Federal Communications Commission Washington, D.C. 20554	Approved by OMB 3060-0029 (February 2007)	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. BPED - 20070905ACO

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 KMSE	Facility Identifier 83876
2.	Contact Representative (if other than licensee/Permittee) TODD M STANSBURY		Firm or Company Name WILEY REIN LLP
	Telephone Number (include area code) 2027194948		E-Mail Address (if available) TSTANSBURY@WILEYREIN.COM
3.	Is this application being filed in response to a window? If Yes, specify closing date and/or window number:		○ 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:	-
(b) Service Type:	◉ FM ○ TV ○ DTV
(c) Community of License: City: ROCHESTER State: MN	
(d) 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	◉ Yes ○ No

	its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.	
2.	**Eligibility.** Each application must answer "Yes" to one and "No" to two of the three following certifications. An applicant should not submit an explanatory exhibit in connection with these Question 2 "No" responses. The applicant certifies that it is: a. a nonprofit educationl institution; or b. a governmental entity other than a school; or c. a nonprofit educationl 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 educationl television station only, the applicant certifies that the applicant's officers, directors and members of its governing board are broadly representative of the educational, cultural, and civic segments of the principal community to be served.	○ Yes ○ No ◉ N/A
4.	a. The applicant certifies that the Commission has previously granted a broadcast application identified here by file number that found this applicant qualified as a noncommercial educational entity with a qualifying educational program, and that the applicant will use the proposed station to advance a program similar to that the Commission has found qualifying in applicant's previous application. 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	○ Yes ○ No See Explanation in [Exhibit 6]

numbers), and a description of the disposition of the matter. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 C.F.R. Section 1.65, the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.

10.	**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	○ Yes ○ No

	compelling showing that the downgrade would be in the public interest. a. Applicant certifies that the population and area within the proposed service contour (60 dBu (FM) or grade B (TV)) are greater than or equivalent to those authorized.	○ Yes ○ No [Exhibit 9]

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

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 THOMAS J KIGIN	Typed or Printed Title of Person Signing EXECUTIVE VICE PRESIDENT
Signature	Date 9/5/2007

Section VII Preparer's Certification

I certify that I have prepared Section VII (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name KATE MICHLER	Relationship to Applicant (e.g., Consulting Engineer) TECHNICAL CONSULTANT	
Signature	Date 8/24/2007	
Mailing Address DOUG VERNIER TELECOMMUNICATIONS CONSULTANTS 721 WEST 1ST STREET, SUITE A		
City CEDAR FALLS	State or Country (if foreign address) IA	Zip Code 50613-
Telephone Number (include area code) 3192668402	E-Mail Address (if available) KMICHLER@V-SOFT.COM	

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

Section VII - FM Engineering

TECHNICAL SPECIFICATIONS

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

TECH BOX

1.	Channel Number: 204
2.	Class (select one): ○ D ◉ A ○ B1 ○ B ○ C3 ○ C2 ○ C1 ○ C0 ○ C

3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 44 Minutes 2 Seconds 28.1 ◉ North ○ South Longitude: Degrees 92 Minutes 20 Seconds 25.4 ◉ 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: 1029133 ☐ Not Applicable ☐ Notification filed with FAA	
6.	Overall Tower Height Above Ground Level:	302.7 meters
7.	Height of Radiation Center Above Mean Sea Level:	521.8 meters(H) 521.8 meters(V)
8.	Height of Radiation Center Above Ground Level:	142 meters(H) 142 meters(V)
9.	Height of Radiation Center Above Average Terrain:	170.9 meters(H) 170.9 meters(V)
10.	Effective Radiated Power:	0.85 kW(H) 0.85 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 12-15.

13.	**Main Studio Location.** The proposed main studio location complies with 47 C.F.R. Section 73.1125.	◉ Yes ○ No See Explanation in [Exhibit 13]
14.	**Community Coverage.** The proposed facility complies with 47 C.F.R. Section 73.315. (Channels 221 and above) or 47 C.F.R. Section 73.515 (Channels 220 and below).	◉ Yes ○ No See Explanation in [Exhibit 14]
15.	**Interference.** The proposed facility complies with all of the following applicable rule sections. Check all that apply:	◉ Yes ○ No See Explanation in [Exhibit 15]

Contour Overlap Requirements.

a. ☑ 47 C.F.R. Section 73.509

Exhibit Required. [Exhibit 16]

	Spacing Requirements. b. ☐ 47 C.F.R. Section 73.207 with respect to station(s)	
	Grandfathered Short-Spaced. c. ☐ 47 C.F.R. Section 73.213(a) with respect to station(s) **Exhibit Required.**	[Exhibit 17]
	Contour Protection. d. ☐ 47 C.F.R. Section 73.215(a) with respect to station(s) **Exhibit Required.**	[Exhibit 18]
	Television Channel 6 Protection. e. ☑ 47 C.F.R. Section 73.525 with respect to station(s) **Exhibit Required.**	[Exhibit 19]
16.	**Reserved Channels Above 220.** a. **Availability of Channels.** The proposed facility complies with the assignment requirements of 47 C.F.R. Section 73.203.	○ Yes ○ No See Explanation in [Exhibit 20]
17.	**International Borders.** The proposed antenna location is not within 320 kilometers of the common border between the United States and Canada or Mexico. If "No," specify the country and provide an exhibit of compliance with all provisions of the relevant International Agreement.	◉ Yes ○ No ○ Canada ○ Mexico [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.** 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.	◉ Yes ○ No See Explanation in [Exhibit 22]
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 1
Description: ENGINEERING STATEMENT

Attachment 1

Description
Exhibit #1, Engineering Statement

Exhibit 13
Description: MAIN STUDIO LOCATION

Attachment 13

Description

Exhibit #13, Main Studio Location

Exhibit 14
Description: COMMUNITY COVERAGE

Attachment 14

Description
Exhibit #14, Community Coverage

Exhibit 16
Description: CONTOUR OVERLAP REQUIREMENTS

Attachment 16

Description
Exhibit #16, Contour Overlap Requirements

Exhibit 19
Description: TELEVISION CHANNEL 6 PROTECTION

Attachment 19

Description
Exhibit #19, Television Channel 6 Protection

Exhibit 22
Description: ENVIRONMENTAL PROTECTION ACT

Attachment 22

Description
Exhibit #22, Environmental Protection Act

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

EXHIBIT #1
ENGINEERING STATEMENT

Minnesota Public Radio
Minor Change to Licensed Station
KMSE
BLED-20060814AAK
Rochester, MN

August 2007

CH 204A 0.85 kW H & V Omni

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

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

Exhibit #13 defines the main studio location. The main studio is located in Rochester, MN, the city of license, in compliance with Section 73.1125(a).

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

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

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

Exhibit #19 consists of a letter from the licensee of television channel 6 station KAAL-TV, the only television channel 6 facility within the 235 kilometer cutoff distance from an NCE FM station on Channel 2045. KAAL-TV, LLC. has no objection to the instant proposal. Further study for channel 6 protection was therefore deemed unnecessary.

The applicant proposes the use of registered tower ASR #1029133, constructed in 1986. Since this tower was built before March, 2001 and since no changes are being proposed to the tower structure itself, this application is excluded from environmental processing under 47. C.F.R. Section 1.1306.

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

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

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

Kate Michler

Declaration:

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

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

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

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

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

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

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

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


_____ Katherine A. Michler

Executed on August 24, 2007

EXHIBIT #13
MAIN STUDIO LOCATION

Minnesota Public Radio
Minor Change to Licensed Station
KMSE
BLED-20060814AAK
Rochester, MN

August 2007

CH 204A 0.85 kW H & V Omni

The main studio for KMSE is located within Rochester, Minnesota, the city of license, in compliance with Section 73.1125(a) of the FCC's rules.

EXHIBIT #14
COMMUNITY COVERAGE

Minnesota Public Radio
Minor Change to Licensed Station
KMSE
BLED-20060814AAK
Rochester, MN

August 2007

CH 204A 0.85 kW H & V Omni

KMSE operates on Channel 204, a reserved channel. According to Section 73.515, a minimum field strength of 1 mv/m (60 dBu) must be provided over at least 50% of its community of license or reach 50% of the population within the community. The map on page #2 shows the 60 dBu contour of the proposed KMSE change. Rochester, the city of license, is shown to be within this contour.

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

KMSE(New) - Rochester - 60 dBu Coverage

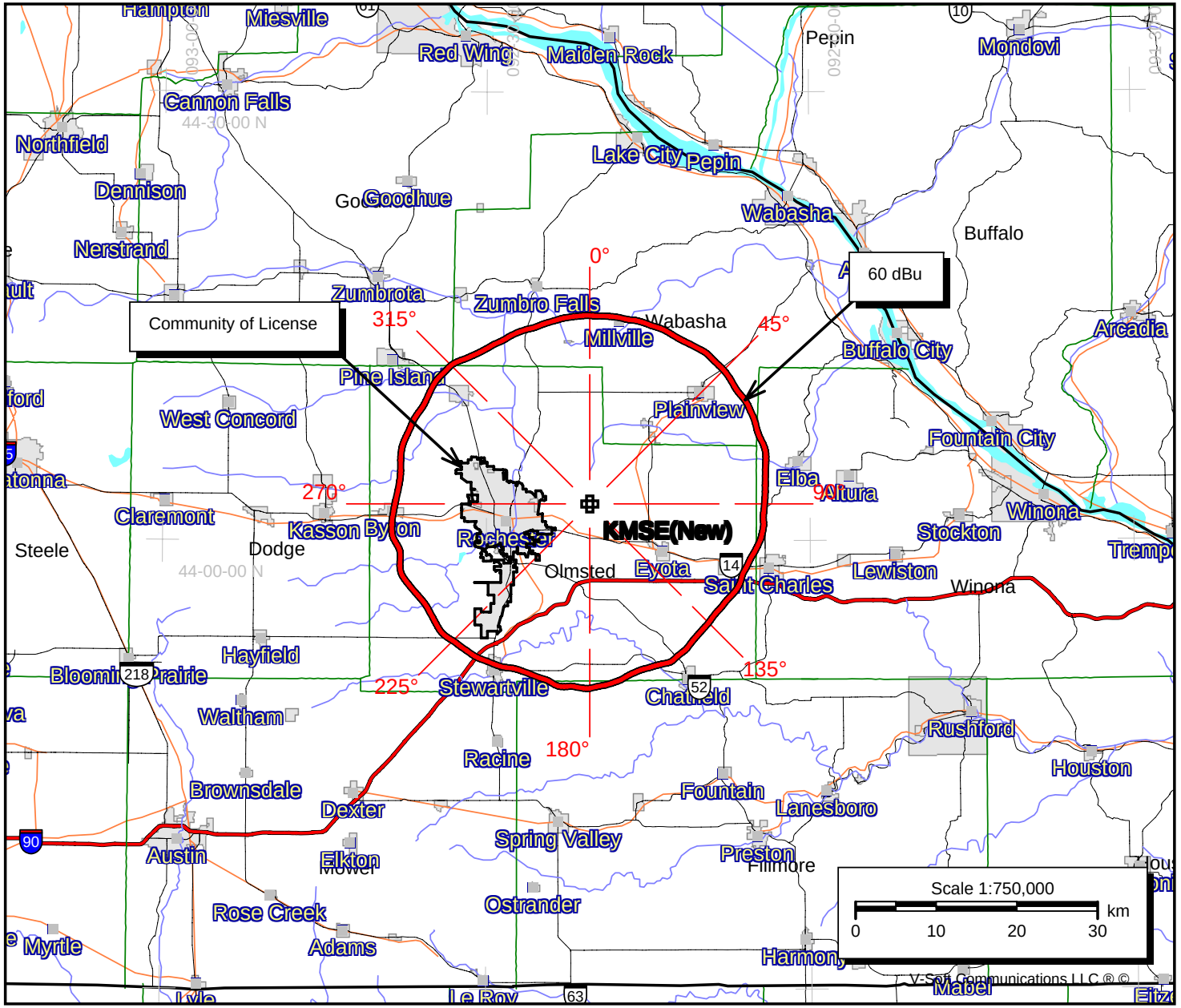
KMSE(New) - Rochester

Latitude: 44-02-28.10 N
Longitude: 092-20-25.40 W
ERP: 0.85 kW
Channel: 204
Frequency: 88.7 MHz
AMSL Height: 522.05 m
HAAT: 170.9 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

Pop = 120,561

8/23/2007

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



N. Lat. = 440228.1 W. Lng. = 922025.4
HAAT and Distance to Contour - FCC Method - NGDC 30 SEC
KMSE - Distance to 60 dBu contour

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	347.8	174.2	0.8500	-0.71	1.000	23.31
045	345.6	176.4	0.8500	-0.71	1.000	23.44
090	373.8	148.2	0.8500	-0.71	1.000	21.64
135	385.5	136.5	0.8500	-0.71	1.000	20.81
180	355.7	166.3	0.8500	-0.71	1.000	22.83
225	336.4	185.6	0.8500	-0.71	1.000	23.96
270	333.5	188.5	0.8500	-0.71	1.000	24.12
315	330.7	191.3	0.8500	-0.71	1.000	24.27

Ave El= 351.12 M HAAT= 170.9 M AMSL= 522 M

Exhibit #16

Minnesota Public Radio
KMSE (New) Minor Change

REFERENCE CH# 204A - 88.7 MHz, Pwr= 0.85 kW, HAAT= 170.9 M, COR= 522 M DISPLAY DATES
44 02 28.1 N Average Protected F(50-50)= 23.11 km DATA 08-23-07
92 20 25.4 W SEARCH 08-23-07

