75693.412

DUPLICATE

D. Knoll 7/11

Wiley, Rein & Fielding

1776 K Street, N.W.
Washington, D.C. 20006
(202) 719-7000

Fax: (202) 719-7049
www.wrf.com

Writer's Direct Dial
(202) 719-7351

April 12, 2000

RECEIVED

APR 12 2000

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
12th Street Lobby, TW-A325
Washington, D.C. 20054

Re: Minnesota Public Radio
Application for New Noncommercial Educational FM Station
Fergus Falls, Minnesota (Facility ID No. 92307)
FCC File No. BPED-19981208MH
Petition for Reconsideration, Request for Reinstatement, and
Amendment to Application for Construction Permit

Dear Ms. Salas:

On behalf of Minnesota Public Radio ("MPR"), enclosed for filing is an original and four copies of a petition for reconsideration ("Petition") of an April 3, 2000 letter decision from the Assistant Chief, Audio Services Division, Mass Media Bureau (the "Letter Ruling"). The Letter Ruling returned MPR's above-referenced application for a new noncommercial educational FM station in Fergus Falls, Minnesota (the "Application") because of an alleged conflict with an application for a new noncommercial educational FM station in Fargo, North Dakota (FCC File No. BPED-19981203MC).

The enclosed Petition requests reconsideration of the Letter Ruling, amends the Application to remove any possibility of prohibited overlap between the proposed Fergus Falls and Fargo stations, and requests that the application, as amended, be reinstated *nunc pro tunc*. The original application is also included as part of the Petition.

Moreover, in light of the fact that more than sixteen months have passed since the Application was tendered, expedited processing of the Application is requested.

Please contact this office if there are any questions.

Respectfully submitted,

E. Joseph Knoll III

cc: Edward P. De La Hunt, FCC (By Hand)
Mitzi T Gramling

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
MINNESOTA PUBLIC RADIO	)	
	)	
Fergus Falls, Minnesota	)	
Facility ID No. 92307	)	File No. BPED-19981208MH
	)	
Application for New Noncommercial	)	
Educational FM Station	)	

PETITION FOR RECONSIDERATION

Minnesota Public Radio ("MPR"), by its attorneys and pursuant to Section 1.106(f) of the Commission's rules, hereby petitions for reconsideration of the attached April 3, 2000 letter of the Mass Media Bureau Audio Services Division returning the above-captioned application for a new noncommercial educational FM station in Fergus Falls, Minnesota (the "Application"). MPR believes, contrary to the Division's findings, that the Application is not in conflict with an application filed by Broadcasting for the Challenged, Inc. ("BFC") for a new noncommercial educational FM station in Fargo, North Dakota (FCC File No. BPED-19981203MC). Nonetheless, MPR is hereby amending the Application to remove any possibility of conflict with BFC's Fargo application. Consequently, the application, as amended, is acceptable for filing and should be reinstated *nunc pro tunc*.

Using 30 second terrain elevation data, the Division found that MPR's proposed new Fergus Falls station would have impermissible predicted signal contour overlap with BFC's proposed Fargo, North Dakota, station. Preliminary analysis by MPR using 3 second terrain

elevation data shows, however, that MPR's proposed Fergus Falls station would not cause impermissible predicted signal grade overlap with BFC's proposed Fargo station. Nevertheless, to promote the reinstatement and expeditious processing of the Application, MPR is amending the Application to specify a reduced power level whereby, using 30 second terrain data, the proposed Fergus Falls station clearly will not cause prohibited predicted signal contour overlap with BFC's proposed Fargo station. *See* Exhibit B.

Since no interference is predicted to occur to BFC's Fargo station, MPR's amended Application is in compliance with the Commission's technical rules and is acceptable for filing. Accordingly, MPR requests that the Audio Services Division's April 3, 2000 decision to return the Application be reconsidered, the amendment to the Application be accepted, and the Application be reinstated *nunc pro tunc*. Such reinstatement is consistent with the Commission's *Public Notice* entitled "Commission States Future Policy on Incomplete and Patently Defective AM and FM Construction Permit Applications," FCC 84-366, released August 2, 1984, in which the Commission stated that it would reinstate applications *nunc pro tunc* where the original application is returned as unacceptable for filing and where a minor curative amendment is filed within thirty days thereof.

Respectfully submitted,

MINNESOTA PUBLIC RADIO

By: _____

Todd M. Stansbury
E. Joseph Knoll III
of
WILEY, REIN & FIELDING
1776 K Street, N.W.
Washington, D.C. 20006
(202) 719-7000

April 12, 2000

Its Attorneys

EXHIBIT A

FCC LETTER
April 3, 2000

FEDERAL COMMUNICATIONS COMMISSION
445 Twelfth Street, S.W.
WASHINGTON DC 20554

MASS MEDIA BUREAU
AUDIO SERVICES DIVISION
TECHNICAL PROCESSING GROUP
APPLICATION STATUS: (202) 418-2730
HOME PAGE: www.fcc.gov/mmb/asd/

PROCESSING ENGINEER: Harding Chism
TELEPHONE: (202) 418-2700
FACSIMILE: (202) 418-1411
MAIL STOP: 1800B3
INTERNET ADDRESS: hchism@fcc.gov

APR 0 3 2000

E. Joseph Knoll, III, Esq.
Wiley, Rein & Fielding
1776 K Street, N.W.
Washington, DC 20006

In re: NEW(FM), Fergus Falls, MN
Minnesota Public Radio ("MPR")
BPED-19981208MH

Dear Mr. Knoll:

The staff has under consideration the above-captioned application filed by MPR for a new non-commercial/educational FM station to serve Fergus Falls, Minnesota. For the reason stated below, the application will be returned.

An engineering study of the application reveals it would be in conflict with an application filed by Broadcasting for the Challenged, Inc. ("Broadcasting"), for a new FM station to serve Fargo, North Dakota (File No. BPED-19981203MC).[1] We note that Broadcasting's application was filed on or before the cut-off date (December 3, 1998) established for filing applications which are mutually exclusive with an application for a new FM station to serve Fargo, North Dakota filed by Pioneer Public Broadcasting Company (File No. BPED-980427MQ). *See Public Notice*, Report No. A-339, released October 30, 1998. MPR's application was filed after the cut-off date established by the *Public Notice* and, therefore, is unacceptable for filing and subject to return pursuant to the policy stated in *Kittyhawk Broadcasting Corp.*[2] That policy, known as the *Kittyhawk* doctrine, holds that an application will be considered timely for purposes of the cut-off rule only when it is timely filed with respect to the lead application of a group of conflicting applications.

---

[1] We note that the application of Broadcasting for the Challenged, Inc. was found to be acceptable for filing and appears on the "B" cut-off Public Notice, Report No. B-234, released October 14, 1999.

[2] In *Kittyhawk Broadcasting Corp.*, 7 FCC 2d 153 (1967), *appeal dismissed sub nom. Cook, Inc. V. U.S.*, 394 F.2d 84 (7th Cir. 1968), an application for an new AM station at Kettering, Ohio, was cut-off on August 17, 1965. On that date, an application for a new AM station at Bloomington, Indiana, was filed which was mutually exclusive with the Kettering application. Subsequently, an application for a new AM station at Ellettsville, Indiana was filed which, although not directly in conflict with the Kettering application, was directly in conflict with the Bloomington application and was thus indirectly interlinked, or "daisy chained", into mutually exclusivity with the Kettering proposal. The Commission concluded that the Ellettsville application should have therefore been filed by Kettering's cut-off date. Accordingly, the Ellettsville application was returned as untimely.

Accordingly, for the reasons stated above, Application BPED-19981208MH, being unacceptable for filing, IS HEREBY RETURNED. This action is taken pursuant to 47 C.F.R. § 0.283.

Sincerely,

Edward P. De La Hunt
Assistant Chief
Audio Services Division
Mass Media Bureau

cc: Minnesota Public Radio

EXHIBIT B

AMENDMENT TO BPED-19981208MH
AND
ENGINEERING STATEMENT OF
DOUGLAS VERNIER

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

Section I - GENERAL INFORMATION

FOR COMMISSION USE ONLY
FILE NO.

1. Name of Applicant		
Minnesota Public Radio		
Street Address or P.O. Box 45 East Seventh St.		
City St 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		
Street Address or P.O. Box 45 East Seventh St.		
City St 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
209		Fergus Falls	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- _____

☐ 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: BPED-19981208MH

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

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 Thomas J Kigin
Title EXECUTIVE VICE PRESIDENT	Date 4/12/00
Typed or Printed Name of Person Signing THOMAS J KIGIN	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION I 00 1), 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).

Doug Vernier
1600 Picturesque Drive
Cedar Falls, Iowa 50613

Telecommunication Consultants

EXHIBIT #E1
ENGINEERING STATEMENT

Concerning the Application of
Minnesota Public Radio
To Modify application BPED-19981208MH for an FM Station to Serve
Fergus Falls, MN

April, 2000

Channel 209A 2.3 kW

This engineering statement supports the application of Minnesota Public Radio of Saint Paul, Minnesota to modify application BPED-19981208MH to reduce power. This power reduction will remove a contour overlap the Commission sees when it uses its 30-second NGDS digital terrain elevation database. This overlap however does not exist when the higher resolution USGS-03 arc-second digital terrain elevation database is used. No other changes are proposed.

Exhibit #E2 is a Digital Line Graph map (U.S.G.S.) of the proposed one mV/m F(50-50) contour. Fergus Falls, the city of license, 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. The U.S. land area within the proposed one mV/m contour amounts 1,116 square kilometers. This figure was determined by using a compensating polar-planimeter. The population within the 60 dBu service contour was determined to be 18,452 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.

A total of 36 evenly spaced radials were used to determine the antenna height above average terrain. The USGS 03 arc-second terrain elevation database was employed 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. A tabular listing of the distance to the one mV/m contour can be found on page #3 of this exhibit.

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

Exhibit #E3 is an **Allocation Report** showing that no interference will be caused to any existing licenses, construction permits or allocations. The proposed facility is within 320 kilometers of the US border with Canada however there are no relationships with Canadian stations or allocations.

Since this proposal reduces the proposed ERP, the channel-six study, RF hazard study, blanketing and co-location studies, currently on file with the Commission, continue to be valid. There is no change proposed to the tower location, height or to the antenna height above ground.

Page #4 of **Exhibit #E1** is a statement of the qualifications of the preparer.

