

**RICHARD J. HAYES, JR.**

ATTORNEY AT LAW

13809 BLACK MEADOW ROAD  
GREENWOOD PLANTATION  
SPOTSYLVANIA, VIRGINIA 22553

PRACTICE LIMITED TO MATTERS BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION

ADMITTED IN GEORGIA

**ORIGINAL**  
**RECEIVED**  
DEC 11 1992  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY  
(703) 972-7941

December 9, 1992

**RECEIVED**

DEC 11 1992

**FCC - MAIL ROOM**

Ms. Donna R. Searcy, Secretary  
The Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

RE: Petition to Amend the FM Table of Allotments (73.202(b))  
De Forest Broadcasting Company, Petitioner  
De Forest, Wisconsin

Dear Ms. Searcy:

Transmitted herewith, on behalf of De Forest Broadcasting Company, is an original and four copies of a "Petition to Amend the FM Table of Allotments."

De Forest Broadcasting Company requests FCC consideration of the allotment of Channel 226A to DeForest, Wisconsin as that community's first, local FM service. De Forest Broadcasting Company will apply for the new channel, if allotted, and if awarded the construction permit, will promptly construct the facility.

Should any questions arise regarding this matter, please communicate with the undersigned directly.

Respectfully submitted,

By: *Richard J. Hayes, Jr.*  
Richard J. Hayes, Jr., Esq.  
Counsel to: De Forest  
Broadcasting Company

RJH:tb  
Enclosures

4 of 4 Copies rec'd  
12/11/92

*OH4*

BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

RECEIVED

ORIGINAL  
FILE

DEC 11 1992

In the Matter of:

FCC - MAIL ROOM

Amendment of Section 73.202(b) )  
Table of Allotments ) BC Docket No. \_\_\_\_\_  
FM Broadcast Stations ) FM No. \_\_\_\_\_  
De Forest, Wisconsin )

TO: Chief, Allocations Branch

RECEIVED

DEC 11 1992

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

PETITION FOR RULE MAKING

Comes now, De Forest Broadcasting Company, Inc, through counsel,  
and pursuant to the provisions of Section 1.401 and Section 1.420 of the  
Commission's Rules (47 C.F.R. 1.401), requesting that the Table of Allotments  
in Section 73.202(b) of the Federal Communications Commission's Rules and  
Regulations be amended.

De Forest Broadcasting Company hereby requests that the FM Table of  
Allotments in Section 73.202(b) be amended to include a new, first broadcast  
service at De Forest, Wisconsin on Channel 226A. De Forest Broadcasting  
Company seeks that the FM Table of Allotments be amended, as follows:

Location	Present	Proposed
De Forest, Wisconsin	---	226A
Wautoma, Wisconsin	226A	272A
Berlin, Wisconsin	272A	284A

There are compelling, public interest justifications for granting  
this rule making, and in support thereof, the following is shown:

I. PRELIMINARY STATEMENT

A. First, Local, FM Broadcast Service

The purpose of this request is to provide a much needed, first, local FM broadcast service to the community of De Forest, Wisconsin. At present, De Forest, Wisconsin does not enjoy the service of either an AM or FM facility within its community. The Petitioner proposes that the Commission amend the FM Table of Allotments to allot Channel 226A to De Forest, Wisconsin as that community's first, local, FM broadcast service.

B. Efficient Utilization of FM Spectrum

Such an amendment of the FM Table of Allotments would further the Commission's goal of providing a more efficient use of the FM Spectrum by providing a first, local FM broadcast service at De Forest, Wisconsin. The Amendment of Section 73.202(b) of the Commission's rules to include Channel 226A at De Forest, Wisconsin, would provide coverage to a substantial area and population. The city of De Forest, Wisconsin has a population of 4,482 persons based upon the 1990 U.S. Census data. According to the attached "Engineering Exhibit," a new FM broadcast facility at De Forest, Wisconsin would provide service to 332,758 persons in an area of 2,506 square kilometers. Obviously, a new FM broadcast service at De Forest, Wisconsin would be an efficient utilization of scarce FM broadcast channel resources and would provide service to a large and growing community. Certainly, the citizens of De Forest and, additionally, those citizens in the predicted 1 mV/m contour of the proposed facility, would benefit from a first, full time,

local FM broadcast service. No other person or community has expressed any interest in this channel at De Forest, Wisconsin.

