DUPLICATE

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February 8, 2001

Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
12th Street Lobby, TW-A325
Washington, D.C. 20554

Re: KCRB-FM, Bemidji, MN
Facility ID No. 42970
Minnesota Public Radio
Application for Minor Modification

Dear Ms. Salas:

On behalf of Minnesota Public Radio ("MPR"), licensee of KCRB-FM, Bemidji, Minnesota, enclosed for filing, in triplicate, is an application on FCC Form 340 for a construction permit to make minor modifications to the station. MPR is a noncommercial educational licensee, therefore, no fee is required for this filing.

Please contact this office if there are any questions.

Respectfully submitted,

Todd M. Stansbury

cc: Mitzi T Gramling, Esq.

Federal Communications Commission
Washington, D. C. 20554

Approved by OMB
3060-0034
Expires 11/30/97

FCC 340

APPLICATION FOR CONSTRUCTION PERMIT FOR NONCOMMERCIAL EDUCATIONAL BROADCAST STATION

(Carefully read instructions before filing form) Return only form to FCC

FOR COMMISSION USE ONLY
FILE NO.

Section I - GENERAL INFORMATION

1. Name of Applicant		
Minnesota Public Radio		
Street Address or P.O. Box 45 East Seventh Street		
City Saint Paul	State MN	ZIP Code 55101
Telephone Number *(include Area Code)* 651.290.1500		

Send notices and communications to the following person at the address below:		
Name Mitzi T Gramling c/o Minnesota Public Radio		
Street Address or P.O. Box 45 East Seventh Street		
City Saint Paul	State MN	ZIP Code 55101
Telephone Number *(include Area Code)* 651.290.1259		

2. This application is for: ☐ AM ☒ FM ☐ TV

(a) Channel No. or Frequency	(b) Principal Community	City	State
203		Bemidji	MN

(c) Check one of the following boxes:

☐ Application for NEW station

☐ MAJOR change in licensed facilities; call sign: _____

☒ MINOR change in licensed facilities; call sign: KCRB (FM)

☐ MAJOR modification of construction permit; call sign: _____

File No. of construction permit; call sign: _____

☐ MINOR modification of construction permit; call sign: _____

File No. of construction permit; call sign: _____

☐ AMENDMENT to pending application: Application File Number: _____

NOTE: It is not necessary to use this form to amend a previously filed application. Should you do so, however, please submit only Section I and those other portions of the form that contain the amended information.

3. Is this application mutually exclusive with a renewal application? ☐ Yes ☒ No

If Yes, state:

Call letters	Community of License	
	City	State

February 1992 edition useable.

SECTION VI - EQUAL EMPLOYMENT OPPORTUNITY PROGRAM

Does the applicant propose to employ five or more full-time employees? ☐ Yes ☐ No

If Yes, the applicant must include an EEO program called for in the separate Broadcast Equal Employment Opportunity Program Report (FCC Form 396-A). (See also 47 C.F.R. Section 73.2080.)

SECTION VII - CERTIFICATIONS

1. Has or will the applicant comply with the public notice requirements of 47 C.F.R. Section 73.3580? ☐ Yes ☐ No ☒ Not applicable (minor change)

2. By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b). ☒ Yes ☐ No

The APPLICANT hereby waives 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 requests an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

The APPLICANT acknowledges that all the statements made in this application and attached Exhibits are considered material representations, and that all Exhibits are a material part hereof and incorporated herein.

The APPLICANT represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

In accordance with 47 C.F.R. Section. 1.65, the APPLICANT has a continuing obligation to advise the Commission, through amendments, of any substantial and significant changes in information furnished.

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.

Name Minnesota Public Radio	Signature William E Buzenberg
Title Vice President	Date 2/7/01
Typed or Printed Name of Person Signing William E Buzenberg	

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 V-B - FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. ____ SSB Referral Date ____ Referred By ____

Name of Applicant: Minnesota Public Radio

Call Letters *(if issued)*	Is this application being filed in response to an application filing window? ☐ Yes ☒ No If Yes, specify closing date: ____
KCRBFM	

Purpose of Application: *(check appropriate boxes)*

- ☐ Construct a new (main) facility
- ☐ Construct a new auxiliary backup facility
- ☐ Modify existing construction permit for main facility
- ☐ Modify existing construction permit for auxiliary backup facility
- ☒ Modify licensed main facility
  See Ex #E1, Engineering Statement
- ☐ Modify licensed auxiliary backup facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☒ Antenna supporting structure height
- ☒ Effective radiated power
- ☒ Antenna height above average terrain
- ☐ Frequency
- ☒ Antenna location
- ☐ Class
- ☐ Main Studio location per 47 C.F.R. Section 73.1125(b)(2)
- ☐ One-Step processing
- ☐ Directional Antenna
- ☐ Other *(summarize briefly)*

File Number(s): BLED19940711KA

1. Allocation:

Channel No.	Principal community to be served:		
	County	City or Town	State
203	Beltrami	Bemidji	MN

Class (*check only one box below*)
☐ A ☐ B1 ☐ B ☐ C3
☐ C2 ☒ C1 ☐ C

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

4.5 km SSE of Blackduck, Minnesota

(b) Geographical coordinates *(to nearest second)*. If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude and East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed. *(The Commission requires coordinates based on NAD 27.)*

Latitude	47 °	41 '	29 "	Longitude	94 °	31 '	06 "

Section V-B - FM BROADCAST ENGINEERING DATA (Page 2)

3. Will the antenna be mounted on an antenna structure which has been registered with the Commission? ☐ Yes ☒ No

   If Yes, provide the seven digit registration number and proceed to item 8. _____

4. Has the owner of the antenna structure filed an application for registration with the Commission? ☐ Yes ☒ No

   If yes, provide the date FCC Form 854 was filed and proceed to item 8. pending

5. Applicant certifies that antenna structure meets 6.10 meter (20 feet) exception rule and therefore does not require registration. In other words, the overall height of the entire structure is not more than 6.10 meters (20 feet) above the ground or the antenna does not extend more than 6.10 meters (20 feet) above a man-made structure (structure built for a purpose other than mounting an antenna, i.e., building, water tank, silo, fire tower, etc.). ☐ Yes ☒ No

   If yes, skip items 6 and 7.

6. Antenna structure will be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation. ☐ Yes ☒ No

   If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 8. Exhibit No.

7. Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration. ☐ Yes ☒ No

8. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☒ Yes ☐ No

   If Yes, give call letter(s) or file number(s) or both. KNBJ, pending change application

   If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any. _____

9. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
   If Yes, list old coordinates.

Latitude	°	'	"	Longitude	°	'	"

10. Has the FAA been notified of the proposed construction? ☒ Yes ☐ No

    If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. Exhibit No.

    Date Feb. 5, 2001 Office where filed Great Lakes Region

11. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	None		
(b)			

12. (a) Elevation: *(to the nearest meter)*

(1) Of the site above mean sea level; 427 meters

(2) Of the top of supporting structure above ground (*including antenna, all other appurtenances, and lighting, if any)*; and 305 meters

(3) Of the top of supporting structure above mean sea level [(a)(1) + (a)(2)]. 732 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) Above ground; 254 meters (H)
254 meters (V)

(2) Above mean sea level [(a)(1) + (b)(1)]; and 680* meters (H)
680* meters (V)

* Figure from vertical sketch to avoid rounding error

(3) Above average terrain. 259 meters (H)
259 meters (V)

13. Attach as an Exhibit sketch(es) of the supporting structure, labeling all elevations required in Question 12 above, except item 12(b)(3). If mounted on an AM directional array element, specify heights and orientations of all array towers, as well as location of FM radiator. Exhibit No. E2

14. Effective Radiated Power:

(a) ERP in the horizontal plane 100 kw (H*) 100 kw (V*)

Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevation plot of radiated field. Exhibit No. N/A
____ kw (H*) ____ kw (V*)

*Polarization

15. Is a directional antenna proposed? ☐ Yes ☒ No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s), and tabulations of horizontally and vertically polarized radiated components in terms of relative field. Exhibit No. N/A

16. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? ☒ Yes ☐ No

If No, attach as justification an Exhibit pursuant to 47 C.F.R. Section 73.1125. Exhibit No.

17. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast (*except citizens band or amateur*) radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna,any protected or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? [X] Yes [ ] No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued f necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. (*See 47 C.F.R. Section 73.315(b), 73.316(d) and 73.318.*) Exhibit No. E3

18. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. Exhibit No. E4

19. Attach as an Exhibit (name the source) a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: Exhibit No. E5

(a) The proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) The 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mv/m contour; and

(c) The legal boundaries of the principal community to which the station is or will be licensed.

20. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mv/m contour.

Area 14,968 sq. km. Population 55,563

21. Attach as an Exhibit a map (*Sectional Aeronautical charts where obtainable*) showing the present and proposed 1 mv/m (60 dbu) contours.

See Ex #E6, Change Area

Enter the following from Exhibit above:

Gain Area - sq. km.
Loss Area 1588 sq. km.
Present Area 16060 sq. km.

Percent change (gain area plus loss area as divided by present area times 100%) -9.9%

If 50% or more, this constitutes a major change. Indicate in question 2(c), Section 1, accordingly. See 47 C.F.R. Section 73.3573(a)(1).)