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)
204A KMSE Rochester	LIC _EX MN	0.0 0.0	0.00 BLED20060814AAK	44 02 28.0 92 20 25.0	0.250 171	55.0 522	17.3 Minnesota Public Radio	-78.28*<	-87.42*<
06-2C KAAL Austin	LI _HN MN	235.1 54.6	79.87 BLCT2236	43 37 42.0 93 09 12.0	100.000 320	105.0 696	136.5R Kaal-tv, Llc	-56.6M	
203C1 KBDC Mason City	LIC _VX IA	225.5 44.8	105.95 BLED20061101ACW	43 22 12.0 93 16 27.0	68.000 141	81.6 514	54.2 American Family Associatio	0.32	15.82
201A AP2227 Byron	APP _V_ MN	286.8 106.6	29.19 BNPED20000118AES	44 06 59.0 92 41 22.0	0.170 153	0.9 507	15.5 Pensacola Christian Colleg	4.01	11.93
204A WRFW River Falls	LIC _CN WI	345.2 165.0	97.13 BLED1630	44 53 08.0 92 39 20.0	3.000 25	62.2 351	16.4 Board Of Regents, Universi	11.91	11.36
205C2 WLSU La Crosse	LIC DCX WI	108.3 289.0	82.36 BLED20030624ABF	43 48 17.0 91 22 06.0	8.200 283	43.2 546	28.6 Board Of Regents, Univ. Of	18.08	22.65
204A KLNI Decorah	LIC _CN IA	152.1 332.4	91.89 BLED19931202KA	43 18 35.0 91 48 30.0	0.100 -11	18.6 324	5.6 Minnesota Public Radio	51.36	19.31
207C1 KCMP Northfield	LIC _C_ MN	321.3 140.8	92.70 BLED20060308AIB	44 41 21.0 93 04 21.0	100.000 234	8.7 517	66.0 Minnesota Public Radio	60.53	24.93
257C3 KWNO-FM Rushford	LIC ZCN MN	102.3 282.7	51.02 BLH19950130KC	43 56 32.0 91 43 09.0	11.000 151	2.0 481	12.5 Kage, Inc	11.5R	39.5M
202C1 WHWC Menomonie	LIC DCY WI	18.5 198.9	118.03 BLED19980904KB	45 02 49.0 91 51 47.0	71.000 320	7.7 625	63.6 State Of Wisconsin - Educa	86.97	52.66
201A KRLX Northfield	LIC _CN MN	306.0 125.4	80.11 BLED19851024KG	44 27 39.0 93 09 21.0	0.100 5	0.7 309	5.6 Carleton College	55.19	72.71
205C3 KWVI Waverly	LIC DVX IA	176.6 356.7	139.33 BLED20060417AFI	42 47 21.0 92 14 22.0	20.000 84	55.7 400	35.7 American Family Associatio	61.10	70.02
203A KBEM-FM Minneapolis	LIC _CN MN	325.2 144.5	127.40 BLED813	44 58 38.0 93 15 55.0	2.150 113	37.6 371	24.9 Board Of Education, Specia	66.69	67.97
201A AP2509 Rosemount	APP DVX MN	321.3 140.8	92.70 BNPED20000131AAX	44 41 21.0 93 04 21.0	0.095 85	0.4 367	6.7 Pensacola Christian Colleg	68.87	84.30
206A DKPVL. Postville	CP DCX IA	149.2 329.7	122.95 BPED20060214ABU	43 05 20.0 91 33 54.0	3.000 75	1.8 408	18.1 Postville Chamber Of Comme	99.40	103.14
206A DKPVL Postville	LIC _CX IA	149.2 329.7	122.95 BLED20030312AUW	43 05 20.0 91 33 54.0	0.250 75	1.1 408	9.7 Postville Chamber Of Comme	100.14	111.54
258C KSJN Minneapolis	LIC _CN MN	331.5 150.9	129.06 BLH19910814KH	45 03 30.0 93 07 27.0	100.000 315	2.0 593	12.5 Minnesota Public Radio	28.5R	100.6M
205C1 WOJB Reserve	LIC _CN WI	20.6 201.3	217.90 BLED19820428AH	45 52 16.0 91 20 56.0	100.000 184	91.5 595	61.5 Lac Courte Oreilles Ojibwa	102.98	121.45
203C1 WGNV Milladore	LIC _CN WI	70.5 252.2	209.82 BLED19930628KC	44 38 37.0 89 50 48.0	50.000 178	82.4 532	55.7 Evangel Ministries, Inc.	104.76	120.32

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

HOW TO READ THE FM COMPUTER PRINT-OUT

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

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

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

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

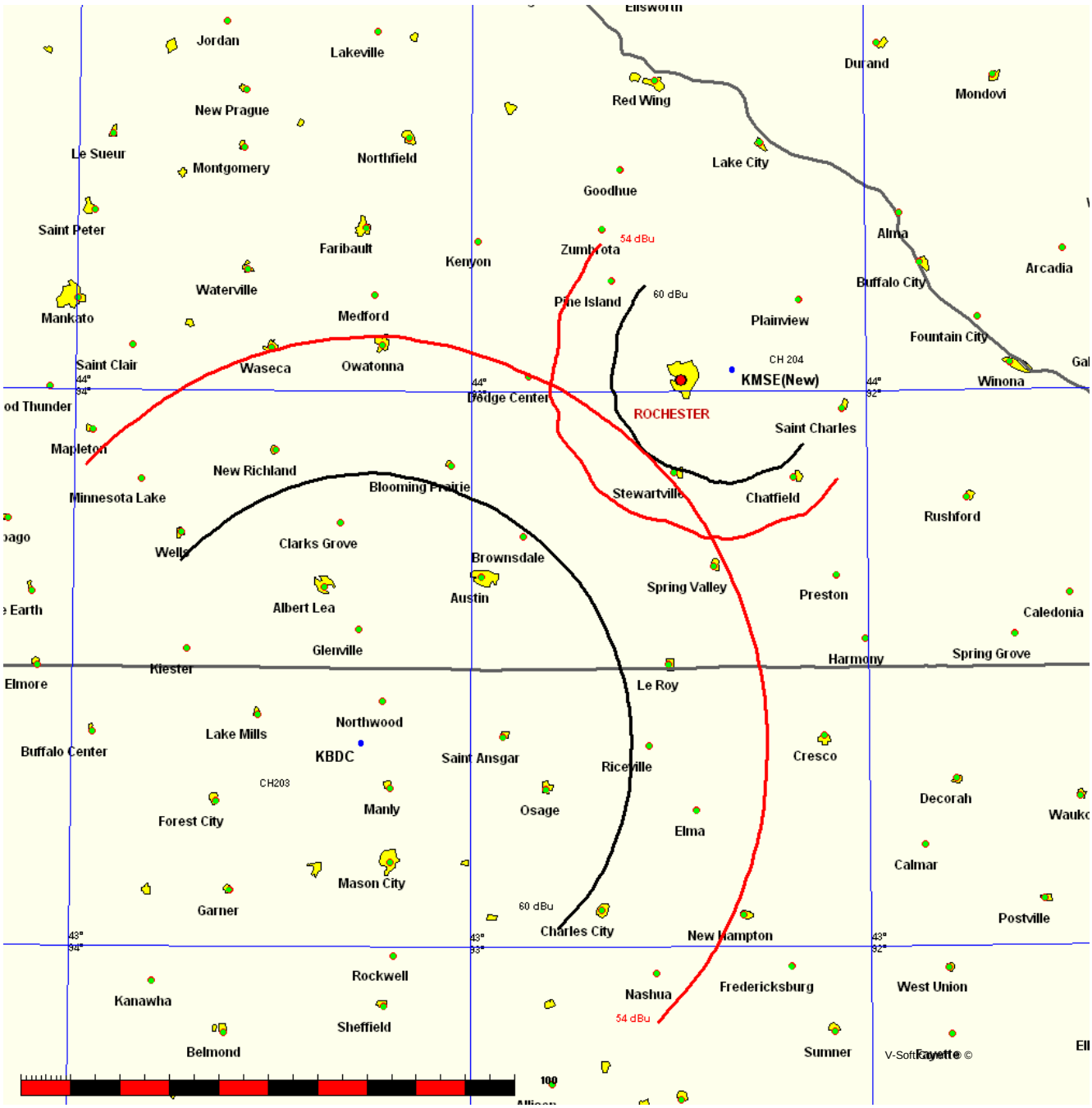
For I.F. relationships the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column follows the **available clear space** separation in kilometers. Minimum separation distances when displayed are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

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

FMCommander Single Allocation Study
08-23-2007

KMSE(New) CH 204 A
0.85 kW 522 M COR
Prot. = 60 dBu
Intef. = 54 dBu

KBDC CH 203 C1 BLED20061101ACW
68.0 kW, 513.5 M COR
Prot. = 60 dBu
Intef. = 54 dBu



KMSE(New)
Channel = 204A
Max ERP = 0.85 kW
RCAMSL = 522 M
N. Lat. 44 02 28.1
W. Lng. 92 20 25.4
Protected
60 dBu

KBDC BLED20061101ACW
Channel = 203C1
Max ERP = 68 kW
RCAMSL = 513.5 M
N. Lat. 43 22 12.0
W. Lng. 93 16 27.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
165.0	000.8500	0147.6	021.6	056.0	068.0000	0147.1	097.2	49.64
166.0	000.8500	0148.4	021.7	056.0	068.0000	0147.1	096.8	49.74
167.0	000.8500	0149.5	021.7	055.9	068.0000	0147.1	096.4	49.84
168.0	000.8500	0151.3	021.9	055.9	068.0000	0147.1	096.0	49.95
169.0	000.8500	0153.2	022.0	055.9	068.0000	0147.1	095.6	50.06
170.0	000.8500	0155.2	022.1	055.9	068.0000	0147.1	095.2	50.17
171.0	000.8500	0156.5	022.2	055.9	068.0000	0147.1	094.8	50.28
172.0	000.8500	0157.5	022.3	055.8	068.0000	0147.1	094.4	50.38
173.0	000.8500	0158.9	022.4	055.7	068.0000	0147.1	094.1	50.49
174.0	000.8500	0160.1	022.4	055.7	068.0000	0147.0	093.7	50.60
175.0	000.8500	0161.1	022.5	055.6	068.0000	0147.0	093.3	50.70
176.0	000.8500	0161.7	022.5	055.5	068.0000	0147.0	092.9	50.80
177.0	000.8500	0162.5	022.6	055.4	068.0000	0147.0	092.6	50.91
178.0	000.8500	0163.4	022.6	055.3	068.0000	0147.0	092.2	51.01
179.0	000.8500	0164.8	022.7	055.2	068.0000	0147.0	091.8	51.12
180.0	000.8500	0166.2	022.8	055.1	068.0000	0147.0	091.4	51.23
181.0	000.8500	0166.8	022.9	055.0	068.0000	0147.0	091.1	51.32
182.0	000.8500	0166.4	022.8	054.8	068.0000	0147.0	090.8	51.41
183.0	000.8500	0165.7	022.8	054.7	068.0000	0146.9	090.5	51.49
184.0	000.8500	0165.1	022.8	054.5	068.0000	0146.9	090.2	51.58
185.0	000.8500	0164.1	022.7	054.3	068.0000	0146.9	089.9	51.65
186.0	000.8500	0164.0	022.7	054.1	068.0000	0146.8	089.7	51.73
187.0	000.8500	0165.5	022.8	054.0	068.0000	0146.8	089.3	51.84
188.0	000.8500	0166.6	022.9	053.9	068.0000	0146.8	089.0	51.93
189.0	000.8500	0167.4	022.9	053.7	068.0000	0146.7	088.6	52.03
190.0	000.8500	0167.1	022.9	053.5	068.0000	0146.7	088.4	52.10
191.0	000.8500	0165.8	022.8	053.3	068.0000	0146.6	088.2	52.16
192.0	000.8500	0163.5	022.7	053.1	068.0000	0146.5	088.0	52.20
193.0	000.8500	0161.1	022.5	052.8	068.0000	0146.4	087.9	52.24
194.0	000.8500	0160.1	022.4	052.6	068.0000	0146.4	087.6	52.30
195.0	000.8500	0159.9	022.4	052.4	068.0000	0146.3	087.4	52.36
196.0	000.8500	0159.7	022.4	052.2	068.0000	0146.2	087.2	52.43
197.0	000.8500	0159.4	022.4	051.9	068.0000	0146.1	087.0	52.49
198.0	000.8500	0158.9	022.4	051.7	068.0000	0146.0	086.8	52.54
199.0	000.8500	0158.5	022.3	051.5	068.0000	0146.0	086.6	52.60
200.0	000.8500	0158.2	022.3	051.3	068.0000	0145.9	086.4	52.65
201.0	000.8500	0158.2	022.3	051.1	068.0000	0145.8	086.2	52.71

