

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)

**Saint Augustine's University**

MAILING ADDRESS (Line 1) (Maximum 35 characters)

**1315 Oakwood Avenue**

MAILING ADDRESS (Line 2) (Maximum 35 characters)

CITY

**Raleigh**

STATE OR COUNTRY (if foreign address)

**North Carolina**

ZIP CODE

**27610**

TELEPHONE NUMBER (include area code)

**(919) 516-4430**

CALL LETTERS

**WAUG**

OTHER FCC IDENTIFIER (If applicable)

2. A. Is a fee submitted with this application?

☐

Yes

☒

No

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

☐

Governmental Entity

☐

Noncommercial educational licensee

☒

Other (Please explain):

C. If Yes, provide the following information:

**No fee as per Section 73.51, Direct Measurement of Power**

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>M</b>	<b>M</b>	<b>R</b>

(B)

FEE MULTIPLE			
<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

(C)

FEE DUE FOR FEE TYPE CODE IN COLUMN (A)
<b>\$ 00.00</b>

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

(A)

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(B)

<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
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(C)

<b>\$</b>
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ADD ALL AMOUNTS SHOWN IN COLUMN C,  
AND ENTER THE TOTAL HERE.  
THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED  
REMITTANCE.

TOTAL AMOUNT  
REMITTED WITH THIS  
APPLICATION

**\$**

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SECTION II - APPLICANT INFORMATION		
1. NAME OF APPLICANT St Augustine's University		
MAILING ADDRESS 1315 Oakwood Avenue		
CITY Raleigh	STATE North Carolina	ZIP CODE 27610

2. This application is for:

- ☐ Commercial
 ☐ Noncommercial  
☐ AM Directional
 ☒ AM Non-Directional

Call letters WAUG	Community of License New Hope	Construction Permit File No. N/A	Modification of Construction Permit File No(s). N/A	Expiration Date of Last Construction Permit N/A
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3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

☐ Yes ☒ No

If No, explain in an Exhibit.

Exhibit No.  
EE-1

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

☐ Yes ☒ No

If No, state exceptions in an Exhibit.

Exhibit No.  
EE-1

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

☐ Yes ☒ No

If Yes, explain in an Exhibit.

Exhibit No.

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

☒ Does not apply

If No, explain in an Exhibit.

Exhibit No.

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 ☒ 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.

Exhibit No.

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

### 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 <b>Dr. Carolyn Carter</b>	Signature by: <i>Dr. Carolyn Carter</i>	
Title <b>VP of Institutional Advancement, Marketing, &amp; Communication</b>	Date 2/24/2022	Telephone Number <b>919 516-4410</b>

**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**

#### 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

Saint Augustine's University

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	
WAUG	N/A	750	Daytime Only	Night N/A	Day .5

**2. Station location**

State North Carolina	City or Town New Hope
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**3. Transmitter location**

State North Carolina	County Wake	City or Town Raleigh	Street address (or other identification) 1315 Oakwood Avenue
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**4. Main studio location**

State North Carolina	County Wake	City or Town Raleigh	Street address (or other identification) 1315 Oakwood Avenue
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**5. Remote control point location (specify only if authorized directional antenna)**

State N/A	County N/A	City or Town N/A	Street address (or other identification) N/A
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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 N/A	RF common point or antenna current (in amperes) without modulation for day system 6.74
Measured antenna or common point resistance (in ohms) at operating frequency Night N/A Day 11	Measured antenna or common point reactance (in ohms) at operating frequency Night N/A Day 34.5

**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

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.
Series excited, vertical, steel	85.3	86.7	87.8	Exhibit No. N/A

Excitation



Series



Shunt

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

North Latitude	35	°	47	'	30	"	West Longitude	78	°	37	'	09	"
----------------	----	---	----	---	----	---	----------------	----	---	----	---	----	---

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits.

Exhibit No.  
EE-1

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system.