22. For an application involving an auxiliary backup facility only, attach as an Exhibit a map (*Sectional Aeronautical Chart or equivalent)* which shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

(a) the proposed auxiliary 1 mv/m contour; and

(b) the 1 mv/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675.

File No. _____

23. Terrain and coverage data (*to be calculated in accordance with 47 C.F.R. Section 73.313*)

Source of terrain data: (*check only one box below*)

☐ Linearly interpolated 30-second database ☐ 7.5 minute topographic map

(Source: _____)

☒ Linearly interpolated 3-second database ☐ Other (summarize)
USGS V-Soft ROM

Are more than eight radials being used to calculate HAAT? ☒ Yes ☐ No

If Yes, specify how many radials are being used. Please note the radials must be evenly spaced and start with the 0 degree radial. 36

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)	If operating on Commercial Channel 3.16 mv/m contour (kilometers)
0	*	*	*
45	*See Ex #E1, Pg #3	*	*
90	*	*	*
135			
180			
225			
270			
315			

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

24. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No. N/A

25. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? [X] Yes [ ] No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under the Canada-United States FM Agreement of 1947. Exhibit No. E7

26. If the proposed operation is for a full service or Class D facility for a channel in the range from Channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a Class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: Exhibit No. E7

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths;

(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused;

(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received;

(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference;

(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities;

(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof;

(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified; and

(h) The name of the map(s) used in the Exhibit(s).

27. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz), attach as an Exhibit information required in 1/ (separation requirements involving intermediate frequency (i.f.) interference). Exhibit No. E7

28. (a) Is the proposed operation on Channel 218, 219 or 220? [ ] Yes [X] No

(b) If the answer to (a) is Yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? [ ] Yes [ ] No N/A

(c) If the answer to (b) is Yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No. N/A

(d) If the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. N/A

1/ A showing that the proposed operation meets the minimum distance separation requirements of 47 C.F.R. Section 73.507. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No. N/A

(1) Protected and interfering contours, in all directions (360 degrees), for the proposed operation;

(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location;

(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur;

(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s) (Sufficient lines should be shown so that the location of the sites may be verified.); and

(5) The official title(s) of the map(s) used in the Exhibit(s).

29. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

[X] Yes [ ] No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No. E8

30. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1 through 107.9 MHz)?

[ ] Yes [X] No

If Yes, attach as an Exhibit information required in 1/. (Except for Class D (secondary) proposals.)

Exhibit No. N/A

31. Environmental Statement. *(See 47 C.F.R. Section 1.1301 et seq.)*

(a) Would a Commission grant of this application come within 47 C.F.R. Section 1.1307, such that it may have a significant environmental impact?

[ ] Yes [X] No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by 47 C.F.R. Section 1.1311.

Exhibit No. N/A

(b) If No, explain briefly why not.

Tower categorically excluded.

(c) Pursuant to OST/OET Bulletin No. 65, the applicant must explain in an Exhibit what steps will be taken to limit the RF radiation exposure to the public and to persons authorized access to the tower site. In addition, where there are multiple contributors to radiofrequency radiation, you must certify that the established RF radiation exposure procedures will be coordinated with all stations.

See Ex #E9 for RF hazard compliance statement.

CERTIFICATION

I certify that I have prepared this Section of this application 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 (Typed or Printed) Douglas L. Vernier	Relationship to Applicant (e.g., Consulting Engineer) Technical Consultant
Signature Douglas L Vernier	Address (include ZIP Code) 1600 Picturesque Drive Cedar Falls, IA 50613
Date February 6, 2001	Telephone No. (include Area Code) 319 266-8402

Doug Vernier
1600 Picturesque Drive
Cedar Falls, Iowa 50613

Telecommunication Consultants

EXHIBIT #E1
ENGINEERING STATEMENT

Concerning the Application of
Minnesota Public Radio
To Make a Minor Change to KCRBFM
A Non-Commercial FM Station
Serving Bemidji, Minnesota

BLED19940711KA

February 2001

Channel 203C1 **100 kW H & V**

This engineering statement supports the application filed by Minnesota Public Radio to make a minor change to KCRBFM, a non-commercial, educational FM station serving Bemidji, Minnesota.

Minnesota Public Radio proposes to change the antenna location, decrease the antenna supporting structure height, decrease the antenna height above average terrain and increase maximum ERP. No other changes are being proposed.

Exhibit #E2 is a vertical sketch of the proposed tower, depicting the proposed side mounted 12-bay circularly polarized antenna. The applicant proposes to diplex a signal for KNBJ on Channel 217 through the same antenna.

Exhibit #E3 is an exhibit describing the possible effects of inter-modulation and blanketing.

Exhibit #E4 is full scale section of a 1:24,000 scale U.S. Geological Survey topographic quadrangle map (Blackduck, Minnesota Quadrangle) showing the exact transmitter location. Page #2 is a reduction of the map, showing the corner edge markings.

Exhibit #E5 is a map of the proposed 1 mV/m (60 dBu) signal contour. Bemidji, Minnesota, the city of licensee, is shown to be fully encompassed by the proposed 60 dBu city service contour. The coverage map was computer generated using U.S. Geological Survey Digital Line Graph data, which was originally digitized from 1:2,000,000 scale maps. Three hundred and sixty evenly spaced radials were used to plot the 60 dBu contour. The area within the proposed one mV/m contour amounts to 14,968 square kilometers. This figure was determined using numerical calculus. The

Phone: (319) 266-8402 E-mail: dvernier@v-soft.com Fax: (319) 266-9212

distance to the one mV/m signal contour along each of 360 evenly spaced radial azimuths was squared and then the average of the sum of these distances was calculated. The resulting average radius squared was then multiplied by π to determine the area within the contour. The population within the 60 dBu service contour was determined to be 55,563 people through the use of a computer program which extracts a population count based on population centroids defined by U.S. Census 1990 (PL-94-171) digital census data. This program draws data from the following summary level: State-County-Voting District/Remainder-County Subdivision, Place/Remainder-Census Tract/Block Numbering Area-Block Group.

Thirty-six evenly spaced radials were used to determine the antenna height above average terrain. The N.G.D.C. 03 arc-second terrain database was used to determine the radial elevations at .1 kilometer increments from 3 to 16 kilometers. The elevation points were averaged using the required four-point interpolation method and then the average was employed to project antenna heights above average terrain and the consequent distances to signal contours along the pertinent radials. (See a tabular listing of these contour distances on page #3 of this exhibit.)

Exhibit #E6 is a Change Area Map. The loss area is 1,588 sq. km. There is no gain area. KCRBFM's current area is 16,060 sq. km., resulting in a change area of –9.9%

Exhibit #E7 is a single channel, contour to contour, allocation study showing that interference is neither caused nor received by an FM radio station, application for facilities or construction permit. There are no I.F. relationships. The proposal is within 320 kilometers of the U.S. border with Canada, however all Working Agreement minimum separation spacings are met or exceeded.

Exhibit #E8 is a Channel 6 TV study, showing a map of the 47 dBu, Grade B, protected signal contours of KBRJTV, Superior, Wisconsin. The map also contains a plot of the proposed facility's 53.5 dBu F(50-10) interference signal, as defined by Section 73.525 of the Commission's rules. This contour was produced using a mixed polarization study power of 102.5 kW (100 + 100/40). Although the 6 dB receiving antenna directivity credit was applicable, it was not used in this "worst case" scenario. Pages #2-3 are tabular printouts of the predicted distances to the relevant contours used in the study. Page #4 is a certification that KBRJTV has been notified of these proposed changes.

Exhibit #E9 shows compliance with the Commission's R.F. emission's standards.

Page #4 of this exhibit (Ex. # E1) is a declaration made by the preparer, Doug Vernier, attesting to his qualifications.

Doug Vernier - Telecommunications Consultants
KCRB, Minnesota Public Radio, Minor Change Application
ERP = 100 kW
Channel = 203

Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-50) Distance to 60 dBu Contour km
0	428.5	251.8	20.000	68.39
10	429.0	251.3	20.000	68.34
20	430.6	249.7	20.000	68.21
30	430.7	249.6	20.000	68.21
40	433.2	247.1	20.000	68.00
50	435.4	244.9	20.000	67.82
60	432.4	247.9	20.000	68.06
70	427.7	252.6	20.000	68.45
80	424.4	255.9	20.000	68.73
90	417.6	262.7	20.000	69.30
100	413.3	267.0	20.000	69.66
110	409.2	271.1	20.000	70.01
120	413.4	266.9	20.000	69.65
130	416.6	263.7	20.000	69.38
140	419.8	260.5	20.000	69.11
150	421.4	258.9	20.000	68.98
160	421.9	258.4	20.000	68.94
170	418.6	261.7	20.000	69.22
180	412.4	267.9	20.000	69.74
190	409.1	271.2	20.000	70.01
200	409.9	270.4	20.000	69.95
210	410.5	269.8	20.000	69.90
220	413.6	266.7	20.000	69.64
230	420.1	260.2	20.000	69.09
240	424.1	256.2	20.000	68.75
250	430.0	250.3	20.000	68.27
260	429.4	250.9	20.000	68.32
270	433.5	246.8	20.000	67.98
280	428.4	251.9	20.000	68.40
290	418.8	261.5	20.000	69.20
300	409.2	271.1	20.000	70.01
310	409.7	270.6	20.000	69.97
320	414.5	265.8	20.000	69.56
330	414.9	265.4	20.000	69.53
340	419.0	261.3	20.000	69.18
350	422.8	257.5	20.000	68.86
Ave. =	420.9 M	259.4 M		

Antenna Radiation Center AMSL =680.3
NGDC 03 Arc Sec.

