Federal Communications Commission
Washington, D. C. 20554

Approved by OMB
3060-0627
Expires 01/31/98

FOR FCC USE ONLY

FCC 302-AM
APPLICATION FOR AM BROADCAST STATION LICENSE

(Please read instructions before filling out form.

FOR COMMISSION USE ONLY
FILE NO.

SECTION I - APPLICANT FEE INFORMATION

1. PAYOR NAME (Last, First, Middle Initial)
Sagittarius Communications, Inc.

Copy notices and communications to:
John Neely, Esq.

MAILING ADDRESS (Line 1) (Maximum 35 characters)
3032 Vega Ave.

4 Simms Court
Kensington, MD 20895

MAILING ADDRESS (Line 2) (Maximum 35 characters)

CITY	STATE OR COUNTRY (if foreign address)	ZIP CODE
Cleveland	Ohio	44113

TELEPHONE NUMBER (include area code)	CALL LETTERS	OTHER FCC IDENTIFIER (If applicable)
	WHTX	FRN 0022455224

2. A. Is a fee submitted with this application? [XX] Yes [ ] No

B. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1112).

[ ] Governmental Entity [ ] Noncommercial educational licensee [ ] Other (Please explain):

C. If Yes, provide the following information:

Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in the "Mass Media Services Fee Filing Guide." Column (B) lists the Fee Multiple applicable for this application. Enter fee amount due in Column (C).

(A) FEE TYPE CODE	(B) FEE MULTIPLE	(C) FEE DUE FOR FEE TYPE CODE IN COLUMN (A)	FOR FCC USE ONLY
MMR	0001	$645.00	

To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.

(A)	(B)	(C)	FOR FCC USE ONLY
	0001	$	

	TOTAL AMOUNT REMITTED WITH THIS APPLICATION	FOR FCC USE ONLY
ADD ALL AMOUNTS SHOWN IN COLUMN C, AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED REMITTANCE.	$	

SECTION II - APPLICANT INFORMATION		
1. NAME OF APPLICANT Sagittarius Communications, Inc.	FRN 0022455224	
MAILING ADDRESS 3032 Vega Ave		
CITY Cleveland	STATE OH	ZIP CODE 44113

2. This application is for:

[XX] Commercial [ ] Noncommercial

[ ] AM Directional [XXX] AM Non-Directional

Call letters FAC 70531 WHTX	Community of License	Construction Permit File No.	Modification of Construction Permit File No(s).	Expiration Date of Last Construction Permit
	Warren, OH	BP-20190702AAZ		17 January 2023

3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

[XX] Yes [ ] No

Exhibit No.

If No, explain in an Exhibit.

4. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?

[XX] Yes [ ] No

Exhibit No.

If No, state exceptions in an Exhibit.

5. Apart from the changes already reported, has any cause or circumstance arisen since the grant of the underlying construction which would result in any statement or representation contained in the construction permit application to be now incorrect?

No.

Exhibit No.

If Yes, explain in an Exhibit.

6. Has the permittee filed its Ownership Report (FCC Form 323) or ownership certification in accordance with 47 C.F.R. Section 73.3615(b)?

[ ] Yes [ ] No

[XX] Does not apply

Exhibit No.

If No, explain in an Exhibit.

7. Has an adverse finding been made or an adverse final action been taken by any court or administrative body with respect to the applicant or parties to the application in a civil or criminal proceeding, brought under the provisions of any law relating to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?

[ ] Yes [XX] No

Exhibit No.

If the answer is Yes, attach as an Exhibit a full disclosure of the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and the disposition of the litigation. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 U.S.C. Section 1.65(c), 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.

8. Does the applicant, or any party to the application, have a petition on file to migrate to the expanded band (1605-1705 kHz) or a permit or license either in the existing band or expanded band that is held in combination (pursuant to the 5 year holding period allowed) with the AM facility proposed to be modified herein?

☐ Yes ☒ No

If Yes, provide particulars as an Exhibit.

Exhibit No.

The APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because use of the same, whether by license or otherwise, and requests and 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 the exhibits are a material part hereof and are incorporated herein as set out in full in the application.