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
202.0	000.8500	0158.4	022.3	050.8	068.0000	0145.7	086.0	52.76
203.0	000.8500	0158.7	022.3	050.6	068.0000	0145.6	085.8	52.82
204.0	000.8500	0159.2	022.4	050.4	068.0000	0145.6	085.6	52.88
205.0	000.8500	0160.4	022.5	050.2	068.0000	0145.5	085.3	52.95
206.0	000.8500	0162.5	022.6	050.0	068.0000	0145.4	085.0	53.03
207.0	000.8500	0164.9	022.7	049.8	068.0000	0145.4	084.7	53.12
208.0	000.8500	0166.9	022.9	049.6	068.0000	0145.3	084.5	53.19
209.0	000.8500	0168.4	023.0	049.3	068.0000	0145.2	084.2	53.26
210.0	000.8500	0169.7	023.0	049.1	068.0000	0145.2	084.0	53.32
211.0	000.8500	0170.8	023.1	048.9	068.0000	0145.1	083.8	53.38
212.0	000.8500	0172.0	023.2	048.6	068.0000	0145.0	083.6	53.43
213.0	000.8500	0173.3	023.3	048.4	068.0000	0145.0	083.5	53.48
214.0	000.8500	0174.8	023.3	048.1	068.0000	0144.9	083.3	53.54
215.0	000.8500	0176.6	023.5	047.8	068.0000	0144.9	083.1	53.60
216.0	000.8500	0178.2	023.5	047.6	068.0000	0144.8	082.9	53.65
217.0	000.8500	0179.5	023.6	047.3	068.0000	0144.8	082.7	53.69
218.0	000.8500	0180.3	023.7	047.0	068.0000	0144.7	082.6	53.73
219.0	000.8500	0180.7	023.7	046.8	068.0000	0144.7	082.5	53.75
220.0	000.8500	0181.2	023.7	046.5	068.0000	0144.6	082.4	53.77
221.0	000.8500	0182.1	023.8	046.2	068.0000	0144.5	082.3	53.80
222.0	000.8500	0183.1	023.8	045.9	068.0000	0144.5	082.3	53.82
223.0	000.8500	0183.8	023.9	045.6	068.0000	0144.4	082.2	53.84
224.0	000.8500	0184.3	023.9	045.3	068.0000	0144.3	082.1	53.85
225.0	000.8500	0185.6	024.0	045.0	068.0000	0144.3	082.1	53.87
226.0	000.8500	0187.7	024.1	044.8	068.0000	0144.2	082.0	53.90
227.0	000.8500	0189.6	024.2	044.5	068.0000	0144.1	081.9	53.93
228.0	000.8500	0190.9	024.2	044.2	068.0000	0144.1	081.8	53.94
229.0	000.8500	0191.4	024.3	043.9	068.0000	0144.0	081.8	53.94
230.0	000.8500	0191.2	024.3	043.6	068.0000	0144.0	081.9	53.92
231.0	000.8500	0190.2	024.2	043.3	068.0000	0143.9	082.0	53.89
232.0	000.8500	0188.8	024.1	043.0	068.0000	0143.9	082.1	53.84
233.0	000.8500	0187.5	024.1	042.7	068.0000	0143.8	082.2	53.80
234.0	000.8500	0186.5	024.0	042.4	068.0000	0143.7	082.4	53.76
235.0	000.8500	0185.7	024.0	042.2	068.0000	0143.7	082.5	53.72
236.0	000.8500	0184.9	023.9	041.9	068.0000	0143.6	082.6	53.67
237.0	000.8500	0184.1	023.9	041.6	068.0000	0143.5	082.8	53.63
238.0	000.8500	0183.8	023.9	041.3	068.0000	0143.4	082.9	53.58
239.0	000.8500	0184.1	023.9	041.1	068.0000	0143.3	083.0	53.55
240.0	000.8500	0185.1	023.9	040.8	068.0000	0143.2	083.1	53.52
241.0	000.8500	0186.5	024.0	040.5	068.0000	0143.1	083.1	53.50
242.0	000.8500	0188.2	024.1	040.2	068.0000	0143.0	083.2	53.47
243.0	000.8500	0190.0	024.2	039.9	068.0000	0142.9	083.3	53.45
244.0	000.8500	0192.0	024.3	039.6	068.0000	0142.8	083.3	53.43
245.0	000.8500	0194.0	024.4	039.3	068.0000	0142.7	083.4	53.40
246.0	000.8500	0195.8	024.5	039.0	068.0000	0142.6	083.5	53.37
247.0	000.8500	0198.0	024.7	038.7	068.0000	0142.5	083.6	53.34
248.0	000.8500	0200.0	024.8	038.4	068.0000	0142.4	083.7	53.30
249.0	000.8500	0201.6	024.9	038.1	068.0000	0142.3	083.8	53.26
250.0	000.8500	0202.1	024.9	037.9	068.0000	0142.3	084.0	53.19
251.0	000.8500	0201.2	024.8	037.6	068.0000	0142.2	084.3	53.11
252.0	000.8500	0199.3	024.7	037.4	068.0000	0142.2	084.6	53.01

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
253.0	000.8500	0196.6	024.6	037.2	068.0000	0142.1	085.0	52.90
254.0	000.8500	0193.7	024.4	037.1	068.0000	0142.1	085.4	52.78
255.0	000.8500	0191.6	024.3	036.9	068.0000	0142.0	085.7	52.68
256.0	000.8500	0190.3	024.2	036.7	068.0000	0142.0	086.1	52.58
257.0	000.8500	0191.0	024.3	036.5	068.0000	0142.0	086.3	52.51
258.0	000.8500	0193.2	024.4	036.2	068.0000	0141.9	086.5	52.46
259.0	000.8500	0195.8	024.5	035.9	068.0000	0141.9	086.7	52.40
260.0	000.8500	0198.5	024.7	035.7	068.0000	0141.8	086.8	52.35
261.0	000.8500	0199.7	024.7	035.4	068.0000	0141.8	087.1	52.27
262.0	000.8500	0199.8	024.8	035.2	068.0000	0141.8	087.4	52.18
263.0	000.8500	0198.9	024.7	035.0	068.0000	0141.8	087.7	52.08
264.0	000.8500	0198.0	024.6	034.9	068.0000	0141.8	088.1	51.98
265.0	000.8500	0196.9	024.6	034.7	068.0000	0141.8	088.5	51.87
266.0	000.8500	0195.3	024.5	034.6	068.0000	0141.8	088.8	51.76
267.0	000.8500	0193.3	024.4	034.5	068.0000	0141.8	089.2	51.65
268.0	000.8500	0191.7	024.3	034.4	068.0000	0141.8	089.6	51.53
269.0	000.8500	0190.1	024.2	034.2	068.0000	0141.8	090.0	51.42
270.0	000.8500	0188.5	024.1	034.1	068.0000	0141.9	090.4	51.31
271.0	000.8500	0187.0	024.0	034.0	068.0000	0141.9	090.8	51.20
272.0	000.8500	0185.6	024.0	033.9	068.0000	0141.9	091.2	51.09
273.0	000.8500	0184.1	023.9	033.8	068.0000	0141.9	091.6	50.97
274.0	000.8500	0182.8	023.8	033.7	068.0000	0142.0	092.0	50.86
275.0	000.8500	0182.0	023.8	033.6	068.0000	0142.0	092.4	50.76
276.0	000.8500	0181.3	023.7	033.5	068.0000	0142.0	092.8	50.65
277.0	000.8500	0181.0	023.7	033.4	068.0000	0142.0	093.1	50.55
278.0	000.8500	0180.8	023.7	033.3	068.0000	0142.1	093.5	50.45
279.0	000.8500	0181.3	023.7	033.2	068.0000	0142.1	093.9	50.35
280.0	000.8500	0182.4	023.8	033.1	068.0000	0142.1	094.2	50.25
281.0	000.8500	0183.6	023.8	032.9	068.0000	0142.2	094.6	50.15
282.0	000.8500	0185.3	023.9	032.8	068.0000	0142.2	094.9	50.06
283.0	000.8500	0186.8	024.0	032.6	068.0000	0142.2	095.3	49.96
284.0	000.8500	0188.4	024.1	032.5	068.0000	0142.3	095.7	49.86
285.0	000.8500	0189.8	024.2	032.4	068.0000	0142.3	096.0	49.76

08-23-2007 NGDC 30 SEC Terrain Data

KBDC BLED20061101ACW
Channel = 203C1
Max ERP = 68 kW
RCAMSL = 513.5 M
N. Lat. 43 22 12.0
W. Lng. 93 16 27.0
Protected
60 dBu

KMSE(New)
Channel = 204A
Max ERP = 0.85 kW
RCAMSL = 522 M
N. Lat. 44 02 28.1
W. Lng. 92 20 25.4
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
345.0	068.0000	0135.7	053.0	255.6	000.8500	0190.7	091.7	33.82
346.0	068.0000	0135.9	053.0	255.6	000.8500	0190.7	090.8	34.08
347.0	068.0000	0136.0	053.0	255.6	000.8500	0190.7	089.9	34.36
348.0	068.0000	0136.4	053.1	255.6	000.8500	0190.7	088.9	34.65
349.0	068.0000	0137.0	053.2	255.6	000.8500	0190.7	088.0	34.93
350.0	068.0000	0137.6	053.3	255.6	000.8500	0190.7	087.1	35.22
351.0	068.0000	0138.0	053.3	255.6	000.8500	0190.7	086.2	35.51
352.0	068.0000	0138.3	053.4	255.5	000.8500	0190.8	085.2	35.81
353.0	068.0000	0138.5	053.4	255.5	000.8500	0190.9	084.3	36.10
354.0	068.0000	0138.9	053.4	255.4	000.8500	0191.0	083.4	36.40
355.0	068.0000	0139.0	053.5	255.3	000.8500	0191.1	082.4	36.70
356.0	068.0000	0139.1	053.5	255.2	000.8500	0191.3	081.5	37.00
357.0	068.0000	0139.2	053.5	255.1	000.8500	0191.5	080.6	37.30
358.0	068.0000	0139.5	053.5	254.9	000.8500	0191.7	079.7	37.61
359.0	068.0000	0139.8	053.6	254.8	000.8500	0192.0	078.8	37.91
000.0	068.0000	0140.3	053.6	254.7	000.8500	0192.2	077.8	38.22
001.0	068.0000	0141.1	053.8	254.6	000.8500	0192.4	076.9	38.53
002.0	068.0000	0142.0	053.9	254.4	000.8500	0192.7	076.0	38.85
003.0	068.0000	0142.3	053.9	254.2	000.8500	0193.1	075.1	39.16
004.0	068.0000	0142.6	054.0	254.0	000.8500	0193.6	074.2	39.48
005.0	068.0000	0142.8	054.0	253.8	000.8500	0194.3	073.3	39.79
006.0	068.0000	0142.7	054.0	253.5	000.8500	0195.1	072.4	40.12
007.0	068.0000	0142.0	053.9	253.1	000.8500	0196.3	071.6	40.44
008.0	068.0000	0141.4	053.8	252.7	000.8500	0197.5	070.8	40.75
009.0	068.0000	0141.2	053.8	252.4	000.8500	0198.5	069.9	41.07
010.0	068.0000	0141.2	053.8	252.0	000.8500	0199.4	069.1	41.38
011.0	068.0000	0141.3	053.8	251.6	000.8500	0200.1	068.3	41.69
012.0	068.0000	0141.3	053.8	251.2	000.8500	0200.8	067.5	41.99
013.0	068.0000	0141.5	053.8	250.8	000.8500	0201.4	066.7	42.29
014.0	068.0000	0141.5	053.8	250.4	000.8500	0201.8	065.9	42.58
015.0	068.0000	0141.3	053.8	249.9	000.8500	0202.1	065.1	42.84
016.0	068.0000	0140.9	053.7	249.3	000.8500	0201.9	064.4	43.08
017.0	068.0000	0140.7	053.7	248.8	000.8500	0201.3	063.7	43.31
018.0	068.0000	0140.7	053.7	248.3	000.8500	0200.4	062.9	43.53