Geographic Coordinates:

N. Lat. 47 41 29
W. Lng. 94 31 06

Declaration:

I, Doug Vernier, declare that I have received training as an engineer from the University of Michigan School of Engineering. That, I have received degrees from the University in the field of Broadcast Telecommunications. That, I have been active in broadcast consulting for over 25 years;

That, I have held a Federal Communications Commission First Class Radiotelephone License continually since 1964. In 1985, this license was reissued by the Commission as a lifetime General Radiotelephone license no. PG-16-16464;

That, I am certified as a Professional Broadcast Engineer (#50258) by the Society of Broadcast Engineers, Indianapolis, Indiana. (Re-certified 11/95.)

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

That, I have been retained by Minnesota Public Radio, St. Paul, Minnesota, and as such have prepared the engineering showings appended hereto;

That, a portion of the exhibits contained herein were prepared under my supervision by Kate Michler, Associate;

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

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

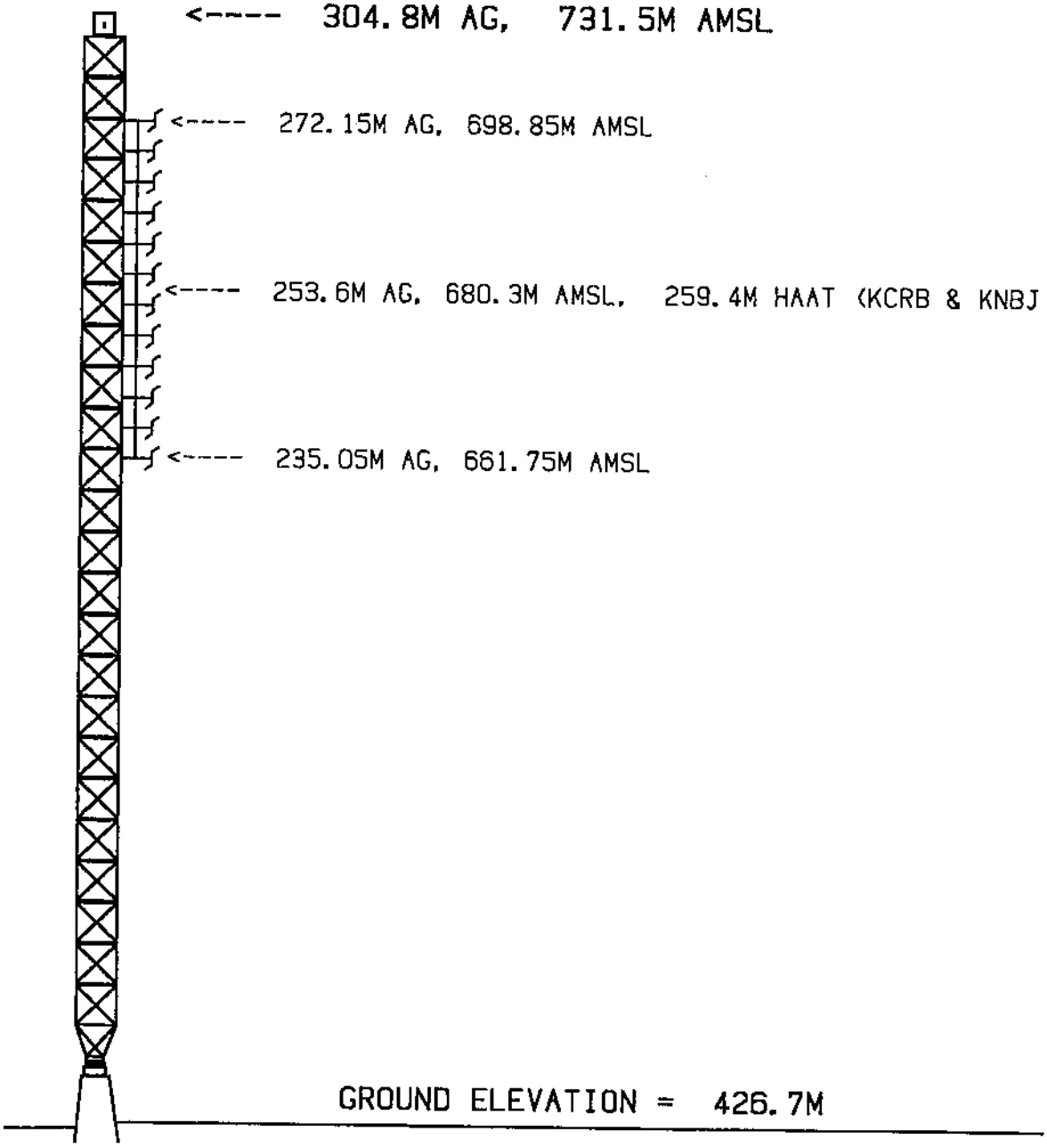
Douglas L. Vernier

Executed on February 2, 2001

Subscribed and sworn before me this 2nd day of February, 2001.

Notary Public in and for the State of Iowa

My Commission Expires August 10, 2001



VERTICAL SKETCH

N. Lat. 47 41 29
W. Lng. 94 31 06

(Not to Scale)

EXHIBIT #E2

KCRBFM, Ch 203 259.4HAAT
Minnesota Public Radio
Bemidji, MN

Feb 2001

DOUG VERNIER
BROADCAST CONSULTANT
1600 PICTURESQUE DR.
CEDAR FALLS, IA 50613
319 266-8402

EXHIBIT #E3
Inter-modulation Interference
February 2001

Concerning the Application of
Minnesota Public Radio
For KCRBFM
Bemidji, Minnesota

88.5 MHz

The 115 dBu blanketing contour of the proposed facility travels 3.94 kilometers from the proposed 100 kW ERP antenna. There is no permanent population within this area.

There is a NTSC TV station and a DTV application within ten kilometers of the proposed facility. In another application, Minnesota Public Radio proposes to install an additional antenna on this tower for KNBJ using 91.3 MHz. Page #2 of this exhibit lists pertinent information as to the existing facilities and locations.

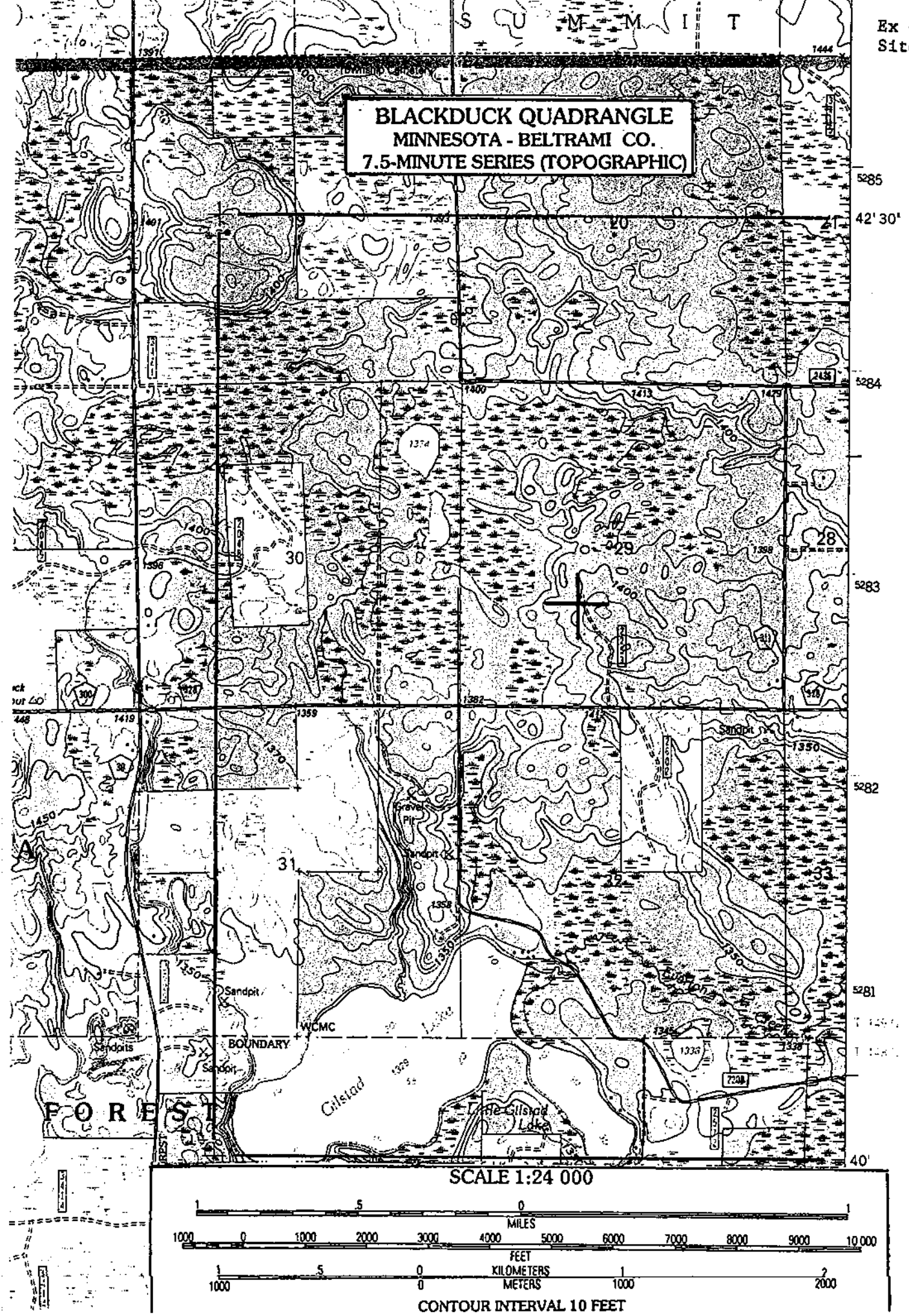
Since the applicant proposes to add another FM signal in diplex with the proposed FM signal, it is possible for a signal mix to occur. Without proper filtering, this combination could be introduced to the IPA's of either of the two transmitters resulting in a mix of the original transmitter frequencies plus or minus the mix frequency. The applicant is aware of such a possibility and will use proper filtering to assure that inter-modulation will be effectively eliminated.

