CDBS Print

	deral Communications Commission ashington, D.C. 20554	3060	FOR FCC USE ONLY						
	FC	CC 340							
	NONCOMMERCIAL ED STA	VED CHANNEL	FOR COMMISSION USE ONLY FILE NO. BMPED - 20020904AAQ						
Se	ction I - General Information								
1.	Legal Name of the Licensee/Perm MINNESOTA PUBLIC RADIO	nittee							
	Mailing Address 45 EAST 7TH ST.								
	City ST. PAUL	State or Country (if forei MN	gn address)			ZIP Code 55101 -			
~	Telephone Number (include area code) 6512901259	E-Mail Address (if availa MGRAMLING@MPR.C							
		Call Sign KNWF		Facility Identifier 92141					
2.	Contact Representative (if other t TODD STANSBURY	han licensee/Permittee)		Firm or Company Name WILEY REIN & FIELDING					
	Telephone Number (include area 2027194948	code)		E-Mail Address (if available) TSTANSBU@WRF.COM					
3.	Is this application being filed in r If Yes, specify closing date and/o					O Yes O No			
4	Application Purpose				· · · ·				
	O New station	O _{Maje}	or Modification of	f const	ruction permit				
	• Major Change in licensed fact	ility 💿 Mine	or Modification of	f const	ruction permi	:			
	O Minor Change in licensed fac	ility O Maje	or Amendment to	pendin	g application	e en			
				to pending application					
	(a) File number of original constr	uction permit: BMPED							
	(b) Service Type:	© FM	C _{TV} C _{DTV}						
	(c) Community of License: City: FERGUS FALLS	State: MN							
	(d) Facility Type	• Main	Auxiliary						
	If an amendment, submit as an Exhibit a listing by Section and Question Number the portions of the [Exhibit 1] pending application that are being revised.								

NOTE: The failure to include an explanatory providing full particulars in connection with a "No" response may result in dismissal of the application. See Instructions, paragraph L for additional information regarding completion of explanatory exhibits.

SECTION II - Legal and Financial

1.	Certification. Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.	⊙ Yes C No
2.	Eligibility. Each application must answer "Yes" to one and "No" to two of the three following certifications. An applicant should not submit an explanatory exhibit in connection with these Question 2 "No" responses.	
	The applicant certifies that it is:	~ ~
	a. a nonprofit education institution; or	O Yes ⊙ No
	b. a governmental entity other than a school; or	O Yes O No
	c. a nonprofit educationl organization, other than described in a. or b.	• Yes O No
3.	For applicants checking "Yes" to question 2(c) and applying for a new noncommercial education television station only, the applicant certifies that the applicant's officers, directors and members of its governing board are broadly representative of the educational, cultural, and civic segments of the principal community to be served.	C Yes C No © N/A
4.	a. The applicant certifies that the Commission has previously granted a broadcast application identified here by file number that found this applicant qualified as a noncommercial educational entity with a qualifying educational program, and that the applicant will use the proposed station to advance a program similar to that the Commission has found qualifying in applicant's previous application.	O Yes O No FCC FileNumber - [Exhibit 2]
	b.Applicants who answered "No" to Question 4(a), must include an exhibit that describes the applicant's educational objective and how the proposed station will be used to advance an educational program that will further that objective according to 47 C.F.R. Section 73.503 (for radio applicants) and 47 C.F.R. Section 73.621 (for television applicants).	
5.	The applicant certifies that its governing documents (e.g., articles of incorporation, by-laws, charter, enabling statute, and/or other pertinent organizational document) permit the applicant to advance an educational program and that there is no provision in any of those documents that would restrict the applicant from advancing an educational program or complying with any Commission rule, policy, or provision of the Communications Act of 1934, as amended.	C _{Yes} C _{No}
6.	a. Parties to the Application. List separately each party to the application including, as applicable, the applicant, its officers, directors, five percent or greater stockholders, non-insulated partners, members, and all other persons and entities with attributable interests. If another entity hold an attributable interest in the applicant, list separately, as applicable, its officers, directors, five percent or greater stockholders, non-insulated partners, and board members. Create a separate row for each individual or entity. Attach additional pages if necessary.	
	[Enter Parties/Owners Information]	
	b. Applicant certifies that equity and financial interests not set forth above are non- attributable pursuant to 47 C.F.R. Section 73.3555 and that there are no agreements or understandings with any non-party that would give influence over the applicant's programming, personnel, or finances to that non-party.	C Yes C No [Exhibit 3]

7.	Other Authorizations. List call signs, locations, and facility identifiers of all other broadcast stations in which applicant or any party to the application has an attributable interest pursuant to the notes to 47 C.F.R. Section 73.3555.	N/A [Exhibit 4]
3.	Character Issues. Applicant certifies that neither applicant nor any party to the application has or has had any interest in or connection with:	• Yes O No
	a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or	See Explanation in [Exhibit 5]
	b. any pending broadcast application in which character issues have been raised.	
).	Adverse Findings. Applicant certifies that, with respect to the applicant, any party to the application, and any non-party equity owner in the applicant, no adverse finding has been made, nor has an adverse final action been taken by any court or administrative body in a civil or criminal proceeding brought under the provisions of any law related to any of the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another government unit; or discrimination.	• Yes • No See Explanation in [Exhibit 6]
	If the answer is "No," attach as an Exhibit a full disclosure concerning the persons and matters involved, including an identification of the the court or administrative body and the proceeding (by dates and file numbers), and a description of the disposition of the matter. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 C.F.R. Section 1.65, the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.	
0.	Alien Ownership and Control. Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.	• Yes • No See Explanation in [Exhibit 7]
1.	Program Service Certification. Applicant certifies that it is cognizant of and will comply with its obligations as a commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.	• Yes O No
2.	Local Public Notice. Applicant certifies compliance with the public notice requirements of 47 C.F.R. Section 73.3580.	⊙ _{Yes} O _{No}
3.	Anti-Drug Abuse Act Certification. Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.	• Yes O No
4.	Equal Employment Opportunity (EEO). If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.	C Yes C No € N/A
	ESTIONS 15, 16 AND 17 APPLY ONLY TO APPLICANTS FOR NEW STATIONS. OT N PROCEED TO QUESTION 18.	HER APPLICANTS
5.	Financial. The applicant certifies that sufficient net liquid assets are on hand or that sufficient funds are available from committed sources to construct and operate the requested facilities for three months without revenue.	C Yes C No
	If "No" to 15., answer question 16. and 17.	See Explanation in [Exhibit 8]
6.	Is this application contingent upon receipt of a grant from the National Telecommunications and Information Administration?	C Yes C No
7.	Is this application contingent upon receipt of a grant from a charitable organization, the approval of the budget of a school or university, or an appropriation from a state, county, municipality or other political subdivision?	C Yes C No