Exhibit No.  
EE-1

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

N/A

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

Removal of 2-way communications antennae and replacement of WAUG-LD antenna

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) Michael W. Hayden	Signature (check appropriate box below) 
Address (include ZIP Code) 3505 Oxford Avenue Mt. Vernon, Illinois 62864	Date 2/19/2022 02/19/2022
	Telephone No. (Include Area Code) (815) 721-6954



Technical Director



Registered Professional Engineer



Chief Operator



Technical Consultant



Other (specify)



RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
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## Engineering Exhibit 1

*In support of:*

FCC Form 302-AM, Direct Measurement of Power

Radio Station WAUG, Facility ID #58586

*Location:*

New Hope, North Carolina

*Licensee:*

Saint Augustine's University

February 18<sup>th</sup>, 2022



Michael W. Hayden NCE CPBE CBNT AMD CPI  
Director, RF Design & Services  
Tower Engineering Professionals



RF Design and Services  
326 Tryon Road  
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## Engineering Exhibit 1

Form 302-AM Direct Measurement of Power  
Radio Station WAUG  
New Hope, NC

### INTRODUCTION

Tower Engineering Professionals RF Design & Services Division (TEP-RF) has been retained by Saint Augustine's University (WAUG), licensee of Standard Radio Station WAUG, to determine antenna impedance after removal of two-way communications antennae and replacement of the WAUG-LD antenna. This Form 302-AM is being submitted to document the changes to the WAUG antenna system, document changes in antenna base impedance/current and a minor change in tower coordinates.

### SITE AND FACILITY CONSIDERATIONS

Radio station WAUG currently operates on assigned frequency of 750 KHz, Facility ID #58586, with a daytime power of .5KW. The site is located at 1315 Oakwood Avenue in Raleigh, NC. The tower has a height above the base insulator of 85.3m or 76.9 electrical degrees. This tower is series excited. TV station WAUG-LD has an Alive Telecom ATC-BDH20-4 TV antenna mounted on the tower with a center of radiation at 82.5m AGL. A Kintronic ISO-100-78EIA iso-coupler is used to couple the WAUG-LD transmission line across the tower base. A sketch of the tower showing all appurtenances may be found in Appendix 1. The antenna ground system consists of 120, equally spaced, buried copper radials. All radials are 99.7m in length with 120 interspersed radials, 15m in length. All radials are connected to a 4" copper strap at the base of the tower. Appendix 2 contains a drawing of the WAUG ground system.