Minnesota Public Radio is aware of its responsibility under the rules relating to inter-modulation and objectionable blanketing interference. It will correct any such interference, at its own expense, within a period of one year from commencement of broadcasting at the proposed transmitter site. Corrections shall employ traditional means such as filters, traps and tuning adjustments.

ID Stations Study at 47 41 29 N, 94 31 06 W, Search Distance = 10 km

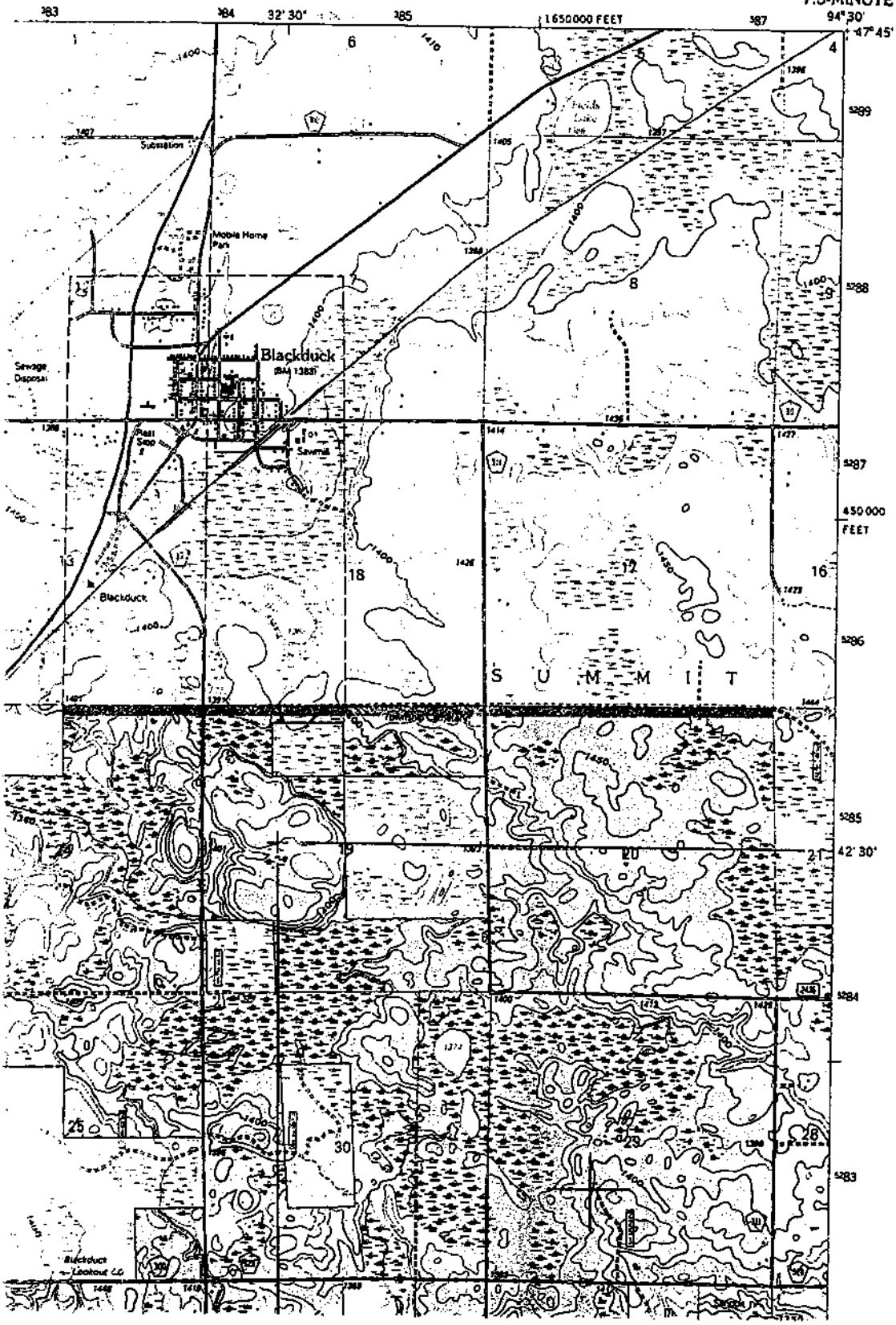
Call	City	State	Chan.	Power	Coordinates	
Dist-km	Azimuth	File Number				
AM ------- None Found ----------						
FM ----------						
KCRBFM	Bemidji	MN	203C1	0095.000kW	474203N	942915W
002.5	065.5	BLED19940711K		FM		
KNBJ	Bemidji	MN	217C1	0060.000kW	474203N	942915W
002.5	065.5	BLED19940711K		FM		
AVAC	Blackduck	MN	252C1	0000.000kW	474053N	942719W
004.9	103.2			FM		
TV ----------						
KAWE	Bemidji	MN	09E	0316.000kW	474203N	942915W
002.5	065.5	BLET19800718K		TV		
KAWE-D	Bemidji	MN	18	0050.000kW	474203N	942915W
002.5	065.5	BPEDT20000203		TV		