CERTIFICATION

1. 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

2. 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	Signature	
Nelson Cintron, Jr.		
Title	Date	Telephone Number
Member.	8/21/2021	216-785-8311

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 (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503)

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The Commission will use the information provided in this form to determine whether grant of the application is in the public interest. In reaching that determination, or for law enforcement purposes, it may become necessary to refer personal information contained in this form to another government agency. In addition, all information provided in this form will be available for public inspection. If information requested on the form is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

Public reporting burden for this collection of information is estimated to average 639 hours and 53 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0627), Washington, D. C. 20554. Do NOT send completed forms to this address.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

SECTION III - LICENSE APPLICATION ENGINEERING DATA

Name of Applicant
Sagittarius Communications, LLC

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

☑ Station License ☐ Direct Measurement of Power

1. Facilities authorized in construction permit

Call Sign	File No. of Construction Permit (if applicable)	Frequency (kHz)	Hours of Operation	Power in kilowatts	
				Night	Day
WHTX	BP-20190702AAZ	1570	Unlimited	.17	.75

2. Station location

State	City or Town
OH	Warren

3. Transmitter location

State	County	City or Town	Street address
OH	Trumbull	Warren	1295 Lane West Rd SW

4. Main studio location

State	County	City or Town	Street address
N/A			

5. Remote control point location (specify only if authorized directional antenna)

State	County	City or Town	Street address
N/A			

6. Has type-approved stereo generating equipment been installed? ☐ Yes ☑ No

7. Does the sampling system meet the requirements of 47 C.F.R. Section 73.68? ☐ Yes ☐ No ☑ Not Applicable

Attach as an Exhibit a detailed description of the sampling system as installed. Exhibit No.

8. Operating constants:

RF common point or antenna current (in amperes) without modulation for night system	RF common point or antenna current (in amperes) without modulation for day system
1.6	2,66

Measured antenna or common point resistance (in ohms) at operating frequency		Measured antenna or common point reactance (in ohms) at operating frequency	
Night	Day	Night	Day
106	106	113.4	113.4

Antenna indications for directional operation

Towers	Antenna monitor Phase reading(s) in degrees		Antenna monitor sample current ratio(s)		Antenna base currents	
	Night	Day	Night	Day	Night	Day
N/A	N/A		N/A		N/A	
	N/A		N/A		N/A	
	N/A		N/A		N/A	
	N/A		N/A		N/A	
	N/A		N/A		N/A	
	N/A		N/A		N/A	

Manufacturer and type of antenna monitor: N/A

SECTION III - Page 2

9. Description of antenna system ((f directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator	Overall height in meters of radiator above base insulator, or above base, if grounded.	Overall height in meters above ground (without obstruction lighting)	Overall height in meters above ground (include obstruction lighting)	If antenna is either top loaded or sectionalized, describe fully in an Exhibit.
Guyed Insulated tower	56.2	57	57	Exhibit No. N/A

Excitation ☑ Series ☐ Shunt ☐ Folded Unipole

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single ve ıl radiator give tower location.

North Latitude 41 ° 12 ' 22 "	West Longitude 80 ° 50 ' 29 "

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits. None — Exhibit No.

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system. — Exhibit No.

10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

None

11. Give reasons for the change in antenna or common point resistance.

Facilities as authorized in Construction Permit

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type)	Signature (check appropriate box below)
Edward A. Schober	Edward A Schober
Address (include ZIP Code)	Date
Radiotechniques Engineering, LLC PO Box 367 Haddon Heights, NJ 08035	21 August 2021
	Telephone No. (Include Area Code)
	856-546-8008

☐ Technical Director

☑ Registered Professional Engineer

☐ Chief Operator

☐ Technical Consultant

☐ Other (specify)

RADIOTECHNIQUES®
402 Tenth Avenue • PO Box 367 • Haddon Heights, NJ 08035

Engineering Report
Application to Cover BP-20190702AAZ
WHTX, Warren, OH

Abstract

This application is for license to cover construction permit BP-20190702AAZ for minor changes to WHTX, Warren OH. The Construction permit is to utilize one tower of its former directional antenna at new power day and night.

This application also seeks permission to operate WHTX with PSRA and PSSA from 6 AM until local sunrise and from local sunset until the permitted power is equal to the WHTX night authorized power.

Construction completed

WHTX is now operating in conformance with its construction permit, using automatic program test authority. The results of the measurement of antenna impedance is attached as Figure 1 of this report. With the filing of this application, all conditions of BP-20190702AAZ will have been met.

The WHTX antenna impedance was measured, and the results of the measurements are included as an appendix to this report, and are placed in the station record.