### IMPEDANCE MEASUREMENTS

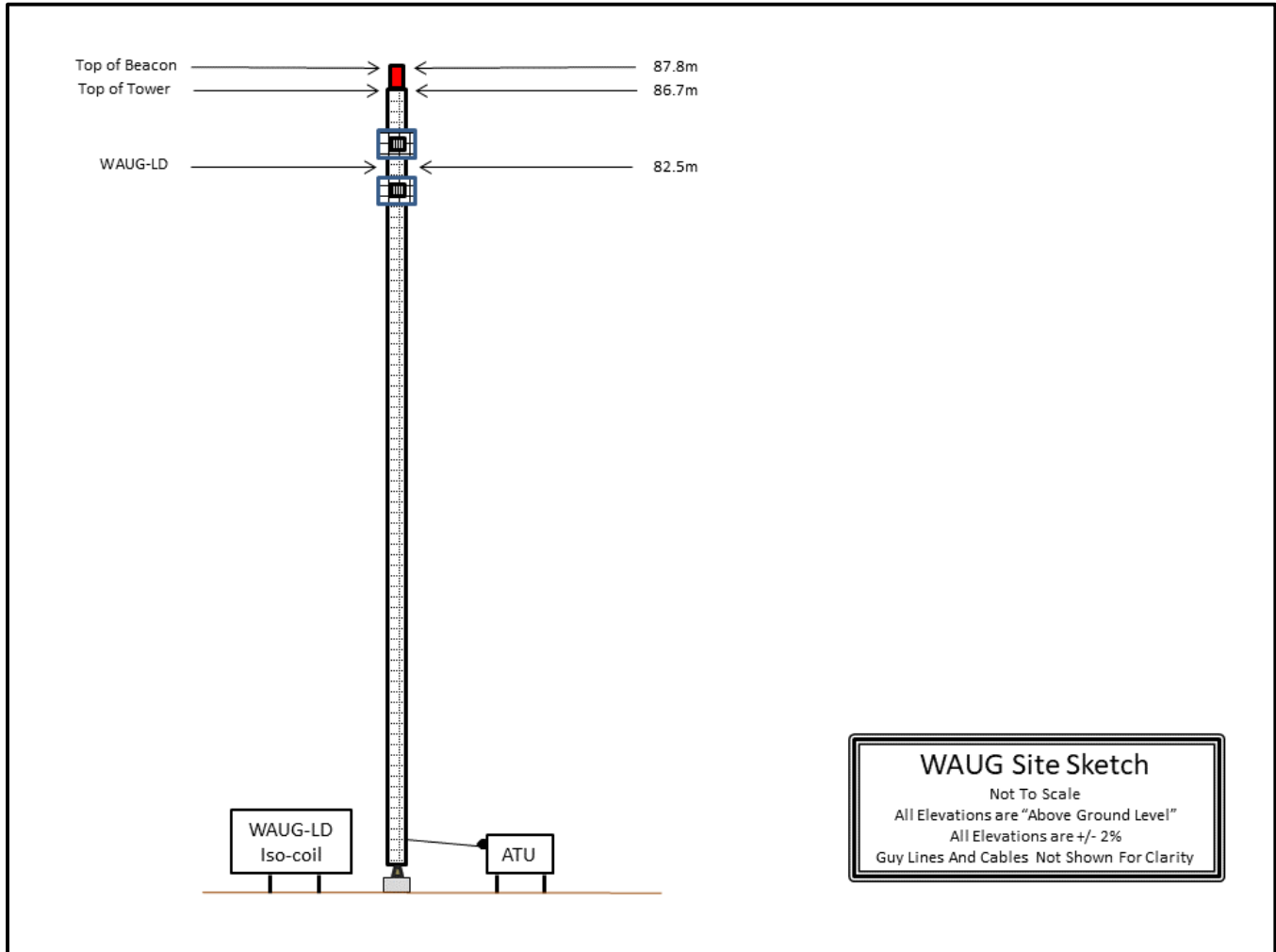
On January 11<sup>th</sup>, 2022, impedance measurements of the WAUG antenna were performed by TEP-RF's Director, Michael W. Hayden. Mr. Hayden's credentials and works are a matter of record with the Federal Communications Commission (FCC). Using an operating impedance bridge and signal generator, the impedance of the WAUG antenna was measured 30KHz either side of the licensed frequency of 750KHz in 5KHz increments. A table of measurements is located in Appendix 3. Graphs of the resistance and reactance measurements are located in Appendix 4. A test equipment set-up diagram and equipment list are located in Appendix 5. A schematic of a typical ATU showing the point where the measurements were taken is located in Appendix 6.





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## Appendix 1 WAUG Tower Sketch