Doug Vernier Telecommunications Consultants
Minnesota Public Radio
ERP = 2.3 kW
Channel = 209

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	389.0	56.0	3.617	17.08
10	398.0	47.0	3.617	15.42
20	397.1	47.9	3.617	15.59
30	409.8	35.2	3.617	13.30
40	408.0	37.0	3.617	13.61
50	409.6	35.4	3.617	13.33
60	407.7	37.3	3.617	13.67
70	401.5	43.5	3.617	14.78
80	405.2	39.8	3.617	14.11
90	403.2	41.8	3.617	14.47
100	399.1	45.9	3.617	15.22
110	389.9	55.1	3.617	16.93
120	386.5	58.5	3.617	17.48
130	395.4	49.6	3.617	15.91
140	387.5	57.5	3.617	17.33
150	366.9	78.1	3.617	20.14
160	371.3	73.7	3.617	19.57
170	367.0	78.0	3.617	20.13
180	357.3	87.7	3.617	21.35
190	352.4	92.6	3.617	21.94
200	345.4	99.6	3.617	22.75
210	342.3	102.7	3.617	23.09
220	341.2	103.8	3.617	23.21
230	342.9	102.1	3.617	23.02
240	341.1	103.9	3.617	23.22
250	341.8	103.2	3.617	23.14
260	344.6	100.4	3.617	22.84
270	346.4	98.6	3.617	22.64
280	351.6	93.4	3.617	22.04
290	354.0	91.0	3.617	21.75
300	358.7	86.3	3.617	21.18
310	373.8	71.2	3.617	19.24
320	390.0	55.0	3.617	16.91
330	394.2	50.8	3.617	16.14
340	386.5	58.5	3.617	17.48
350	383.9	61.1	3.617	17.86
Ave. =	376.1 M	68.9 M		

Antenna Radiation Center AMSL =445 M
NGDC 03 Arc Sec.

Geographic Coordinates:

N. Lat. 46 19 16
W. Lng. 96 05 36

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, Saint Paul, Minnesota, and as such have prepared the engineering showings appended hereto;

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.

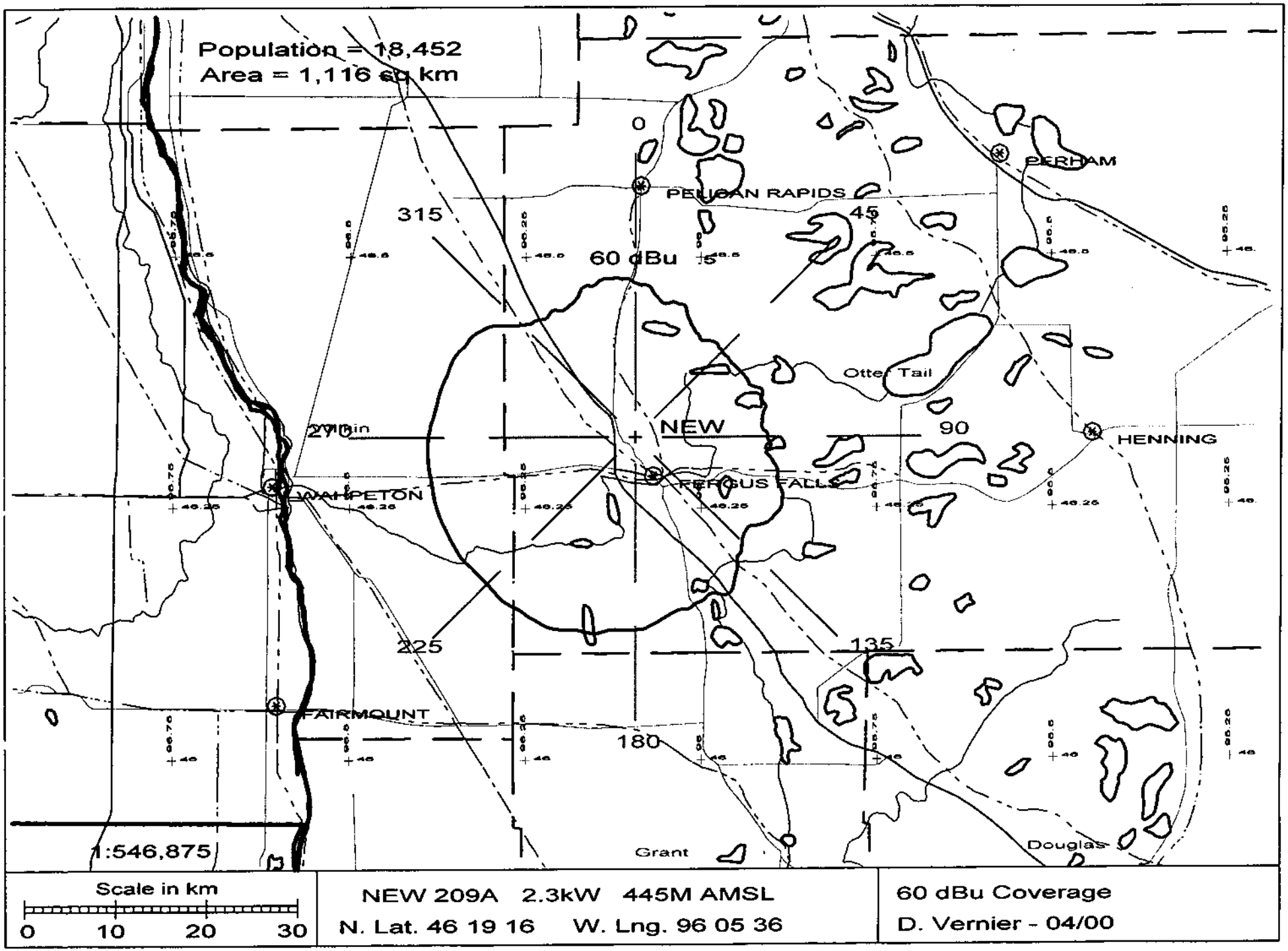
Douglas L. Vernier

Executed on April 9, 2000

Subscribed and sworn before me this 9th day of April, 2000.

Notary Public in and for the State of Iowa

My Commission Expires August 10, 2001


Population = 18,452
Area = 1,116 sq km
0
45
90
135
180
225
270
315
60 dBu
PELICAN RAPIDS
PERHAM
HENNING
NEW
FERGUS FALLS
WAHPETON
FAIRMOUNT
Otter Tail
Grant
Douglas
1:546,875
Scale in km
0 10 20 30
NEW 209A 2.3kW 445M AMSL
N. Lat. 46 19 16 W. Lng. 96 05 36
60 dBu Coverage
D. Vernier - 04/00

Ex. #E2

Minnesota Public Radio
Fergus Falls, Minnesota

Allocation Exhibit Index to Studies

Doug Vernier Telecommunications Consultants
1600 Picturesque Dr. Cedar Falls IA 50613

Minnesota Public Radio
Fergus Falls

REFERENCE
46 19 16 N
96 05 36 W

CH# 209A - 89.7 MHz, Pwr= 2.3 kW, HAAT=68.9 M, COR= 445 M
Average Protected F(50-50)= 18.93 km
Ave. F(50-10) 40 dBu= 65.1 54 dBu= 27.7 80 dBu= 5.9 100 dBu= 1.9

DISPLAY DATES
DATA 04-06-00
SEARCH 04-07-00

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*
209A Morris	*KUMM	LIC HN MN	169.9 349.9	82.67 BLED19830509AB	45 35 20 95 54 22	0.225 5	364 23.1	6.9 University Of Minnesota, M	39.45	8.50
> Reference HAAT at 169.9°= 77.8 M, Pwr= 2.3 kW, Pro. Dist. = 20.1 km, Int Dist. = 67.26 km										
208C3 Alexandria	*K8HG.C	CP CN MN	130.6 310.6	66.21 BPED19980316ME	45 55 55 95 26 41	7.200 103	526 46.2	29.8 Christian Heritage Broadca	4.01	12.65
> Reference HAAT at 130.6°= 49.8 M, Pwr= 2.3 kW, Pro. Dist. = 15.95 km, Int Dist. = 23.72 km										
208C3 Glyndon	*981202	APP VN MN	326.1 146.1	70.95 BPED19981202MG	46 50 58 96 36 46	10.000 103	390 50.1	32.3 Mary V. Harris Foundation	4.17	13.96
> Reference HAAT at 326.1°= 53.8 M, Pwr= 2.3 kW, Pro. Dist. = 16.7 km, Int Dist. = 24.68 km										
212C1 Moorhead	*KCCD	LIC VN MN	321.3 141.3	62.70 BLED19920612KA	46 45 35 96 36 26	100.000 150	437 7.1	58.5 Minnesota Public Radio	38.92	2.50
> Reference HAAT at 321.3°= 53.7 M, Pwr= 2.3 kW, Pro. Dist. = 16.68 km, Int Dist. = 1.7 km										
208C3 Fargo	*981203	APP VN ND	308.7 128.7	77.91 BPED19981203MC	46 45 19 96 53 26	25.000 79	356 55.9	35.3 Broadcasting For The Chall	2.19	13.62
> Reference HAAT at 308.7°= 75.3 M, Pwr= 2.3 kW, Pro. Dist. = 19.78 km, Int Dist. = 29.01 km										
208A Fargo	*980427	APP VX ND	321.6 141.6	62.57 BPED19980427MQ	46 45 38 96 36 11	5.700 95	382 42.2	27.3 Pioneer Public Broadcastin	3.78	10.67
> Reference HAAT at 321.6°= 53.4 M, Pwr= 2.3 kW, Pro. Dist. = 16.63 km, Int Dist. = 24.59 km										
208C3 Horace	981201	APP VN ND	311.8 131.8	80.73 BPED19981201MA	46 48 05 96 52 59	8.000 62	336 37.3	24.3 Selah Corporation	24.50	28.69
208A Fargo	980427	APP VN ND	313.2 133.2	79.02 BPED19980427MQ	46 48 15 96 50 58	4.200 61	335 30.6	20.8 Pioneer Public Broadcastin	29.51	30.50
207C1 Sebeka	960712	APP CN MN	52.7 232.7	108.99 BPED19960712MG	46 54 28 94 57 12	100.000 98	530 19.0	50.5 Lifetalk Broadcasting Asso	71.07	52.58
206C2 Waubun	960328	APP VN MN	28.3 208.3	90.78 BPED19960328ME	47 02 18 95 31 34	50.000 85	555 4.5	42.0 Niijii Broadcast Corporati	67.37	46.97
209A Bemidji	KBSB	LIC HN MN	35.2 215.2	159.13 BLED19790913AB	47 29 00 94 52 27	0.120 38	460 22.0	6.6 Bemidji State College	118.18	87.48
209C2 Princeton	990518	APP DVN MN	111.4 291.4	212.54 BPED19990518MB	45 35 54 93 33 18	50.000 32	334 115.6	27.2 Pensacola Christian Colleg	78.03	120.27
06Z2C FARGO	*WDAYTV	LI HN ND	312.7 132.7	114.30 BMLCT624	47 00 43 97 11 58	100.000 364	643 142.6	108.3 FORUM COMMUNICATIONS COMPA	To Grd 8=	5.98
> Reference HAAT at 312.7°= 63.8 M, Pwr= 2.3 kW, Pro. Dist. = 218.51 km, Int Dist. = 278.91 km										

* = 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.