I		
or a act apj by cor	TE: If Yes to 16. or 17., the application cannot be granted unconditionally until all of the necessar appropriated. In the case of grants from the National Telecommunications and Information Admini- ion on the applicant's part is required. If the applicant relies on funds from a source specified in Qu plicant must advise the Commission when the funds are committed or appropriated. This shouletter amendment to the application. Applicants should take note that the Commission's construction isidered "tolled" by funding difficulties and that any permit granted conditionally on funding will e constructed for any reason, including lack of funding.	stration, no further estion 17., the uld be accomplished on period is not
NE	JESTIONS 18 AND 19 DO NOT APPLY TO APPLICATIONS FOR NEW STATIONS. APP W FM STATIONS CAN PROCEED TO SECTION III. APPLICANTS FOR NEW TV STA OCEED TO SECTION IV.	
Ho	lding Period.	
18.	Applicant certifies that this application does not propose a modification to an authorization that was awarded on the basis of a preference for fair distribution of service pursuant to 47 U.S.C. Section 307(b).	• Yes O No
	If "No," answer a. and b. below. If applicant answers "No" to 18. above and cannot answer "Yes" to either a. or b. below, the application is unacceptable.	
	a. Applicant certifies that the proposed modification will not downgrade service to the area on which the Section 307(b) preference was based.	O Yes O No
	b. Applicant certifies that although it proposes to downgrade service to the area on which the Section 307(b) preference was based, applicant has provided full service to that area for a period of four years of on-air operations.	O Yes O No
19.	Applicant certifies that this application does not propose a modification to an authorized station that received a credit for superior technical parameters under the point system selection method in 47 C.F.R. Section 73.7003.	• Yes O No
	If "No," applicant must be able to answer "Yes" to a. below or provide an exhibit that makes a compelling showing that the downgrade would be in the public interest.	
	a. Applicant certifies that the population and area within the proposed service contour (60 dBu (FM) or grade B (TV)) are greater than or equivalent to those authorized.	O Yes O No [Exhibit 9]

Section III

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

1	Applicant certifies that the proposed station will provide a first noncommercial educational aural service to (a) at least 10 percent of the people residing within the station's 60 dBu (1mV/m) service contour and (b) to a minimum of 2,000 people. Applicants answering "Yes" must provide an Exhibit.	O Yes O No [Exhibit 10]
2	. Applicant certifies that the proposed station will provide a second noncommercial educational aural service to (a) at least 10 percent of the people residing within the station's 60 dBu (1mV/m) service contour and (b) to a minimum of 2,000 people. Applicants answering "Yes" must provide an Exhibit.	O Yes O No [Exhibit 11]

Section IV Point System Factors - New and Major Change Applications Only (used to select among mutually exclusive radio and television applications for new stations and major modifications) **NOTE**: Applicants will not receive any additional points for amendments made after the close of the application filing window.

Established Local Applicant: Applicant certifies that for at least the 24 months immediately prior to application, and continuing through the present, it qualifies as a local applicant pursuant to 47 C.F.R. Section 73.7000, that its governing documents require that such localism be maintained, and that it has placed documentation of its qualifications as an established local applicant in a local public inspection file and has submitted to the Commission copies of the documentation	- 103 - 110
public inspection file and has submitted to the Commission copies of the documentation.	

2.	Diversity of Ownership: (a) Applicant certifies that the principal community (city grade) contour of the proposed station does not overlap the principal community contour of any other authorized station (comparing radio and television to television, including non-fill-in translator stations other than those identified in 2(b) below) in which any party to the application has an attributable interest as defined in 47 C.F.R. Section 73.3555, that its governing documents require that such diversity be maintained, and that it has placed documentation of its diversity qualification in a local public inspection file and has submitted to the Commission copies of the documentation.	O Yes O No						
	(b) Is the application's certification to 2(a) based on its exclusion of translator station(s) that will be replaced with a full service station pursuant to the authorization requested here?	O Yes O No						
	If Yes, applicant must include an exhibit identifying the translator station authorization for which it will request cancellation upon commencement of operation of the proposed full service station (i.e., upon its filing of a license application and receipt of program test authority).	[Exhibit 12]						
3.	State-wide Network: Applicant certifies that (a) it has NOT claimed a credit for diversity of ownership above: (b) it is one of the three specific types of organizations described in 47 C.F.R. Section 73.7003(b)(3); and (c) it has placed documentation of its qualifications in a local public inspection file and has submitted to the Commission copies of the documentation.	O Yes O No						
4.	Technical Parameters: Applicant certifies that the numbers in the boxes below accurately reflect the new area and population that its proposal would serve with a 60 dBu (FM) or Grade B (TV) signal measured in accordance with the standard predicted contours in 47 C.F.R. Section 73.713(c) (FM) and 73.683(TV) and that it has documented the basis for its calculations in the local public inspection file and has submitted copies to the Commission. Major modification applicants should include the area of proposed increase only (exclude any area already within the station's existing service area). (Points, if any, will be determined by FCC)	O Yes O No						
	New area served in square kilometers (excluding areas of water):							
	Population served based on the most recent census block data from the United States Bureau of Census using the centroid method:							
	SECTION V - Tie Breakers - New and Major Change Applications Only (used to choose among competing radio and television applications receiving the same number of points in Section IV)							
	Existing Authorizations By placing a number in the box, the applicant certifies that it and other particular the second	arties to the						

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

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

(number of pending commercial and non-commercial applications)

Section VI -- Certification

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

	Typed or Printed Title of Person Signing EXECUTIVE VICE PRESIDENT				
Signature	Date				

9/10/2002

Section VII Preparer's Certification

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

Name KATE MICHLER	Relationship to Applicant (e.g., Consulting Engineer)					
Signature	Date 8/29/2002					
Mailing Address DOUG VERNIER TELECOMMUNICATIONS CONSULTA 1600 PICTURESQUE DRIVE	NTS					
City CEDAR FALLS	State or Country (if foreign address)Zip CodeIA50613-					
Telephone Number (include area code) 3192668402	E-Mail Address (if available) KMICHLER@V-SOFT.COM					

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

Ens	CHNICAL SPECIFICATIONS sure that the specifications below are accurate. Contradicting data found									
	regarded. All items must be completed. The response "on file" is not ac	ceptable.								
	CH BOX Channel Number: 218									
	Class (select one):									
<u>~</u> .	$ \bigcirc D \odot A \odot B1 \odot B \odot C3 \odot C2 \odot C1 \odot C0 \odot C $									
3.	Antenna Location Coordinates: (NAD 27)									
	Latitude:									
	Degrees 46 Minutes 19 Seconds 12 • North • South									
	Longitude:									
	Degrees 96 Minutes 5 Seconds 32 • West • East									
	Antenna Structure Registration Number: Not Applicable Notification filed with FAA									
5.	Antenna Location Site Elevation Above Mean Sea Level:	384 meters								
5.	Overall Tower Height Above Ground Level:	61 meters								
7.	Height of Radiation Center Above Ground Level:	55 meters(H) 55 meters(V)								
3.	Height of Radiation Center Above Average Terrain:	66 meters(H) 66 meters(V)								
).	Effective Radiated Power:	2.7 kW(H) 2.7 kW(V)								
10.	Maximum Effective Radiated Power: (Beam-Tilt Antenna ONLY)	kW(H) kW(V)								
1.	Directional Antenna Relative Field Values: Not applicable (Nond	irectional)								

	Rotation	(Degre	es):			□ _{No}	Rotation					
	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
	0		10		20		30		40		50	
	60	ĺ	70	İ	80	İ	90	ĺ	100		110	
	120		130	j	140	j	150	ĺ	160		170	
	180	ĺ	190	İ	200	İ	210	İ	220		230	
	240		250	ĺ	260	j	270		280		290	
	300		310	İ	320	ĺ	330		340		350	
	Addition	al		1		1		1			L	1
	Azimuth	5										
							his sectior o'' respon			v exhibi	t providi	ng full particulars
	RTIFICA		or each q	uestion	101 wine		b Tespon	se is pr	oviueu.			
CL.	KIIFICA											
AU	XILIARY	ANTI	ENNA AP	PLICA	NTS AR	E NOT	REQUI	RED TO) RESPO	ND TO	ITEMS	12-16.
12.	Main Stu 73.1125.	ıdio Lo	cation.	The pro	posed ma	in studi	o location	compli	es with 47	C.F.R.	Section	O Yes ⊙ No
												See Explanation in [Exhibit 13]
13.	Interfere sections.			sed faci	lity comp	lies witl	h all of the	follow	ing applic	able rul	e	• Yes O No
	Check all											See Explanation in [Exhibit 14]
			p Requir		•							
			ection 73. equired.	.509								[Exhibit 15]
	Spacing											
			Section 73	.207 wi	th respect	to stati	on(s)					
			Short-Sp									
			ection 73. equired.	.213(a)	with resp	ect to st	ation(s)					[Exhibit 16]
	Contour											
	d. 🗆 47 (C.F.R. S	Section 73	.215(a)	with resp	ect to st	ation(s)					
	i -		equired.									[Exhibit 17]
			nnel 6 Pro			to stati	$\mathbf{n}(\mathbf{a})$					
	E 47 C	hibit R	equired.	.525 WI	urrespect	to statio	511(8)					[Exhibit 18]
14.			nels Abov	e 220								
	210502 700	- Unaill	100									
		n ent. n 73.203		sed fact	llity comp	lies wit	h the allot	ment re	quirement	s of 47	C.F.R.	• Yes • No See Explanation in [Exhibit 19]
	b. Comm	nunity (Coverage.	The	proposed	facility	complies	with 47	C.F.R. Se	ction 73	3.315.	• Yes • No See Explanation in [Exhibit 20]