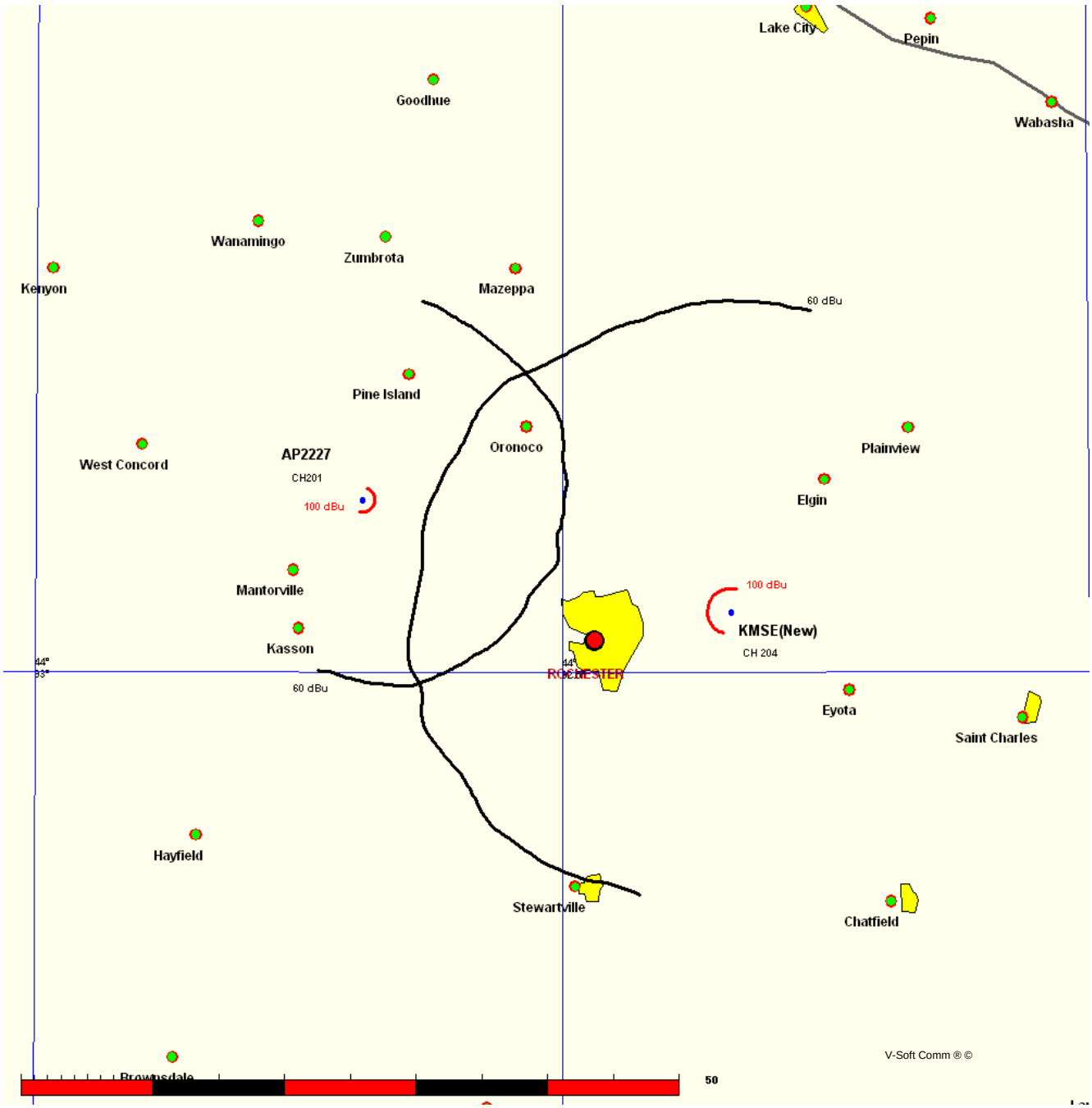
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
019.0	068.0000	0140.9	053.7	247.7	000.8500	0199.4	062.2	43.74
020.0	068.0000	0140.8	053.7	247.1	000.8500	0198.3	061.5	43.94
021.0	068.0000	0140.4	053.7	246.5	000.8500	0196.9	060.9	44.11
022.0	068.0000	0139.9	053.6	245.8	000.8500	0195.4	060.3	44.26
023.0	068.0000	0139.6	053.5	245.1	000.8500	0194.1	059.7	44.43
024.0	068.0000	0139.7	053.6	244.4	000.8500	0192.9	059.1	44.61
025.0	068.0000	0140.1	053.6	243.8	000.8500	0191.5	058.4	44.79
026.0	068.0000	0140.8	053.7	243.1	000.8500	0190.2	057.8	44.97
027.0	068.0000	0141.4	053.8	242.4	000.8500	0188.9	057.2	45.14
028.0	068.0000	0141.7	053.8	241.6	000.8500	0187.5	056.6	45.30
029.0	068.0000	0141.9	053.9	240.8	000.8500	0186.2	056.1	45.44
030.0	068.0000	0142.1	053.9	240.0	000.8500	0185.1	055.6	45.58
031.0	068.0000	0142.3	053.9	239.1	000.8500	0184.2	055.1	45.72
032.0	068.0000	0142.3	053.9	238.3	000.8500	0183.8	054.7	45.87
033.0	068.0000	0142.2	053.9	237.4	000.8500	0183.9	054.3	46.02
034.0	068.0000	0141.9	053.9	236.4	000.8500	0184.5	054.0	46.18
035.0	068.0000	0141.8	053.8	235.5	000.8500	0185.3	053.6	46.33
036.0	068.0000	0141.9	053.9	234.5	000.8500	0186.0	053.3	46.49
037.0	068.0000	0142.1	053.9	233.6	000.8500	0186.9	053.0	46.65
038.0	068.0000	0142.3	053.9	232.6	000.8500	0188.0	052.7	46.81
039.0	068.0000	0142.6	054.0	231.6	000.8500	0189.3	052.5	46.97
040.0	068.0000	0142.9	054.0	230.6	000.8500	0190.6	052.2	47.12
041.0	068.0000	0143.3	054.1	229.6	000.8500	0191.4	052.0	47.23
042.0	068.0000	0143.6	054.1	228.6	000.8500	0191.3	051.9	47.29
043.0	068.0000	0143.9	054.1	227.5	000.8500	0190.4	051.7	47.30
044.0	068.0000	0144.1	054.2	226.5	000.8500	0188.7	051.7	47.25
045.0	068.0000	0144.3	054.2	225.4	000.8500	0186.4	051.6	47.17
046.0	068.0000	0144.5	054.2	224.4	000.8500	0184.7	051.6	47.09
047.0	068.0000	0144.7	054.2	223.3	000.8500	0183.9	051.6	47.05
048.0	068.0000	0144.9	054.3	222.3	000.8500	0183.3	051.7	47.00
049.0	068.0000	0145.1	054.3	221.2	000.8500	0182.3	051.7	46.93
050.0	068.0000	0145.4	054.3	220.2	000.8500	0181.4	051.9	46.84
051.0	068.0000	0145.8	054.4	219.2	000.8500	0180.8	052.0	46.76
052.0	068.0000	0146.2	054.4	218.1	000.8500	0180.3	052.2	46.68
053.0	068.0000	0146.5	054.5	217.1	000.8500	0179.6	052.4	46.57
054.0	068.0000	0146.8	054.5	216.1	000.8500	0178.4	052.6	46.42
055.0	068.0000	0147.0	054.6	215.1	000.8500	0176.8	052.9	46.23
056.0	068.0000	0147.1	054.6	214.2	000.8500	0175.1	053.2	46.03
057.0	068.0000	0147.1	054.6	213.2	000.8500	0173.6	053.6	45.81
058.0	068.0000	0147.0	054.6	212.3	000.8500	0172.3	054.0	45.59
059.0	068.0000	0146.8	054.5	211.4	000.8500	0171.3	054.5	45.37
060.0	068.0000	0146.6	054.5	210.6	000.8500	0170.4	054.9	45.14
061.0	068.0000	0146.5	054.5	209.7	000.8500	0169.4	055.4	44.90
062.0	068.0000	0146.4	054.5	208.9	000.8500	0168.3	056.0	44.66
063.0	068.0000	0146.4	054.5	208.1	000.8500	0167.1	056.5	44.40
064.0	068.0000	0146.3	054.5	207.4	000.8500	0165.7	057.1	44.11
065.0	068.0000	0146.2	054.4	206.6	000.8500	0163.9	057.6	43.81
066.0	068.0000	0146.2	054.5	205.9	000.8500	0162.2	058.2	43.50
067.0	068.0000	0146.5	054.5	205.2	000.8500	0160.7	058.8	43.20
068.0	068.0000	0146.8	054.5	204.5	000.8500	0159.7	059.5	42.92
069.0	068.0000	0147.0	054.6	203.8	000.8500	0159.1	060.1	42.66

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
070.0	068.0000	0146.9	054.5	203.2	000.8500	0158.8	060.8	42.39
071.0	068.0000	0146.9	054.5	202.6	000.8500	0158.6	061.5	42.13
072.0	068.0000	0146.9	054.5	202.0	000.8500	0158.4	062.2	41.87
073.0	068.0000	0147.0	054.6	201.5	000.8500	0158.3	063.0	41.61
074.0	068.0000	0147.1	054.6	200.9	000.8500	0158.2	063.7	41.36
075.0	068.0000	0147.4	054.6	200.4	000.8500	0158.2	064.5	41.10
076.0	068.0000	0147.5	054.6	199.9	000.8500	0158.3	065.2	40.85
077.0	068.0000	0147.7	054.6	199.5	000.8500	0158.4	066.0	40.59
078.0	068.0000	0147.8	054.7	199.0	000.8500	0158.5	066.8	40.33
079.0	068.0000	0148.0	054.7	198.6	000.8500	0158.7	067.6	40.07
080.0	068.0000	0148.2	054.7	198.2	000.8500	0158.8	068.5	39.81
081.0	068.0000	0148.3	054.7	197.8	000.8500	0159.0	069.3	39.54
082.0	068.0000	0148.5	054.8	197.5	000.8500	0159.2	070.2	39.27
083.0	068.0000	0148.6	054.8	197.1	000.8500	0159.3	071.0	39.00
084.0	068.0000	0148.7	054.8	196.8	000.8500	0159.5	071.9	38.72
085.0	068.0000	0148.7	054.8	196.5	000.8500	0159.6	072.8	38.44
086.0	068.0000	0148.8	054.8	196.3	000.8500	0159.7	073.7	38.15
087.0	068.0000	0148.7	054.8	196.0	000.8500	0159.7	074.6	37.87
088.0	068.0000	0148.6	054.8	195.8	000.8500	0159.8	075.5	37.58
089.0	068.0000	0148.6	054.8	195.6	000.8500	0159.8	076.4	37.29
090.0	068.0000	0148.5	054.8	195.4	000.8500	0159.8	077.3	37.00
091.0	068.0000	0148.5	054.8	195.2	000.8500	0159.8	078.3	36.70
092.0	068.0000	0148.6	054.8	195.1	000.8500	0159.9	079.2	36.42
093.0	068.0000	0148.8	054.8	194.9	000.8500	0159.9	080.1	36.13
094.0	068.0000	0149.1	054.8	194.8	000.8500	0159.9	081.0	35.84
095.0	068.0000	0149.3	054.9	194.6	000.8500	0159.9	082.0	35.55
096.0	068.0000	0149.6	054.9	194.5	000.8500	0160.0	082.9	35.26
097.0	068.0000	0150.0	055.0	194.4	000.8500	0160.0	083.9	34.98
098.0	068.0000	0150.6	055.0	194.2	000.8500	0160.1	084.8	34.69
099.0	068.0000	0151.2	055.1	194.1	000.8500	0160.1	085.8	34.40
100.0	068.0000	0151.6	055.2	194.1	000.8500	0160.1	086.7	34.11
101.0	068.0000	0151.8	055.2	194.0	000.8500	0160.1	087.7	33.83
102.0	068.0000	0151.9	055.2	194.0	000.8500	0160.2	088.6	33.54
103.0	068.0000	0151.9	055.2	194.0	000.8500	0160.2	089.6	33.26
104.0	068.0000	0152.1	055.2	193.9	000.8500	0160.2	090.6	32.97
105.0	068.0000	0152.2	055.2	193.9	000.8500	0160.2	091.5	32.69

FMCommander Single Allocation Study
08-23-2007

KMSE(New) CH 204 A
0.85 kW 522 M COR
Prot. = 60 dBu
Intef. = 100 dBu

AP2227 CH 201 A BNPED20000118AES
0.17 kW, 507 M COR
Prot. = 60 dBu
Intef. = 100 dBu



KMSE(New)
Channel = 204A
Max ERP = 0.85 kW
RCAMSL = 522.05 M
N. Lat. 44 02 28.1
W. Lng. 92 20 25.4
Protected
60 dBu

AP2227 BNPED20000118AES
Channel = 201A
Max ERP = 0.17 kW
RCAMSL = 507 M
N. Lat. 44 06 59.0
W. Lng. 92 41 22.0
Interfering
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
227.0	000.8500	0189.7	024.2	157.5	000.1700	0151.0	026.9	50.27
228.0	000.8500	0191.0	024.3	158.0	000.1700	0151.2	026.5	50.52
229.0	000.8500	0191.5	024.3	158.3	000.1700	0151.4	026.1	50.80
230.0	000.8500	0191.2	024.3	158.6	000.1700	0151.5	025.7	51.08
231.0	000.8500	0190.2	024.2	158.8	000.1700	0151.6	025.3	51.38
232.0	000.8500	0188.9	024.1	158.9	000.1700	0151.6	024.9	51.68
233.0	000.8500	0187.6	024.1	159.0	000.1700	0151.7	024.5	51.99
234.0	000.8500	0186.5	024.0	159.2	000.1700	0151.7	024.1	52.30
235.0	000.8500	0185.7	024.0	159.3	000.1700	0151.8	023.6	52.60
236.0	000.8500	0184.9	023.9	159.5	000.1700	0151.8	023.2	52.91
237.0	000.8500	0184.2	023.9	159.6	000.1700	0151.8	022.8	53.22
238.0	000.8500	0183.8	023.9	159.8	000.1700	0151.8	022.4	53.53
239.0	000.8500	0184.2	023.9	160.0	000.1700	0151.8	022.0	53.84
240.0	000.8500	0185.2	023.9	160.4	000.1700	0151.7	021.6	54.14
241.0	000.8500	0186.6	024.0	160.8	000.1700	0151.6	021.2	54.44
242.0	000.8500	0188.3	024.1	161.2	000.1700	0151.5	020.8	54.74
243.0	000.8500	0190.1	024.2	161.7	000.1700	0151.4	020.4	55.06
244.0	000.8500	0192.2	024.3	162.2	000.1700	0151.5	020.0	55.38
245.0	000.8500	0194.1	024.4	162.7	000.1700	0151.8	019.6	55.72
246.0	000.8500	0195.9	024.5	163.1	000.1700	0152.1	019.2	56.07
247.0	000.8500	0198.1	024.7	163.7	000.1700	0152.3	018.8	56.42
248.0	000.8500	0200.0	024.8	164.1	000.1700	0152.3	018.3	56.75
249.0	000.8500	0201.6	024.9	164.6	000.1700	0152.2	017.9	57.09
250.0	000.8500	0202.1	024.9	164.8	000.1700	0152.1	017.5	57.44
251.0	000.8500	0201.2	024.8	164.7	000.1700	0152.1	017.0	57.80
252.0	000.8500	0199.3	024.7	164.4	000.1700	0152.3	016.6	58.17
253.0	000.8500	0196.6	024.6	164.0	000.1700	0152.3	016.2	58.54
254.0	000.8500	0193.7	024.4	163.4	000.1700	0152.2	015.7	58.89
255.0	000.8500	0191.7	024.3	162.9	000.1700	0152.0	015.3	59.23
256.0	000.8500	0190.3	024.2	162.6	000.1700	0151.8	014.9	59.46
257.0	000.8500	0191.1	024.3	162.6	000.1700	0151.8	014.5	59.94
258.0	000.8500	0193.3	024.4	163.0	000.1700	0152.0	014.0	60.47
259.0	000.8500	0195.9	024.5	163.4	000.1700	0152.3	013.6	61.04
260.0	000.8500	0198.7	024.7	163.9	000.1700	0152.3	013.2	61.63
261.0	000.8500	0199.8	024.7	164.0	000.1700	0152.3	012.7	62.22
262.0	000.8500	0199.9	024.8	163.7	000.1700	0152.3	012.3	62.84
263.0	000.8500	0198.9	024.7	163.2	000.1700	0152.1	011.9	63.45