## II. ENGINEERING CONSIDERATIONS

### A. Substantial Area to Receive Additional Service

Petitioner's engineering exhibit, as attached, provides an analysis of a complete search of the FM band. That study concludes that Channel 226A would provide city-grade coverage to De Forest, Wisconsin. Channel 226A could be allotted, consistent with the mileage separation and city-grade service requirements of the Commission's rules. The consideration of all factors shows that this proposal can be accommodated and that Channel 226A can be added to the FM Table of Allotments at De Forest, Wisconsin without jeopardizing any other community or facility. No community would lose any present or potential service and a substantial area of service would be added if this proposed allocation is granted.

In order to accommodate a new FM broadcast facility on Channel 226A at De Forest, Wisconsin, and in order to provide FM broadcast service to a population of 332,758 persons within an area of 2,506 square kilometers, it is necessary to make some substitutions in the FM Table of Allotments.

At present, Channel 226A has been allotted to Wautoma, Wisconsin. The Petitioner proposes to substitute Channel 272A for Channel 226A. In 1988, Wautoma Radio Company filed an application for Channel 222A at Wautoma, Wisconsin. No construction permit was granted as the result of

the filing of that application. Subsequently, the Federal Communications Commission, in MM Docket No. 89-548, ordered that the FM Table of Allotments at Wautoma, Wisconsin be changed and that Channel 226A be substituted for Channel 222A at Wautoma, Wisconsin. Wautoma Radio Company, the applicant for the Wautoma allotment, was ordered to change channels from Channel 222A to Channel 226A. According to the FCC's database, no such application was filed nor was any amendment submitted which changed the channel from 222A to 226A. Therefore, it must be assumed that Wautoma Radio Company has abandoned its intentions to obtain a construction permit for any channel at Wautoma, Wisconsin. It should also be noted that the FCC's database still reflects that Channel 226A is allotted to Wautoma, Wisconsin but that no application for that facility is on file. Therefore, no disruption would occur as a result of the Petitioner's proposal to change the channel allotted at Wautoma, Wisconsin from 226A to 272A.

WISS(FM), Berlin, Wisconsin is licensed to Kingsley H. Murphy, Jr. and operates on Channel 272A. The Petitioner, De Forest Broadcasting Company, proposes that WISS(FM) be relocated from Channel 272A to Channel 284A. As demonstrated in the attached "Engineering Exhibit," the referenced coordinates for Channel 284A at Berlin, Wisconsin would permit WISS(FM) to operate at its existing transmitter site, requiring only a simple adjustment of the WISS(FM) transmitter and antenna.

Pursuant to the Commission's rules, De Forest Broadcasting Company states that WISS(FM) should be reimbursed for its reasonable and prudent out-of-pocket expenses associated with the channel change at Berlin,

Wisconsin. Furthermore, De Forest Broadcasting Company requests that the FCC clearly indicate that the eventual licensee (or permittee) for Channel 226A at De Forest, Wisconsin be obligated to reimburse WISS(FM) for the reasonable and prudent expenses associated with its change of channels. If De Forest Broadcasting Company is awarded a construction permit for Channel 226A, it will reimburse WISS(FM) for its expenses, as discussed above.

Insofar as there are no applications pending for any allotment at Wautoma, Wisconsin, the Commission's rules do not require a proponent in a rule making proceeding to reimburse the reasonable and prudent expenses associated with the channel change since there is no expense recognized by the Commission in association with or pertaining to an amendment of any application on file. As noted above, there is no application on file for Wautoma, Wisconsin.

### III. PETITIONER'S INTENTION TO APPLY FOR CHANNEL 226A

If these proposed changes are implemented by the Commission, the Petitioner intends, pursuant to the rules of the Commission, to file an application for a construction permit, and if awarded the permit, to promptly construct the facility. Financially, the Petitioner is more than qualified to construct and operate the facility sought.

### IV. SUMMARY

No community will lose any present or proposed service as a result of a grant of this "Petition for Rule Making" and, furthermore, a substantial new area of service will be added. As indicated above, a grant of this

"Petition" will provide a much needed, first, local, FM broadcast service to De Forest, Wisconsin. This "Petition" would, if granted, provide for an efficient utilization of broadcast resources.