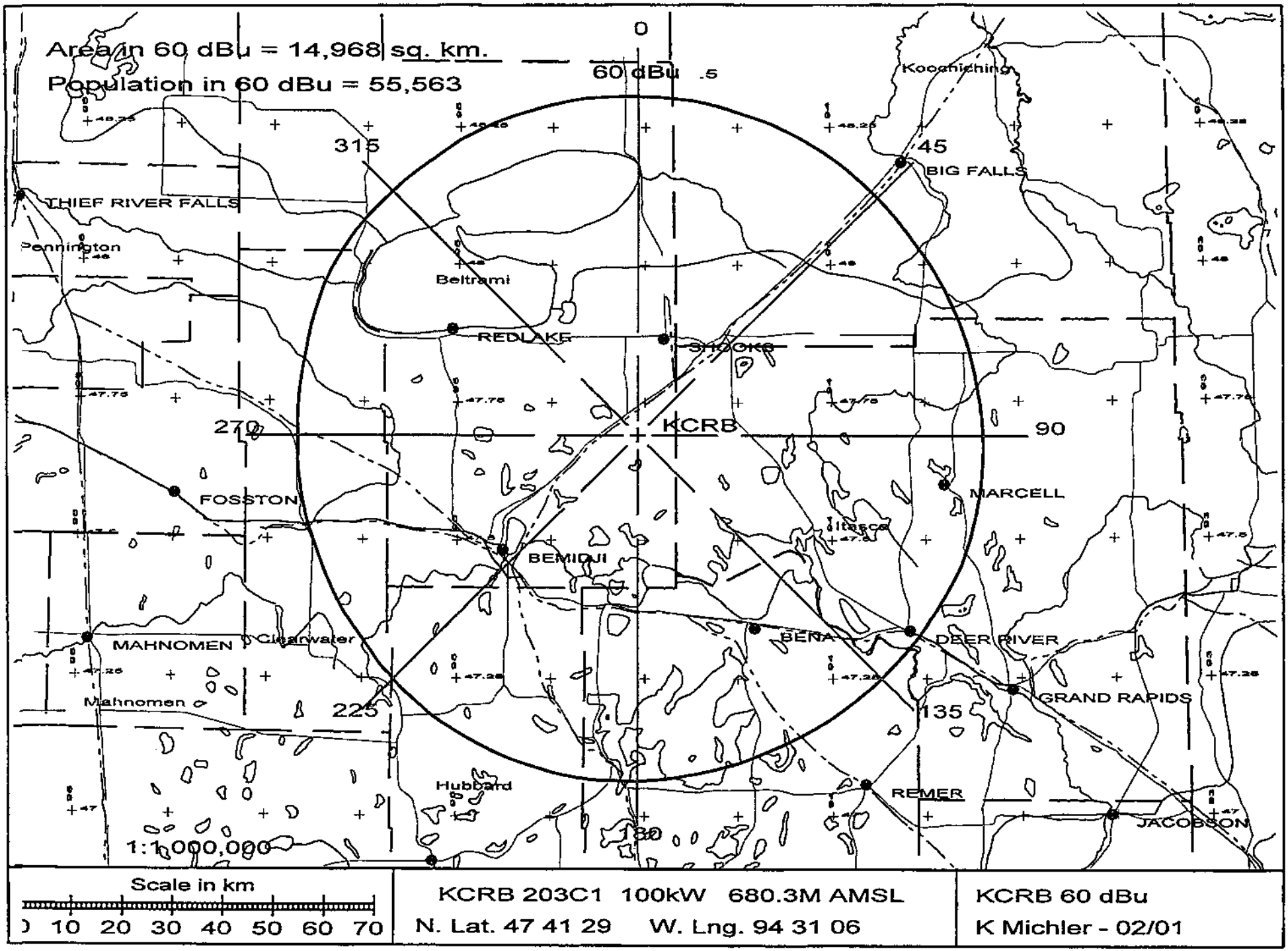
Ex #E4,
Site Map



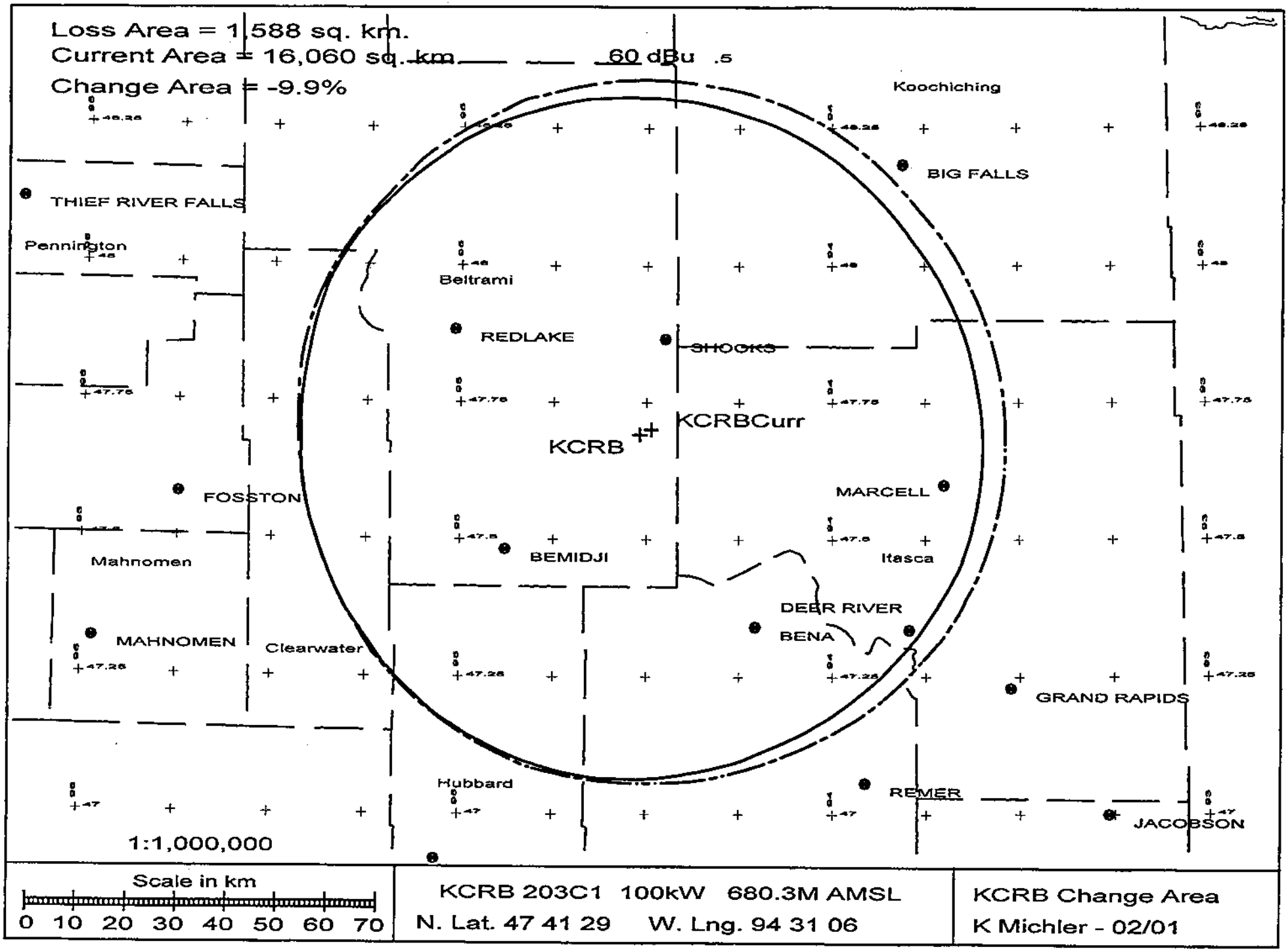
) STATES
)F AGRICULTURE
' SERVICE

BLACKDUCK QUADRANGLE
MINNESOTA - BELTRAMI CO.
7.5-MINUTE SERIES (TOPOGRAPHIC)





Ex #E5, Coverage



Ex #E6, Change Area

Exhibit #E7, Allocation
KCRBFM

Minnesota Public Radio
Bemidji, Minnesota

Allocation Exhibit Index to Studies

KCRB
Minor Change Application

REFERENCE
47 41 29 N
94 31 06 W

CH# 203C1 - 88.5 MHz, Pwr= 100 kW, HAAT=259.4 M, COR= 680 M
Average Protected F(50-50)= 69.02 km
Ave. F(50-10) 40 dBu= 168.2 54 dBu= 101.1 80 dBu= 31.2 100 dBu= 9.4

DISPLAY DATES
DATA 01-31-01
SEARCH 02-01-01

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
203C1 Bemidji	KCRBFM	LIC CN MN	65.5 245.5	2.54 BLED19940711KA	47 42 03 94 29 15	95.000 297	717 170.4	71.6 American Public Media Grou	-236.85	-237.28
202A International Falls	*AP202	APP CX MN	44.9 224.9	123.92 BNPED20000119ACU	48 28 24 93 20 00	5.750 43	397 27.7	18.8 Minnesota Public Radio	28.39	5.44
> Reference HAAT at 44.9°= 245.5 M, Pwr= 100.0 kW, Pro. Dist. = 67.87 km, Int Dist. = 99.67 km										
202C2 Baxter	990602	APP CN MN	169.2 349.2	149.15 BPED19990602MG	46 22 23 94 09 16	50.000 44	415 54.4	31.4 Csn International	25.69	16.67
202C3 Brainerd	*981113	APP CN MN	178.2 358.2	141.13 BPED19981113MC	46 25 21 94 27 41	5.000 198	597 55.2	37.2 American Public Media Grou	16.34	2.20
> Reference HAAT at 178.2°= 265.7 M, Pwr= 100.0 kW, Pro. Dist. = 69.55 km, Int Dist. = 101.71 km										
203A Superior	971211	APP VN WI	118.0 298.0	207.84 BPED19971211MC	46 47 21 92 06 51	1.000 87	390 57.7	17.2 St Of Wi Educational Comm.	81.15	22.46
202A Brainerd	990528	APP CN MN	172.8 352.8	144.22 BPED19990528MD	46 24 15 94 16 56	5.000 79	448 37.0	24.3 Rochester Community Radio	38.18	18.84
206B Fort Frances	CKSB9F	OPE CN ON	29.0 209.0	120.95	48 38 22 93 43 14	50.000 142	0 5.8	63.9	46.12	43.82
206C2 Waubun	960328	APP VN MN	226.6 46.6	105.20 BPED19960328ME	47 02 18 95 31 34	50.000 85	555 4.5	42.0 Niijii Broadcast Corporati	31.70	53.83
256C1 Walker	KLLZFM	LIC CN MN	209.5 29.5	61.23 BLH19940302KA	47 12 42 94 55 02	100.000 150	592 0.0	58.5 Bg Broadcasting, Inc.	34.0R	27.2M
204C1 Fargo	KFBN	LIC EN ND	250.5 70.5	215.74 BLED19971222KD	47 00 48 97 11 37	100.000 265	556 101.6	69.5 Fargo Baptist Church	45.08	45.17
06+2C Superior	KBJRTV	LI HY WI	118.0 298.0	207.84 BLCT20000517AEX	46 47 21 92 06 51	100.000 302	603 0.0	103.7 Kbjr License, Inc.	To Grd B=	104.13

* = ERP and HAAT on direct line to and from reference station.

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.