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
264.0	000.8500	0198.1	024.7	162.5	000.1700	0151.7	011.5	64.06
265.0	000.8500	0196.9	024.6	161.7	000.1700	0151.4	011.1	64.69
266.0	000.8500	0195.4	024.5	160.7	000.1700	0151.6	010.7	65.36
267.0	000.8500	0193.3	024.4	159.5	000.1700	0151.8	010.3	66.02
268.0	000.8500	0191.8	024.3	158.3	000.1700	0151.3	009.9	66.64
269.0	000.8500	0190.2	024.2	156.9	000.1700	0150.8	009.6	67.26
270.0	000.8500	0188.6	024.1	155.4	000.1700	0150.7	009.2	67.91
271.0	000.8500	0187.1	024.0	153.7	000.1700	0150.9	008.9	68.57
272.0	000.8500	0185.6	024.0	152.0	000.1700	0150.4	008.5	69.18
273.0	000.8500	0184.2	023.9	150.0	000.1700	0151.2	008.2	69.85
274.0	000.8500	0182.8	023.8	147.9	000.1700	0152.1	007.9	70.52
275.0	000.8500	0182.1	023.8	145.8	000.1700	0151.9	007.6	71.17
276.0	000.8500	0181.3	023.7	143.5	000.1700	0152.1	007.3	71.85
277.0	000.8500	0181.0	023.7	141.1	000.1700	0154.5	007.0	72.69
278.0	000.8500	0180.8	023.7	138.5	000.1700	0156.2	006.8	73.47
279.0	000.8500	0181.4	023.7	135.9	000.1700	0157.9	006.5	74.31
280.0	000.8500	0182.4	023.8	133.1	000.1700	0157.9	006.2	75.07
281.0	000.8500	0183.6	023.8	130.1	000.1700	0158.1	005.9	75.84
282.0	000.8500	0185.4	023.9	126.8	000.1700	0158.2	005.7	76.63
283.0	000.8500	0186.9	024.0	123.1	000.1700	0157.2	005.4	77.28
284.0	000.8500	0188.5	024.1	119.1	000.1700	0155.0	005.2	77.79
285.0	000.8500	0189.9	024.2	114.7	000.1700	0159.9	005.0	78.54
286.0	000.8500	0190.8	024.2	109.9	000.1700	0170.1	004.9	79.32
287.0	000.8500	0191.5	024.3	105.0	000.1700	0170.0	004.9	79.44
288.0	000.8500	0191.5	024.3	100.0	000.1700	0162.4	004.9	79.01
289.0	000.8500	0191.0	024.3	095.3	000.1700	0166.6	005.0	78.88
290.0	000.8500	0190.4	024.2	090.8	000.1700	0167.7	005.2	78.47
291.0	000.8500	0189.7	024.2	086.7	000.1700	0171.6	005.4	78.07
292.0	000.8500	0189.2	024.2	082.9	000.1700	0173.0	005.6	77.52
293.0	000.8500	0189.1	024.1	079.3	000.1700	0171.4	005.8	76.82
294.0	000.8500	0189.3	024.2	075.9	000.1700	0176.6	006.0	76.38
295.0	000.8500	0189.4	024.2	072.9	000.1700	0180.9	006.3	75.84
296.0	000.8500	0188.9	024.1	070.4	000.1700	0185.1	006.6	75.21
297.0	000.8500	0188.1	024.1	068.2	000.1700	0186.3	007.0	74.43
298.0	000.8500	0187.1	024.0	066.4	000.1700	0186.3	007.3	73.59
299.0	000.8500	0186.0	024.0	064.8	000.1700	0185.3	007.7	72.73
300.0	000.8500	0185.2	023.9	063.3	000.1700	0183.9	008.1	71.92
301.0	000.8500	0185.1	023.9	061.8	000.1700	0182.2	008.4	71.16
302.0	000.8500	0185.7	024.0	060.2	000.1700	0180.3	008.8	70.41
303.0	000.8500	0186.8	024.0	058.6	000.1700	0178.5	009.1	69.67
304.0	000.8500	0188.1	024.1	057.2	000.1700	0177.0	009.5	68.95
305.0	000.8500	0189.3	024.2	055.8	000.1700	0176.0	009.8	68.25
306.0	000.8500	0190.6	024.2	054.6	000.1700	0175.4	010.2	67.57
307.0	000.8500	0191.8	024.3	053.6	000.1700	0175.0	010.6	66.89
308.0	000.8500	0192.9	024.4	052.6	000.1700	0174.7	011.0	66.23
309.0	000.8500	0193.4	024.4	052.0	000.1700	0174.5	011.4	65.56
310.0	000.8500	0193.2	024.4	051.6	000.1700	0174.4	011.8	64.91
311.0	000.8500	0192.5	024.3	051.3	000.1700	0174.4	012.2	64.26
312.0	000.8500	0191.9	024.3	051.2	000.1700	0174.3	012.6	63.64
313.0	000.8500	0191.7	024.3	050.9	000.1700	0174.2	013.1	63.05
314.0	000.8500	0191.8	024.3	050.7	000.1700	0174.2	013.5	62.48

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
315.0	000.8500	0191.4	024.3	050.6	000.1700	0174.1	013.9	61.94
316.0	000.8500	0189.9	024.2	050.7	000.1700	0174.2	014.3	61.41
317.0	000.8500	0187.5	024.1	051.1	000.1700	0174.3	014.8	60.91
318.0	000.8500	0184.6	023.9	051.6	000.1700	0174.4	015.2	60.66
319.0	000.8500	0181.6	023.7	052.1	000.1700	0174.6	015.6	60.30
320.0	000.8500	0179.1	023.6	052.6	000.1700	0174.7	016.0	59.95
321.0	000.8500	0177.0	023.5	052.9	000.1700	0174.8	016.4	59.61
322.0	000.8500	0175.1	023.4	053.2	000.1700	0174.9	016.9	59.28
323.0	000.8500	0173.6	023.3	053.5	000.1700	0175.0	017.3	58.94
324.0	000.8500	0172.4	023.2	053.8	000.1700	0175.1	017.7	58.61
325.0	000.8500	0171.4	023.1	054.0	000.1700	0175.2	018.1	58.28
326.0	000.8500	0170.6	023.1	054.1	000.1700	0175.2	018.5	57.96
327.0	000.8500	0170.1	023.1	054.3	000.1700	0175.3	018.9	57.64
328.0	000.8500	0169.9	023.1	054.4	000.1700	0175.3	019.3	57.32
329.0	000.8500	0169.6	023.0	054.5	000.1700	0175.4	019.7	57.00
330.0	000.8500	0169.0	023.0	054.7	000.1700	0175.4	020.1	56.68
331.0	000.8500	0168.2	022.9	054.9	000.1700	0175.5	020.5	56.38
332.0	000.8500	0167.8	022.9	055.1	000.1700	0175.6	020.9	56.07
333.0	000.8500	0168.1	022.9	055.2	000.1700	0175.6	021.3	55.76
334.0	000.8500	0168.7	023.0	055.3	000.1700	0175.7	021.7	55.45
335.0	000.8500	0169.2	023.0	055.3	000.1700	0175.7	022.1	55.15
336.0	000.8500	0169.3	023.0	055.5	000.1700	0175.8	022.5	54.85
337.0	000.8500	0169.3	023.0	055.7	000.1700	0175.9	022.9	54.56
338.0	000.8500	0169.3	023.0	055.9	000.1700	0176.0	023.3	54.27
339.0	000.8500	0169.1	023.0	056.1	000.1700	0176.2	023.6	53.99
340.0	000.8500	0168.6	023.0	056.4	000.1700	0176.4	024.0	53.72
341.0	000.8500	0168.0	022.9	056.7	000.1700	0176.7	024.4	53.46
342.0	000.8500	0167.3	022.9	057.1	000.1700	0176.9	024.8	53.20
343.0	000.8500	0167.3	022.9	057.3	000.1700	0177.1	025.2	52.93
344.0	000.8500	0167.8	022.9	057.5	000.1700	0177.3	025.6	52.66
345.0	000.8500	0168.6	023.0	057.6	000.1700	0177.4	026.0	52.39
346.0	000.8500	0169.2	023.0	057.8	000.1700	0177.6	026.4	52.13
347.0	000.8500	0169.6	023.0	058.0	000.1700	0177.8	026.7	51.88

08-23-2007 NGDC 30 SEC Terrain Data

AP2227 BNPED20000118AES
Channel = 201A
Max ERP = 0.17 kW
RCAMSL = 507 M
N. Lat. 44 06 59.0
W. Lng. 92 41 22.0
Protected
60 dBu

KMSE(New)
Channel = 204A
Max ERP = 0.85 kW
RCAMSL = 522.05 M
N. Lat. 44 02 28.1
W. Lng. 92 20 25.4
Interfering
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
047.0	000.1700	0170.8	015.4	318.8	000.8500	0182.3	025.2	60.15
048.0	000.1700	0171.6	015.5	318.9	000.8500	0182.0	024.9	60.33
049.0	000.1700	0172.9	015.5	319.0	000.8500	0181.6	024.6	60.51
050.0	000.1700	0173.8	015.6	319.1	000.8500	0181.3	024.4	60.69
051.0	000.1700	0174.3	015.6	319.2	000.8500	0181.2	024.1	60.89
052.0	000.1700	0174.5	015.6	319.1	000.8500	0181.2	023.8	61.09
053.0	000.1700	0174.8	015.6	319.1	000.8500	0181.2	023.6	61.29
054.0	000.1700	0175.2	015.6	319.1	000.8500	0181.3	023.3	61.49
055.0	000.1700	0175.5	015.7	319.1	000.8500	0181.3	023.0	61.70
056.0	000.1700	0176.1	015.7	319.1	000.8500	0181.4	022.7	61.91
057.0	000.1700	0176.9	015.7	319.1	000.8500	0181.4	022.5	62.12
058.0	000.1700	0177.8	015.8	319.1	000.8500	0181.4	022.2	62.33
059.0	000.1700	0178.8	015.8	319.1	000.8500	0181.3	021.9	62.54
060.0	000.1700	0180.0	015.9	319.1	000.8500	0181.3	021.6	62.76
061.0	000.1700	0181.3	015.9	319.1	000.8500	0181.3	021.3	62.98
062.0	000.1700	0182.4	016.0	319.1	000.8500	0181.5	021.0	63.20
063.0	000.1700	0183.5	016.0	319.0	000.8500	0181.6	020.8	63.43
064.0	000.1700	0184.5	016.1	318.9	000.8500	0181.8	020.5	63.66
065.0	000.1700	0185.5	016.1	318.8	000.8500	0182.1	020.2	63.90
066.0	000.1700	0186.2	016.1	318.7	000.8500	0182.6	019.9	64.14
067.0	000.1700	0186.4	016.1	318.4	000.8500	0183.3	019.7	64.39
068.0	000.1700	0186.3	016.1	318.1	000.8500	0184.1	019.4	64.64
069.0	000.1700	0186.0	016.1	317.8	000.8500	0185.1	019.1	64.89
070.0	000.1700	0185.4	016.1	317.4	000.8500	0186.3	018.9	65.15
071.0	000.1700	0184.3	016.1	316.9	000.8500	0187.7	018.6	65.40
072.0	000.1700	0182.6	016.0	316.4	000.8500	0189.1	018.4	65.65
073.0	000.1700	0180.8	015.9	315.8	000.8500	0190.3	018.2	65.88
074.0	000.1700	0179.3	015.8	315.2	000.8500	0191.2	018.0	66.09
075.0	000.1700	0178.0	015.8	314.6	000.8500	0191.7	017.8	66.29
076.0	000.1700	0176.5	015.7	313.9	000.8500	0191.8	017.6	66.46
077.0	000.1700	0174.5	015.6	313.1	000.8500	0191.7	017.4	66.60
078.0	000.1700	0172.7	015.5	312.4	000.8500	0191.7	017.2	66.74
079.0	000.1700	0171.5	015.5	311.7	000.8500	0192.0	017.1	66.90
080.0	000.1700	0171.4	015.5	311.1	000.8500	0192.4	016.9	67.09