PSSA and PSRA Authorization

Waiver Request

WHTX operates on a Mexican priority Class A channel. Domestic Class D stations are authorized PSSA and PSRA operation according to FCC Rules §73.99(b)(1) and (d)(1). The Construction permit of WHTX night field intensity is 130.3 mV/m. This field intensity value is less than minimum field for a class B station that was required when section §73.99 was enacted, which was 141 mV/m @ 1 km. The FCC changed the value to 107.5 mV/m @ 1 km in MB Docket 13-249 to permit the use of smaller and less efficient antennas.

Saggitarius Communications, LLC believes that the Commission did not intend to deny stations producing less than 141 mV/m @ 1 km the benefit from PSSA and PSRA operations. Saggitarius Communications, LLC hereby requests a waiver of §73.99(b)(1) and (d)(1) to

permit PSSA and PSRA for WHTX as a newly classified class B station. This waiver is in the public interest and necessity, as the changes in Docket 13-249 were clearly not intended to deny stations with low power the benefit of improved coverage during the critical morning and evening "drive time" hours. The PSSA and PSRA authorizations are particularly important to stations located north of 40 degrees latitude because of the very short daytime winter operating hours for stations in the north. Saggitarius Communications, LLC has invested heavily in a new transmitter and extensive renovation to the transmitting facilities of WHTX and any limitation of its ability to provide service during these important hours will hamper the business's probability of success.

The FCC does not currently have the tools to calculate PSSA and PSRA power levels because the computer program that the commission formerly used to establish PSSA and PSRA power levels was defective and had to be decommissioned. As such, Saggitarius Communications, LLC is providing an engineering showing under the terms of §73.99.

Extended Hours Request

Intended PSRA and PSSA Operation for WHTX, 1570 kHz, Warren, Ohio.

Licensee is Saggitarius Communications, LLC

The requested power reduction is an internal function of the transmitter, and within the authorized power rating of the transmitter.

Figure 2 of this report is a map showing that at 500 Watts (the maximum PSSA/PSRA power) the proposed 0.025 mV/m 10% skywave contour does not extend to Mexico, so no interference to XERF, Ciudad Acuna, the Mexican Primary Class A station would occur at full power extended hours operation.

This map also shows that the 0.025 mV/m Region 2 10% skywave of a 500 W PSSA/PSRA operation would not extend to any other Region 2 country.

PSRA operations consider only Class A, Mexican and Canadian and other foreign stations in establishing operating power.

This table shows that full night protection of all Canadian Stations is achieved for PSSA and PSRA purposes at 235 Watts.

WHKZ Allocation Study - PSSA PSRA minimum power

Coordinates : 41-12-22.0 N 80-50-29.0 W

Frequency : 1570 PWR: 0.235 kW

Inv Field/Ground Radiation: 153.15 mV/M

BEARING	CALL	LIM	CLASS	SLANT DIST	GEOMAG MIDPT	AZIMUTH TO	ELEV ---	MAX RAD ---	SWAVE FLD -----	LIMITATION ALLOWABLE	RSS LIM 50%
17.5	CFOR	130.765	B	444.0	54.1	17.5	24.9	130.7	0.144270	3.771	7.546
47.3	CFAV	273.484	B	768.4	54.8	47.3	12.8	146.9	0.093568	2.748	10.236
47.3	LAVA	273.484	B	768.4	54.8	47.3	12.8	146.9	0.093568	2.748	10.236
47.3	CJLV	273.492	B	768.5	54.8	47.3	12.8	146.9	0.093563	2.748	10.236
299.6	CKEG	5159.247	B	3439	56.5	299.6	0.0	153.2	0.002628	0.080	5.423
302.1	CKTA	7148.144	B	2612	56.6	302.1	0.0	153.2	0.005078	0.156	14.520
309.0	CKMW	1867.699	B	1618	56.1	309.0	3.2	152.8	0.021272	0.650	15.892
352.6	CHLO	120.489	B	261.3	53.1	352.6	48.3	83.7	0.271383	4.541	13.080

PSRA calculations are based upon diurnal factors at the midpoint of the path.

Call	Brg Deg	Mid Lat	Mid Lon	Night Limit	Vert Angle deg	Permissible mV/m@ 1 km	235 W Rad mV/m@ 1 km	Full Night Protection Watts
CFOR	17.5	42°-54'-12.3"	80°-06'-35.7"	7.546	24.9	130.8	130.7	235

The following table shows PSRA eligibility for WHTX with all times shown in EST with the appropriate dinural factors and powers listed. This should provide the basis of WHTX PSSA authorization.