	Environmental Protection Act. The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant	⊙ Yes O No
	environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Worksheet #7, an Exhibit is required.	See Explanation in [Exhibit 22]
	By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.	
PR	EPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.	

Exhibits

Exhibit 1 Description: ENGINEERING STATEMENT

Attachment 1

Description	Туре	Conversion		
Description		Status	File	
Exhibit #1, Engineering Statement	Adobe Acrobat File	not needed	PDF	

Exhibit 2

Description: EXPLANATION REGARDING SECTION II, QUESTIONS 2-3 AND 7-12

BECAUSE THIS APPLICATION IS FOR A MINOR MODIFICATION OF THE STATION'S CONSTRUCTION PERMIT, SECTION II, QUESTIONS 2-3 AND 7-12 ARE INAPPLICABLE. DUE TO AN APPARENT TECHNICAL PROBLEM WITH THE FCC'S ELECTRONIC FILING SYSTEM, CDBS IS REQUIRING VALUES TO BE ENTERED FOR THESE QUESTIONS AS A PREREQUISITE TO ELECTRONIC SUBMISSION. ON THE ADVICE OF FCC STAFF, MPR IS PROVIDING RESPONSES TO THESE QUESTIONS FOR THE PURPOSE OF FACILITATING ELECTRONIC FILING OF THE APPLICATION. BECAUSE THE RESPONSES ARE NOT RELEVANT TO THIS MINOR MODIFICATION APPLICATION, HOWEVER, THEY SHOULD BE DISREGARDED.

Attachment 2

Exhibit 13 Description: MAIN STUDIO WAIVER

A WAIVER OF 47 C.F.R. SECTION 73.1125 WAS PREVIOUSLY GRANTED UNDER BMPED20020416AAE TO ALLOW OPERATION OF KNWF AS A SATELLITE OPERATION OF KNOWFM, MINNEAPOLIS, MINNESOTA.

THE APPLICANT RESPECTFULLY REQUESTS A CONTINUATION OF THIS WAIVER.

Attachment 13

Description	Туре	Status	File
	Adobe Acrobat File	not needed	PDF

Attachment 14

Exhibit 15 Description: CONTOUR OVERLAP/SPACING REQUIREMENTS

Attachment 15

Description	Туре	Conversion		
Description		Status	File	
Exhibit #15, Contour Overlap Requirements	Adobe Acrobat File	not needed	PDF	

Exhibit 18

Description: CHANNEL SIX TV PROTECTION

Attachment 18

Description	Туре	Conversion		
Description		Status	File	
	Adobe Acrobat File	not needed	PDF	

Exhibit 21

Description: INTERNATIONAL BORDERS

ALTHOUGH THE PROPOSED FACILITY IS WITHIN 320 KILOMETERS OF CANADA, THERE ARE NO PERTINENT RELATIONSHIPS WITH ANY CANADIAN STATIONS.

Attachment 21

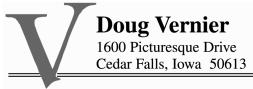
Description	Туре	Conversion		
Description		Status	File	
Exhibit #21, Canada Showing	Adobe Acrobat File	not needed	PDF	

Exhibit 22

Description: RF HAZARD STATEMENT

Attachment 22

Description	Туре	Status	File
Exhibit #22, RF Hazard Statement	Adobe Acrobat File	not needed	PDF



Telecommunication Consultants dvernier@v-soft.com (319) 266-8402

EXHIBIT #1 ENGINEERING STATEMENT

Concerning the Application of Minnesota Public Radio To Make a Minor Modification to Construction Permit KNWF.C BMPED20020416AAE Serving Fergus Falls, Minnesota

August 2002

Channel 218A

2.7 kW H & V

This engineering statement supports the application filed by Minnesota Public Radio to make a minor modification to construction permit, KNWF.C (BMPED20020416AAE) serving Fergus Falls, Minnesota and the surrounding area.

The applicant proposes to change location and ERP. A change area map which depicts the 60 dbu contour of the proposed facility, as well as the currently authorized construction permit is attached as Page #3 of this exhibit (Ex #1). The N.G.D.C. 30 sec terrain database was used for this and all other exhibits.

Exhibit #13 is a request for waiver of Section 73.1125. A waiver of 47 C.F.R. Section 73.1125 was previously granted under BMPED20020416AAE to allow operation of KNWF as a satellite operation of KNOWFM, Minneapolis, Minnesota.

A map of the proposed 60 dBu contour is attached. 360 evenly spaced radials were used to plot the 60 dBu contour. The area within this amounts to 1,149 square kilometers. This figure was determined using numerical calculus. The distance to the 60 dBu 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 19,908 people, based on 2000 census block data.

36 evenly spaced radials were used to determine the antenna height above average terrain. The N.G.D.C. 30 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 #2.)

Exhibit #15 is a single channel, contour to contour, allocation study showing that interference is neither caused nor received by an FM radio station or construction permit. Page # 2 of this exhibit is a narrative explaining the procedures and conventions used in the study. Page #3-6 are allocation study maps and FMOVER tabulations showing the relationship between the applicant's proposal and critical stations KRSU, Appleton and KCCMFM, Morehead. There are no pertinent I.F. relationships. The proposal will cause no short-spacings with third-adjacent, Channel 221 stations, as shown by the FCC minimum spacings study on Page #7.

Exhibit #18 is a map, population report and distance-to-contour tables illustrating the relationship between the 47 dbu protected contour of WDAYTV, Fargo, ND and the 79.5 dBu worst case interference contour of the proposed channel 218 facility. The FM interference contour overlaps the channel six TV 47 dBu protected contour slightly, however, there are no people in the interference area, based on 2000 Census block data. Although the 6 db receive directivity credit was valid, it was not applied in this 'worst case' scenario. The instant proposal complies with section 73.525.

Exhibit #21 is an FCC minimum spacings study. The proposal is within 320 kilometers of the U.S. border with Canada, but there are no relationships with Canadian stations.

Exhibit #22 shows compliance with the Commission's R.F. emission's standards.

Page #4 of this exhibit (Ex. # 1) is a declaration made by the preparer attesting to her qualifications.