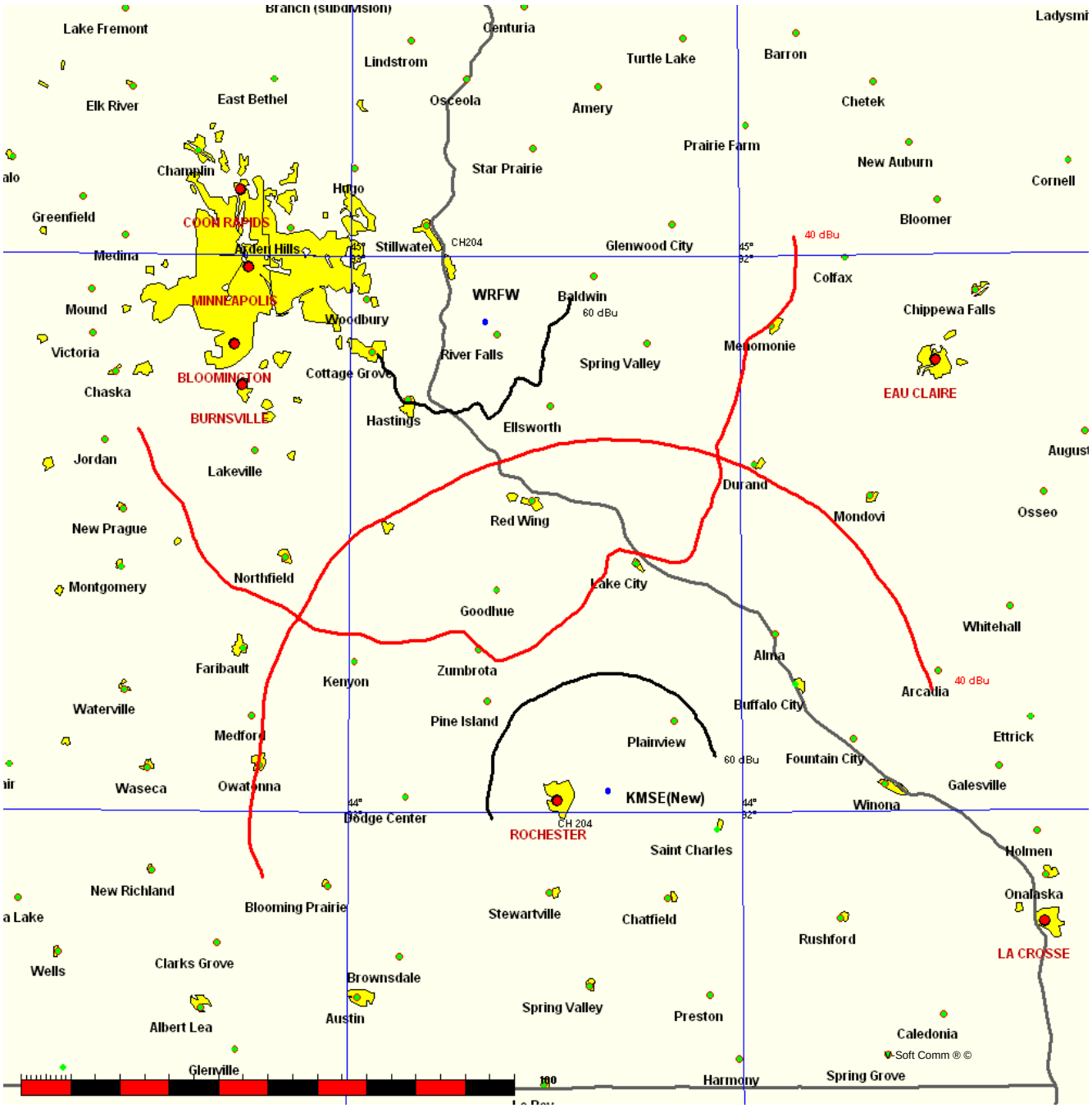
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
081.0	000.1700	0171.7	015.5	310.6	000.8500	0192.9	016.6	67.30
082.0	000.1700	0172.4	015.5	310.0	000.8500	0193.2	016.4	67.50
083.0	000.1700	0173.1	015.5	309.5	000.8500	0193.4	016.2	67.69
084.0	000.1700	0173.0	015.5	308.8	000.8500	0193.4	016.0	67.85
085.0	000.1700	0173.0	015.5	308.1	000.8500	0193.0	015.8	67.99
086.0	000.1700	0172.6	015.5	307.3	000.8500	0192.2	015.6	68.09
087.0	000.1700	0171.2	015.5	306.4	000.8500	0191.0	015.5	68.15
088.0	000.1700	0169.8	015.4	305.4	000.8500	0189.9	015.4	68.19
089.0	000.1700	0168.5	015.3	304.5	000.8500	0188.6	015.3	68.22
090.0	000.1700	0167.5	015.3	303.5	000.8500	0187.5	015.2	68.26
091.0	000.1700	0167.7	015.3	302.7	000.8500	0186.4	015.0	68.34
092.0	000.1700	0167.9	015.3	301.8	000.8500	0185.5	014.9	68.25
093.0	000.1700	0168.1	015.3	300.9	000.8500	0185.1	014.8	68.39
094.0	000.1700	0167.6	015.3	300.0	000.8500	0185.2	014.7	68.50
095.0	000.1700	0166.8	015.2	298.9	000.8500	0186.0	014.6	68.62
096.0	000.1700	0166.2	015.2	297.9	000.8500	0187.1	014.5	68.76
097.0	000.1700	0165.6	015.2	296.9	000.8500	0188.2	014.5	68.89
098.0	000.1700	0164.7	015.1	295.9	000.8500	0189.0	014.4	68.96
099.0	000.1700	0163.5	015.1	294.8	000.8500	0189.4	014.4	69.00
100.0	000.1700	0162.5	015.0	293.7	000.8500	0189.2	014.4	69.00
101.0	000.1700	0162.6	015.0	292.7	000.8500	0189.1	014.3	69.08
102.0	000.1700	0163.8	015.1	291.7	000.8500	0189.3	014.2	69.22
103.0	000.1700	0165.8	015.2	290.7	000.8500	0189.9	014.1	69.42
104.0	000.1700	0168.1	015.3	289.7	000.8500	0190.6	013.9	69.64
105.0	000.1700	0170.0	015.4	288.6	000.8500	0191.2	013.8	69.81
106.0	000.1700	0171.5	015.5	287.5	000.8500	0191.6	013.7	69.93
107.0	000.1700	0172.4	015.5	286.4	000.8500	0191.1	013.7	69.97
108.0	000.1700	0172.4	015.5	285.2	000.8500	0190.1	013.7	69.92
109.0	000.1700	0171.6	015.5	284.1	000.8500	0188.6	013.8	69.77
110.0	000.1700	0169.9	015.4	283.0	000.8500	0186.9	013.9	69.56
111.0	000.1700	0167.7	015.3	282.0	000.8500	0185.3	014.0	69.31
112.0	000.1700	0165.2	015.1	281.0	000.8500	0183.7	014.2	69.02
113.0	000.1700	0162.8	015.0	280.1	000.8500	0182.5	014.4	68.75
114.0	000.1700	0160.9	014.9	279.2	000.8500	0181.6	014.5	68.52
115.0	000.1700	0159.5	014.9	278.3	000.8500	0180.9	014.7	68.32
116.0	000.1700	0158.3	014.8	277.4	000.8500	0180.9	014.8	68.17
117.0	000.1700	0157.2	014.7	276.5	000.8500	0181.1	014.9	68.01
118.0	000.1700	0156.1	014.7	275.7	000.8500	0181.5	015.1	68.07
119.0	000.1700	0155.1	014.6	274.9	000.8500	0182.1	015.2	67.98
120.0	000.1700	0154.7	014.6	274.1	000.8500	0182.8	015.4	67.89
121.0	000.1700	0155.0	014.6	273.2	000.8500	0183.9	015.5	67.86
122.0	000.1700	0155.9	014.7	272.3	000.8500	0185.2	015.6	67.85
123.0	000.1700	0157.1	014.7	271.3	000.8500	0186.6	015.6	67.85
124.0	000.1700	0157.9	014.8	270.5	000.8500	0187.7	015.7	67.81
125.0	000.1700	0158.2	014.8	269.6	000.8500	0189.1	015.9	67.77
126.0	000.1700	0158.2	014.8	268.9	000.8500	0190.3	016.0	67.69
127.0	000.1700	0158.2	014.8	268.2	000.8500	0191.5	016.2	67.61
128.0	000.1700	0158.3	014.8	267.5	000.8500	0192.6	016.3	67.53
129.0	000.1700	0158.3	014.8	266.8	000.8500	0193.7	016.5	67.44
130.0	000.1700	0158.1	014.8	266.2	000.8500	0195.0	016.7	67.34
131.0	000.1700	0157.9	014.8	265.6	000.8500	0196.1	016.9	67.23

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
132.0	000.1700	0157.8	014.8	265.0	000.8500	0196.9	017.1	67.11
133.0	000.1700	0157.9	014.8	264.4	000.8500	0197.7	017.3	66.98
134.0	000.1700	0158.0	014.8	263.8	000.8500	0198.2	017.5	66.85
135.0	000.1700	0158.1	014.8	263.3	000.8500	0198.6	017.7	66.70
136.0	000.1700	0157.8	014.8	262.8	000.8500	0199.2	017.9	66.55
137.0	000.1700	0157.2	014.7	262.4	000.8500	0199.6	018.1	66.38
138.0	000.1700	0156.5	014.7	262.0	000.8500	0199.9	018.3	66.20
139.0	000.1700	0155.9	014.7	261.7	000.8500	0200.0	018.6	66.02
140.0	000.1700	0155.3	014.6	261.4	000.8500	0199.9	018.8	65.82
141.0	000.1700	0154.6	014.6	261.1	000.8500	0199.8	019.0	65.62
142.0	000.1700	0153.6	014.5	260.8	000.8500	0199.6	019.3	65.42
143.0	000.1700	0152.5	014.5	260.6	000.8500	0199.5	019.5	65.21
144.0	000.1700	0151.7	014.4	260.4	000.8500	0199.2	019.8	65.00
145.0	000.1700	0151.6	014.4	260.1	000.8500	0198.9	020.0	64.80
146.0	000.1700	0152.0	014.4	259.8	000.8500	0198.1	020.2	64.59
147.0	000.1700	0152.3	014.5	259.5	000.8500	0197.3	020.5	64.37
148.0	000.1700	0152.0	014.4	259.2	000.8500	0196.6	020.7	64.15
149.0	000.1700	0151.7	014.4	259.0	000.8500	0196.0	020.9	63.94
150.0	000.1700	0151.2	014.4	258.9	000.8500	0195.5	021.2	63.72
151.0	000.1700	0150.7	014.4	258.7	000.8500	0195.1	021.4	63.51
152.0	000.1700	0150.4	014.4	258.6	000.8500	0194.6	021.7	63.30
153.0	000.1700	0150.7	014.4	258.4	000.8500	0194.1	021.9	63.09
154.0	000.1700	0150.9	014.4	258.2	000.8500	0193.6	022.2	62.89
155.0	000.1700	0150.8	014.4	258.0	000.8500	0193.3	022.4	62.69
156.0	000.1700	0150.7	014.4	257.9	000.8500	0193.1	022.7	62.49
157.0	000.1700	0150.8	014.4	257.8	000.8500	0192.7	022.9	62.29
158.0	000.1700	0151.2	014.4	257.6	000.8500	0192.4	023.1	62.09
159.0	000.1700	0151.7	014.4	257.4	000.8500	0192.0	023.4	61.89
160.0	000.1700	0151.8	014.4	257.3	000.8500	0191.8	023.6	61.70
161.0	000.1700	0151.5	014.4	257.3	000.8500	0191.7	023.9	61.51
162.0	000.1700	0151.5	014.4	257.3	000.8500	0191.6	024.1	61.32
163.0	000.1700	0152.1	014.4	257.1	000.8500	0191.4	024.4	61.13
164.0	000.1700	0152.3	014.5	257.1	000.8500	0191.2	024.6	60.94
165.0	000.1700	0152.0	014.4	257.1	000.8500	0191.3	024.9	60.76
166.0	000.1700	0151.0	014.4	257.2	000.8500	0191.5	025.1	60.59
167.0	000.1700	0150.0	014.3	257.3	000.8500	0191.7	025.4	60.42

Minnesota Public Radio
KMSE (New) v. WDFW

FMCommander Single Allocation Study
08-23-2007

KMSE(New) CH 204 A	WRFW CH 204 A	BLED1630
0.85 kW 522 M COR	3.0 kW, 351 M COR	
Prot. = 60 dBu	Prot. = 60 dBu	
Intef. = 40 dBu	Intef. = 40 dBu	



KMSE(New)
Channel = 204A
Max ERP = 0.85 kW
RCAMSL = 522.05 M
N. Lat. 44 02 28.1
W. Lng. 92 20 25.4
Protected
60 dBu