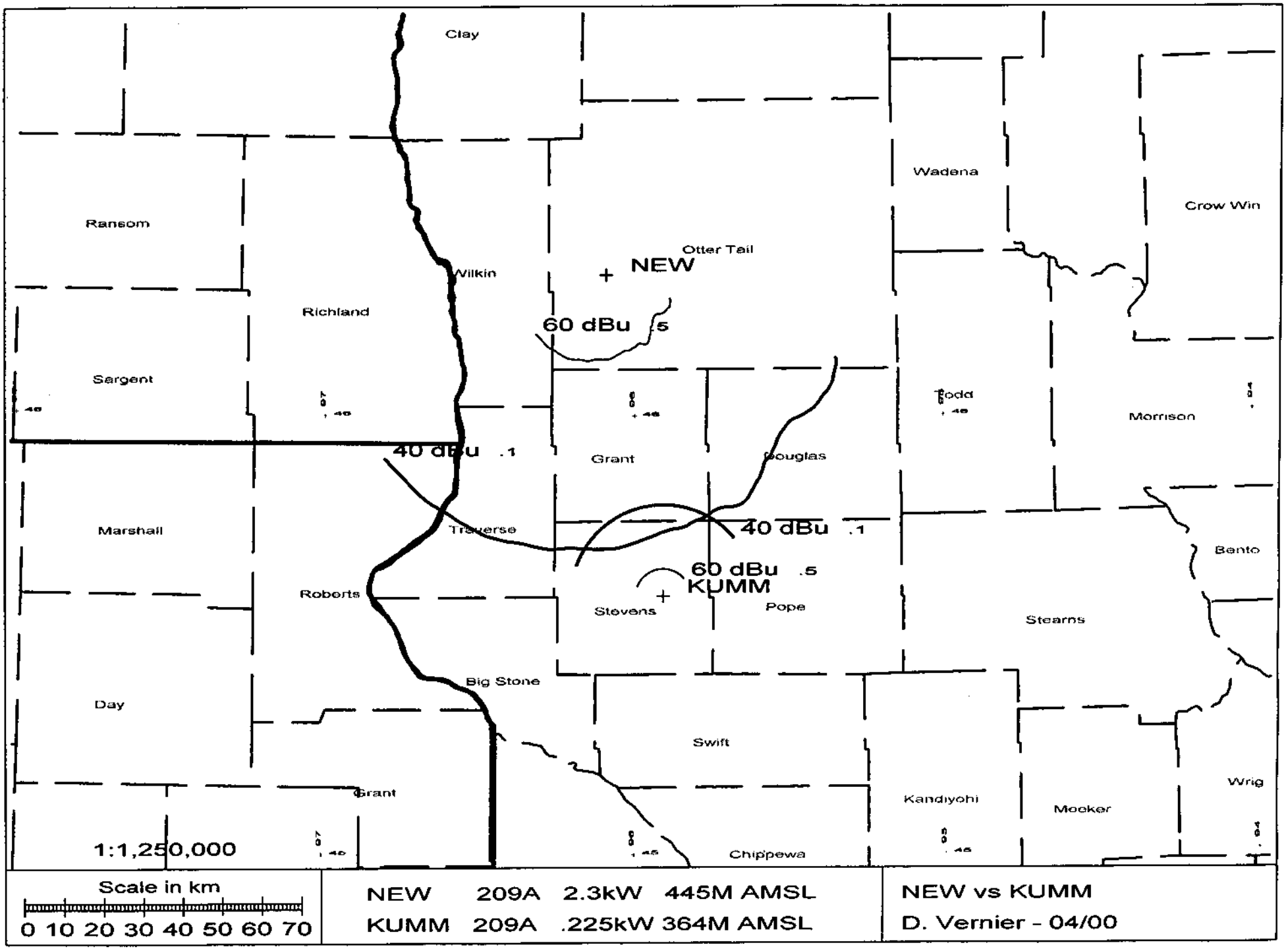
The column listed "* IN *" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 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.


Clay
Wadena
Crow Win
Ransom
Otter Tail
NEW
Wilkin
Richland
60 dBu .5
Sargent
Todd
Morrison
40 dBu .1
Grant
Douglas
Marshall
Traverse
40 dBu .1
Bento
60 dBu .5
KUMM
Roberts
Stevens
Pope
Stearns
Big Stone
Day
Swift
Wrig
Grant
Kandiyohi
Mooker
1:1,250,000
Chippewa
Scale in km
0 10 20 30 40 50 60 70
NEW 209A 2.3kW 445M AMSL
KUMM 209A .225kW 364M AMSL
NEW vs KUMM
D. Vernier - 04/00

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

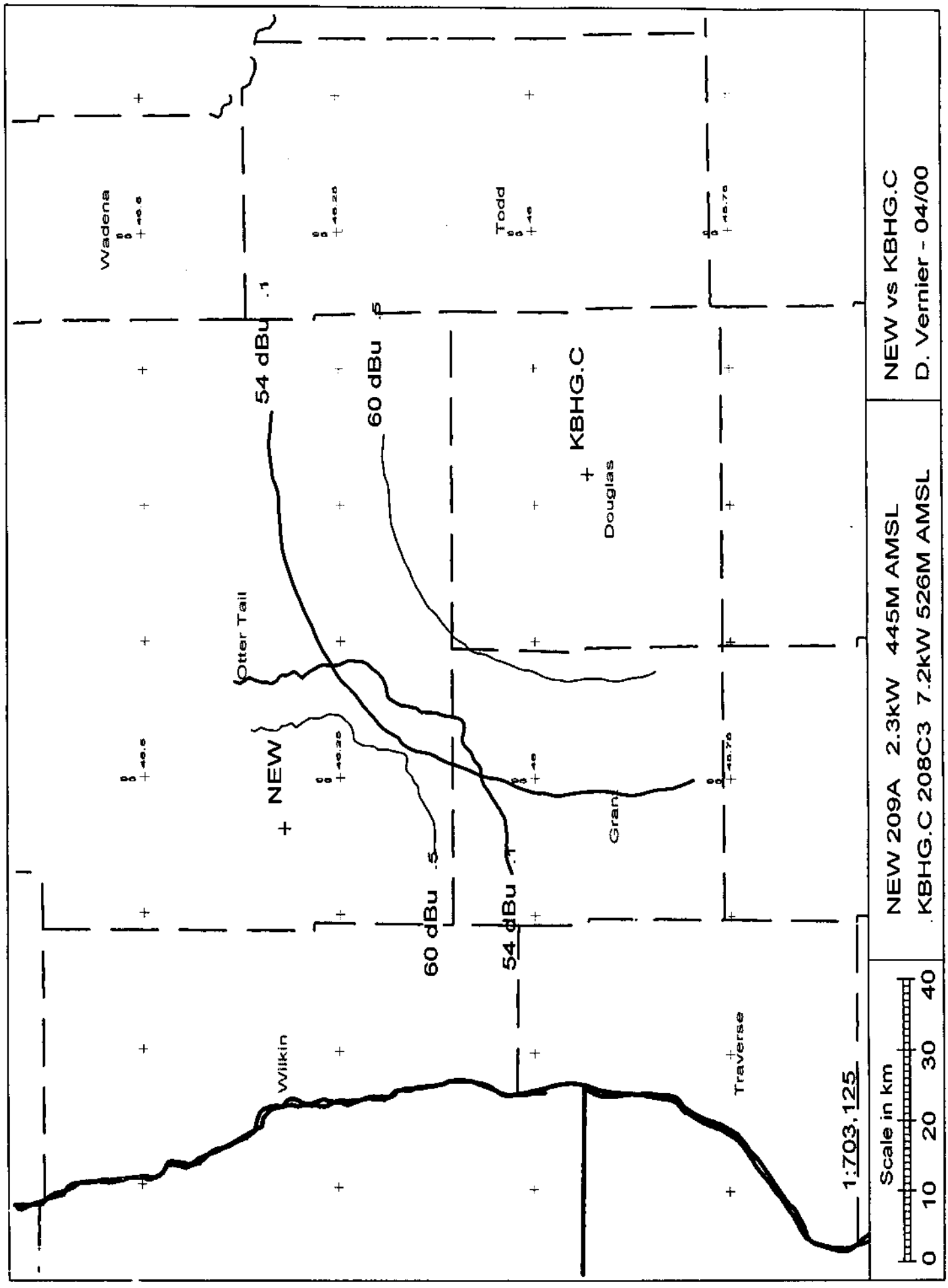
KUMM BLED19830509AB
Channel = 209A
Max ERP = 0.225 kW
RCAMSL = 364 M
N. Lat = 45 35 20
W. Lng = 95 54 22

NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

Protected
60 dBu

Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
330.0	000.2250	0015.7	006.9	171.6	002.3000	0079.5	076.2	37.7
331.0	000.2250	0015.4	006.9	171.6	002.3000	0079.4	076.2	37.7
332.0	000.2250	0014.9	006.9	171.5	002.3000	0079.4	076.1	37.7
333.0	000.2250	0014.3	006.9	171.4	002.3000	0079.3	076.1	37.7
334.0	000.2250	0013.6	006.9	171.3	002.3000	0079.2	076.1	37.7
335.0	000.2250	0012.8	006.9	171.2	002.3000	0079.2	076.0	37.7
336.0	000.2250	0012.0	006.9	171.1	002.3000	0079.1	076.0	37.7
337.0	000.2250	0011.2	006.9	171.0	002.3000	0079.0	076.0	37.7
338.0	000.2250	0010.6	006.9	170.9	002.3000	0079.0	075.9	37.7
339.0	000.2250	0010.3	006.9	170.9	002.3000	0078.9	075.9	37.7
340.0	000.2250	0009.9	006.9	170.8	002.3000	0078.8	075.9	37.7
341.0	000.2250	0009.5	006.9	170.7	002.3000	0078.7	075.9	37.7
342.0	000.2250	0009.0	006.9	170.6	002.3000	0078.6	075.8	37.7
343.0	000.2250	0008.2	006.9	170.5	002.3000	0078.5	075.8	37.7
344.0	000.2250	0007.5	006.9	170.4	002.3000	0078.4	075.8	37.7
345.0	000.2250	0006.7	006.9	170.3	002.3000	0078.3	075.8	37.7
346.0	000.2250	0006.0	006.9	170.2	002.3000	0078.2	075.8	37.7
347.0	000.2250	0005.5	006.9	170.1	002.3000	0078.1	075.8	37.7
348.0	000.2250	0005.1	006.9	170.0	002.3000	0078.0	075.8	37.7
349.0	000.2250	0004.9	006.9	169.9	002.3000	0077.9	075.8	37.7
350.0	000.2250	0005.1	006.9	169.9	002.3000	0077.8	075.8	37.7
351.0	000.2250	0005.6	006.9	169.8	002.3000	0077.7	075.8	37.7
352.0	000.2250	0006.2	006.9	169.7	002.3000	0077.6	075.8	37.7
353.0	000.2250	0006.4	006.9	169.6	002.3000	0077.5	075.8	37.7
354.0	000.2250	0006.4	006.9	169.5	002.3000	0077.5	075.8	37.7
355.0	000.2250	0006.6	006.9	169.4	002.3000	0077.4	075.8	37.6
356.0	000.2250	0007.3	006.9	169.3	002.3000	0077.3	075.8	37.6
357.0	000.2250	0008.5	006.9	169.2	002.3000	0077.2	075.8	37.6
358.0	000.2250	0009.9	006.9	169.1	002.3000	0077.1	075.8	37.6
359.0	000.2250	0011.2	006.9	169.0	002.3000	0077.0	075.9	37.6
000.0	000.2250	0012.2	006.9	168.9	002.3000	0076.9	075.9	37.6
001.0	000.2250	0013.2	006.9	168.9	002.3000	0076.8	075.9	37.6
002.0	000.2250	0014.0	006.9	168.8	002.3000	0076.7	075.9	37.6
003.0	000.2250	0014.9	006.9	168.7	002.3000	0076.6	076.0	37.6
004.0	000.2250	0015.8	006.9	168.6	002.3000	0076.4	076.0	37.5
005.0	000.2250	0016.5	006.9	168.5	002.3000	0076.3	076.0	37.5