Therefore, in view of the foregoing facts, Petitioner requests that the FM Table of Allotments (Section 73.202(b)) be amended to allot FM Channel 226A to De Forest, Wisconsin. In addition, Petitioner requests that the allotment at Wautoma, Wisconsin be changed from Channel 226A to Channel 272A and, furthermore, that Channel 284A be substituted for Channel 272A and that the license of Radio Station WISS(FM), Berlin, Wisconsin, be modified to reflect operation on Channel 284A.

Respectfully submitted,

DE FOREST BROADCASTING COMPANY

By:   
Richard J. Hayes, Jr., Esquire  
Its Attorney

Date: December 9, 1992

Richard J. Hayes, Jr., Esq.  
13809 Black Meadow Road  
Spotsylvania, Virginia 22553  
(703) 972-2690

In the Matter of:

Amendment of Section 73.202(b) )  
Table of Allotments ) MM Docket No. \_\_\_\_\_  
FM Broadcast Stations ) RM No. \_\_\_\_\_  
De Forest, Wisconsin )

NOTICE OF PROPOSED RULE MAKING

Adopted:

Released:

By the Chief, Policy and Rules Division:

1. The Commission has before it for consideration the petition for rule making submitted by De Forest Broadcasting Company requesting the allotment of Channel 226A to De Forest, Wisconsin.

2. Channel 226A can be allotted to De Forest, Wisconsin in compliance with the Commission's minimum distance separation requirements as evidenced in the attached engineering statement. Petitioner states that the public interest would benefit from the allotment of this channel as it could provide De Forest with its first, local FM broadcast service.

3. In accordance with Commission policy, we shall propose to modify the license of WISS(FM), Berlin, Wisconsin to specify operation on channel 284A. Furthermore, we will change the allotment at Wautoma, Wisconsin to Channel 272A from Channel 226A.

4. In order to effectuate these proposals, the Commission proposes to amend the Table of Allotments, Section 73.202(b) of the Commission's Rules with respect to the following communities:

	Present	Proposed
De Forest, Wisconsin	----	226A
Wautoma, Wisconsin	226A	272A
Berlin, Wisconsin	272A	284A

5. The Commission's authority to institute rule making proceedings, showings required, cut-off procedures, and filing by reference herein. NOTE: A showing of continuing interest is required by paragraph 2 of the appendix before a channel will be assigned.

6. Interested parties may file comments on or before \_\_\_\_\_, and reply comments on or before \_\_\_\_\_, and are advised to read the Appendix for the proper procedures. Additionally, a copy of such comments should be served on the petitioner, as follows:

Richard J. Hayes, Jr., Esquire  
13809 Black Meadow Road  
Spotsylvania, Virginia 22553  
Counsel to De Forest Broadcasting Company

7. The Commission has determined that the relevant provisions of the Regulatory Flexibility Act of 1980 do not apply to rule making proceedings to amend the FM Table of Assignments, Section 73.202(b), of the Commission's Rules. see, Certification that Sections 603 and 604 of the Regulatory Flexibility Act Do Not Apply to Rule Making to Amend Sections 73.202(b), 73.504 and 73.606(b) of the Commission's Rules, 46 Fed. Reg. 11549, published February 9, 1981.

8. For further information concerning this proceeding, contact \_\_\_\_\_, Mass Media Bureau (telephone) (202) \_\_\_\_\_. However, members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all ex parte contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. An ex parte contact is a message (spoken or written) officially filed at the Commission or oral presentation required by the Commission. Any comment which has not been served on the petitioner constitutes an ex parte presentation and shall not be considered in the proceeding. Any reply comment which has not been served on the person(s) who filed the comment, to which the reply is directed, constitutes an ex parte presentation and shall not be considered in the proceeding.