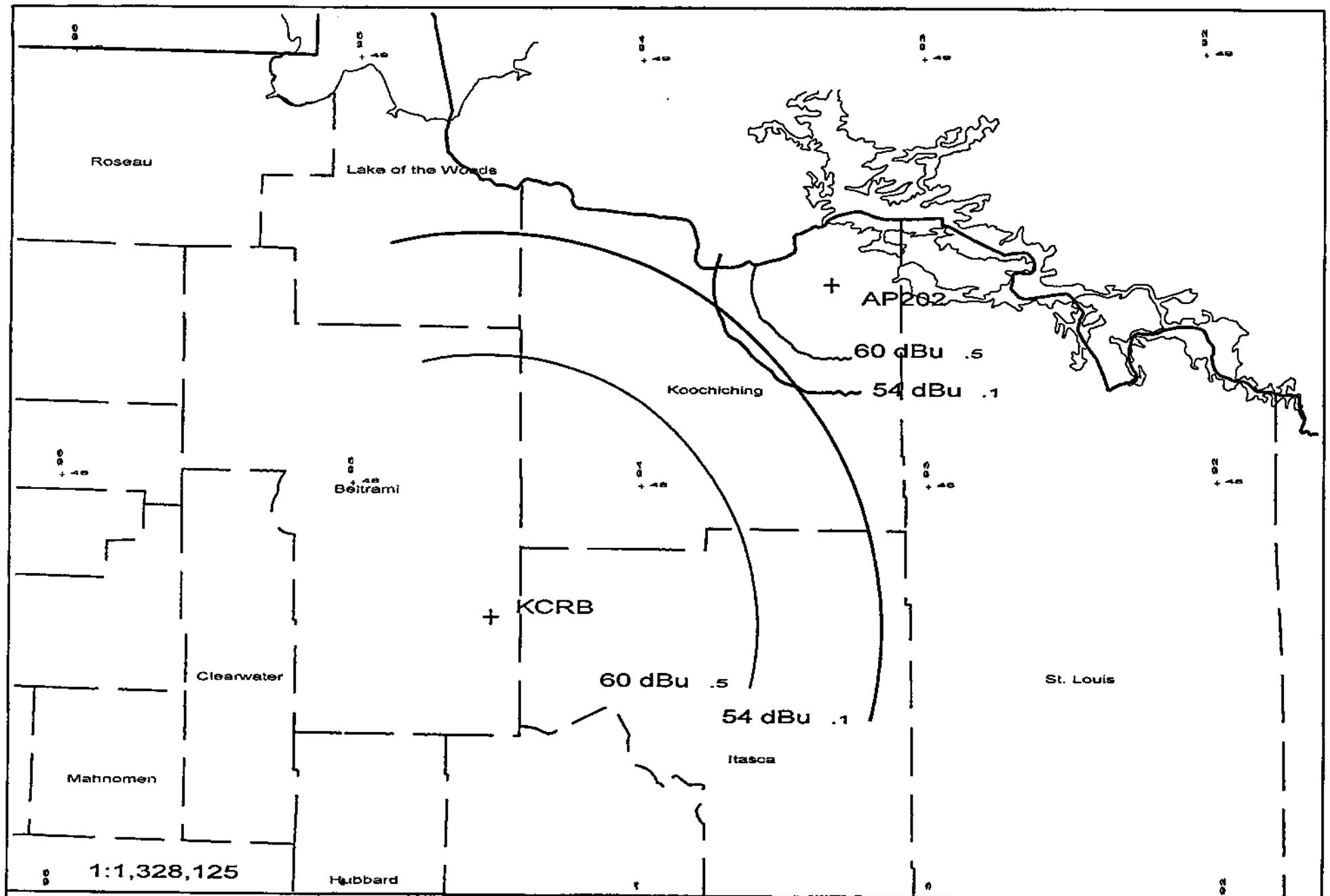
The column listed "* IN *" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 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 along the azimuths between the reference station and the database station are used and visa versa. The column labeled "* OUT *" shows the distance of 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 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" or "Z" (Sec. 73.215) if the facility is directional. 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.


Roseau
Lake of the Woods
AP202
60 dBu .5
54 dBu .1
Koochiching
Beltrami
KCRB
Clearwater
60 dBu .5
54 dBu .1
St. Louis
Itasca
Mahnomen
1:1,328,125
Hubbard
Scale in km
0 10 20 30 40 50 60 70
KCRB 203C1 100kW 680.3M AMSL
AP202 202A 5.75kW 397M AMSL
KCRB vs AP202
K Michler - 02/01

Ex #E7, Pg #4

Doug Vernier Telecom Consultants
02-02-2001 03 Sec. Terrain Data

AP202 BNPED20000119ACU
Channel = 202A
Max ERP = 5.75 kW
RCAMSL = 397 M
N. Lat = 48 28 24
W. Lng = 93 20 00

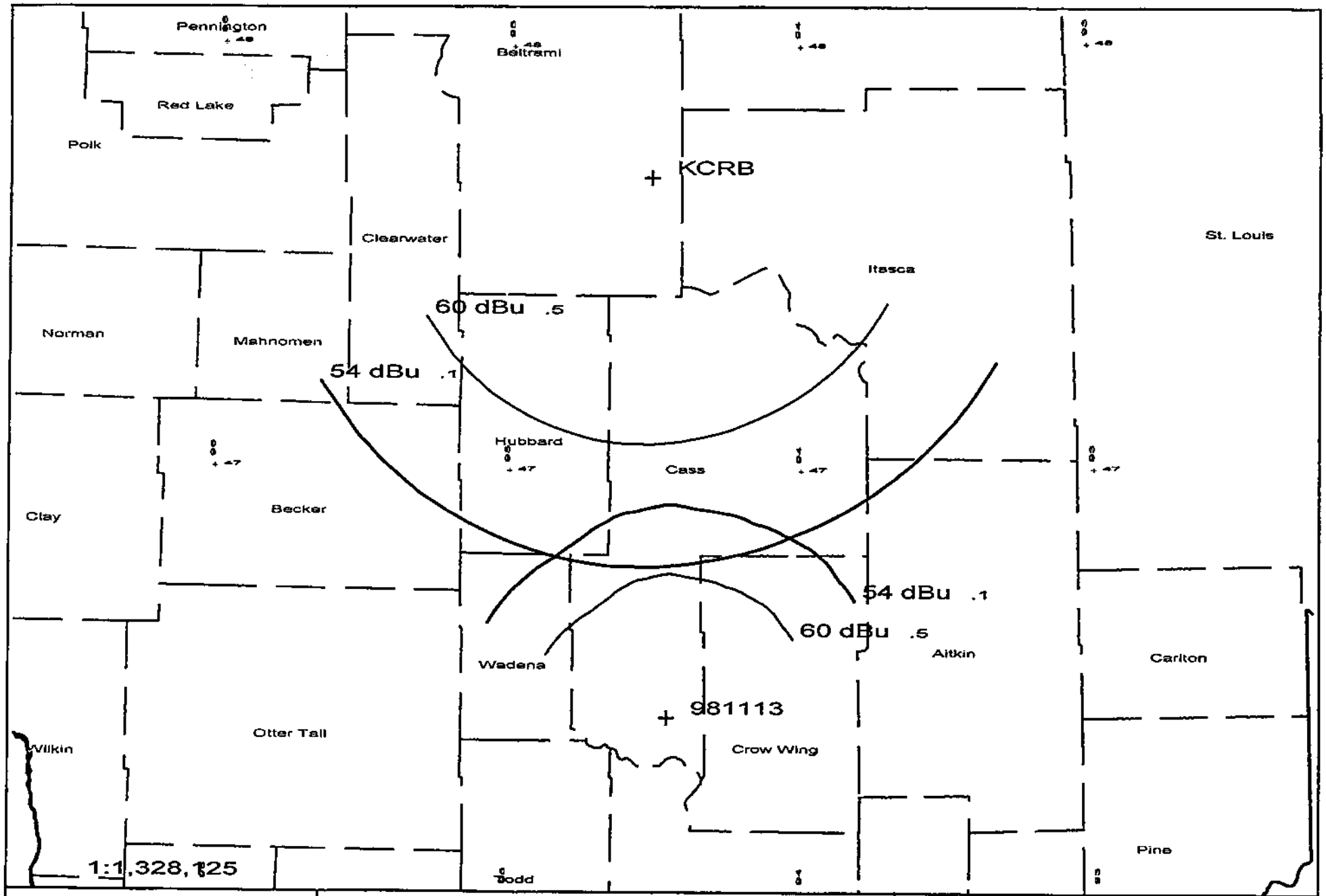
KCRBFM BLED19940711KA
Channel = 203C1
Max ERP = 100 kW
RCAMSL = 680.3 M
N. Lat = 474129
W. Lng = 943106

