel 203 and confirms that it has no objection to the grant of the application.

KBJR License, Inc.

By: _____
Name: LARRY ERICKSON
Title: DIRECTOR OF ENGINEERING

October 10, 2007

Exhibit #22

ENVIRONMENTAL PROTECTION ACT

Minnesota Public Radio
Minor Modification to Construction Permit
WGRH
BNPED-20071016AHK
Hinckley, Minnesota

October 2009

CH 203A 3.8 kW H & V

The applicant proposes the use of existing registered tower ASR #1025210, constructed in 1990. Since this tower was constructed prior to March, 2001, and the applicant proposes no change to the tower structure or profile, it is exempt from further environmental testing.

The proposed six-bay, circularly polarized antenna will be energized such that it produces 3.8 kW effective radiated power (ERP) in both the horizontal and vertical planes, from a center of radiation of 115.8 meters above ground. Using the formulas expressed in the OET Bulletin, No. 65, August 1997, "Evaluating Compliance with F.C.C. Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", published by the Federal Communication Commission's Office of Science and Engineering, and then by applying a combination of the element and array pattern as defined in E.P.A. study PB85-245868 ("**Engineering Assessment of the Potential Impact of the Federal Radiation Protection Guidance on the AM, FM and TV Broadcast Services**") the predicted level of RF non-ionization emissions at a position of 2 meters above ground (head-height) at the base of the tower for the proposed 6-bay ERI Roto (Type #3) antenna is 0.588 microwatts per square centimeter ($\mu W/cm^2$), which is 0.0588 percent of the maximum for this fenced, locked controlled area.

A search of the FCC's CDBS and ULS databases reveals that there are no other sources of RF emissions on the tower.

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

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