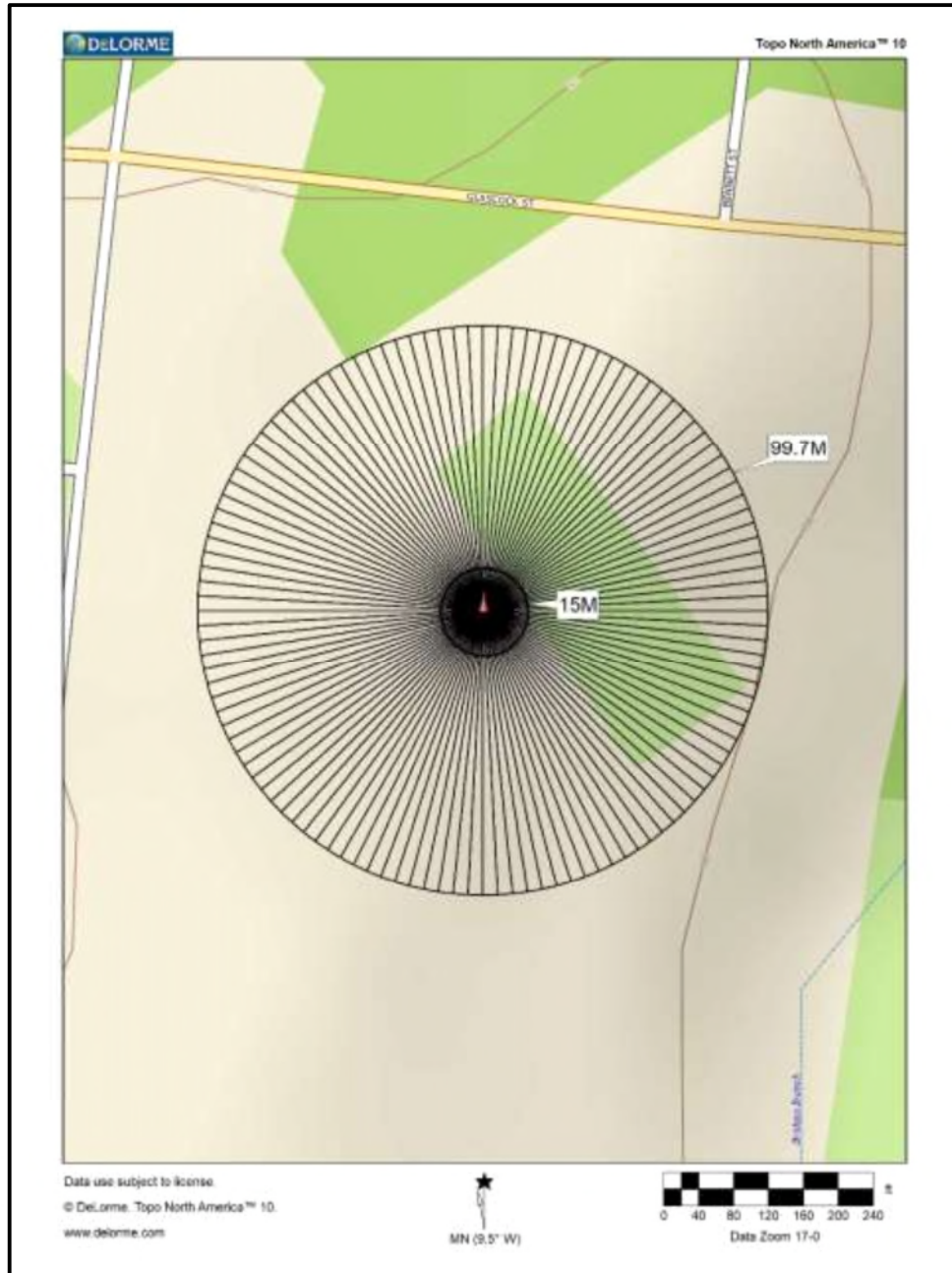






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## Appendix 2 WAUG Ground System