Wadena
Todd
Otter Tail
NEW
KBHG.C
Douglas
Gran
Wilkin
Traverse
54 dBu
60 dBu
54 dBu
60 dBu
NEW 209A 2.3kW 445M AMSL
KBHG.C 208C3 7.2kW 526M AMSL
NEW vs KBHG.C
D. Vernier - 04/00
1:703,125
Scale in km
0 10 20 30 40

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

KBHG.C BPED19980316ME
Channel = 208C3
Max ERP = 7.2 kW
RCAMSL = 526 M
N. Lat = 45 55 55
W. Lng = 95 26 41

NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
275.0	007.2000	0099.3	029.4	152.9	002.3000	0073.1	045.7	46.6
276.0	007.2000	0099.7	029.4	152.6	002.3000	0073.7	045.3	46.8
277.0	007.2000	0099.2	029.4	152.1	002.3000	0074.8	044.9	47.1
278.0	007.2000	0098.7	029.3	151.7	002.3000	0075.7	044.5	47.3
279.0	007.2000	0099.4	029.4	151.4	002.3000	0076.3	044.0	47.6
280.0	007.2000	0099.5	029.4	151.0	002.3000	0076.9	043.6	47.8
281.0	007.2000	0099.1	029.4	150.5	002.3000	0077.6	043.3	48.0
282.0	007.2000	0098.7	029.3	150.0	002.3000	0078.1	042.9	48.2
283.0	007.2000	0098.1	029.2	149.5	002.3000	0078.2	042.6	48.3
284.0	007.2000	0097.3	029.1	148.9	002.3000	0077.9	042.3	48.4
285.0	007.2000	0096.4	029.0	148.2	002.3000	0077.3	042.0	48.4
286.0	007.2000	0096.1	028.9	147.7	002.3000	0076.2	041.7	48.4
287.0	007.2000	0096.4	029.0	147.2	002.3000	0075.0	041.4	48.4
288.0	007.2000	0097.1	029.1	146.8	002.3000	0073.7	041.0	48.4
289.0	007.2000	0097.6	029.1	146.3	002.3000	0072.4	040.6	48.5
290.0	007.2000	0097.6	029.1	145.7	002.3000	0070.9	040.3	48.4
291.0	007.2000	0097.5	029.1	145.1	002.3000	0069.4	040.0	48.4
292.0	007.2000	0097.2	029.1	144.4	002.3000	0068.1	039.8	48.3
293.0	007.2000	0097.3	029.1	143.8	002.3000	0067.0	039.5	48.3
294.0	007.2000	0097.6	029.1	143.2	002.3000	0066.1	039.2	48.3
295.0	007.2000	0097.9	029.2	142.6	002.3000	0064.7	038.9	48.3
296.0	007.2000	0098.5	029.3	142.0	002.3000	0063.0	038.6	48.2
297.0	007.2000	0098.9	029.3	141.3	002.3000	0061.0	038.3	48.1
298.0	007.2000	0098.8	029.3	140.6	002.3000	0059.1	038.1	47.9
299.0	007.2000	0098.7	029.3	139.9	002.3000	0057.4	038.0	47.7
300.0	007.2000	0099.2	029.4	139.2	002.3000	0057.0	037.7	47.8
301.0	007.2000	0100.6	029.6	138.6	002.3000	0057.3	037.4	48.0
302.0	007.2000	0102.4	029.8	137.9	002.3000	0056.8	037.0	48.1
303.0	007.2000	0103.2	029.9	137.2	002.3000	0055.6	036.7	48.0
304.0	007.2000	0103.7	030.0	136.4	002.3000	0054.7	036.5	47.9
305.0	007.2000	0103.5	030.0	135.6	002.3000	0053.6	036.5	47.8
306.0	007.2000	0101.8	029.7	134.7	002.3000	0052.5	036.6	47.6
307.0	007.2000	0102.3	029.8	133.9	002.3000	0051.3	036.5	47.4
308.0	007.2000	0102.9	029.9	133.1	002.3000	0050.8	036.3	47.4
309.0	007.2000	0103.2	029.9	132.3	002.3000	0050.2	036.3	47.3
310.0	007.2000	0103.2	029.9	131.5	002.3000	0050.0	036.2	47.3

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

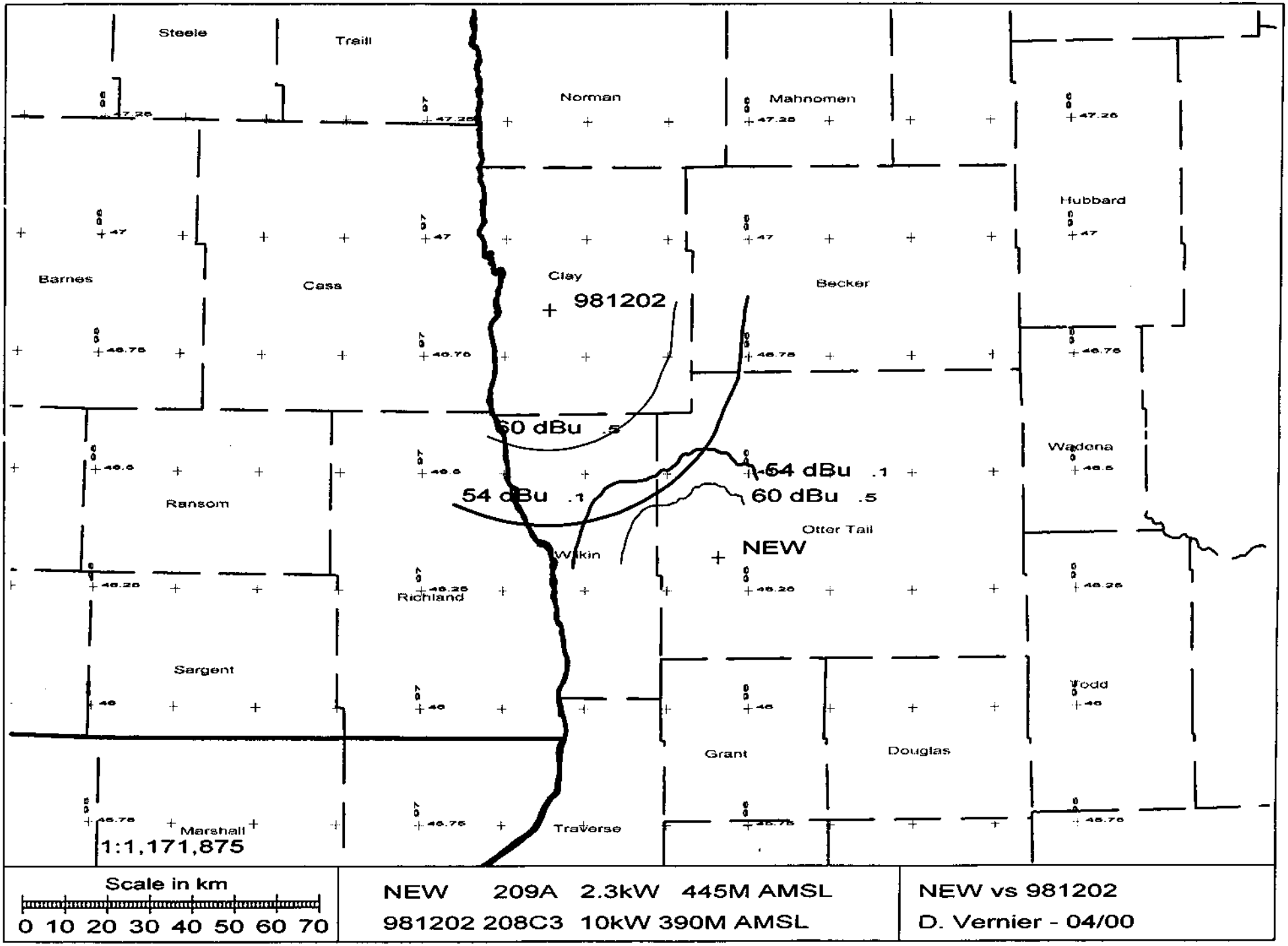
NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

KBHG.C BPED19980316ME
Channel = 208C3
Max ERP = 7.2 kW
RCAMSL = 526 M
N. Lat = 45 55 55
W. Lng = 95 26 41