KNWF 60 dBu Change Area

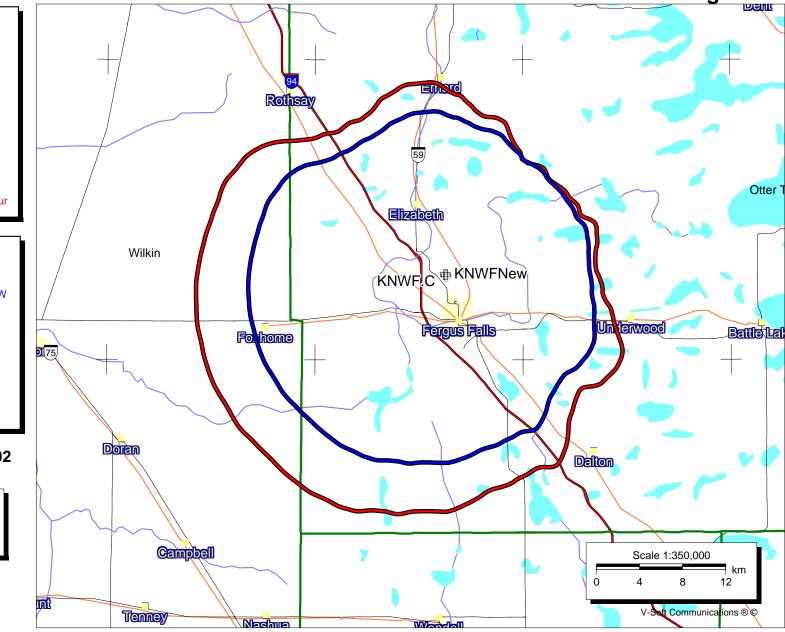


KNWF.C BMPED20020416AAE Latitude: 46-19-16 N Longitude: 096-05-36 W

ERP: 0.50 kW Channel: 218 Frequency: 91.5 MHz AMSL Height: 480.0 m Elevation: 378.0 m HAAT: 107.0 m Horiz. Pattern: Omni Vert. Pattern: No

August 26, 2002





Declaration:

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

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

That, I have apprenticed under Douglas Vernier for over four years, and;

That, he has been active in broadcast consulting for over 25 years, and;

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

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

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

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

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

atherene (. 7 Katherine A. Michler

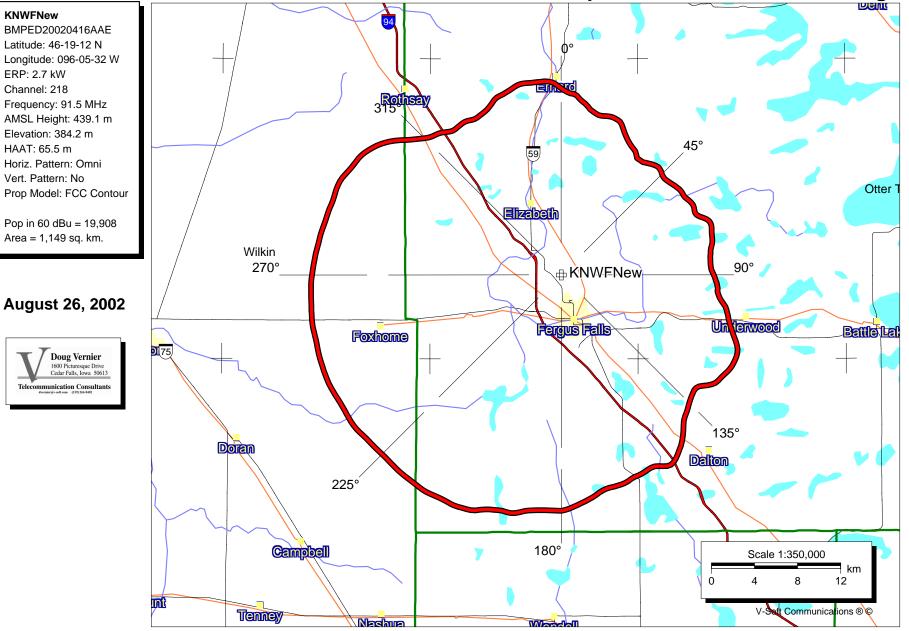
Executed on August 27, 2002

Subscribed and sworn before me this 27th day of August, 2002.



Notary Public in and for the State of Iowa

Proposed KNWF 60 dBu Coverage



Doug Vernier Telecommunications Consultants KNWF, Minor Modification of BMPED20020416AAE ERP = 2.7 kW Channel = 218

	C	Channel = 218		
Azi muth Deg. T.	Meters AMSL	Effective Antenna Height Meters AAT	ERP 6 (dBk)	F(50-50) Distance to O dBu Contour km
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 	386. 2 394. 8 396. 2 405. 9 406. 7 407. 2 404. 5 399. 9 402. 5 402. 3 396. 5 387. 3 383. 2 391. 3 384. 1 365. 8 364. 8 364. 8 364. 8 364. 8 364. 8 364. 8 364. 0 350. 3 343. 0 339. 7 339. 8 339. 9 339. 2 339. 0 340. 9 344. 0 348. 3 350. 7 355. 6 372. 3 386. 6 389. 9 385. 2 381. 8 	52. 9 44. 3 42. 9 33. 2 32. 4 31. 9 34. 6 39. 2 36. 6 36. 8 42. 6 51. 8 55. 9 47. 8 55. 0 73. 3 70. 3 74. 3 85. 1 88. 8 96. 1 99. 4 99. 3 99. 2 99. 9 100. 1 98. 2 95. 1 90. 8 88. 4 83. 5 66. 8 52. 5 49. 2 53. 9 57. 3	$\begin{array}{c} 4. \ 314\\$	$\begin{array}{c} 17.\ 29\\ 15.\ 56\\ 15.\ 29\\ 13.\ 45\\ 13.\ 31\\ 13.\ 23\\ 13.\ 71\\ 14.\ 58\\ 14.\ 08\\ 14.\ 12\\ 15.\ 24\\ 17.\ 08\\ 14.\ 12\\ 15.\ 24\\ 17.\ 08\\ 17.\ 83\\ 16.\ 29\\ 17.\ 66\\ 20.\ 31\\ 19.\ 90\\ 20.\ 44\\ 21.\ 85\\ 22.\ 32\\ 23.\ 20\\ 23.\ 59\\ 23.\ 57\\ 23.\ 56\\ 23.\ 64\\ 23.\ 64\\ 23.\ 66\\ 23.\ 44\\ 23.\ 08\\ 22.\ 57\\ 23.\ 56\\ 23.\ 64\\ 23.\ 64\\ 23.\ 66\\ 23.\ 44\\ 23.\ 08\\ 22.\ 57\\ 22.\ 26\\ 21.\ 65\\ 19.\ 42\\ 17.\ 21\\ 16.\ 57\\ 17.\ 47\\ 18.\ 05\\ \end{array}$

Antenna Radiation Center AMSL = 439.1 NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 46 19 12 W. Lng. 96 05 32 Doug Vernier Telecommunications Consultants 1600 Picturesque Drive, Cedar Falls, IA 50613