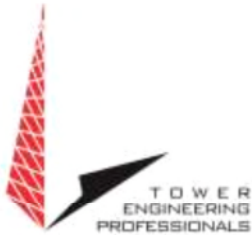




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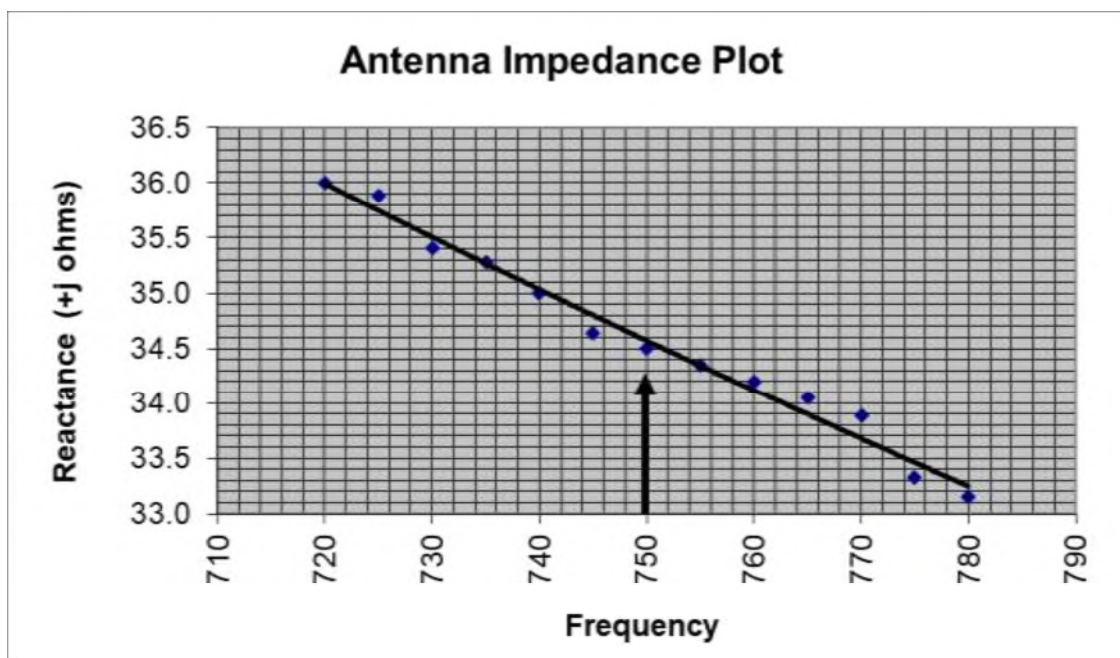
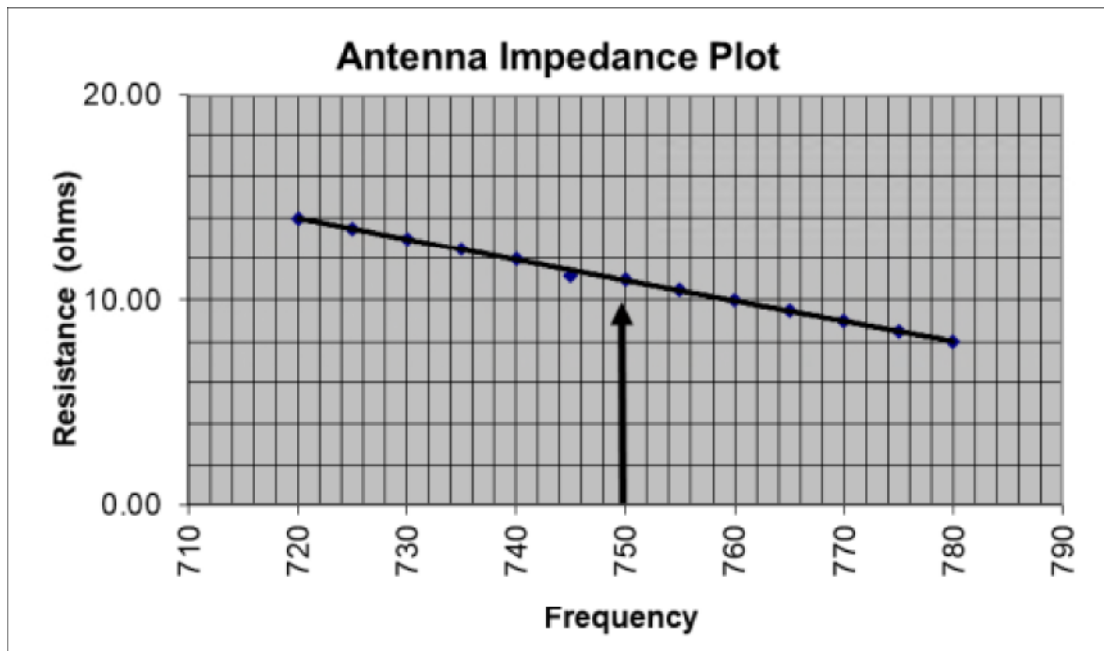
### Appendix 3 WAUG Impedance Measurement Table