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
125.0	002.3000	0054.9	016.9	313.0	007.2000	0101.2	049.5	52.7
126.0	002.3000	0053.6	016.7	312.6	007.2000	0101.3	049.7	52.6
127.0	002.3000	0051.9	016.4	312.3	007.2000	0101.4	049.9	52.5
128.0	002.3000	0050.2	016.0	311.9	007.2000	0101.5	050.2	52.4
129.0	002.3000	0049.4	015.9	311.6	007.2000	0101.6	050.4	52.4
130.0	002.3000	0049.6	015.9	311.3	007.2000	0101.7	050.3	52.4
131.0	002.3000	0049.9	016.0	311.0	007.2000	0102.2	050.3	52.4
132.0	002.3000	0050.1	016.0	310.6	007.2000	0102.5	050.2	52.5
133.0	002.3000	0050.6	016.1	310.3	007.2000	0103.0	050.2	52.6
134.0	002.3000	0051.4	016.3	310.0	007.2000	0103.2	050.0	52.6
135.0	002.3000	0052.9	016.5	309.6	007.2000	0103.2	049.8	52.7
136.0	002.3000	0054.1	016.8	309.3	007.2000	0103.2	049.6	52.8
137.0	002.3000	0055.4	017.0	308.9	007.2000	0103.2	049.4	52.9
138.0	002.3000	0056.9	017.2	308.5	007.2000	0103.1	049.2	52.9
139.0	002.3000	0057.1	017.3	308.2	007.2000	0103.0	049.2	52.9
140.0	002.3000	0057.5	017.3	307.8	007.2000	0102.8	049.2	52.9
141.0	002.3000	0060.2	017.7	307.3	007.2000	0102.4	048.9	53.0
142.0	002.3000	0063.0	018.1	306.9	007.2000	0102.2	048.6	53.1
143.0	002.3000	0065.7	018.5	306.4	007.2000	0101.9	048.3	53.2
144.0	002.3000	0067.2	018.7	305.9	007.2000	0101.8	048.2	53.2
145.0	002.3000	0069.2	019.0	305.5	007.2000	0102.5	048.1	53.3
146.0	002.3000	0071.7	019.3	304.9	007.2000	0103.5	047.9	53.4
147.0	002.3000	0074.4	019.7	304.4	007.2000	0103.8	047.7	53.5
148.0	002.3000	0076.8	020.0	303.9	007.2000	0103.7	047.6	53.6
149.0	002.3000	0078.0	020.1	303.4	007.2000	0103.4	047.6	53.6
150.0	002.3000	0078.1	020.1	303.0	007.2000	0103.2	047.7	53.5
151.0	002.3000	0076.9	020.0	302.7	007.2000	0103.0	048.0	53.4
152.0	002.3000	0075.1	019.8	302.5	007.2000	0102.9	048.4	53.2
153.0	002.3000	0072.8	019.4	302.4	007.2000	0102.8	048.8	53.0
154.0	002.3000	0071.4	019.3	302.1	007.2000	0102.6	049.2	52.9
155.0	002.3000	0071.0	019.2	301.8	007.2000	0102.2	049.4	52.8
156.0	002.3000	0071.6	019.3	301.5	007.2000	0101.5	049.5	52.7
157.0	002.3000	0072.8	019.4	301.0	007.2000	0100.7	049.6	52.6
158.0	002.3000	0073.7	019.6	300.6	007.2000	0100.0	049.7	52.5
159.0	002.3000	0073.8	019.6	300.3	007.2000	0099.5	049.9	52.4
160.0	002.3000	0073.7	019.6	300.0	007.2000	0099.2	050.1	52.3


Steele
Traill
Norman
Mahnomen
Hubbard
Barnes
Cass
Clay
Becker
981202
60 dBu .5
54 dBu .1
54 dBu .1
60 dBu .5
Wadena
Ransom
Otter Tail
NEW
Wilkin
Richland
Sargent
Todd
Grant
Douglas
Marshall
Traverse
1:1,171,875
Scale in km
0 10 20 30 40 50 60 70
NEW 209A 2.3kW 445M AMSL
981202 208C3 10kW 390M AMSL
NEW vs 981202
D. Vernier - 04/00

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

981202 BPED19981202MG
Channel = 208C3
Max ERP = 10 kW
RCAMSL = 390 M
N. Lat = 46 50 58
W. Lng = 96 36 46

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
295.0	002.3000	0090.2	021.7	157.8	010.0000	0105.5	053.5	52.9
296.0	002.3000	0089.4	021.6	157.5	010.0000	0105.4	053.3	52.9
297.0	002.3000	0088.3	021.4	157.1	010.0000	0105.3	053.2	53.0
298.0	002.3000	0087.2	021.3	156.7	010.0000	0105.2	053.1	53.0
299.0	002.3000	0086.4	021.2	156.3	010.0000	0105.1	052.9	53.1
300.0	002.3000	0086.3	021.2	156.0	010.0000	0105.1	052.7	53.1
301.0	002.3000	0086.4	021.2	155.6	010.0000	0105.0	052.5	53.2
302.0	002.3000	0085.7	021.1	155.3	010.0000	0105.0	052.3	53.3
303.0	002.3000	0084.6	021.0	154.8	010.0000	0104.9	052.3	53.3
304.0	002.3000	0083.1	020.8	154.4	010.0000	0104.9	052.2	53.3
305.0	002.3000	0081.7	020.6	153.9	010.0000	0104.7	052.2	53.3
306.0	002.3000	0080.3	020.4	153.5	010.0000	0104.6	052.2	53.3
307.0	002.3000	0078.8	020.2	153.1	010.0000	0104.4	052.2	53.3
308.0	002.3000	0076.9	020.0	152.6	010.0000	0104.2	052.3	53.3
309.0	002.3000	0074.3	019.6	152.1	010.0000	0104.1	052.4	53.2
310.0	002.3000	0071.2	019.2	151.6	010.0000	0103.9	052.7	53.1
311.0	002.3000	0068.4	018.9	151.1	010.0000	0103.7	052.9	53.0
312.0	002.3000	0065.7	018.5	150.6	010.0000	0103.6	053.2	52.9
313.0	002.3000	0063.1	018.1	150.2	010.0000	0103.6	053.4	52.8
314.0	002.3000	0060.9	017.8	149.8	010.0000	0103.5	053.6	52.7
315.0	002.3000	0059.2	017.6	149.4	010.0000	0103.5	053.8	52.6
316.0	002.3000	0057.8	017.4	149.0	010.0000	0103.4	053.9	52.6
317.0	002.3000	0056.4	017.1	148.7	010.0000	0103.4	054.1	52.5
318.0	002.3000	0055.5	017.0	148.3	010.0000	0103.3	054.1	52.5
319.0	002.3000	0055.5	017.0	148.0	010.0000	0103.3	054.1	52.5
320.0	002.3000	0055.0	016.9	147.7	010.0000	0103.2	054.1	52.5
321.0	002.3000	0054.0	016.7	147.3	010.0000	0103.1	054.3	52.4
322.0	002.3000	0053.1	016.6	147.0	010.0000	0103.1	054.4	52.4
323.0	002.3000	0052.4	016.4	146.7	010.0000	0103.1	054.5	52.3
324.0	002.3000	0052.6	016.5	146.4	010.0000	0103.0	054.5	52.3
325.0	002.3000	0053.1	016.6	146.1	010.0000	0102.9	054.4	52.4
326.0	002.3000	0053.7	016.7	145.8	010.0000	0102.9	054.2	52.4
327.0	002.3000	0054.0	016.7	145.5	010.0000	0102.8	054.2	52.4
328.0	002.3000	0053.3	016.6	145.2	010.0000	0102.7	054.3	52.4
329.0	002.3000	0051.9	016.4	144.9	010.0000	0102.6	054.6	52.2
330.0	002.3000	0050.8	016.1	144.6	010.0000	0102.5	054.8	52.1

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

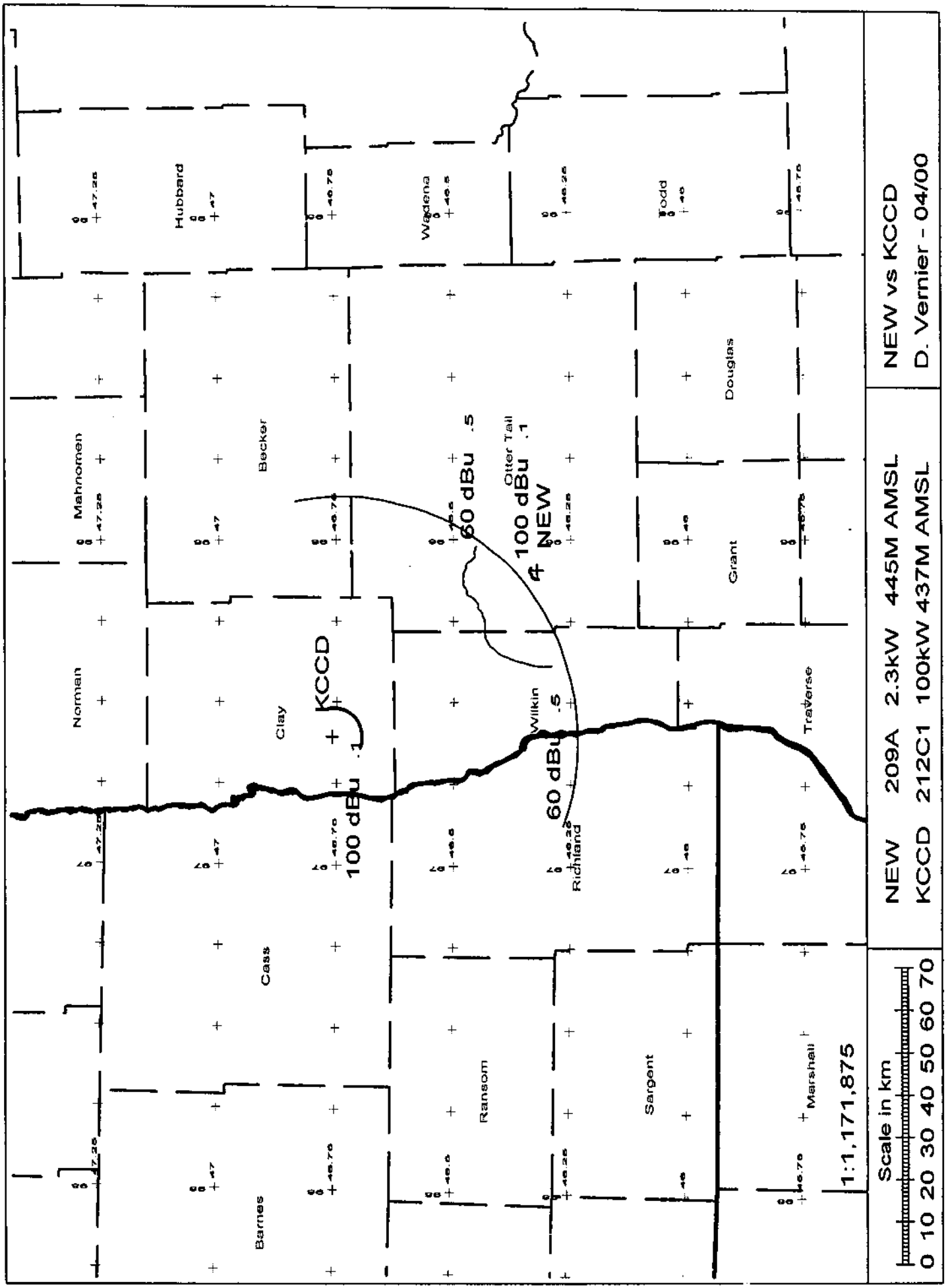
981202 BPED19981202MG
Channel = 208C3
Max ERP = 10 kW
RCAMSL = 390 M
N. Lat = 46 50 58
W. Lng = 96 36 46

NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
145.0	010.0000	0102.6	032.3	326.7	002.3000	0054.1	038.7	47.0
146.0	010.0000	0102.9	032.3	325.8	002.3000	0053.6	038.7	46.9
147.0	010.0000	0103.1	032.3	325.0	002.3000	0053.1	038.7	46.9
148.0	010.0000	0103.3	032.4	324.2	002.3000	0052.7	038.7	46.8
149.0	010.0000	0103.4	032.4	323.3	002.3000	0052.4	038.7	46.7
150.0	010.0000	0103.5	032.4	322.5	002.3000	0052.6	038.8	46.8
151.0	010.0000	0103.7	032.4	321.7	002.3000	0053.4	038.8	46.9
152.0	010.0000	0104.0	032.5	320.8	002.3000	0054.2	038.9	46.9
153.0	010.0000	0104.4	032.5	320.0	002.3000	0055.0	038.9	47.0
154.0	010.0000	0104.7	032.6	319.2	002.3000	0055.5	039.0	47.1
155.0	010.0000	0104.9	032.6	318.4	002.3000	0055.5	039.1	47.0
156.0	010.0000	0105.1	032.7	317.6	002.3000	0055.8	039.3	47.0
157.0	010.0000	0105.3	032.7	316.8	002.3000	0056.7	039.5	47.1
158.0	010.0000	0105.6	032.7	316.0	002.3000	0057.8	039.6	47.2
159.0	010.0000	0106.1	032.8	315.2	002.3000	0059.0	039.8	47.3
160.0	010.0000	0106.5	032.9	314.4	002.3000	0060.2	040.0	47.3
161.0	010.0000	0106.8	032.9	313.6	002.3000	0061.7	040.2	47.4
162.0	010.0000	0106.9	032.9	312.9	002.3000	0063.3	040.4	47.5
163.0	010.0000	0106.9	032.9	312.2	002.3000	0065.2	040.7	47.6
164.0	010.0000	0107.0	032.9	311.5	002.3000	0066.9	041.0	47.7
165.0	010.0000	0107.1	033.0	310.8	002.3000	0068.8	041.3	47.8
166.0	010.0000	0107.1	033.0	310.2	002.3000	0070.6	041.7	47.8
167.0	010.0000	0107.4	033.0	309.5	002.3000	0072.7	042.0	48.0
168.0	010.0000	0107.7	033.0	308.9	002.3000	0074.7	042.3	48.0
169.0	010.0000	0107.8	033.1	308.3	002.3000	0076.3	042.7	48.1
170.0	010.0000	0108.1	033.1	307.6	002.3000	0077.6	043.0	48.1
171.0	010.0000	0108.3	033.1	307.1	002.3000	0078.7	043.4	48.0
172.0	010.0000	0108.4	033.2	306.5	002.3000	0079.6	043.8	48.0
173.0	010.0000	0108.5	033.2	306.0	002.3000	0080.3	044.2	47.9
174.0	010.0000	0108.6	033.2	305.5	002.3000	0081.0	044.6	47.8
175.0	010.0000	0108.8	033.2	305.0	002.3000	0081.8	045.0	47.7
176.0	010.0000	0108.8	033.2	304.5	002.3000	0082.4	045.5	47.6
177.0	010.0000	0108.8	033.2	304.1	002.3000	0083.0	046.0	47.5
178.0	010.0000	0108.9	033.2	303.6	002.3000	0083.7	046.4	47.4
179.0	010.0000	0109.0	033.2	303.2	002.3000	0084.3	046.9	47.3
180.0	010.0000	0109.1	033.3	302.8	002.3000	0084.8	047.4	47.1


NEW vs KCCD
D. Vernier - 04/00
NEW 209A 2.3kW 445M AMSL
KCCD 212C1 100kW 437M AMSL
1:1,171,875
Scale in km
0 10 20 30 40 50 60 70
Hubbard
Wadena
Todd
Mahnomen
Becker
Otter Tail
Douglas
Grant
Norman
Clay
KCCD
100 dBu .1
60 dBu .5
4 NEW
100 dBu .1
60 dBu .5
Wilkin
Traverse
Richland
Cass
Ransom
Sargent
Barnes
Marshall

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

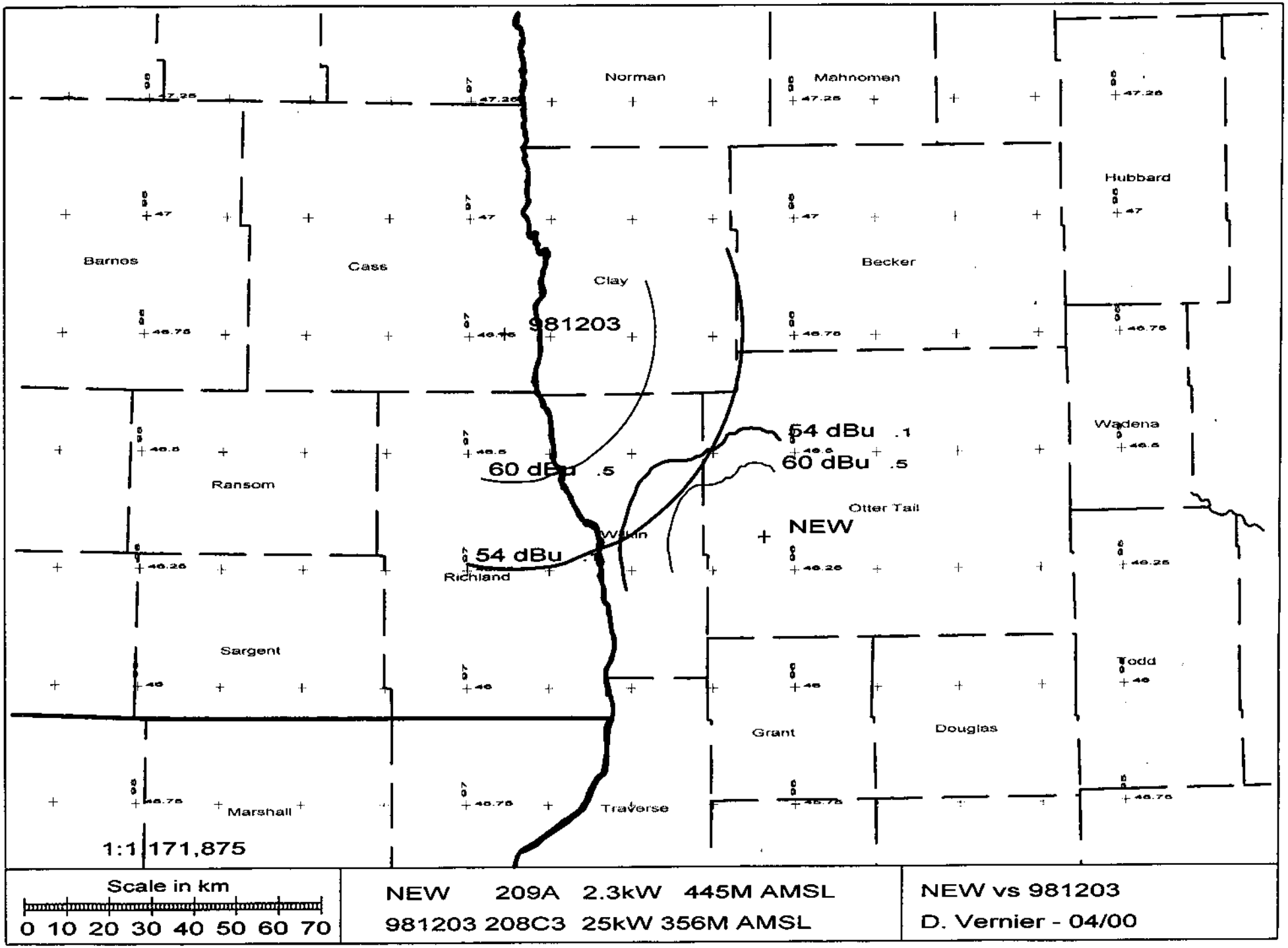
KCCD BLED19920612KA
Channel = 212C1
Max ERP = 100 kW
RCAMSL = 437 M
N. Lat = 46 45 35
W. Lng = 96 36 26

NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

Protected
60 dBu

Interfering
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
115.0	100.0000	0143.2	057.6	027.4	002.3000	0037.5	027.6	48.9
116.0	100.0000	0143.7	057.6	027.5	002.3000	0037.5	026.5	49.5
117.0	100.0000	0144.2	057.7	027.7	002.3000	0037.3	025.5	50.2
118.0	100.0000	0144.6	057.7	027.8	002.3000	0037.2	024.5	50.8
119.0	100.0000	0145.1	057.8	027.9	002.3000	0037.0	023.5	51.5
120.0	100.0000	0145.3	057.8	027.9	002.3000	0037.0	022.5	52.2
121.0	100.0000	0145.5	057.9	027.9	002.3000	0037.1	021.5	53.0
122.0	100.0000	0145.5	057.9	027.7	002.3000	0037.3	020.5	53.9
123.0	100.0000	0145.6	057.9	027.5	002.3000	0037.4	019.5	54.7
124.0	100.0000	0145.7	057.9	027.2	002.3000	0037.6	018.4	55.6
125.0	100.0000	0145.9	057.9	026.9	002.3000	0037.8	017.4	56.5
126.0	100.0000	0146.0	057.9	026.4	002.3000	0038.3	016.4	57.5
127.0	100.0000	0146.2	058.0	025.9	002.3000	0039.0	015.4	58.5
128.0	100.0000	0146.3	058.0	025.1	002.3000	0039.9	014.4	59.6
129.0	100.0000	0146.4	058.0	024.2	002.3000	0040.8	013.5	61.1
130.0	100.0000	0146.6	058.0	023.1	002.3000	0042.5	012.5	62.8
131.0	100.0000	0146.8	058.0	021.7	002.3000	0045.6	011.5	65.0
132.0	100.0000	0147.3	058.1	020.2	002.3000	0047.8	010.5	67.0
133.0	100.0000	0148.1	058.2	018.4	002.3000	0047.1	009.5	68.6
134.0	100.0000	0148.8	058.3	016.1	002.3000	0047.6	008.6	70.4
135.0	100.0000	0149.5	058.4	013.1	002.3000	0045.6	007.7	71.8
136.0	100.0000	0150.0	058.5	009.0	002.3000	0048.2	006.8	74.4
137.0	100.0000	0150.1	058.5	003.1	002.3000	0054.8	006.0	77.8
138.0	100.0000	0150.2	058.5	355.5	002.3000	0058.9	005.3	80.7
139.0	100.0000	0150.2	058.5	345.6	002.3000	0058.8	004.8	82.6
140.0	100.0000	0150.2	058.5	333.6	002.3000	0051.7	004.4	82.7
141.0	100.0000	0150.2	058.5	320.2	002.3000	0054.9	004.3	83.7
142.0	100.0000	0150.2	058.5	306.9	002.3000	0078.9	004.4	86.1
143.0	100.0000	0150.1	058.5	295.2	002.3000	0090.1	004.8	85.9
144.0	100.0000	0149.8	058.4	285.8	002.3000	0092.1	005.4	84.2
145.0	100.0000	0149.5	058.4	278.6	002.3000	0093.8	006.1	82.1
146.0	100.0000	0149.3	058.4	273.0	002.3000	0097.1	006.9	80.3
147.0	100.0000	0149.4	058.4	268.5	002.3000	0099.2	007.8	78.4
148.0	100.0000	0149.6	058.4	264.8	002.3000	0100.0	008.7	76.7
149.0	100.0000	0149.7	058.4	262.1	002.3000	0100.5	009.6	75.0
150.0	100.0000	0149.7	058.4	259.9	002.3000	0100.4	010.5	73.3