KNWF	-	Mi nor	Modification

	KNWF - Minor Modification Minnestoa Public Radio Display DATES REFERENCE CH# 218A - 91.5 MHz, Pwr= 2.7 kW, HAAT=65.5 M, COR= 439 M DISPLAY DATES 46 19 12 N Average Protected F(50-50) = 19.24 km DATA 08-24-02 96 05 32 W Ave. F(50-10) 40 dBu= 66.8 54 dBu= 28.2 80 dBu= 6.0 100 dBu= 1.9 SEARCH 08-26-02												
REFERENCE 46 19 12 N 96 05 32 W	CH Ave.	# 2 F(5	18A - 91. 0-10) 40 c	5 MHZ, Pwr= 2 Average Pro Bu= 66.8 54	2. / otect dBu=	kw, ed 28	нал F(50- .2 {	AT = -50 30	:65.5 M,))= 19.24 dBu= 6.0	COR= 4 km 100 dl	139 M Bu= 1.9	DI SPLAY DATA O SEARCH O	8-24-02
CH CALL CI TY	TYPE STAT		AZI. [< F	I ST I LE #	LA LN	NT. IG.			Pwr(kW) HAAT(M)		PRO(km)) LI CENSEE	*IN* (Overlap	*OUT* in km)
218A KNWF.C Fergus Falls	CP MN	СХ		0. 15 ED20020416AAE	46 5 96	19 05	16 36		0. 500 107		16.0 - Minnesota Pu	-72.48< ublic Radi	
217C *KRSU Appleton > Reference HAAT at	MN		176.8 12 356.8 BLE 82.4 M, F	D19891031KB	96	00	03 02 st.				Minnesota Pu	ublic Radi	
216C1 *KCCMFM Moorhead > Reference HAAT at	MN		141.3 BLE		96	36			67.000 202 17.01 km,		60.2 Minnesota Pu ist. = 1.74		0. 90 o
218C1 KQMN Thief River Falls	LIC MN	CN	348.2 18 168.2 BLE	8. 36 D19901205KF			38 32		84.000 199	474 157. 3	62.0 Minnesota Pu	11.77 ublic Radi	59. 52 o
218C1 KQMN.A Thief River Falls	APP MN	DCX	348.2 18 168.2 BPE	8.36 D20020130ACE			38 32		84. 000 199	473 157. 3	62.0 Minnesota Pu	11.77 ublic Radi	59. 52 0
220C KDSU Fargo	LI C ND	CN	312.9 11 132.9 BLE	4. 21 D19820621AB			48 37		100. 000 302	593 10. 2	72.5 North Dakota	84.81 a State Un	39.76 i vers
218C3 KCFB St. Cloud	LIC MN	С	121.8 17 301.8 BLE	0. 02 D19991213AAH			02 31		15. 000 106	435 103. 5	36.0 Minnesota Ch	47.29 nristian B	67.24 /cast
218C3 ALLO St. Cloud	VAC MN		121.8 17 301.8 RM9				02 31		25.000 100	0 113. 6	39. 1	37. 15	64.15
272C2 KRCQ Detroit Lakes	LIC MN	CN		9. 38 19940715KB			24 23		50. 000 150	583 0. 0	52.2 Detroit Lake	15.0R es Broadca	44.4M sting
218B1 KPRJ Jamestown	LIC ND	CN	286.2 19 106.2 BLE	3. 16 D19930617KB			36 20		18. 500 108	549 108. 1	37.9 Prairie Publ	65.77 ic Broadc	88.43 astin
217C1 KNBJ Bemidji	LIC MN	CN		6. 10 D19940711KY			03 15		60. 000 297	717 97. 6	67.0 Minnesota Pu	79.22 ublic Radi	100. 93 o
217C1 KNBJ.C Bemidji	CP MN	СХ	37.7 19 217.7 BMP	6. 61 ED20011114ABF			21 09		65. 000 301	720 99. 1	68.1 Minnesota Pu	78.22 ublic Radi	100. 33 o
215C1 KDSDFM Pierpont	LI C SD	CN		3. 11 D19840416CA			55 35		70. 000 323	847 9.5	70.5 1 South Dakota	24.33 a Brd Of D	80.71 ir Fo
219C1 KAXE Grand Rapids	LIC MN	CN	61.9 22 241.9 BLE				17 03		100. 000 140	546 86.6	57.1 1 Northern Com	22.13 munity Ra	142. 73 di o
221C3 KLQP Madi son	LIC MN	CN	183.0 14 3.0 BLH	3. 91 19980706KB			37 15		25. 000 91	415 3.9	37.5 1 Lac Qui Parl	20.79 e Broadca	104.49 sting
221A WYRQFM Little Falls	LIC MN	CN	105.9 14 285.9 BLH	4. 75 19800516AF			57 48		3. 000 91	431 2. 2	23.1 1 Wyrq, Inc.	23. 31	119. 70
218C2 KNGA St. Peter	LIC MN	VN	145.8 27 325.8 BLE	9. 95 D19920303KA	44 94	13 07	20 03		8. 500 183	471 104. 3	40.3 1 Minnesota Pu	56.37 Jblic Radi	172. 81 o
215A KKLW.C Willmar	CP MN	СХ	144.2 15 324.2 BPE	3.16 D19990311MK	45 94	11 56	52 59		0. 600 101	463 1.6	16.3 1 Educati onal	32.31 Media Fou	134.99 ndati
220C3 KBHZ Willmar	LIC MN	CN	147.1 17 327.1 BLE	2. 66 D19960228KB	45 94	00 53	40 56		25. 000 100	445 4.1	39.1 1 Christian He	49.36 eritage Br	131.67 oadca
219C1 KNSW Worthington-marshal	LIC MN	CN	177.2 27 357.2 BML	1.07 ED19931019KC	43 95	53 55	01 44		99. 000 243	758 99. 3	67.6 1 Minnesota Pu	52.56 ublic Radi	175. 32 o
221A ALLO BI ackduck	VAC MN		36.2 19 216.2 RM9				48 54		6. 000 100	0 2. 8	28.3 1	73.83	165.62
216C KNOWFM Minneapolis-st. Pau	LIC MN	CN	120.3 26 300.3 BML	9. 18 ED19940420KA		03 08	44 21		100. 000 400	677 11. 6	79.8 2 Minnesota Pu	238.38 ublic Radi	187. 51 o
217C1 KUWS Superior	LIC WI	CN	78.8 30 258.8 BLE	9. 50 D19910122KA	46 92	47 06	21 51		83. 000 197	501 91. 5	61.8 1 Bd. Of Reger	198.74 nts, Univ.	219.57 Of W
06Z2C WDAYTV Fargo	LI ND		312.7 11 132.7 BML	4.44 CT624	97	11	43 58		100. 000 351	0.0	107.4 7 Forum Commun		

"*" = ERP and HAAT on direct line to and from reference station. "<" = Contour Overlap

HOW TO READ THE FM COMPUTER PRINT-OUT

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

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

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

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

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

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

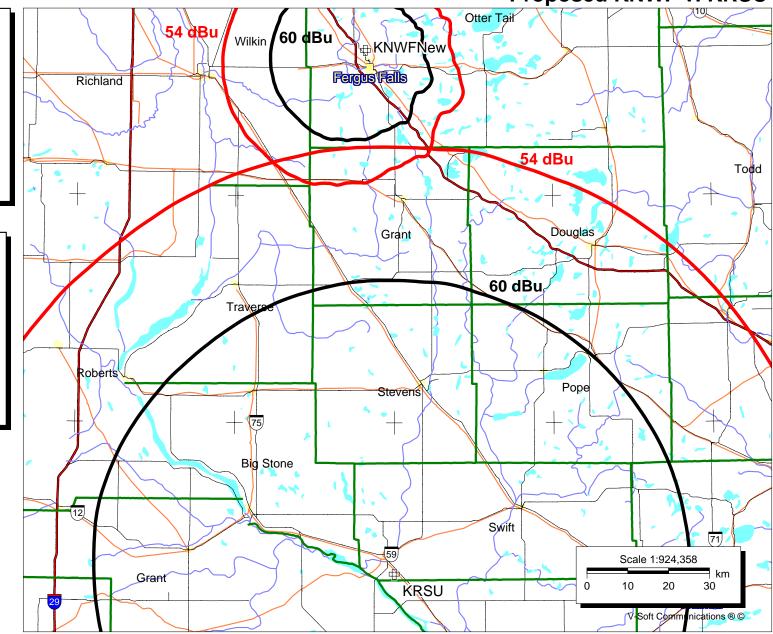
Proposed KNWF v. KRSU

KNWFNew BMPED20020416AAE Latitude: 46-19-12 N Longitude: 096-05-32 W ERP: 2.7 kW Channel: 218 Frequency: 91.5 MHz AMSL Height: 439.1 m Elevation: 384.2 m HAAT: 65.5 m Horiz. Pattern: Omni Vert. Pattern: No