FEDERAL COMMUNICATIONS COMMISSION

Chief, Policy and Rules Division  
Mass Media Bureau

Attachment: Appendix

\_\_\_\_\_, 1992



CONSULTING COMMUNICATIONS ENGINEERS

1306 W. County Road F, St. Paul, MN 55112  
(612) 631-1338 • Fax (612) 631-3502

**ENGINEERING STATEMENT  
ON BEHALF OF DE FOREST BROADCASTING CO.  
IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

November 10, 1992

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IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

Owl Engineering, Inc. has been retained by De Forest Broadcasting Co. (hereafter "De Forest") to prepare this Engineering Statement in support of a Petition to Amend to amend the FM Table of Allotments, FCC Rules Section 73.202(b) as follows:

<u>Location</u>	<u>Present</u>	<u>Proposed</u>
De Forest, WI		226A
Wautoma, WI	226A	272A
Berlin, WI	272A	284A

The reference coordinates used for this study are:

**De Forest, WI**

**43 12' 21" North Latitude  
89 16' 45" West Longitude**

**Wautoma, WI**

**44 04' 18" North Latitude  
89 17' 30" West Longitude**

**Berlin, WI**

**43 56' 55" North Latitude  
88 59' 09" West Longitude**



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THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

"De Forest's" proposal will provide De Forest with their first local service while maintaining the present level of service at Wautoma and Berlin. De Forest has a population of 4,882 based on 1990 U.S. Census data.

An engineering study was performed to determine if an FM channel could be allotted to De Forest, the initial results of which demonstrated that there is presently no channel available. Accordingly, a channel can be allocated to De Forest only by a channel swap such as proposed in this Engineering Statement.

The proposal of "De Forest" was evaluated to determine if the proposed coordinates at De Forest would meet FCC spacing requirements. That analysis is attached as Engineering Exhibit E-1. As can be seen from Exhibit E-1, "De Forest's" proposal meets all FCC spacing requirements set forth in section 73.207 of the FCC Rules. The reference coordinates used in this study represent a site restriction 7 kilometers south east of the community.



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IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

The proposal of "De Forest" was evaluated to determine if the proposed coordinates at Wautoma would meet FCC spacing requirements on channel 272. That analysis is attached as Engineering Exhibit E-2. As can be seen from Exhibit E-2, the proposal meets all FCC spacing requirements set forth in section 73.207 of the FCC Rules. The reference coordinates used for Wautoma are the same as those used for channel 226 at Wautoma. At the present time, channel 226 at Wautoma is a vacant allotment. Channel 226 has been reserved for the applicant for Channel 222 at Wautoma per MM DOC-89-548. As of this date, no application for construction permit has been filed for channel 226 at Wautoma.

The proposal of "De Forest" was evaluated to determine if Radio Station WISSFM's (the licensee of channel 272) coordinates at Berlin would meet FCC spacing requirements on channel 284. That analysis is attached as Engineering Exhibit E-3. As can be seen from Exhibit E-3, "De Forest's" proposal meets all FCC spacing requirements set forth in section 73.207 of the FCC Rules. The site coordinates used in the Berlin study are WISSFM's licensed site coordinates. Channel 284 can be operated from WISSFM's present site with no short spaced conditions.



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IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

The proposal of "De Forest" was evaluated to determine if the proposed site would meet FCC signal coverage requirements. The distance from the reference coordinates to the center city coordinates of De Forest is 7 kilometers at a bearing of 311.8 degrees. The three to sixteen kilometer average terrain was computed using the NGDC data base and the distance to contours was computed using the FCC F(50,50) metric curves. The distance to the 70 dBu contour along the radial through the principle city was calculated to be 15.5 kilometers, surpassing the city by some 8 kilometers. Engineering Exhibit E-4 shows the 70 dBu signal contour plotted and demonstrates that all of De Forest is encompassed by the 70 dBu contour. Engineering Exhibit E-5 shows the intervening terrain between the reference coordinates and De Forest. As can be seen from this exhibit there are no major obstacles in the path to the principle community. Clearly, the proposal of "De Forest" meets the requirements of FCC Rules section 73.315(a).

The proposal of "De Forest" was evaluated to determine the amount of area and population that would be served by the proposed operations. The distance to 60 dBu contour was calculated along eight evenly spaced radials. It was determined that 332,758 persons in an area of 2,506 square kilometers would receive a signal strength of 60 dBu or greater.



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IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

Based on the engineering studies provided, the following conclusions can be obtained:

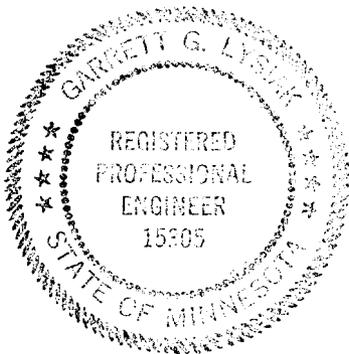
1. The proposal will provide De Forest with a first local full time broadcast service.
2. Based on 1990 US census data, 332,758 persons will be served by the 60 dBu contour from the proposed operations at De Forest.
3. The new channels proposed for Wautoma and Berlin meet FCC spacing requirements set forth in section 73.207 of the FCC Rules at the present site coordinates of the respective stations.