Norman
Mahnomen
Hubbard
Barnes
Cass
Clay
Becker
981203
Wadena
54 dBu .1
60 dBu .5
60 dBu .5
Ransom
Otter Tail
NEW
Wilkin
54 dBu
Richland
Sargent
Todd
Grant
Douglas
Marshall
Traverse
1:1 171,875
Scale in km
0 10 20 30 40 50 60 70
NEW 209A 2.3kW 445M AMSL
981203 208C3 25kW 356M AMSL
NEW vs 981203
D. Vernier - 04/00

Pg #14

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

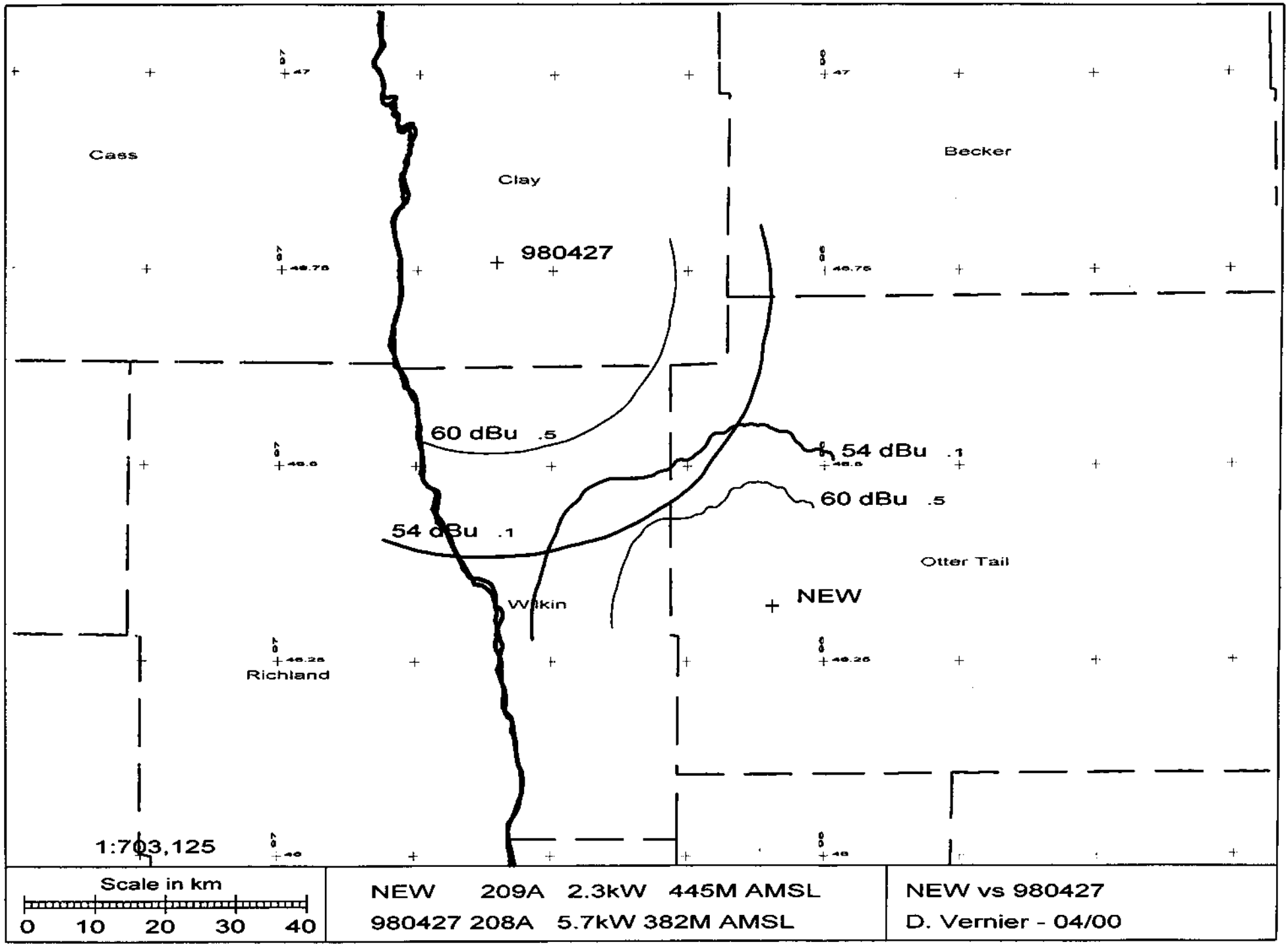
NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

981203 - BPED19981203MC
Channel = 208C3
Max ERP = 25 kW
RCAMSL = 356 M
N. Lat = 46 45 19
W. Lng = 96 53 26

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
285.0	002.3000	0092.4	021.9	136.7	025.0000	0079.5	058.4	53.2
286.0	002.3000	0092.0	021.9	136.4	025.0000	0079.5	058.2	53.2
287.0	002.3000	0091.6	021.8	136.0	025.0000	0079.5	058.1	53.3
288.0	002.3000	0091.1	021.8	135.7	025.0000	0079.5	058.0	53.3
289.0	002.3000	0090.9	021.7	135.3	025.0000	0079.5	057.8	53.4
290.0	002.3000	0091.0	021.8	135.0	025.0000	0079.5	057.6	53.4
291.0	002.3000	0091.2	021.8	134.7	025.0000	0079.5	057.4	53.5
292.0	002.3000	0091.1	021.8	134.3	025.0000	0079.5	057.3	53.5
293.0	002.3000	0091.0	021.8	134.0	025.0000	0079.5	057.2	53.6
294.0	002.3000	0090.8	021.7	133.6	025.0000	0079.5	057.1	53.6
295.0	002.3000	0090.2	021.7	133.2	025.0000	0079.5	057.0	53.6
296.0	002.3000	0089.4	021.6	132.8	025.0000	0079.5	057.0	53.6
297.0	002.3000	0088.3	021.4	132.4	025.0000	0079.5	057.0	53.6
298.0	002.3000	0087.2	021.3	132.0	025.0000	0079.5	057.0	53.6
299.0	002.3000	0086.4	021.2	131.6	025.0000	0079.5	057.1	53.6
300.0	002.3000	0086.3	021.2	131.3	025.0000	0079.5	057.0	53.6
301.0	002.3000	0086.4	021.2	130.9	025.0000	0079.5	056.9	53.7
302.0	002.3000	0085.7	021.1	130.5	025.0000	0079.5	056.9	53.7
303.0	002.3000	0084.6	021.0	130.1	025.0000	0079.4	057.0	53.6
304.0	002.3000	0083.1	020.8	129.8	025.0000	0079.4	057.2	53.6
305.0	002.3000	0081.7	020.6	129.4	025.0000	0079.4	057.3	53.5
306.0	002.3000	0080.3	020.4	129.0	025.0000	0079.4	057.5	53.5
307.0	002.3000	0078.8	020.2	128.6	025.0000	0079.4	057.6	53.4
308.0	002.3000	0076.9	020.0	128.3	025.0000	0079.4	057.9	53.3
309.0	002.3000	0074.3	019.6	127.9	025.0000	0079.4	058.2	53.2
310.0	002.3000	0071.2	019.2	127.6	025.0000	0079.4	058.6	53.1
311.0	002.3000	0068.4	018.9	127.3	025.0000	0079.4	059.0	52.9
312.0	002.3000	0065.7	018.5	127.0	025.0000	0079.4	059.4	52.8
313.0	002.3000	0063.1	018.1	126.7	025.0000	0079.4	059.8	52.7
314.0	002.3000	0060.9	017.8	126.5	025.0000	0079.4	060.1	52.6
315.0	002.3000	0059.2	017.6	126.2	025.0000	0079.4	060.4	52.5
316.0	002.3000	0057.8	017.4	126.0	025.0000	0079.4	060.7	52.4
317.0	002.3000	0056.4	017.1	125.7	025.0000	0079.3	061.0	52.3
318.0	002.3000	0055.5	017.0	125.5	025.0000	0079.3	061.2	52.2
319.0	002.3000	0055.5	017.0	125.2	025.0000	0079.3	061.2	52.2
320.0	002.3000	0055.0	016.9	125.0	025.0000	0079.3	061.4	52.2


Cass
Clay
Becker
980427
60 dBu .5
54 dBu .1
54 dBu .1
60 dBu .5
Otter Tail
Wilkin
NEW
Richland
1:703,125
Scale in km
0 10 20 30 40
NEW 209A 2.3kW 445M AMSL
980427 208A 5.7kW 382M AMSL
NEW vs 980427
D. Vernier - 04/00