Month	WHTX Sunrise	6:00	6:15	6:30	6:45	7:00	7:15	7:30	7:45
January	7:45	1	1	1	1	0.9984	0.8111	0.5952	SR
Power		235 W	235 W	235 W	235 W	235 W	357 W	500 W	
February	7:15	1	1	0.9984	0.8111	0.5952	SR	Day	Day
Power		235 W	235 W	235 W	357W	500 W			
March (Std Time)	6:30	0.8111	0.5952	SR	Day	Day	Day	Day	Day
Power		357 W	500 W						
November (EDT)	7:15	Night	Night	Night	Night	0.5952	SR	Day	Day
Power						500 W			
November (Std Time)	7:15	1	1	0.9984	0.8111	0.5952	SR	Day	Day
Power		235 W	235 W	235 W	357 W	500 W			
December	7:45	1	1	1	1	0.9984	0.8111	0.5952	SR
Power		235 W	235 W	235 W	235 W	235 W	357W	500 W	

Local Sunrise at the path midpoint and WHTX transmitter site were calculated on the FCC "Local Sunrise Sunset Calculations" page, and examined. The sunrise times at the midpoint were identical with that of the WHTX site for all months. No interpolation of dinural factors were required.

In summary: PSRA operation is requested at 6 AM Local time with the following:

All times Eastern Standard Time, AM

January 6 to 7:15 – 235 W, 7:15 to 7:30 – 357 W, 7:30 to 7:45 – 500 W

February 6 to 6:45 – 235 W, 6:45 to 7:00 – 357 W, 7:00 to 7:15 – 500 W

March (EST) 6 to 6:15 – 357 W, 6:15 to 6:30 – 500 W

Sunrise at WHTX precedes 6AM EDT during Daylight savings time except November

November (EDT) 7:00 to 7:15 – 500 W

November (EST) 6 to 6:45 – 235 W, 6:45 to 7:00 – 357W, 7:00 to 7:15 – 500 W

December 6 to 7:15 – 235 W, 7:15 to 7:30 – 357 W, 7:30 to 7:45 – 500 W

PSSA Operation

Operations up to 6 PM Local Time are required to fully protect foreign stations, and after that additionally protect all domestic stations. Calculations proceed similarly to the PSRA calculations, but using the WHTX transmitter site for dinural calculations.

Sunset at WHTX occurs before 6PM during the months of September through March accounting for DST. For the hours before 6 PM local time protection to CFOR is the limiting requirement.

After 6 PM local time, domestic class B stations are required to receive full night protection using the dinural factor. First, an allocation study was done for full night protection of domestic stations at 500 Watts (the maximum PSSA power).

AM Allocation Study WHTX PSSA Domestic Stations Requiring Night Protection Below 500W
The last column indicates the power level where no objectional interference would occur to that station using standard night protection calculations (SS +2 hrs)

Coordinates : 41-12-22.0 N 80-50-29.0 W Frequency : 1570 PWR: 0.500

Maximum Inverse Field: 223.40 mV/M @ 1 km

SITE INFO

BEARING	CALL	LIM	CLASS	SLANT DIST	GND RAD	MIN ELEV	MAX ELEV	MAX RAD	SWAVE FLD	LIMITATION SWAVE FLD	RSS LIM 25% ALLOWABLE	FULL PROT POWER W
92.6	WPGM	141.792	B	406.5	223.4	21.3	33.2	198.8	0.167269	6.652	21.118	254
99.7	WISP	191.122	B	527.5	223.4	15.3	25.0	210.4	0.111859	4.706	20.589	410
117.3	WNST	160.386	B	459.8	223.4	18.2	29.1	205.2	0.140577	5.769	21.492	306
169.9	WYTI	183.118	B	517.4	223.4	15.7	25.5	209.7	0.120143	5.039	20.580	381
248.8	WPTW	112.444	B	370.9	223.4	24.0	36.7	192.7	0.194587	7.499	22.741	170
297.5	WFUR	183.185	B	488.1	223.4	16.9	27.2	207.6	0.123135	5.113	21.060	389

As can be seen, WPTW is the limiting station. The permitted field is divided by the dinural factor to determine the operating power. For the second hour of PSSA operation the dinural factor is 1 at 1570 kHz, so PSSA operation will only be used for the first hour.