**ENGINEERING STATEMENT  
ON BEHALF OF DE FOREST BROADCASTING CO.  
IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

AFFIDAVIT

RAMSEY COUNTY                    )  
  )  
STATE OF MINNESOTA            )        ss:

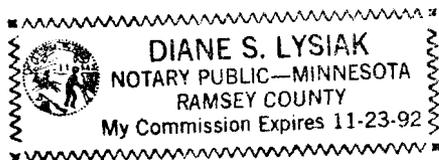
Garrett G. Lysiak, being first duly sworn, says that he is president of Owl Engineering, Inc., consulting communications engineers with offices in Arden Hills, Minnesota: that his qualifications as an expert in communications engineering are a matter of record with the Federal Communications Commission: that the foregoing exhibit was prepared by him and under his direction; and that the statements contained therein are true of his own personal knowledge except those stated to information and belief and, as to those statements, verily believes them to be true and correct.



A handwritten signature in black ink that reads "Garrett G. Lysiak".

Garrett G. Lysiak, P.E.

Subscribed and sworn to before me this date November 10, 1992



A handwritten signature in black ink that reads "Diane S. Lysiak".

Diane S. Lysiak  
Notary Public

My commission expires November 23, 1992



CONSULTING COMMUNICATIONS ENGINEERS

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**ENGINEERING EXHIBIT E-1  
ON BEHALF OF DE FOREST BROADCASTING CO.  
IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

CHANNEL STUDY FOR DE FOREST, WI

FM Channel 226-A

LATITUDE: 43° 12' 21"  
LONGITUDE: 89° 16' 45"

CHNL Call	City	Class	Calculated Km.	Required Km.	Clear- ance	Bearing °
280	NO CONFLICT					
279	NO CONFLICT					
223	WBWIFM FMWI West Bend	B	83.37	69	14.37	72.29
223	FAWI West Bend	B	83.37	69	14.37	72.29
224	NO CONFLICT					
225	KATF FMIA Dubuque	C1	132.61	133	-0.39	235.80
225	FAIA Dubuque	C1	132.61	133	-0.39	235.80
226	FAIL Chicago	B	198.94	178	20.94	136.41
226	WXRT FMIL Chicago	B	198.94	178	20.94	136.41
226	KFKQ FMWI New Holstein	A	129.76	115	14.76	44.05
226	FAWI Wautoma	A	96.20	115	-18.80	359.41*
227	WIZMFM FMWI La Crosse	C	181.61	165	16.61	292.34
227	WQFM FMWI Milwaukee	B	112.69	113	-0.31	96.25
227	FAWI La Crosse	C	181.61	165	16.61	292.34
227	FAWI Milwaukee	B	112.69	113	-0.31	96.25
228	NO CONFLICT					
229	FAWI Monroe	B	77.67	69	8.67	205.86
229	WEKZFM FMWI Monroe	B	77.67	69	8.67	205.86

\* Wautoma to channel 272A per proposal. Please see Engineering Exhibit E-2.



CONSULTING COMMUNICATIONS ENGINEERS

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**ENGINEERING EXHIBIT E-2  
ON BEHALF OF DE FOREST BROADCASTING CO.  
IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

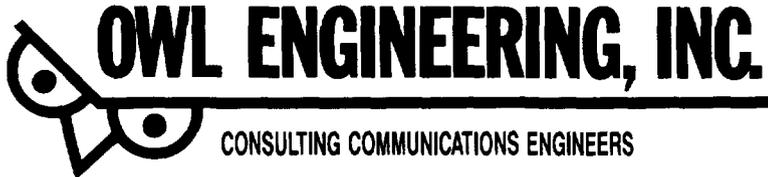
CHANNEL STUDY FOR WAUTOMA, WI

FM Channel 272-A

LATITUDE: 44° 4' 18"  
LONGITUDE: 89° 17' 30"