Pg #16

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

980427 BPED19980427MQ
Channel = 208A
Max ERP = 5.7 kW
RCAMSL = 382 M
N. Lat = 46 45 38
W. Lng = 96 36 11

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
285.0	002.3000	0092.4	021.9	157.4	005.7000	0094.6	046.7	52.2
286.0	002.3000	0092.0	021.9	157.1	005.7000	0094.6	046.5	52.3
287.0	002.3000	0091.6	021.8	156.8	005.7000	0094.6	046.2	52.4
288.0	002.3000	0091.1	021.8	156.4	005.7000	0094.6	046.0	52.5
289.0	002.3000	0090.9	021.7	156.1	005.7000	0094.6	045.7	52.6
290.0	002.3000	0091.0	021.8	155.8	005.7000	0094.6	045.4	52.7
291.0	002.3000	0091.2	021.8	155.4	005.7000	0094.5	045.1	52.8
292.0	002.3000	0091.1	021.8	155.1	005.7000	0094.5	044.9	52.9
293.0	002.3000	0091.0	021.8	154.7	005.7000	0094.5	044.6	53.0
294.0	002.3000	0090.8	021.7	154.3	005.7000	0094.6	044.4	53.1
295.0	002.3000	0090.2	021.7	153.9	005.7000	0094.5	044.2	53.1
296.0	002.3000	0089.4	021.6	153.4	005.7000	0094.5	044.0	53.2
297.0	002.3000	0088.3	021.4	152.9	005.7000	0094.6	043.9	53.2
298.0	002.3000	0087.2	021.3	152.4	005.7000	0094.6	043.8	53.3
299.0	002.3000	0086.4	021.2	152.0	005.7000	0094.7	043.7	53.3
300.0	002.3000	0086.3	021.2	151.5	005.7000	0094.7	043.5	53.4
301.0	002.3000	0086.4	021.2	151.1	005.7000	0094.7	043.3	53.5
302.0	002.3000	0085.7	021.1	150.6	005.7000	0094.7	043.2	53.5
303.0	002.3000	0084.6	021.0	150.1	005.7000	0094.7	043.2	53.6
304.0	002.3000	0083.1	020.8	149.6	005.7000	0094.6	043.2	53.6
305.0	002.3000	0081.7	020.6	149.1	005.7000	0094.5	043.2	53.5
306.0	002.3000	0080.3	020.4	148.5	005.7000	0094.5	043.2	53.5
307.0	002.3000	0078.8	020.2	148.0	005.7000	0094.4	043.2	53.5
308.0	002.3000	0076.9	020.0	147.4	005.7000	0094.3	043.3	53.5
309.0	002.3000	0074.3	019.6	146.9	005.7000	0094.4	043.6	53.4
310.0	002.3000	0071.2	019.2	146.3	005.7000	0094.4	043.9	53.3
311.0	002.3000	0068.4	018.9	145.7	005.7000	0094.6	044.1	53.2
312.0	002.3000	0065.7	018.5	145.2	005.7000	0094.7	044.4	53.1
313.0	002.3000	0063.1	018.1	144.7	005.7000	0094.9	044.7	53.0
314.0	002.3000	0060.9	017.8	144.2	005.7000	0095.0	044.9	52.9
315.0	002.3000	0059.2	017.6	143.8	005.7000	0095.1	045.1	52.8
316.0	002.3000	0057.8	017.4	143.4	005.7000	0095.1	045.3	52.8
317.0	002.3000	0056.4	017.1	143.0	005.7000	0095.1	045.5	52.7
318.0	002.3000	0055.5	017.0	142.6	005.7000	0095.1	045.6	52.6
319.0	002.3000	0055.5	017.0	142.2	005.7000	0095.1	045.6	52.7
320.0	002.3000	0055.0	016.9	141.8	005.7000	0095.1	045.6	52.6

Doug Vernier Telecommunications Consultants
04-08-2000 03 Sec. Terrain Data

980427 BPED19980427MQ
Channel = 208A
Max ERP = 5.7 kW
RCAMSL = 382 M
N. Lat = 46 45 38
W. Lng = 96 36 11

NEW
Channel = 209A
Max ERP = 2.3 kW
RCAMSL = 445 M
N. Lat = 461916
W. Lng = 960536

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
135.0	005.7000	0093.4	027.1	326.2	002.3000	0053.9	035.8	48.1
136.0	005.7000	0094.2	027.2	325.5	002.3000	0053.3	035.6	48.1
137.0	005.7000	0094.7	027.3	324.8	002.3000	0052.9	035.5	48.1
138.0	005.7000	0094.9	027.3	324.0	002.3000	0052.6	035.4	48.1
139.0	005.7000	0095.1	027.3	323.2	002.3000	0052.3	035.3	48.0
140.0	005.7000	0095.2	027.3	322.5	002.3000	0052.7	035.3	48.1
141.0	005.7000	0095.1	027.3	321.7	002.3000	0053.3	035.3	48.2
142.0	005.7000	0095.1	027.3	320.9	002.3000	0054.1	035.3	48.3
143.0	005.7000	0095.1	027.3	320.1	002.3000	0054.9	035.3	48.5
144.0	005.7000	0095.0	027.3	319.4	002.3000	0055.5	035.4	48.5
145.0	005.7000	0094.8	027.3	318.6	002.3000	0055.5	035.4	48.5
146.0	005.7000	0094.5	027.2	317.9	002.3000	0055.6	035.5	48.5
147.0	005.7000	0094.4	027.2	317.1	002.3000	0056.3	035.6	48.5
148.0	005.7000	0094.4	027.2	316.4	002.3000	0057.2	035.7	48.6
149.0	005.7000	0094.5	027.2	315.6	002.3000	0058.3	035.8	48.7
150.0	005.7000	0094.7	027.3	314.9	002.3000	0059.4	035.9	48.8
151.0	005.7000	0094.7	027.3	314.1	002.3000	0060.6	036.0	48.9
152.0	005.7000	0094.6	027.2	313.4	002.3000	0062.1	036.2	49.0
153.0	005.7000	0094.6	027.2	312.7	002.3000	0063.8	036.4	49.2
154.0	005.7000	0094.5	027.2	312.0	002.3000	0065.6	036.6	49.3
155.0	005.7000	0094.5	027.2	311.4	002.3000	0067.4	036.7	49.5
156.0	005.7000	0094.6	027.2	310.7	002.3000	0069.2	036.9	49.6
157.0	005.7000	0094.6	027.2	310.0	002.3000	0071.1	037.1	49.7
158.0	005.7000	0094.7	027.3	309.4	002.3000	0073.2	037.3	49.9
159.0	005.7000	0094.6	027.2	308.7	002.3000	0075.0	037.6	50.0
160.0	005.7000	0094.2	027.2	308.2	002.3000	0076.5	037.9	50.0
161.0	005.7000	0094.1	027.2	307.6	002.3000	0077.7	038.2	50.0
162.0	005.7000	0093.7	027.1	307.0	002.3000	0078.7	038.5	50.0
163.0	005.7000	0093.5	027.1	306.5	002.3000	0079.6	038.8	50.0
164.0	005.7000	0093.4	027.1	306.0	002.3000	0080.4	039.1	49.9
165.0	005.7000	0093.1	027.0	305.5	002.3000	0081.1	039.4	49.9
166.0	005.7000	0093.1	027.0	304.9	002.3000	0081.8	039.7	49.8
167.0	005.7000	0093.3	027.1	304.4	002.3000	0082.5	040.0	49.7
168.0	005.7000	0093.5	027.1	303.9	002.3000	0083.2	040.3	49.7
169.0	005.7000	0093.6	027.1	303.4	002.3000	0084.0	040.6	49.6
170.0	005.7000	0093.6	027.1	303.0	002.3000	0084.7	041.0	49.6

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: _____
TBA	

Purpose of Application: *(check appropriate boxes)*

- ☒ Construct a new (main) facility Modifies See Ex. #E1, Engineering Statement
- ☐ Modify existing construction permit for main facility
- ☐ Modify licensed main facility
- ☐ Construct a new auxiliary backup facility
- ☐ Modify existing construction permit for auxiliary backup facility
- ☐ 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
- ☐ Antenna height above average terrain
- ☐ Antenna location
- ☐ Main Studio location per 47 C.F.R. Section 73.1125(b)(2)
- ☐ Directional Antenna
- ☒ Effective radiated power (reduce ERP)
- ☐ Frequency
- ☐ Class
- ☐ One-Step processing
- ☐ Other*(summarize briefly)*

File Number(s) BPED 19981208MH

1. Allocation:

Channel No.	Principal community to be served:		
	County	City or Town	State
209	Otter Tail	Fergus Falls	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.

2 miles N. of Fergus Falls, MN Approx intersection I-94 and US Hwy 59

   (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	46 °	19 '	16 "	Longitude	96°	05 '	36 "

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3. Will the antenna be mounted on an antenna structure which has been registered with the Commission? [X] Yes [ ] No

   If Yes, provide the seven digit registration number and proceed to item 8. 1024698

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. _____

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)? [X] Yes [ ] No

   If Yes, give call letter(s) or file number(s) or both. BPED 19981120MC

   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. N/A

9. Does the application propose to correct previous site coordinates? [ ] Yes [X] No
   If Yes, list old coordinates.

Latitude	°	'	"	Longitude	°	'	"

10. Has the FAA been notified of the proposed construction? [ ] Yes [X] 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 _____ Office where filed _____

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

(1) Of the site above mean sea level; 384 meters

(2) Of the top of supporting structure above ground (*including antenna, all other appurtenances, and lighting, if any)*; and 107 meters

(3) Of the top of supporting structure above mean sea level [(a)(1) + (a)(2)]. 491 meters

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

(1) Above ground; 61 meters (H)

61 meters (V)

(2) Above mean sea level [(a)(1) + (b)(1)]; and 445 meters (H)

445 meters (V)

(3) Above average terrain. 69 meters (H)

69 meters (V)

12. 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: *on file no change

13. Effective Radiated Power:

(a) ERP in the horizontal plane 2.3 kw (H*) 2.3 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

14. 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

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

* on file

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

16. 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?

☐ Yes ☐ No *

* on file

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.
N/A

17. 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.
* on file

18. 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.
E2

(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.

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

Area 1,116 sq. km. Population 18,452

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

Enter the following from Exhibit above:

Gain Area * sq. km.
Loss Area _____ sq. km.
Present Area _____ sq. km.

Percent change (gain area plus loss area as divided by present area times 100%) minor change, 1 mVm continues to serve Fergus Falls, MN

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).)

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21. 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. _____

22. 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 USGS ☐ Other (summarize) V-Soft Communications 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)

23. 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

24. 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. E3

25. 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. E3

(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).

26. 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. E3

27. (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.

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).

28. 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?

☐ Yes ☐ No *

* on file

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.

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

☐ Yes ☒ No

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

Exhibit No.

30. 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 ☒ No

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

Exhibit No.

(b) If No, explain briefly why not.

* on file

(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.

* on file (reduces power)

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.

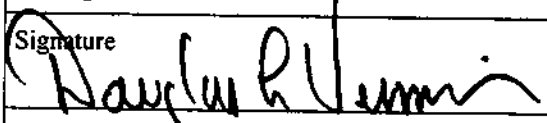
Name (Typed or Printed)	Relationship to Applicant (e.g., Consulting Engineer)
Douglas L. Vernier	Technical Consultant
Signature 	Address (include ZIP Code) 1600 Picturesque Dr. Cedar Falls, IS 50613
Date April 9, 2000	Telephone No. (include Area Code) 310 266-8402

EXHIBIT C

ORIGINAL APPLICATION FOR
NEW NONCOMMERCIAL EDUCATIONAL FM STATION
IN FERGUS FALLS, MINNESOTA
BPED-19981208MH