Engineering Report
Application to Cover BP-20190702AAZ
WHTX, Warren, OH
Exhibit 1 Page 6

Month	WHTX Sunset	5:15	5:30	5:45	6:00	6:15	6:30	6:45	7:00	7:15	7:30	7:45	8:00
January Power	5:15	0.6700 500 W	0.6700 500 W	0.8918 295 W	.8918 214 W	Night	Night	Night	Night	Night	Night	Night	Night
February Power	5:45	Day	Day	.6700 500 W	.6700 379 W	.8918 214 W	.8918 214 W	Night	Night	Night	Night	Night	Night
March Power	6:30 EST EDT	Day	Day	Day	Day	Day	0.6700 379 W 500 W	0.6700 379 W 500 W	0.8918 214 W 214 W	.8918 214 W 214 W	Night	Night	Night

PSSA Time		7:00	7:15	7:30	7:45	8:00	8:15	8:30	9:00	9:15	9:30	9:45	
April Power	7:00	.6700 379 W	.6700 379 W	.8918 214 W	.8918 214 W	Night	Night	Night	Night	Night	Night	Night	Night
May Power	7:30	Day	Day	.6700 379 W	.6700 379 W	.8918 214 W	.8918 214 W	Night	Night	Night	Night	Night	Night
June Power	8:00	Day	Day	Day	Day	.6700 379 W	.6700 379 W	.8918 214 W	.8918 214 W	Night	Night	Night	Night
July Power	8:00	Day	Day	Day	Day	.6700 379 W	.6700 379 W	.8918 214 W	.8918 214 W	Night	Night	Night	Night
August Power	7:30	Day	.6700 379 W	.6700 379 W	.8918 214 W	.8918 214 W	Night	Night	Night	Night	Night	Night	Night

PSSA Time		5:00	5:15	5:30	5:45	6:00	6:15	6:30	6:45	7:00	7:15	7:30	7:45
September Power	6:30	Day	Day	Day	Day	Day	Day	.6700 379 W	.6700 379 W	0.8918 214 W	.8918 214W	Night	Night
October Power	5:45	Day	Day	Day	0.6700 500 W	.6700 379 W	0.8918 214 W	.8918 214W	Night	Night	Night	Night	Night
November Power	5:00	0.6700 500 W	0.6700 500 W	0.8918 295 W	.8918 295 W	Night	Night	Night	Night	Night	Night	Night	Night
December Power	5:00	0.6700 500 W	0.6700 500 W	0.8918 295 W	.8918 295 W	Night	Night	Night	Night	Night	Night	Night	Night

In summary, PSSA operation is requested as shown below:

All Times Eastern Standard Time

January	17:15 to 17:45 – 500 W, 17:45 to 18:00 – 295 W, 18:00 to18:15 - 214 W
February	17:45 to 18:00 – 500 W, 18:00 to 18:15 – 379 W, 18:15 to 18:30 – 214 W
March (EST)	18:30 to 19:00 – 500 W, 19:00 to 19:30 – 214W
March (EDT)	18:30 to 19:00 – 379 W, 19:00 to 19:30 – 214W
April	19:00 to 19:30 – 500 W, 19:30 to 20:00 – 214 W
May	19:30 to 20:00 – 379 W, 20:00 to 20:30 – 214 W
June	20:00 to 20:30 – 379 W, 20:30 to 21:00 – 214 W
July	20:00 to 20:30 – 379 W, 20:30 to 21:00 – 214 W
August	19:15 to 19:45 – 379 W, 19:45 to 20:15 – 214 W
September	18:30 to 19:00 – 379 W, 19:00 to 19:30 – 214W
October	17:45 to 18:00 – 500 W, 18:00 to 18:15 – 379 W, 18:15 to 18:30 – 214 W
November	17:00 to 17:30 – 500 W, 17:30 to 18:00 – 295 W
December	17:00 to 17:30 – 500 W, 17:30 to 18:00 – 295 W

Below is the table of Diurnal Factors for the frequency 1570 kHz used in these calculations.