KRSU BLED19891031KB Latitude: 45-10-03 N Longitude: 096-00-02 W ERP: 75.00 kW Channel: 217 Frequency: 91.3 MHz AMSL Height: 648.0 m Elevation: 304.6 m HAAT: 341.0 m Horiz. Pattern: Omni Vert. Pattern: No

August 26, 2002





Doug Vernier Telecommunications Consultants 08-26-2002 30 Sec. Terrain Data

KNWFNew Channel = 218A Max ERP = 2.7 kW RCAMSL = 439.1 M N. Lat = 461912 W. Lng = 960532

Protected

60 dBu

KRSU BLED19891031KB Channel = 217C Max ERP = 75 kW RCAMSL = 648 M N. Lat = 45 10 03 W. Lng = 96 00 02

Interfering 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP) (kW)	HAAT (m)	Dist (km)	Actual (dBu)
	002.7000	0076.9	020.8	357.8	075.0000	0332.1	107.6	53.1
	002.7000	0078.1	020.9	357.6	075.0000	0332.1	107.4	53.1
	002.7000	0079.2	021.1	357.4	075.0000	0332.6	107.2	53.2
	002.7000	0080.2	021.2	357.2	075.0000	0332.6	107.1	53.3
	002.7000	0081.3	021.4	357.0	075.0000	0332.6	106.9	53.3
	002.7000	0082.5	021.5	356.8	075.0000	0332.6	106.8 106.6	53.3
	002.7000 002.7000	0083.5	021.6	356.6 356.4	075.0000 075.0000	0332.6	106.6	53.4 53.4
	002.7000	0084.4 0085.1	021.8 021.8	356.4	075.0000	0333.2 0333.2	106.6	53.4
	002.7000	0085.0	021.8	356.2	075.0000	0333.2	106.5	53.5
	002.7000	0085.0	021.8	355.8	075.0000	0333.2	106.5	53.4
	002.7000	0084.9	021.8	355.6	075.0000	0333.2	106.6	53.4
	002.7000	0085.0	021.8	355.4	075.0000	0333.8	100.0	53.4
	002.7000	0085.2	021.0	355.2	075.0000	0333.8	106.7	53.4
	002.7000	0085.6	021.9	355.0	075.0000	0333.8	106.7	53.4
	002.7000	0086.0	022.0	354.8	075.0000	0333.8	106.7	53.4
	002.7000	0086.5	022.0	354.6	075.0000	0333.8	106.8	53.4
	002.7000	0087.5	022.1	354.4	075.0000	0334.2	106.7	53.4
	002.7000	0088.8	022.3	354.1	075.0000	0334.2	106.7	53.4
	002.7000	0090.1	022.5	353.9	075.0000	0334.2	106.6	53.4
	002.7000	0090.7	022.6	353.7	075.0000	0334.2	106.7	53.4
	002.7000	0090.6	022.5	353.5	075.0000	0334.2	106.8	53.4
194.0	002.7000	0090.4	022.5	353.3	075.0000	0334.5	107.0	53.4
195.0	002.7000	0090.8	022.6	353.1	075.0000	0334.5	107.1	53.3
196.0	002.7000	0091.4	022.6	352.9	075.0000	0334.5	107.2	53.3
197.0	002.7000	0092.0	022.7	352.7	075.0000	0334.5	107.3	53.3
	002.7000	0092.9	022.8	352.5	075.0000	0334.8	107.3	53.3
	002.7000	0094.4	023.0	352.3	075.0000	0334.8	107.3	53.3
	002.7000	0096.1	023.2	352.0	075.0000	0334.8	107.4	53.3
	002.7000	0097.2	023.3	351.8	075.0000	0334.8	107.4	53.2
	002.7000	0097.8	023.4	351.6	075.0000	0334.8	107.6	53.2
	002.7000	0098.2	023.4	351.4	075.0000	0335.4	107.8	53.2
	002.7000	0098.7	023.5	351.2	075.0000	0335.4	107.9	53.1
	002.7000	0099.1	023.5	351.0	075.0000	0335.4	108.1	53.1
	002.7000	0099.0	023.5	350.8	075.0000	0335.4	108.4	53.0
207.0	002.7000	0098.8	023.5	350.7	075.0000	0335.4	108.6	52.9

Proposed KNWF v. KCCMFM KNWFNew BMPED20020416AAE Becker Latitude: 46-19-12 N Longitude: 096-05-32 W 60 dBu Clay 10 ERP: 2.7 kW West Fargo Fergo Channel: 218 (75) Frequency: 91.5 MHz 100 dBu Detroft Lakes AMSL Height: 439.1 m Elevation: 384.2 m ⊕ HAAT: 65.5 m Horiz. Pattern: Omni KCCMFM Vert. Pattern: No KCCMFM BLED19811119AL Latitude: 46-45-35 N Longitude: 096-36-26 W ERP: 67.00 kW Channel: 216 94 Frequency: 91.1 MHz AMSL Height: 486.0 m Elevation: 280.0 m HAAT: 201.0 m Horiz. Pattern: Omni 59 Vert. Pattern: No Otter Tail, 100 dBu 60 dBu Wilkin _ •₽ • August 26, 2002 KNWENew Fergus Fells Walnoeton Richland **Doug Vernier** 1600 Picturesque Drive Cedar Falls, Iowa 50613 Telecommunication Consultants Scale 1:608,832 km 8 16 24 0 -Soft Communications ® ©

Doug Vernier Telecommunications Consultants 08-26-2002 30 Sec. Terrain Data

KCCMFM BLED19811119AL Channel = 216C1 Max ERP = 67 kW RCAMSL = 486 M N. Lat = 46 45 35 W. Lng = 96 36 26

Protected 60 dBu KNWFNew Channel = 218A Max ERP = 2.7 kW RCAMSL = 439.1 M N. Lat = 461912 W. Lng = 960532