CHNL	Call	City	Class	Calculated Km.	Required Km.	Clear- ance	Bearing °
218							
	NO CONFLICT						
219							
	NO CONFLICT						
269							
	NO CONFLICT						
270	WDEZ	FMWI Wausau	C1	104.20	75	29.20	346.47
270	WDEZ	FMWI Wausau	C	99.56	95	4.56	341.55
270		FAWI Wausau	C	104.20	95	9.20	346.47
271							
	NO CONFLICT						
272		FAWI Manitowoc	A	130.58	115	15.58	88.70
272	WQTCFM	FMWI Manitowoc	A	133.35	115	18.35	86.85
272	WVRQFM	FMWI Viroqua	A	140.42	115	25.42	244.79
272		FAWI Viroqua	A	140.42	115	25.42	244.79
272	WISSFM	FMWI Berlin	A	28.08	115	-86.92	119.12*
273	WNWC	FMWI Madison	B	116.45	113	3.45	188.64
273		FAWI Madison	B	116.45	113	3.45	188.64
274							
	NO CONFLICT						
275							
	NO CONFLICT						

\* WISSFM to channel 284A per proposal. Please see Engineering Exhibit E-3.



CONSULTING COMMUNICATIONS ENGINEERS

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**ENGINEERING EXHIBIT E-3  
ON BEHALF OF DE FOREST BROADCASTING CO.  
IN SUPPORT OF A PETITION TO AMEND  
THE FM TABLE OF ALLOTMENTS  
CHANNEL 226A TO DE FOREST, WISCONSIN**

CHANNEL STUDY FOR BERLIN, WI

FM Channel 284-A

LATITUDE: 43° 56' 55"

LONGITUDE: 88° 59' 9"

CHNL	Call	City	Class	Calculated Km.	Required Km.	Clear- ance	Bearing °
230		NO CONFLICT					
231		NO CONFLICT					
281		NO CONFLICT					
282		NO CONFLICT					
283	WXER	FMWI Plymouth	A	79.09	72	7.09	108.00
283	WAXX	FMWI Eau Claire	C	176.56	165	11.56	297.53
283		FAWI Plymouth	A	84.10	72	12.10	104.91
283	WXER	FMWI Plymouth	A	79.09	72	7.09	108.00
283		FAWI Eau Claire	C	176.56	165	11.56	297.53
284	WYKX	FMMI Escanaba	C	259.94	226	33.94	28.90
284		FAMI Escanaba	C	258.46	226	32.46	30.98
284	WYKX	FMMI Escanaba	C	245.67	226	19.67	28.61
285	WTKMFM	FMWI Hartford	A	88.77	72	16.77	146.70
285	WMGU	FMWI Marathon	C3	115.11	89	26.11	328.46
285	WKFX	FMWI Kaukauna	A	72.02	72	0.02	61.15
285	WMGU	FMWI Stevens Point	A	82.09	72	10.09	321.84
285	WTKMFM	FMWI Hartford	A	88.77	72	16.77	146.70
285	WNFM	FMWI Reedsburg	A	91.60	72	19.60	244.66
285		FAWI Marathon	C3	115.50	89	26.50	328.12
285		FAWI Hartford	A	88.77	72	16.77	146.70
285		FAWI Kaukauna	A	72.02	72	0.02	61.15
285		FAWI Reedsburg	A	95.83	72	23.83	242.13
285	WKFX	FRWI Kaukauna	A	72.02	72	0.02	61.15
286		NO CONFLICT					
287		NO CONFLICT					