PSSA Factors

Hours Rel SR	Factor
-2.0000	1.0000
-1.7500	1.0000
-1.5000	1.0000
-1.2500	1.0000
-1.0000	1.0000
-0.7500	0.9984
-0.5000	0.8111
-0.2500	0.5952
sr	0.4409
0.2500	0.3202
0.5000	0.2271
0.7500	0.1629
1.0000	0.1537

PSSA Factors

1.75	0.9854
1.5	0.9566
1.25	0.9196
1	0.8918
0.75	0.7983
0.5	0.6700
0.25	0.5203
ss	0.3751
-0.25	0.2747
-0.5	0.1969
-0.75	0.1370
-1	0.0967
-1.25	0.0658
-1.5	0.0432

Conclusion

WHTX construction has been completed and the station is operating under automatic program test authority, and is ready to be licensed with the parameters of BP-20190702AAZ.

This application requests PSRA and PSSA authorization and a waiver of its class B status which is the result of the FCC reducing the minimum field intensity required for class B stations, while the night authorized power of WHTX remains well below the 144 mV/m @ 1 km minimum for Class B stations in place when §73.99 was written.

Engineer's Statement

This is to certify that this report has been prepared by myself. It is correct and accurate of my own knowledge, except were stated otherwise, and where that is so, the information is correct to the best of my knowledge and belief.

I further certify that I am a Licensed Professional Engineer in the State of New Jersey, and the Commonwealth of Pennsylvania with a BSEE degree from the Newark College of Engineering of NJIT, and that I am, and have been for over fourty years, regularly engaged in the practice of radio engineering with the firm of Radiotechniques Engineering, LLC, with offices at 402 Tenth Avenue, Haddon Heights, NJ. I am a member of the AFCCE, Senior member of the IEEE and SBE and hold a FCC General Radiotelephone Operator License. My qualifications are a matter of record with the FCC.

Edward A. Schober

21 August 2021

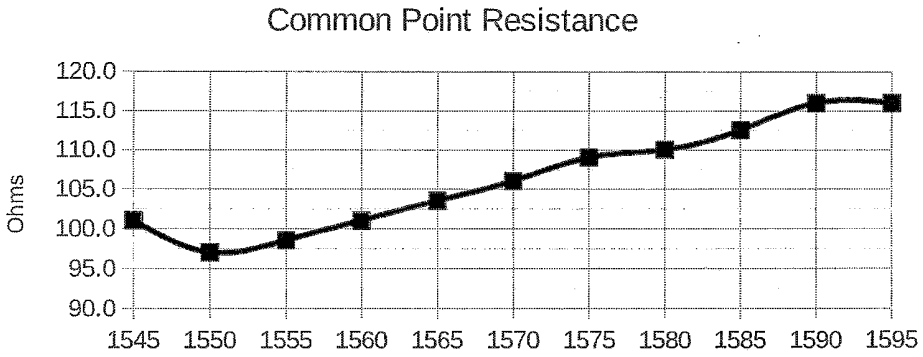
Edward A. Schober, PE

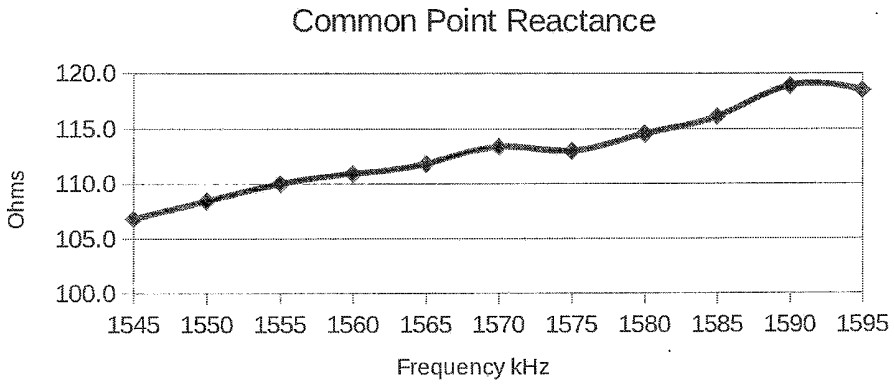
RADIO TECHNIQUES®

Engineering, LLC – PO Box 367, Haddon Heights, NJ 08035

Common Point Impedance Measurement
WHTX, Warren, OH
August 14, 2021
Measurements by: Edward A. Schober
Frequency 1570 kHz