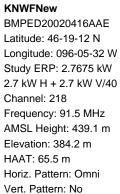
Interfering 100 dBu

Azimuth	ERP	HAAT	Dist	Azimuth	ERP	HAAT	Dist	Actual
(degrees)) (kW)	(m)	(km)	(degrees)	(kW)	(m)	(km)	(dBu)
124.0	067.0000	0198.3	059.9	033.3	002.7000	0030.0	018.4	54.4
125.0	067.0000	0198.4	059.9	032.9	002.7000	0030.0	017.3	55.4
126.0	067.0000	0198.5	059.9	032.7	002.7000	0030.0	016.3	56.2
127.0	067.0000	0198.5	059.9	032.5	002.7000	0030.0	015.2	57.1
127.0 128.0 129.0 130.0	067.0000 067.0000 067.0000	0198.3 0198.6 0198.8 0198.9	059.9 059.9 059.9 059.9	032.3	002.7000 002.7000 002.7000 002.7000	0030.0 0031.4 0031.4 0032.6	013.2 014.2 013.2 012.1	57.1 58.6 60.0 61.8
131.0	067.0000	0199.1	060.0	030.4	002.7000	0033.2	011.1	63.5
132.0	067.0000	0199.4	060.0	029.4	002.7000	0033.7	010.0	65.4
133.0	067.0000	0200.0	060.0	028.2	002.7000	0034.3	009.0	67.4
134.0	067.0000	0200.7	060.1	026.6	002.7000	0035.1	008.0	69.6
135.0	067.0000	0201.3	060.2	024.4	002.7000	0038.5	007.0	72.6
136.0	067.0000	0201.7	060.2	021.1	002.7000	0042.5	006.0	76.2
137.0	067.0000	0201.9	060.2	016.2	002.7000	0042.9	005.1	79.3
138.0	067.0000	0201.9	060.2	008.7	002.7000	0045.4	004.2	83.0
139.0	067.0000	0201.9	060.2	357.4	002.7000	0056.3	003.4	88.4
140.0	067.0000	0201.9	060.2	341.0	002.7000	0054.2	002.9	91.0
140.0 141.0 142.0 143.0	067.0000 067.0000 067.0000	0201.9 0201.9 0201.9 0201.8	060.2 060.2 060.2 060.2	319.9 299.1 283.2	002.7000 002.7000 002.7000 002.7000	0054.2 0052.5 0084.0 0089.5	002.7 003.0 003.5	91.9 94.0 91.7
144.0	067.0000	0201.7	060.2	272.6	002.7000	0093.7	004.3	88.9
145.0	067.0000	0201.4	060.2	265.5	002.7000	0096.4	005.2	86.1
146.0	067.0000	0201.2	060.1	260.8	002.7000	0097.8	006.1	83.3
147.0	067.0000	0201.0	060.1	257.4	002.7000	0098.6	007.1	80.7
148.0	067.0000	0201.0	060.1	254.9	002.7000	0098.7	008.1	78.4
149.0	067.0000	0201.0	060.1	253.0	002.7000	0099.3	009.1	76.5
150.0	067.0000	0201.1	060.1	251.6	002.7000	0099.6	010.1	74.6
151.0	067.0000	0201.2	060.1	250.5	002.7000	0099.9	011.2	72.9
152.0	067.0000	0201.2	060.1	249.8	002.7000	0100.1	012.2	71.3
153.0	067.0000	0201.1	060.1	249.2	002.7000	0100.3	013.2	69.8
154.0	067.0000	0201.1	060.1	248.8	002.7000	0100.3	014.3	68.5
155.0	067.0000	0201.1	060.1	248.5	002.7000	0100.3	015.3	67.6
156.0	067.0000	0201.0	060.1	248.4	002.7000	0100.5	016.4	66.7
157.0	067.0000	0200.9	060.1	248.3	002.7000	0100.5	017.4	65.8
155.0	067.0000	0201.1	060.1	248.5	002.7000	0100.3	015.3	67.6
156.0	067.0000	0201.0	060.1	248.4	002.7000	0100.5	016.4	66.7

Doug Vernier Telecommunications Consultants 1600 Picturesque Drive, Cedar Falls, IA 50613 KNWF - Minor Modification Minnestoa Public Radio

REFERENCE 46 19 12 N CLASS = A 96 05 32 W Current Spacings Channel 218 - 91.5 MHz			ings			DATES 08-24-02 08-26-02
Call Chann	el Location		Dist	Azi	FCC	Margin
KNWF.C CP 218A	Fergus Falls	MN	0.15	325.5	115.0	
KRSU LIC 217C	Appleton	MN	128.29	176.8	165.0	-36.71
KCCMFM LIC 216C	L Moorhead	MN	62.85	321.3	75.0	-12.15
KQMN.A APP 218C	l Thief River Falls	MN	188.36	348.2	200.0	-11.64
KQMN LIC 218C	l Thief River Falls	MN	188.36	348.2	200.0	-11.64
KDSU LIC 220C	Fargo	ND	114.21	312.9	95.0	19.21
ALLO VAC 218C	3 St. Cloud	MN	170.02	121.8	142.0	28.02
KCFB LIC 218C	3 St. Cloud	MN	170.02	121.8	142.0	28.02
KRCQ LIC 272C	2 Detroit Lakes	MN	59.38	24.2	15.0	44.38
KPRJ LIC 218B	L Jamestown	ND	193.16	286.2	143.0	50.16
KNBJ LIC 217C	L Bemidji	MN	196.10	37.8	133.0	63.10
KNBJ.C CP 217C	L Bemidji	MN	196.61	37.7	133.0	63.61
KDSDFM LIC 215C	l Pierpont	SD	153.11	233.9	75.0	78.11
KAXE LIC 219C	l Grand Rapids	MN	228.02	61.9	133.0	95.02
KLQP LIC 221C	3 Madison	MN	143.91	183.0	42.0	101.91

Proposed KNWF v. WDAYTV

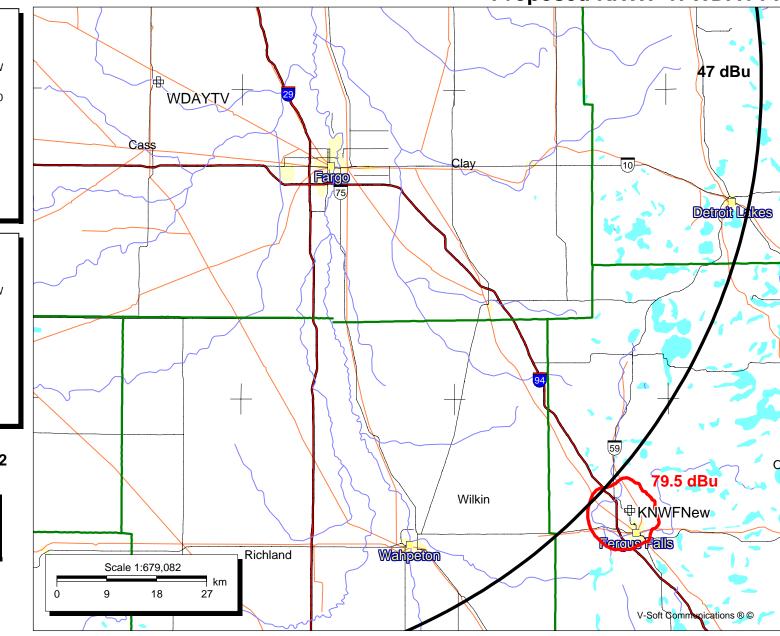


WDAYTV

BMLCT624 Latitude: 47-00-43 N Longitude: 097-11-58 W ERP: 100.00 kW Channel: 06Z Frequency: 85.0 MHz AMSL Height: 643.0 m Elevation: 287.0 m HAAT: 351.0 m Horiz. Pattern: Omni Vert. Pattern: No

August 26, 2002





Doug Vernier Telecommunications Consultants Population Report KNWFNew / WDAYTV This overlap region consists of the intersection of the following contours: KNWFNew: FCC F(50-10) 79.50 dBu WDAYTV: FCC F(50-50) 47.00 dBu Population Database: 2000 US Census (SF1) Total Population Within Overlap Region: 0 Total Housing Units Within Overlap Region: 0 Total Area Within Overlap Region: 1.90 sq. km _____ KNWFNew: FCC F(50-10) 79.50 dBu Transmitter Information: Call Letters: KNWFNew File Number: BMPED20020416AAE Latitude: 46-19-12 N Longitude: 096-05-32 W Study ERP: 2.7675 kW Channel: 218 Frequency: 91.5 MHz AMSL Height: 439.1 m Elevation: 384.2 m HAAT: 65.5 m Horiz. Antenna Pattern: Omni Vert. Elevation Pattern: No WDAYTV: FCC F(50-50) 47.00 dBu Transmitter Information: Call Letters: WDAYTV File Number: BMLCT624 Latitude: 47-00-43 N Longitude: 097-11-58 W ERP: 100.00 kW Channel: 06Z Frequency: 85.0 MHz AMSL Height: 643.0 m Elevation: 287.0 m HAAT: 351.0 m Horiz. Antenna Pattern: Omni Vert. Elevation Pattern: No