WRFW BLED1630
Channel = 204A
Max ERP = 3 kW
RCAMSL = 351 M
N. Lat. 44 53 08.0
W. Lng. 92 39 20.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
285.0	000.8500	0189.9	024.2	178.9	003.0000	0060.8	087.6	34.88
286.0	000.8500	0190.8	024.2	178.8	003.0000	0060.9	087.2	34.99
287.0	000.8500	0191.5	024.3	178.8	003.0000	0061.1	086.8	35.10
288.0	000.8500	0191.5	024.3	178.7	003.0000	0061.4	086.4	35.22
289.0	000.8500	0191.0	024.3	178.6	003.0000	0061.8	086.0	35.33
290.0	000.8500	0190.4	024.2	178.5	003.0000	0062.2	085.6	35.45
291.0	000.8500	0189.7	024.2	178.3	003.0000	0062.6	085.2	35.57
292.0	000.8500	0189.2	024.2	178.2	003.0000	0062.9	084.8	35.68
293.0	000.8500	0189.1	024.1	178.1	003.0000	0063.1	084.4	35.78
294.0	000.8500	0189.3	024.2	178.0	003.0000	0063.3	084.1	35.89
295.0	000.8500	0189.4	024.2	177.8	003.0000	0063.4	083.7	35.99
296.0	000.8500	0188.9	024.1	177.7	003.0000	0063.6	083.3	36.09
297.0	000.8500	0188.1	024.1	177.5	003.0000	0063.6	083.0	36.18
298.0	000.8500	0187.1	024.0	177.3	003.0000	0063.6	082.6	36.27
299.0	000.8500	0186.0	024.0	177.1	003.0000	0063.6	082.3	36.35
300.0	000.8500	0185.2	023.9	177.0	003.0000	0063.4	082.0	36.43
301.0	000.8500	0185.1	023.9	176.8	003.0000	0063.3	081.6	36.50
302.0	000.8500	0185.7	024.0	176.6	003.0000	0063.1	081.3	36.59
303.0	000.8500	0186.8	024.0	176.5	003.0000	0062.9	080.9	36.67
304.0	000.8500	0188.1	024.1	176.4	003.0000	0062.7	080.5	36.75
305.0	000.8500	0189.3	024.2	176.2	003.0000	0062.5	080.1	36.84
306.0	000.8500	0190.6	024.2	176.1	003.0000	0062.3	079.8	36.92
307.0	000.8500	0191.8	024.3	175.9	003.0000	0062.0	079.4	36.99
308.0	000.8500	0192.9	024.4	175.7	003.0000	0061.8	079.1	37.07
309.0	000.8500	0193.4	024.4	175.5	003.0000	0061.5	078.7	37.14
310.0	000.8500	0193.2	024.4	175.3	003.0000	0061.3	078.4	37.20
311.0	000.8500	0192.5	024.3	175.1	003.0000	0061.1	078.2	37.26
312.0	000.8500	0191.9	024.3	174.8	003.0000	0060.9	077.9	37.31
313.0	000.8500	0191.7	024.3	174.6	003.0000	0060.6	077.6	37.36
314.0	000.8500	0191.8	024.3	174.4	003.0000	0060.3	077.3	37.42
315.0	000.8500	0191.4	024.3	174.1	003.0000	0059.9	077.1	37.46
316.0	000.8500	0189.9	024.2	173.8	003.0000	0059.5	076.9	37.48
317.0	000.8500	0187.5	024.1	173.5	003.0000	0059.1	076.7	37.50
318.0	000.8500	0184.6	023.9	173.2	003.0000	0058.8	076.6	37.50
319.0	000.8500	0181.6	023.7	172.9	003.0000	0058.5	076.5	37.51
320.0	000.8500	0179.1	023.6	172.6	003.0000	0058.2	076.4	37.52
321.0	000.8500	0177.0	023.5	172.2	003.0000	0057.8	076.3	37.52

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
322.0	000.8500	0175.1	023.4	171.9	003.0000	0057.4	076.2	37.53
323.0	000.8500	0173.6	023.3	171.6	003.0000	0057.0	076.0	37.53
324.0	000.8500	0172.4	023.2	171.3	003.0000	0056.6	075.9	37.54
325.0	000.8500	0171.4	023.1	171.0	003.0000	0056.1	075.8	37.54
326.0	000.8500	0170.6	023.1	170.8	003.0000	0055.5	075.7	37.53
327.0	000.8500	0170.1	023.1	170.5	003.0000	0054.8	075.5	37.52
328.0	000.8500	0169.9	023.1	170.2	003.0000	0054.1	075.4	37.51
329.0	000.8500	0169.6	023.0	169.9	003.0000	0053.4	075.2	37.49
330.0	000.8500	0169.0	023.0	169.6	003.0000	0052.7	075.1	37.47
331.0	000.8500	0168.2	022.9	169.3	003.0000	0052.1	075.1	37.45
332.0	000.8500	0167.8	022.9	169.0	003.0000	0051.5	075.0	37.43
333.0	000.8500	0168.1	022.9	168.7	003.0000	0050.9	074.8	37.42
334.0	000.8500	0168.7	023.0	168.4	003.0000	0050.5	074.7	37.42
335.0	000.8500	0169.2	023.0	168.1	003.0000	0050.1	074.6	37.43
336.0	000.8500	0169.3	023.0	167.8	003.0000	0049.7	074.5	37.42
337.0	000.8500	0169.3	023.0	167.5	003.0000	0049.3	074.4	37.41
338.0	000.8500	0169.3	023.0	167.2	003.0000	0048.9	074.3	37.40
339.0	000.8500	0169.1	023.0	166.9	003.0000	0048.6	074.3	37.38
340.0	000.8500	0168.6	023.0	166.6	003.0000	0048.2	074.3	37.36
341.0	000.8500	0168.0	022.9	166.3	003.0000	0047.9	074.3	37.34
342.0	000.8500	0167.3	022.9	166.0	003.0000	0047.6	074.3	37.31
343.0	000.8500	0167.3	022.9	165.7	003.0000	0047.2	074.2	37.29
344.0	000.8500	0167.8	022.9	165.4	003.0000	0046.7	074.2	37.26
345.0	000.8500	0168.6	023.0	165.0	003.0000	0046.3	074.1	37.25
346.0	000.8500	0169.2	023.0	164.7	003.0000	0046.0	074.1	37.23
347.0	000.8500	0169.6	023.0	164.4	003.0000	0045.7	074.1	37.21
348.0	000.8500	0170.1	023.1	164.1	003.0000	0045.4	074.1	37.19
349.0	000.8500	0170.5	023.1	163.8	003.0000	0045.1	074.1	37.16
350.0	000.8500	0171.2	023.1	163.5	003.0000	0044.8	074.1	37.14
351.0	000.8500	0172.2	023.2	163.2	003.0000	0044.6	074.1	37.13
352.0	000.8500	0172.9	023.2	162.8	003.0000	0044.4	074.1	37.11
353.0	000.8500	0173.1	023.2	162.5	003.0000	0044.2	074.2	37.08
354.0	000.8500	0173.4	023.3	162.2	003.0000	0044.0	074.2	37.05
355.0	000.8500	0173.7	023.3	161.9	003.0000	0043.8	074.3	37.02
356.0	000.8500	0173.9	023.3	161.6	003.0000	0043.5	074.4	36.98
357.0	000.8500	0174.1	023.3	161.3	003.0000	0043.1	074.5	36.93
358.0	000.8500	0174.4	023.3	161.0	003.0000	0042.6	074.6	36.87
359.0	000.8500	0174.6	023.3	160.7	003.0000	0042.1	074.7	36.81
000.0	000.8500	0174.3	023.3	160.4	003.0000	0041.6	074.8	36.74
001.0	000.8500	0174.0	023.3	160.1	003.0000	0041.1	075.0	36.66
002.0	000.8500	0173.6	023.3	159.8	003.0000	0040.6	075.2	36.59
003.0	000.8500	0173.9	023.3	159.5	003.0000	0040.1	075.3	36.52
004.0	000.8500	0174.3	023.3	159.2	003.0000	0039.6	075.4	36.45
005.0	000.8500	0174.6	023.3	159.0	003.0000	0039.1	075.6	36.38
006.0	000.8500	0174.8	023.3	158.7	003.0000	0038.6	075.8	36.31
007.0	000.8500	0175.0	023.4	158.4	003.0000	0038.2	076.0	36.24
008.0	000.8500	0175.1	023.4	158.1	003.0000	0037.7	076.1	36.17
009.0	000.8500	0175.0	023.4	157.9	003.0000	0037.3	076.4	36.09
010.0	000.8500	0174.6	023.3	157.6	003.0000	0036.9	076.6	36.01
011.0	000.8500	0174.2	023.3	157.4	003.0000	0036.5	076.8	35.93
012.0	000.8500	0174.1	023.3	157.1	003.0000	0036.2	077.1	35.86

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
013.0	000.8500	0175.0	023.4	156.9	003.0000	0035.8	077.3	35.80
014.0	000.8500	0175.9	023.4	156.6	003.0000	0035.6	077.5	35.74
015.0	000.8500	0176.2	023.4	156.3	003.0000	0035.4	077.7	35.67
016.0	000.8500	0176.2	023.4	156.1	003.0000	0035.3	078.0	35.61
017.0	000.8500	0176.0	023.4	155.9	003.0000	0035.2	078.2	35.55
018.0	000.8500	0175.5	023.4	155.7	003.0000	0035.2	078.5	35.49
019.0	000.8500	0175.1	023.4	155.5	003.0000	0035.1	078.8	35.43
020.0	000.8500	0175.3	023.4	155.2	003.0000	0035.1	079.1	35.37
021.0	000.8500	0175.9	023.4	155.0	003.0000	0035.1	079.4	35.31
022.0	000.8500	0176.3	023.4	154.8	003.0000	0035.0	079.6	35.25
023.0	000.8500	0176.2	023.4	154.6	003.0000	0034.8	079.9	35.17
024.0	000.8500	0175.6	023.4	154.4	003.0000	0034.7	080.3	35.09
025.0	000.8500	0174.8	023.3	154.3	003.0000	0034.5	080.6	35.01
026.0	000.8500	0174.1	023.3	154.1	003.0000	0034.3	081.0	34.92
027.0	000.8500	0173.6	023.3	153.9	003.0000	0034.0	081.3	34.84
028.0	000.8500	0173.3	023.3	153.8	003.0000	0033.7	081.6	34.74
029.0	000.8500	0173.2	023.3	153.6	003.0000	0033.4	082.0	34.65
030.0	000.8500	0173.4	023.3	153.5	003.0000	0033.0	082.3	34.56
031.0	000.8500	0174.0	023.3	153.3	003.0000	0032.6	082.6	34.47
032.0	000.8500	0174.7	023.3	153.1	003.0000	0032.2	083.0	34.37
033.0	000.8500	0175.4	023.4	152.9	003.0000	0031.8	083.3	34.28
034.0	000.8500	0176.2	023.4	152.8	003.0000	0031.4	083.6	34.19
035.0	000.8500	0177.0	023.5	152.6	003.0000	0031.0	084.0	34.09
036.0	000.8500	0178.1	023.5	152.4	003.0000	0030.7	084.3	34.00
037.0	000.8500	0178.9	023.6	152.3	003.0000	0030.4	084.6	33.91
038.0	000.8500	0179.1	023.6	152.2	003.0000	0030.1	085.0	33.82
039.0	000.8500	0178.5	023.6	152.1	003.0000	0030.0	085.4	33.74
040.0	000.8500	0177.7	023.5	152.0	003.0000	0029.9	085.8	33.65
041.0	000.8500	0177.0	023.5	151.9	003.0000	0029.7	086.2	33.57
042.0	000.8500	0176.6	023.5	151.8	003.0000	0029.6	086.6	33.49
043.0	000.8500	0176.7	023.5	151.7	003.0000	0029.5	087.0	33.41
044.0	000.8500	0176.7	023.5	151.7	003.0000	0029.4	087.4	33.33
045.0	000.8500	0176.4	023.4	151.6	003.0000	0029.3	087.8	33.25

08-23-2007 NGDC 30 SEC Terrain Data

WRFW BLED1630
Channel = 204A
Max ERP = 3 kW
RCAMSL = 351 M
N. Lat. 44 53 08.0
W. Lng. 92 39 20.0
Protected
60 dBu

KMSE(New)
Channel = 204A
Max ERP = 0.85 kW
RCAMSL = 522.05 M
N. Lat. 44 02 28.1
W. Lng. 92 20 25.4
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
105.0	003.0000	0017.2	013.2	352.3	000.8500	0173.0	091.2	33.27
106.0	003.0000	0016.7	013.2	352.3	000.8500	0173.0	091.0	33.34
107.0	003.0000	0016.4	013.2	352.2	000.8500	0173.0	090.8	33.40
108.0	003.0000	0016.0	013.2	352.1	000.8500	0173.0	090.6	33.46
109.0	003.0000	0015.8	013.2	352.1	000.8500	0173.0	090.4	33.52
110.0	003.0000	0016.3	013.2	352.0	000.8500	0172.9	090.2	33.58
111.0	003.0000	0017.7	013.2	351.9	000.8500	0172.9	090.0	33.64
112.0	003.0000	0019.8	013.2	351.9	000.8500	0172.9	089.8	33.70
113.0	003.0000	0022.1	013.2	351.8	000.8500	0172.9	089.6	33.76
114.0	003.0000	0024.3	013.2	351.7	000.8500	0172.8	089.4	33.82
115.0	003.0000	0026.3	013.2	351.6	000.8500	0172.8	089.2	33.87
116.0	003.0000	0028.0	013.2	351.6	000.8500	0172.7	089.0	33.93
117.0	003.0000	0029.2	013.2	351.5	000.8500	0172.6	088.8	33.98
118.0	003.0000	0030.1	013.2	351.4	000.8500	0172.6	088.6	34.04
119.0	003.0000	0030.9	013.4	351.4	000.8500	0172.6	088.4	34.12
120.0	003.0000	0032.0	013.6	351.4	000.8500	0172.6	088.1	34.21
121.0	003.0000	0033.4	013.8	351.4	000.8500	0172.6	087.7	34.32
122.0	003.0000	0034.8	014.1	351.4	000.8500	0172.6	087.3	34.43
123.0	003.0000	0035.9	014.3	351.4	000.8500	0172.6	087.0	34.53
124.0	003.0000	0036.5	014.4	351.4	000.8500	0172.6	086.8	34.61
125.0	003.0000	0036.7	014.5	351.3	000.8500	0172.5	086.5	34.67
126.0	003.0000	0037.0	014.5	351.2	000.8500	0172.4	086.3	34.74
127.0	003.0000	0037.6	014.7	351.1	000.8500	0172.3	086.1	34.81
128.0	003.0000	0038.5	014.8	351.1	000.8500	0172.3	085.8	34.91
129.0	003.0000	0039.3	015.0	351.0	000.8500	0172.2	085.5	34.99
130.0	003.0000	0039.7	015.1	350.9	000.8500	0172.1	085.2	35.06
131.0	003.0000	0039.9	015.1	350.8	000.8500	0172.0	085.0	35.12
132.0	003.0000	0040.3	015.2	350.7	000.8500	0171.9	084.8	35.18
133.0	003.0000	0041.2	015.4	350.7	000.8500	0171.8	084.5	35.28
134.0	003.0000	0042.4	015.6	350.6	000.8500	0171.8	084.1	35.39
135.0	003.0000	0043.7	015.9	350.6	000.8500	0171.7	083.7	35.50
136.0	003.0000	0045.1	016.2	350.5	000.8500	0171.7	083.3	35.63
137.0	003.0000	0046.5	016.5	350.5	000.8500	0171.7	082.9	35.75
138.0	003.0000	0047.7	016.8	350.4	000.8500	0171.6	082.6	35.87