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
196.0	005.7500	0045.2	019.3	050.0	100.0000	0244.9	107.6	51.7
197.0	005.7500	0044.6	019.2	049.9	100.0000	0244.9	107.6	51.7
198.0	005.7500	0044.1	019.0	049.7	100.0000	0244.9	107.5	51.7
199.0	005.7500	0044.0	019.0	049.5	100.0000	0244.9	107.3	51.8
200.0	005.7500	0044.1	019.1	049.4	100.0000	0245.1	107.1	51.8
201.0	005.7500	0044.2	019.1	049.2	100.0000	0245.1	106.9	51.9
202.0	005.7500	0044.3	019.1	049.1	100.0000	0245.1	106.8	51.9
203.0	005.7500	0044.5	019.1	048.9	100.0000	0245.1	106.6	52.0
204.0	005.7500	0044.7	019.2	048.8	100.0000	0245.1	106.4	52.0
205.0	005.7500	0045.0	019.2	048.6	100.0000	0245.1	106.2	52.1
206.0	005.7500	0045.2	019.3	048.5	100.0000	0245.4	106.0	52.2
207.0	005.7500	0045.1	019.3	048.3	100.0000	0245.4	105.9	52.2
208.0	005.7500	0045.0	019.3	048.1	100.0000	0245.4	105.8	52.2
209.0	005.7500	0044.8	019.2	048.0	100.0000	0245.4	105.7	52.2
210.0	005.7500	0044.6	019.2	047.8	100.0000	0245.4	105.7	52.2
211.0	005.7500	0044.4	019.1	047.6	100.0000	0245.4	105.6	52.3
212.0	005.7500	0043.6	018.9	047.4	100.0000	0245.6	105.7	52.2
213.0	005.7500	0042.7	018.7	047.2	100.0000	0245.6	105.8	52.2
214.0	005.7500	0042.4	018.6	047.0	100.0000	0245.6	105.8	52.2
215.0	005.7500	0042.2	018.6	046.8	100.0000	0245.6	105.8	52.2
216.0	005.7500	0042.1	018.6	046.7	100.0000	0245.6	105.7	52.2
217.0	005.7500	0042.1	018.6	046.5	100.0000	0245.8	105.7	52.3
218.0	005.7500	0042.0	018.6	046.3	100.0000	0245.8	105.6	52.3
219.0	005.7500	0042.1	018.6	046.1	100.0000	0245.8	105.6	52.3
220.0	005.7500	0042.2	018.6	046.0	100.0000	0245.8	105.5	52.3
221.0	005.7500	0042.3	018.6	045.8	100.0000	0245.8	105.4	52.3
222.0	005.7500	0042.5	018.7	045.6	100.0000	0245.8	105.4	52.3
223.0	005.7500	0042.7	018.7	045.5	100.0000	0245.8	105.3	52.4
224.0	005.7500	0042.9	018.8	045.3	100.0000	0245.8	105.2	52.4
225.0	005.7500	0043.0	018.8	045.1	100.0000	0245.8	105.2	52.4
226.0	005.7500	0043.1	018.8	044.9	100.0000	0245.8	105.2	52.4
227.0	005.7500	0043.2	018.8	044.7	100.0000	0245.8	105.2	52.4
228.0	005.7500	0043.2	018.8	044.6	100.0000	0245.8	105.2	52.4
229.0	005.7500	0043.4	018.9	044.4	100.0000	0245.9	105.1	52.4
230.0	005.7500	0043.3	018.9	044.2	100.0000	0245.9	105.2	52.4
231.0	005.7500	0043.2	018.8	044.0	100.0000	0245.9	105.3	52.4

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
232.0	005.7500	0043.1	018.8	043.9	100.0000	0245.9	105.3	52.4
233.0	005.7500	0043.3	018.9	043.7	100.0000	0245.9	105.3	52.4
234.0	005.7500	0043.6	018.9	043.5	100.0000	0246.4	105.3	52.4
235.0	005.7500	0043.9	019.0	043.3	100.0000	0246.4	105.3	52.4
236.0	005.7500	0044.1	019.1	043.1	100.0000	0246.4	105.3	52.4
237.0	005.7500	0044.4	019.1	042.9	100.0000	0246.4	105.3	52.4
238.0	005.7500	0044.6	019.2	042.8	100.0000	0246.4	105.3	52.4
239.0	005.7500	0045.1	019.3	042.6	100.0000	0246.4	105.3	52.4
240.0	005.7500	0045.9	019.5	042.4	100.0000	0246.6	105.2	52.4
241.0	005.7500	0047.2	019.7	042.1	100.0000	0246.6	105.1	52.4
242.0	005.7500	0048.1	020.0	041.9	100.0000	0246.6	105.0	52.5
243.0	005.7500	0049.0	020.1	041.7	100.0000	0246.6	104.9	52.5
244.0	005.7500	0049.7	020.3	041.5	100.0000	0246.6	104.9	52.5
245.0	005.7500	0050.1	020.4	041.3	100.0000	0246.8	105.0	52.5
246.0	005.7500	0050.3	020.4	041.1	100.0000	0246.8	105.1	52.5
247.0	005.7500	0050.3	020.4	040.9	100.0000	0246.8	105.2	52.4
248.0	005.7500	0050.0	020.4	040.8	100.0000	0246.8	105.4	52.4
249.0	005.7500	0049.9	020.3	040.6	100.0000	0246.8	105.6	52.3
250.0	005.7500	0049.8	020.3	040.4	100.0000	0247.1	105.8	52.3
251.0	005.7500	0049.8	020.3	040.3	100.0000	0247.1	106.0	52.2
252.0	005.7500	0049.8	020.3	040.1	100.0000	0247.1	106.2	52.2
253.0	005.7500	0049.9	020.4	039.9	100.0000	0247.1	106.3	52.1
254.0	005.7500	0050.2	020.4	039.8	100.0000	0247.1	106.5	52.1
255.0	005.7500	0050.6	020.5	039.6	100.0000	0247.1	106.6	52.0
256.0	005.7500	0050.8	020.5	039.4	100.0000	0247.4	106.8	52.0


Pennington
Beltrami
Red Lake
Polk
KCRB
Clearwater
St. Louis
Itasca
60 dBu .5
Norman
Mahnomen
54 dBu .1
Hubbard
Cass
Clay
Becker
54 dBu .1
60 dBu .5
Wadena
Aitkin
Carlton
981113
Otter Tail
Wilkin
Crow Wing
Pine
Todd
1:1,328,125
Scale in km
0 10 20 30 40 50 60 70
KCRB 203C1 100kW 680.3M AMSL
981113 202C3 5kW 597M AMSL
KCRB vs 981113
K Michler - 02/01

Ex #E7, Pg #7

Doug Vernier Telecom Consultants
02-01-2001 03 Sec. Terrain Data

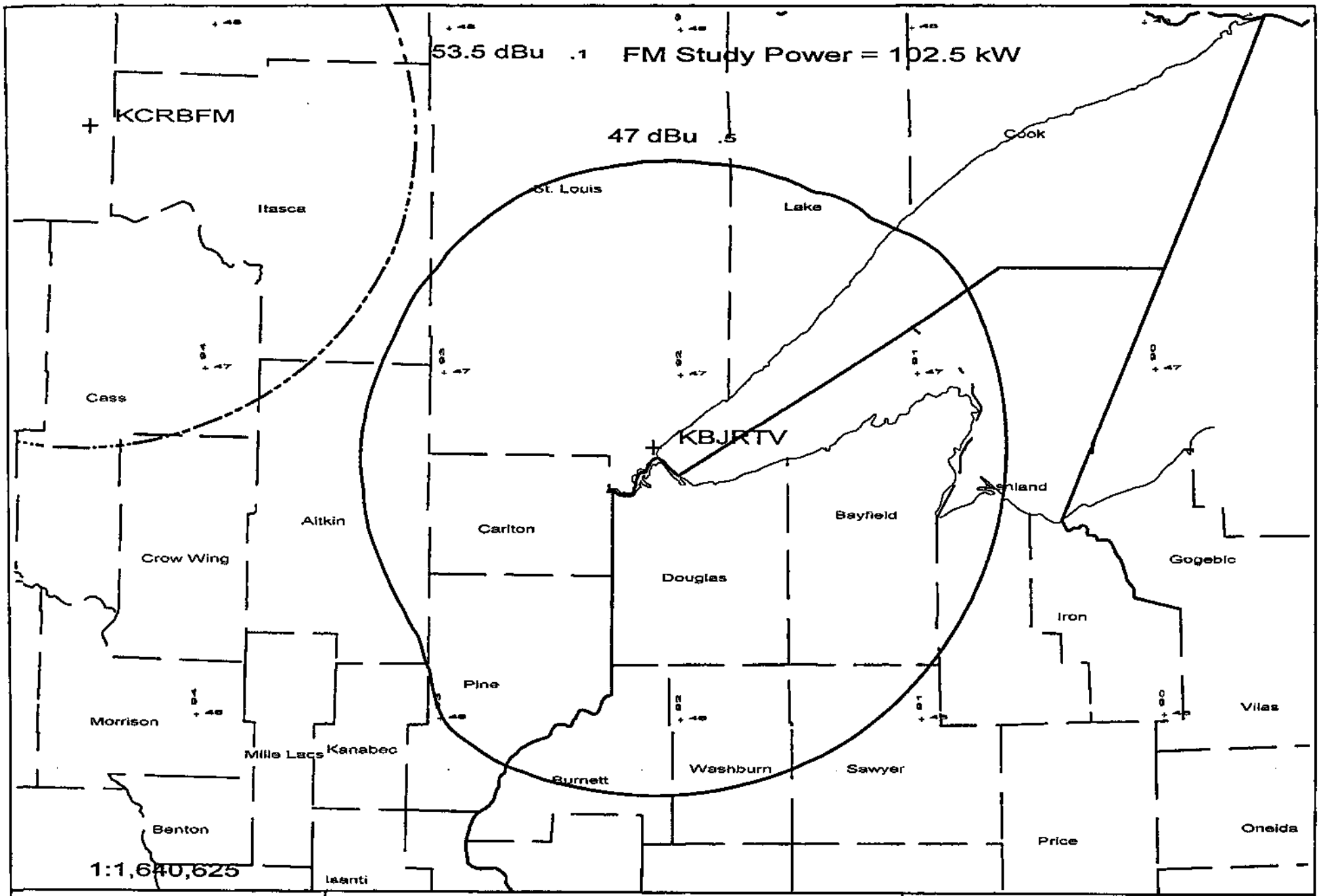
981113 BPED19981113MC
Channel = 202C3
Max ERP = 5 kW
RCAMSL = 597 M
N. Lat = 46 25 21
W. Lng = 94 27 41