Doug Vernier Telecommunications Consultants KNWF, Minnesota Public Radio, TV6 Interference Contour ERP = 2.7675 kW Channel = 218

Channel = 218 F(50-10)							
Azimuth Deg. T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	Distance to 79.5 dBu Contour km			
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 	$\begin{array}{c} 407. 2\\ 404. 5\\ 399. 9\\ 402. 5\\ 402. 3\\ 396. 5\\ 387. 3\\ 383. 2\\ 391. 3\\ 384. 1\\ 365. 8\\ 364. 8\\ 364. 8\\ 364. 8\\ 354. 0\\ 350. 3\\ 343. 0\\ 339. 7\\ 339. 8\\ 339. 9\\ 339. 9\\ 339. 2\\ 339. 0\\ 340. 9\\ 344. 0\\ 348. 3\\ 350. 7\\ 355. 6\\ 372. 3\\ 386. 6\\ 389. 9\\ 385. 2\\ 381. 8\\ \end{array}$	52. 9 44. 3 42. 9 33. 2 32. 4 31. 9 34. 6 39. 2 36. 6 36. 8 42. 6 51. 8 55. 9 47. 8 55. 0 73. 3 70. 3 74. 3 85. 1 88. 8 96. 1 99. 4 99. 3 99. 2 99. 9 100. 1 99. 2 99. 9 100. 1 98. 2 95. 1 90. 8 88. 4 83. 5 66. 8 52. 5 49. 2 53. 9 57. 3	$\begin{array}{c} 4. \ 421\\ 4. \ 4. \ 4. \ 4. \ 4. \ 4. \ 4. \ 4. $	5.12			

Antenna Radiation Center AMSL = 439.1 NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 46 19 12 W. Lng. 96 05 32

Doug Vernier Telecommunications Consultants
WDAYTV, Forum Communications Company, BMLCT624
ERP = 100 kW
Channel = 06Z

Channel = 06Z					
Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP 47 (dBk)	F(50-50) Distance to dBu Contour km	
$egin{array}{ccccc} 0 \\ 10 \\ 20 \\ 30 \\ 40 \\ 50 \\ 60 \\ 70 \\ 80 \\ 90 \\ 100 \\ 110 \\ 120 \\ 130 \\ 140 \\ 150 \\ 160 \\ 170 \\ 180 \\ 190 \\ 200 \\ 210 \\ 220 \\ 230 \\ 240 \\ 250 \\ 260 \\ 270 \\ 280 \\ 290 \\ 300 \\ 310 \\ 320 \\ 330 \\ 340 \\ 350 \end{array}$	$\begin{array}{c} 296. 1 \\ 292. 3 \\ 290. 4 \\ 289. 0 \\ 287. 9 \\ 286. 1 \\ 282. 9 \\ 280. 9 \\ 279. 3 \\ 278. 4 \\ 278. 0 \\ 277. 3 \\ 277. 1 \\ 277. 2 \\ 277. 3 \\ 277. 7 \\ 289. 0 \\ 282. 2 \\ 282. 4 \\ 287. 0 \\ 287. 7 \\ 289. 0 \\ 292. 3 \\ 295. 4 \\ 301. 5 \\ 305. 5 \\ 306. 9 \\ 306. 4 \\ 306. 6 \\ 305. 2 \\ 305. 4 \end{array}$	$\begin{array}{c} 346. 9\\ 350. 7\\ 352. 6\\ 354. 0\\ 355. 1\\ 356. 9\\ 360. 1\\ 362. 1\\ 363. 7\\ 364. 6\\ 365. 0\\ 365. 7\\ 364. 6\\ 365. 9\\ 365. 8\\ 365. 7\\ 365. 8\\ 365. 7\\ 364. 3\\ 363. 6\\ 361. 4\\ 360. 8\\ 360. 6\\ 356. 0\\ 355. 3\\ 354. 0\\ 355. 3\\ 354. 0\\ 355. 3\\ 354. 0\\ 350. 7\\ 347. 6\\ 341. 5\\ 337. 5\\ 336. 1\\ 336. 6\\ 336. 4\\ 337. 8\\ 337. 8\\ 337. 6\end{array}$	20.000 20.000	107.80 108.03 108.19 108.31 108.38 108.42 108.47 108.48 108.48 108.48 108.47 108.36 108.30 108.13 108.09 108.08 107.73 107.68 107.58 107.58 107.34 107.11 106.68 106.32 106.32 106.42 106.40	
	·)()() / M				

Ave. = 290.4 M

352.6 M

Antenna Radiation Center AMSL = 643 M NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 47 00 43 W. Lng. 97 11 58

Doug Vernier Telecommunications Consultants 1600 Picturesque Drive, Cedar Falls, IA 50613 KNWF - Minor Modification Minnestoa Public Radio

REFERENCE	CLASS = A				DISPLAY DATES	
46 19 12 N	Current Spacings				DATA 08-24-02	
96 05 32 W	Channel 218 - 91.5 MHz				SEARCH 08-26-02	
Call Channel	Location		Dist	Azi	FCC	Margin
KNWF.C CP 218A	Fergus Falls	MN	0.15	325.5	115.0	-114.85
KRSU LIC 217C	Appleton	MN	128.29	176.8	165.0	-36.71
KCCMFM LIC 216C1	Moorhead	MN	62.85	321.3	75.0	-12.15
KQMN.A APP 218C1	Thief River Falls	MN	188.36	348.2	200.0	-11.64
KOMN LIC 218C1	Thief River Falls	MN	188.36	348.2	200.0	-11.64
KDSU LIC 220C	Fargo	ND	114.21	312.9	95.0	19.21
ALLO VAC 218C3	St. Cloud	MN	170.02	121.8	142.0	28.02
KCFB LIC 218C3	St. Cloud	MN	170.02	121.8	142.0	28.02
KRCQ LIC 272C2	Detroit Lakes	MN	59.38	24.2	15.0	44.38
KPRJ LIC 218B1	Jamestown	ND	193.16	286.2	143.0	50.16
KNBJ LIC 217C1	Bemidji	MN	196.10	37.8	133.0	63.10
KNBJ.C CP 217C1	Bemidji	MN	196.61	37.7	133.0	63.61
KDSDFM LIC 215C1	Pierpont	SD	153.11	233.9	75.0	78.11
KAXE LIC 219C1	Grand Rapids	MN	228.02	61.9	133.0	95.02
KLQP LIC 221C3	Madison	MN	143.91	183.0	42.0	101.91

Exhibit #22

R.F. RADIATION COMPLIANCE STATEMENT

KNWF Minor Modification to BMPED20020416AAE Minnesota Public Radio

Channel 218 – 2.7 kW Omni-Directional

August 2002

The applicant's proposed power is 2.7 kW, however another application is being filed to use the same antenna in diplex that will raise the total ERP to 5.4 kW. The proposed antenna will have a center of radiation of 54.9 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, the proposed facility is predicted to produce a worst-case maximum R.F. non-ionization radiation level at a position six feet above the tower base (head level - based on the C.O.R. of 54.9 meters above ground minus 2 meters) of 128.94 microwatts per square centimeter. This figure is without regard for the antenna's vertical elevation field value toward the nadir, which will cause a reduction in the predicted "worst case" calculations. 128.94 microwatts per square centimeter is 12.89 percent of the maximum standard value for the frequency in use for a controlled area and 64.47 percent for an uncontrolled area.

Since "worst case" calculations were used and since it is well known that the actual RF power density level is considerably reduced at vertical angles toward the nadir the applicant is confident that there will be no exposure at the transmitter site greater than the maximum.

The applicant will protect workers on the tower by either reducing ERP or terminating transmission. A sign will be posted warning workers of the antenna, with a phone number to contact someone to reduce or terminate power.

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