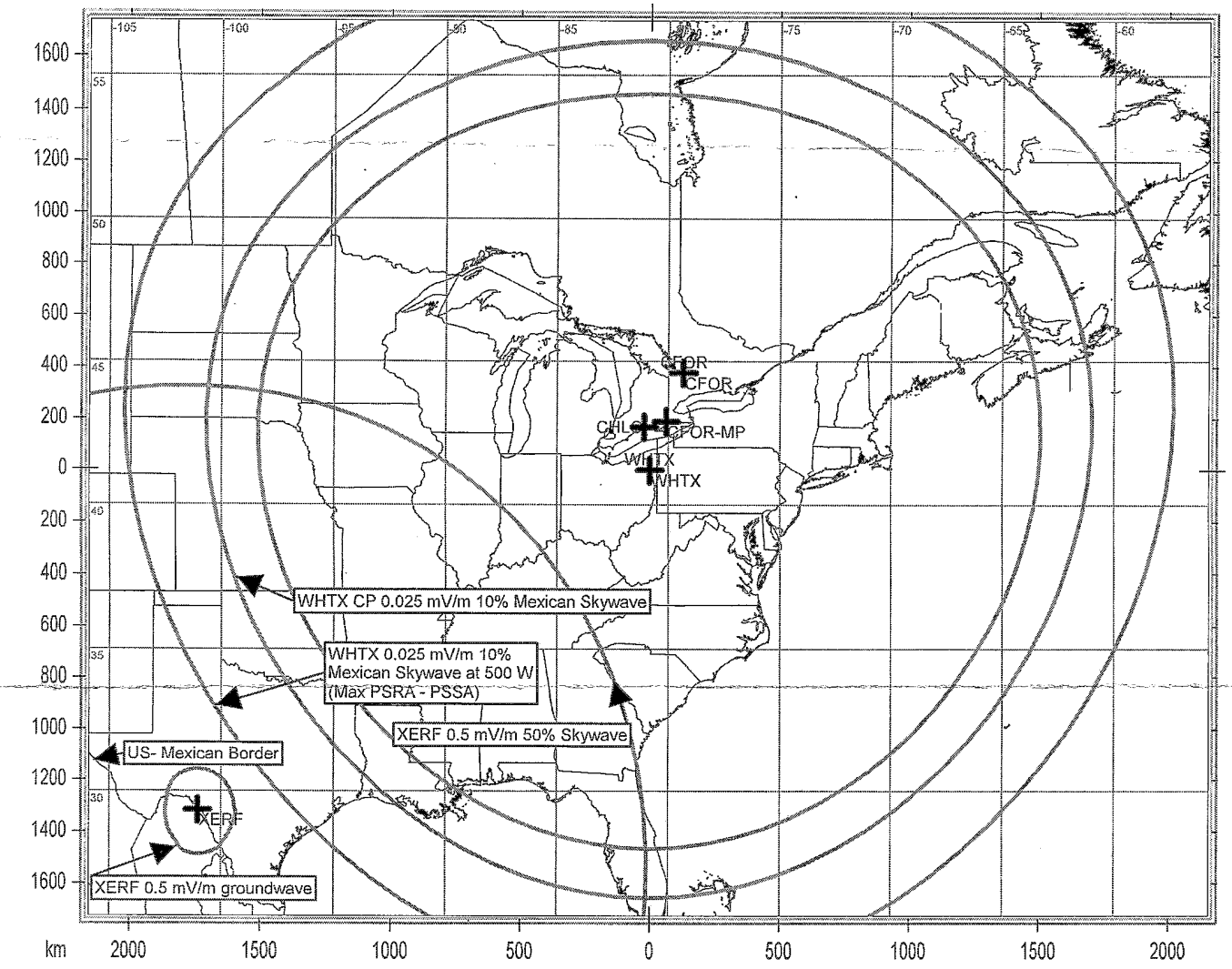
Frequency	Resistance	Reactance		Dial X
kHz	Ohms	J Ohms		Ohms
1545	101.0	106.8		165
1550	97.0	108.4		168
1555	98.5	110.0		171
1560	101.0	110.9		173
1565	103.5	111.8		175
1570	106.0	113.4		178
1575	109.0	113.0		178
1580	110.0	114.6		181
1585	112.5	116.1		184
1590	116.0	118.9		189
1595	116.0	118.5		189





Antenna Impedance Measured by Curtis W. Flick 08/14/2021

Class A Night Protection



State Borders Lat/Lon Grid