KCRB
Channel = 203C1
Max ERP = 100 kW
RCAMSL = 680.3 M
N. Lat = 474129
W. Lng = 943106

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
341.0	005.0000	0180.2	035.7	183.9	100.0000	0267.8	107.5	52.4
342.0	005.0000	0181.1	035.8	183.6	100.0000	0267.8	107.2	52.4
343.0	005.0000	0182.6	035.9	183.3	100.0000	0267.3	106.9	52.5
344.0	005.0000	0185.1	036.1	183.1	100.0000	0267.3	106.5	52.6
345.0	005.0000	0187.6	036.3	182.8	100.0000	0267.3	106.1	52.8
346.0	005.0000	0189.2	036.5	182.5	100.0000	0267.3	105.8	52.8
347.0	005.0000	0190.1	036.5	182.1	100.0000	0267.3	105.5	52.9
348.0	005.0000	0191.0	036.6	181.8	100.0000	0267.3	105.3	53.0
349.0	005.0000	0191.3	036.6	181.5	100.0000	0268.1	105.1	53.1
350.0	005.0000	0190.7	036.6	181.1	100.0000	0268.1	105.0	53.1
351.0	005.0000	0190.6	036.6	180.8	100.0000	0268.1	104.9	53.1
352.0	005.0000	0191.3	036.6	180.4	100.0000	0267.9	104.8	53.2
353.0	005.0000	0192.7	036.8	180.1	100.0000	0267.9	104.6	53.2
354.0	005.0000	0193.8	036.9	179.7	100.0000	0267.9	104.4	53.3
355.0	005.0000	0195.1	036.9	179.4	100.0000	0267.1	104.3	53.3
356.0	005.0000	0196.2	037.0	179.0	100.0000	0267.1	104.1	53.3
357.0	005.0000	0197.3	037.1	178.7	100.0000	0267.1	104.0	53.4
358.0	005.0000	0198.5	037.2	178.3	100.0000	0266.0	103.9	53.4
359.0	005.0000	0200.0	037.3	178.0	100.0000	0266.0	103.8	53.4
000.0	005.0000	0200.9	037.4	177.6	100.0000	0266.0	103.7	53.4
001.0	005.0000	0201.2	037.4	177.2	100.0000	0265.7	103.7	53.4
002.0	005.0000	0201.0	037.4	176.9	100.0000	0265.7	103.8	53.4
003.0	005.0000	0200.6	037.4	176.5	100.0000	0265.7	103.9	53.3
004.0	005.0000	0199.4	037.3	176.2	100.0000	0265.1	104.1	53.3
005.0	005.0000	0198.6	037.2	175.8	100.0000	0265.1	104.2	53.2
006.0	005.0000	0197.9	037.2	175.5	100.0000	0264.5	104.4	53.2
007.0	005.0000	0196.7	037.1	175.1	100.0000	0264.5	104.6	53.1
008.0	005.0000	0196.2	037.0	174.8	100.0000	0264.5	104.8	53.0
009.0	005.0000	0196.5	037.1	174.4	100.0000	0263.9	104.9	53.0
010.0	005.0000	0197.0	037.1	174.1	100.0000	0263.9	105.1	52.9
011.0	005.0000	0197.2	037.1	173.7	100.0000	0263.9	105.2	52.9
012.0	005.0000	0197.5	037.1	173.4	100.0000	0263.3	105.4	52.8
013.0	005.0000	0198.1	037.2	173.1	100.0000	0263.3	105.6	52.8
014.0	005.0000	0198.5	037.2	172.7	100.0000	0263.3	105.8	52.7
015.0	005.0000	0199.0	037.3	172.4	100.0000	0262.3	106.0	52.6



Ex #E8, Channel Six

Doug Vernier - Telecommunications Consultants
KBJRTV, Kbjr License, Inc. , BLCT20000517AEX
ERP = 100 kW
Channel = 06+

Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-50) Distance to 47 dBu Contour km
0	421.4	181.6	20.000	92.21
10	412.7	190.3	20.000	93.12
20	390.9	212.1	20.000	95.29
30	375.2	227.8	20.000	96.81
40	325.3	277.7	20.000	101.59
50	253.2	349.8	20.000	107.28
60	189.3	413.7	20.000	112.59
70	183.3	419.7	20.000	113.12
80	183.0	420.0	20.000	113.15
90	183.0	420.0	20.000	113.15
100	183.0	420.0	20.000	113.15
110	183.0	420.0	20.000	113.15
120	183.0	420.0	20.000	113.15
130	183.0	420.0	20.000	113.15
140	183.3	419.7	20.000	113.12
150	186.1	416.9	20.000	112.87
160	192.5	410.5	20.000	112.30
170	195.5	407.5	20.000	112.04
180	196.4	406.6	20.000	111.95
190	197.1	405.9	20.000	111.90
200	189.7	413.3	20.000	112.55
210	191.4	411.6	20.000	112.40
220	240.0	363.0	20.000	108.26
230	364.9	238.1	20.000	97.81
240	386.6	216.4	20.000	95.71
250	392.0	211.0	20.000	95.18
260	398.9	204.1	20.000	94.50
270	403.6	199.4	20.000	94.04
280	417.6	185.4	20.000	92.62
290	431.4	171.6	20.000	91.14
300	432.3	170.7	20.000	91.05
310	436.3	166.7	20.000	90.61
320	428.4	174.6	20.000	91.48
330	424.0	179.0	20.000	91.94
340	424.1	178.9	20.000	91.93
350	427.6	175.4	20.000	91.56
Ave. =	299.7 M	303.3 M		

Antenna Radiation Center AMSL =603 M
NGDC 03 Arc Sec.

Geographic Coordinates:

N. Lat. 46 47 21
W. Lng. 92 06 51

Doug Vernier - Telecommunications Consultants
KCRBFM, Minnesota Public Radio , BLED19940711KA
ERP = 102.5 kW
Channel = 203

Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-10) Distance to 53.5 dBu Contour km
0	428.5	251.8	20.107	102.34
10	429.0	251.3	20.107	102.29
20	430.6	249.7	20.107	102.13
30	430.7	249.6	20.107	102.12
40	433.2	247.1	20.107	101.87
50	435.4	244.9	20.107	101.64
60	432.4	247.9	20.107	101.94
70	427.7	252.6	20.107	102.42
80	424.4	255.9	20.107	102.76
90	417.6	262.7	20.107	103.44
100	413.3	267.0	20.107	103.87
110	409.2	271.1	20.107	104.28
120	413.4	266.9	20.107	103.86
130	416.6	263.7	20.107	103.54
140	419.8	260.5	20.107	103.22
150	421.4	258.9	20.107	103.06
160	421.9	258.4	20.107	103.01
170	418.6	261.7	20.107	103.34
180	412.4	267.9	20.107	103.96
190	409.1	271.2	20.107	104.28
200	409.9	270.4	20.107	104.21
210	410.5	269.8	20.107	104.15
220	413.6	266.7	20.107	103.84
230	420.1	260.2	20.107	103.19
240	424.1	256.2	20.107	102.78
250	430.0	250.3	20.107	102.19
260	429.4	250.9	20.107	102.25
270	433.5	246.8	20.107	101.83
280	428.4	251.9	20.107	102.35
290	418.8	261.5	20.107	103.32
300	409.2	271.1	20.107	104.28
310	409.7	270.6	20.107	104.23
320	414.5	265.8	20.107	103.75
330	414.9	265.4	20.107	103.71
340	419.0	261.3	20.107	103.30
350	422.8	257.5	20.107	102.92
Ave. =	420.9 M	259.4 M		

Antenna Radiation Center AMSL =680.3 M
NGDC 03 Arc Sec.

Geographic Coordinates:

N. Lat. 47 41 29
W. Lng. 94 31 06

Ex. #E8

CHANNEL SIX NOTIFICATION CERTIFICATION

Minnesota Public Radio

Bemidji, Minnesota

February 2001

This is to certify that I Mitzi T Gramling, a staff member of Minnesota Public Radio, have notified KBJR-TV, Channel Six, Superior, Wisconsin of this proposed minor modification and site change to station KCRBFM.

Mitzi T Gramling, Associate General Counsel
Minnesota Public Radio

2-7-01
Date

EXHIBIT # E9

R.F. RADIATION COMPLIANCE STATEMENT

KCRBFM
Channel 203 – 100 kW H & V
Bemidji, Minnesota

February 2001

The applicant's proposed power is 100 kW, however another application is being filed to use the same antenna in diplex that will raise the total ERP to 180 kW. The proposed antenna will have a center of radiation of 254 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, a total, head-height non-ionization radiation level of 189.4 microwatts per square centimeter was calculated. The proposed tower location will be within a controlled area having a fence and locked gate. The calculated value amounts to only 18.94 percent of the maximum for a controlled area. (1000 microwatts per centimeter maximum.) There will be no other sources of RF radiation on the proposed tower that will significantly add to this calculation.

The applicant will protect workers on the tower by either reducing ERP or terminating transmission. An agreement is in effect with the other users of this tower at this location to reduce power or to terminate operations to protect workers from receiving in excess of the Commission's standard.

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