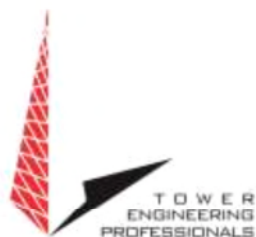
<b>Call:</b>	WAUG	Post-Install Measurements	
<b>Frequency: (kHz)</b>	750 kHz	ATU Input Impedance	
<b>Date:</b>	01/11/22	Resistance	Reactance
<b>Field Engineer:</b>	MWH	50.0	0.0
<b>ATU Input Impedance (Ohms)</b>	Resistance	Reactance	Corr Reactance
	50	0	0
	<b>Bridge Reading (ohms)</b>		<b>Corrected Reactance</b>
<b>Frequency (kHz)</b>	<b>Resistance</b>	<b>Reactance</b>	
720	14.00	50.0	36.0
725	13.50	49.5	35.9
730	13.00	48.5	35.4
735	12.50	48.0	35.3
740	12.00	47.3	35.0
745	11.20	46.5	34.6
750	11.00	46.0	34.5
755	10.50	45.5	34.4
760	10.00	45.0	34.2
765	9.50	44.5	34.0
770	9.00	44.0	33.9
775	8.50	43.0	33.3
780	8.00	42.5	33.2



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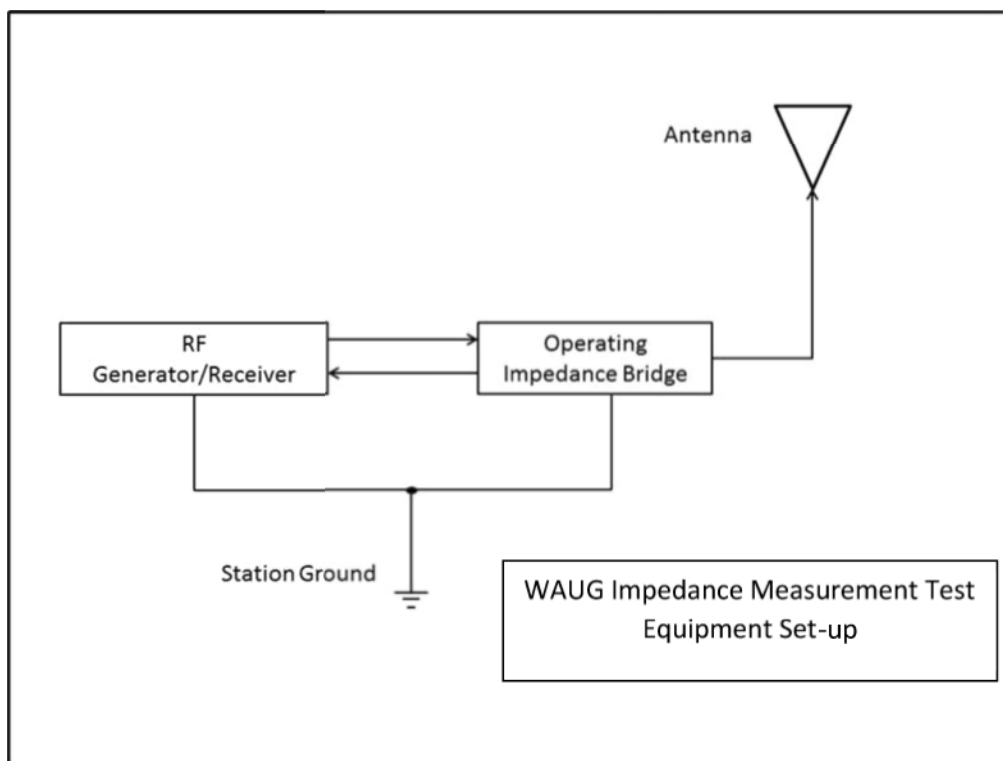
#### Appendix 4 WAUG Impedance Graphs





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## Appendix 5 Test Equipment Set-Up & Equipment Descriptions



Equipment Descriptions			
Equipment	Manufacturer	Model	Serial Number
Impedance Bridge	Delta Electronics	OIB-3	1564
Signal Generator	Delta Electronics	RG-4B	585
Receiver/ Detector	Delta Electronics	RG-4B	585



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## Appendix 6 Typical ATU Measurement Location