Scale 1:250,000

19

0 5 10 15 20 25 30 Statute Miles

5 0 5 10 15 20 25 30 Kilometers

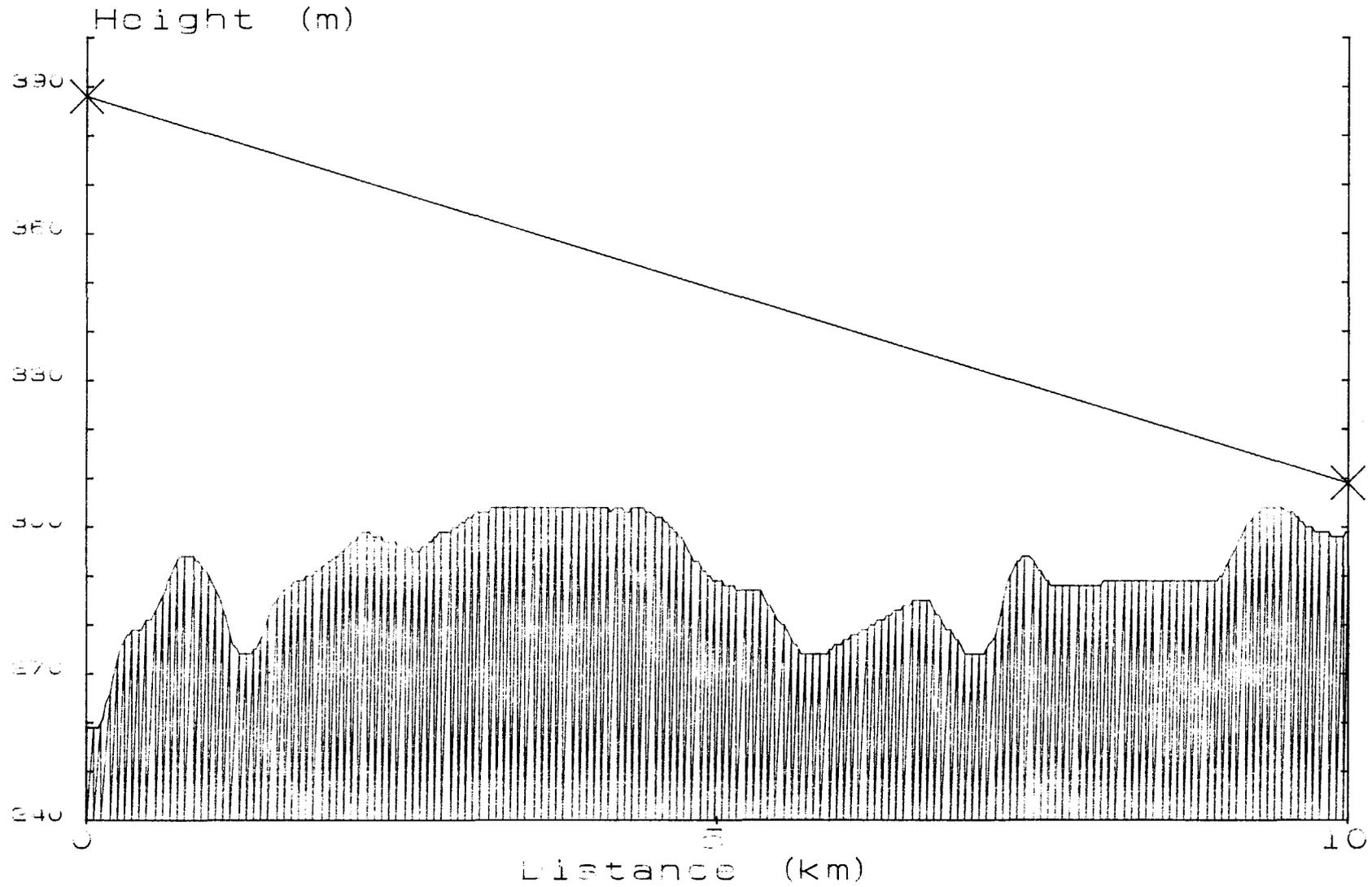
5 0 5 10 15 20 25 30 Nautical Miles

DE FOREST, WI

70 dBu

OWL ENGINEERING, INC.  
ENGINEERING EXHIBIT E-4

30' 30 31 15' 32 33 89°00' 34  
VERONA 2 MI. OREGON 5 MI. STOUGHTON 7 MI. 8 MI. TO U.S. 51 EDGERTON 11 MI. FT. ATKINSON 10 MI.



Profile Study for De Forest, WI

Owl Engineering, Inc. Saint Paul, Minnesota  
 1306 W. County Rd. F (612) 631-1338

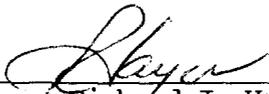
Engineering Exhibit E-5

CERTIFICATE OF SERVICE

I, Richard J. Hayes, Jr., hereby certify that copies of the foregoing were sent via first class mail, postage prepaid, or as otherwise indicated, to each of the following, on this 9th day of December, 1992.

Wautoma Radio Company  
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