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
139.0	003.0000	0048.3	016.9	350.3	000.8500	0171.5	082.3	35.95
140.0	003.0000	0047.9	016.8	350.1	000.8500	0171.3	082.2	35.96
141.0	003.0000	0046.3	016.5	349.8	000.8500	0171.0	082.4	35.90
142.0	003.0000	0043.9	015.9	349.4	000.8500	0170.8	082.7	35.79
143.0	003.0000	0041.4	015.4	349.1	000.8500	0170.6	083.0	35.67
144.0	003.0000	0038.8	014.9	348.8	000.8500	0170.5	083.4	35.56
145.0	003.0000	0036.4	014.4	348.5	000.8500	0170.3	083.7	35.45
146.0	003.0000	0034.4	014.0	348.3	000.8500	0170.2	084.0	35.37
147.0	003.0000	0032.9	013.8	348.0	000.8500	0170.1	084.2	35.31
148.0	003.0000	0031.4	013.5	347.8	000.8500	0170.1	084.3	35.25
149.0	003.0000	0029.8	013.2	347.6	000.8500	0169.9	084.5	35.20
150.0	003.0000	0028.9	013.2	347.5	000.8500	0169.9	084.4	35.21
151.0	003.0000	0028.9	013.2	347.3	000.8500	0169.8	084.4	35.23
152.0	003.0000	0029.9	013.2	347.2	000.8500	0169.7	084.3	35.25
153.0	003.0000	0031.9	013.6	347.1	000.8500	0169.7	083.9	35.37
154.0	003.0000	0034.1	014.0	347.0	000.8500	0169.6	083.5	35.51
155.0	003.0000	0035.1	014.2	346.8	000.8500	0169.6	083.2	35.57
156.0	003.0000	0035.2	014.2	346.7	000.8500	0169.5	083.1	35.60
157.0	003.0000	0036.0	014.3	346.5	000.8500	0169.4	083.0	35.65
158.0	003.0000	0037.5	014.6	346.4	000.8500	0169.4	082.6	35.75
159.0	003.0000	0039.2	015.0	346.2	000.8500	0169.3	082.3	35.86
160.0	003.0000	0040.9	015.3	346.1	000.8500	0169.2	081.9	35.97
161.0	003.0000	0042.6	015.7	345.9	000.8500	0169.1	081.5	36.09
162.0	003.0000	0043.8	015.9	345.7	000.8500	0169.0	081.2	36.17
163.0	003.0000	0044.5	016.1	345.6	000.8500	0168.9	081.1	36.22
164.0	003.0000	0045.3	016.2	345.4	000.8500	0168.8	080.9	36.27
165.0	003.0000	0046.3	016.5	345.2	000.8500	0168.7	080.7	36.33
166.0	003.0000	0047.6	016.7	345.0	000.8500	0168.6	080.4	36.42
167.0	003.0000	0048.7	017.0	344.7	000.8500	0168.4	080.2	36.48
168.0	003.0000	0050.0	017.2	344.5	000.8500	0168.3	079.9	36.54
169.0	003.0000	0051.5	017.5	344.3	000.8500	0168.1	079.7	36.62
170.0	003.0000	0053.6	017.9	344.0	000.8500	0167.9	079.3	36.73
171.0	003.0000	0056.0	018.3	343.8	000.8500	0167.7	078.9	36.84
172.0	003.0000	0057.5	018.6	343.5	000.8500	0167.5	078.7	36.90
173.0	003.0000	0058.6	018.8	343.3	000.8500	0167.4	078.6	36.93
174.0	003.0000	0059.8	018.9	343.0	000.8500	0167.3	078.5	36.97
175.0	003.0000	0061.1	019.1	342.7	000.8500	0167.2	078.4	37.00
176.0	003.0000	0062.2	019.3	342.5	000.8500	0167.2	078.3	37.02
177.0	003.0000	0063.5	019.5	342.2	000.8500	0167.2	078.2	37.05
178.0	003.0000	0063.2	019.4	342.0	000.8500	0167.3	078.3	37.02
179.0	003.0000	0060.4	019.0	341.8	000.8500	0167.4	078.8	36.87
180.0	003.0000	0057.1	018.5	341.7	000.8500	0167.4	079.4	36.69
181.0	003.0000	0053.7	017.9	341.6	000.8500	0167.5	080.1	36.48
182.0	003.0000	0050.4	017.3	341.6	000.8500	0167.5	080.7	36.26
183.0	003.0000	0048.4	016.9	341.5	000.8500	0167.6	081.2	36.11
184.0	003.0000	0046.8	016.6	341.4	000.8500	0167.7	081.6	35.99
185.0	003.0000	0046.5	016.5	341.2	000.8500	0167.8	081.8	35.94
186.0	003.0000	0046.9	016.6	341.0	000.8500	0167.9	081.9	35.93
187.0	003.0000	0047.9	016.8	340.8	000.8500	0168.1	081.8	35.96
188.0	003.0000	0049.1	017.0	340.5	000.8500	0168.3	081.7	35.99
189.0	003.0000	0050.8	017.4	340.2	000.8500	0168.5	081.6	36.05

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
190.0	003.0000	0052.4	017.7	339.9	000.8500	0168.7	081.4	36.09
191.0	003.0000	0053.8	018.0	339.7	000.8500	0168.8	081.4	36.12
192.0	003.0000	0054.8	018.1	339.4	000.8500	0168.9	081.4	36.12
193.0	003.0000	0055.5	018.3	339.2	000.8500	0169.0	081.5	36.10
194.0	003.0000	0056.9	018.5	338.9	000.8500	0169.1	081.5	36.11
195.0	003.0000	0058.5	018.8	338.6	000.8500	0169.2	081.4	36.12
196.0	003.0000	0059.9	019.0	338.3	000.8500	0169.2	081.5	36.11
197.0	003.0000	0061.1	019.1	338.1	000.8500	0169.3	081.5	36.09
198.0	003.0000	0062.1	019.3	337.8	000.8500	0169.3	081.6	36.06
199.0	003.0000	0062.6	019.4	337.6	000.8500	0169.3	081.8	36.01
200.0	003.0000	0062.4	019.3	337.5	000.8500	0169.3	082.1	35.93
201.0	003.0000	0061.9	019.3	337.3	000.8500	0169.3	082.3	35.84
202.0	003.0000	0062.3	019.3	337.1	000.8500	0169.3	082.5	35.78
203.0	003.0000	0063.7	019.5	336.9	000.8500	0169.3	082.6	35.75
204.0	003.0000	0065.7	019.8	336.6	000.8500	0169.3	082.7	35.73
205.0	003.0000	0067.7	020.1	336.3	000.8500	0169.3	082.8	35.71
206.0	003.0000	0069.5	020.3	336.0	000.8500	0169.3	082.9	35.67
207.0	003.0000	0071.0	020.5	335.7	000.8500	0169.3	083.0	35.63
208.0	003.0000	0072.5	020.7	335.5	000.8500	0169.3	083.2	35.58
209.0	003.0000	0073.7	020.9	335.2	000.8500	0169.2	083.4	35.52
210.0	003.0000	0074.1	020.9	335.1	000.8500	0169.2	083.6	35.43
211.0	003.0000	0073.7	020.9	334.9	000.8500	0169.2	084.0	35.33
212.0	003.0000	0073.2	020.8	334.8	000.8500	0169.1	084.3	35.22
213.0	003.0000	0072.7	020.8	334.8	000.8500	0169.1	084.7	35.11
214.0	003.0000	0072.5	020.7	334.6	000.8500	0169.1	085.0	35.01
215.0	003.0000	0072.8	020.8	334.5	000.8500	0169.0	085.3	34.92
216.0	003.0000	0073.6	020.9	334.3	000.8500	0168.9	085.5	34.83
217.0	003.0000	0074.9	021.0	334.1	000.8500	0168.8	085.8	34.75
218.0	003.0000	0076.3	021.2	333.9	000.8500	0168.7	086.0	34.67
219.0	003.0000	0077.7	021.4	333.7	000.8500	0168.5	086.3	34.59
220.0	003.0000	0079.1	021.6	333.5	000.8500	0168.4	086.6	34.50
221.0	003.0000	0080.8	021.8	333.2	000.8500	0168.2	086.8	34.41
222.0	003.0000	0083.1	022.1	333.0	000.8500	0168.0	087.1	34.33
223.0	003.0000	0086.2	022.5	332.6	000.8500	0167.9	087.3	34.26
224.0	003.0000	0088.9	022.9	332.3	000.8500	0167.8	087.6	34.17
225.0	003.0000	0090.4	023.1	332.1	000.8500	0167.8	087.9	34.07

EXHIBIT #19
TELEVISION CHANNEL 6 PROTECTION

Minnesota Public Radio
Minor Change to Licensed Station
KMSE
BLED-20060814AAK
Rochester, MN

August 2007

CH 204A 0.85 kW H & V Omni

Page #2 of this exhibit is a letter from the licensee of television channel 6 station KAAL-TV, the only television channel 6 facility within the 235 kilometer cutoff distance from an NCE FM station on Channel 2045. KAAL-TV, LLC has no objection to the instant proposal. Further study for channel 6 protection was therefore deemed unnecessary.

CONSENT TO UPGRADE

KAAL-TV, LLC ("KAAL"), licensee of KAAL(TV), Austin, Minnesota, Facility ID No. 18285, pursuant to Section 73.525 of the rules of the Federal Communications Commission, and subject to the terms and conditions set forth in that certain Application Consent Agreement dated as of August 31, 2007 by and between KAAL and Minnesota Public Radio (the "Agreement"), hereby consents to the filing by Minnesota Public Radio of an application for a construction permit for minor modifications to KMSE(FM), Rochester, Minnesota, Facility ID No. 83876, including an increase in operating power, and confirms that it has no objection to the grant of the application subject to the terms and conditions of the Agreement.

KAAL-TV, LLC

By: _____
Name: Robert W. Hubbard
Title: President

August 31, 2007

4751379_v3

EXHIBIT #22

R.F. EMISSION COMPLIANCE STATEMENT

Minnesota Public Radio
Minor Change to Licensed Station
KMSE
BLED-20060814AAK
Rochester, MN

August 2007

CH 204A 0.85 kW H & V Omni

The applicant proposes the continued use of registered tower ASR#1029133. This tower was constructed before March, 2001, and is therefore exempt from environmental processing. The tower location is surrounded by a locked, gated fence with RF warning signs posted. It is a controlled access area.

The proposed four-bay, circularly polarized antenna will be energized such that it produces 0.85 kW effective radiated power from a center of radiation of 142 meters above ground. Using the formulas expressed in the OET Bulletin, No. 65, August 1997, "Evaluating Compliance with F.C.C. Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", published by the Federal Communication Commission's Office of Science and Engineering, and then by applying a combination of the element and array pattern as defined in E.P.A. study PB85-245868 ("**Engineering Assessment of the Potential Impact of the Federal Radiation Protection Guidance on the AM, FM and TV Broadcast Services**") the predicted level of RF non-ionization emissions at a position of 2 meters above ground (head-height) at the base of the tower for the proposed 4-bay ERI-100-4 (Type #3) antenna is 0.087 microwatts per square centimeter ($\mu W/cm^2$), which is 0.009 percent of maximum for this controlled area.

After researching the Mass Media and ULS databases, it was determined that there are five other sources of RF emissions on the tower and four on a tower immediately adjacent. Three communications antennas, WPXY417 (intercity relay with 66.4 dBm EIRP @ 76.2 m AG), KNBW268 (Business Pool, Private Conventional with 0.245 kW ERP @ 159 m AG) and WNHX908 (Business Conventional with 0.22 kW ERP @ 169 m AG) are categorically excluded from inclusion in the study. The relevant contributions to the level of RF emission at ground level from each source are:

Call	Ch/ Freq	Power (kW)	Height (m)	Level ($\mu W/cm^2$)	Max ($\mu W/cm^2$)	Percent (Controlled)
KMSE (New)	204	0.85 H/V	142	0.087	1000	0.009
KLSE-FM*	219	94 H/V	142	9.613	1000	0.96
KRPR**	210	3.2 H/V	154	9.255	1000	0.93
KZSE**	214	1.1 H/V	228	1.439	1000	0.14
KNXR**	248	100 H/V	291	80.003	1000	8.00
K56HW***	56	75 H	161	0.615	2416.7	0.03
K58GC***	58	29 H	146	0.238	2456.7	0.01
Totals				101.25		10.079
* Diplexed with KMSE thru 4-bay ERI-100-4 (Type #3) antenna.						
** Worst case, without regard to vertical elevation field at nadir.						
*** Assumes use of high-gain UHF antenna with vertical elevation field of 0.1 at -90° and 22% aural power. Licensed facilities. Pending CPs, when licensed, will have lesser contribution.						

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.