

July 1970

Form Approved
Budget Bureau No. 52-R139.4

SECTION I

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

FOR COMMISSION USE ONLY

File No.

Name (See Instruction D) Educational Foundation of Alfred, Inc.Address Alfred State CollegeCity Alfred State N.Y. ZIP 14802

Notices and communications with respect to this application are to be addressed to the following-named persons at the address indicated:

Name William D. Sheehan, Dept.

Chairman

Address Elec. Engr. Tech. Dept.Alfred State CollegeCity Alfred State N.Y. ZIP 14802

2. Construction permit covered by this application

File number
BPED-1298Date
1/6/72

Construction begun

3/6/72

Construction completed

1/5/73

Is the station now in satisfactory operating condition and ready for regular operation?

Yes ☒No ☐

If not, explain

3. Has applicant any contract, arrangement, or understanding, expressed or implied, with a network organization for the broadcasting of network programs?

Yes ☐No ☒If "Yes," state as Exhibit No. arrangements under which they are to be obtained and attach copies of any contractual arrangement which may have been made. If the arrangement is based on an oral understanding, a written statement of the arrangement should be submitted.

Note: The NET, NAEB Radio Tape Network, Educational Radio Network and Eastern Educational Network are examples of educational networks.

FINANCIAL DATA

4. Give actual costs of making installation for which construction was authorized

Transmitter proper including tubes

\$

Antenna system including tower, coupling equipment, and transmission line

\$

Frequency and modulation monitors

not applicable

Studio technical equipment, microphone, transcription equipment, cameras, etc.

\$

Acquiring land

not applicable

Acquiring, constructing or modifying buildings

\$

Other items (state nature)

Total

Installation was donated; material & labor were through student help

5a. Have there been any substantial changes in the financial data submitted with the application for the construction permit?

Yes ☐No ☒b. If answer to Question 5a is yes, submit as Exhibit No. a statement outlining such changes.

6. Is a request for authority to conduct program tests a part of this application?

Yes ☒No ☐

If "No," explain

7. Is applicant's ownership report (FCC Form 323E) on file with the Commission?

Yes ☒No ☐

If "No," explain

1. F.

F

Effective radiated power in kilowatts, or power for standard broadcast stations

0.010KW

Antenna height above average terrain in feet (FM and TV only)

-98 ft.

Location of main studio

State

New York

City

Alfred

Location of transmitter

State

New York

County

Allegany

City

Alfred

Number and street (or other indication of location)

THE APPLICANT hereby waives any claim to the use of any particular frequency or of the ether as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934).

THE APPLICANT represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

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 if set out in full in the application.

CERTIFICATION

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.

Signed and dated this 5 day of January, 19 73

Educational Foundation of Alfred, Inc.

(NAME OF APPLICANT)

By

Eugene N. Jacobs

(SIGNATURE)

Title

President, Educational Foundation
of Alfred, Inc.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM
ARE PUNISHABLE BY FINE AND IMPRISONMENT.
U. S. CODE, TITLE 18, SECTION 1001.

If applicant is represented by legal or engineering counsel, state name and post office address:

Mr. William Argentieri
Attorney-at-law

9 Seneca Street
Hornell, N. Y. 14843

EXHIBITS furnished as required by this form:

EXHIBIT NO.	SECTION AND PARAGRAPH NO. OF FORM	NAME AND OFFICER OR EMPLOYEE (1) BY WHOM OR (2) UNDER WHOSE DIRECTION EXHIBIT WAS PREPARED (SHOW WHICH)	OFFICIAL TITLE
1	Sec. II- 2b	William Argentieri	Attorney-at-law
2	Sec. II- 3a	" "	" "
3	Sec. II- 14b	" "	" "
4	Sec. III- 2c	" "	" "
5	Sec. IV- 2	Professor William D. Sheehan	Chairman, Elec- trical Engineer- ing Technology Department
6	Sec. IV- 4		
7	Sec. VB- 7a		" "
8	Sec. VB- 8		" "
9	Sec. V-9		" "
10	Sec. V-9		" "

Not applicable

3

FCC Form 341			FEDERAL COMMUNICATIONS COMMISSION			Section II-A																																																									
LICENSE APPLICATION ENGINEERING DATA STANDARD BROADCAST				Name of applicant			FOR COMMISSION USE ONLY																																																								
							File No.																																																								
Purpose of authorization applied for: (Check one) <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div> <input type="checkbox"/> Station license <input type="checkbox"/> Direct measurement of power </div> <div style="text-align: right;"> Answer Paragraphs 1 thru 13 2,6,7,8,9,14 </div> </div>				7. Operating constants: (If directional system, give current at point of resistance measurement.)																																																											
1. Facilities authorized in construction permit Call sign _____ File No. of construction permit _____ <div style="display: flex; justify-content: space-between;"> <div> Frequency _____ Hours of operation _____ </div> <div> Power in kilowatts Night _____ Day _____ </div> </div>				RF common point or antenna current without modulation for night power in amperes		RF common point or antenna current without modulation for day power in amperes																																																									
				Actual measured antenna or common point resistance (in ohms) at operating frequency Night _____ Day _____		Actual measured antenna or common point reactance (in ohms) at operating frequency Night _____ Day _____																																																									
2. Station location State _____ City or town _____				Currents, and phases for directional operation																																																											
3. Transmitter location State _____ County _____ City or Town _____ Street Address (or other identification) _____				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Tower</th> <th colspan="2">Phase reading in degrees</th> <th colspan="2">Antenna base current</th> <th colspan="2">Remote indication of antenna current</th> </tr> <tr> <th>Night</th> <th>Day</th> <th>Night</th> <th>Day</th> <th>Night</th> <th>Day</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>					Tower	Phase reading in degrees		Antenna base current		Remote indication of antenna current		Night	Day	Night	Day	Night	Day																																										
Tower	Phase reading in degrees		Antenna base current		Remote indication of antenna current																																																										
	Night	Day	Night	Day	Night	Day																																																									
4. Main studio location State _____ County _____ City or Town _____ Street and number _____				Manufacturer and type of phase monitor used in taking above readings:																																																											
5. Remote control point location (only if authorized) State _____ City or Town _____ Street Address (or other identification) _____				Describe equipment used for remote indication of antenna currents (phase monitor or other method)																																																											
6. Transmitter installed Make _____ Type No. _____ Rated Power _____ Last radio stage _____ <div style="display: flex; justify-content: space-between;"> <div> Total unmodulated plate current Night _____ Day _____ </div> <div> Plate voltage Night _____ Day _____ </div> </div>				8. Description of antenna system (If directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary. Height figures should not include obstruction lighting.)																																																											
Operation of last radio frequency amplifier stage <div style="display: flex; justify-content: space-around;"> <div> A <input type="checkbox"/> B <input type="checkbox"/> BC <input type="checkbox"/> </div> <div> C <input type="checkbox"/> D <input type="checkbox"/> </div> </div>				Type radiator _____		Height in feet of complete radiator above base insulator, or above base if grounded.																																																									
				Overall height in feet above ground.		If antenna is either top loaded or sectionalized, describe fully as Exhibit No.																																																									
Manufacturer's recommended operating efficiency for the last radio frequency amplifier stage in percent. Is inverse feedback utilized? Yes <input type="checkbox"/> No <input type="checkbox"/> If "Yes", to what value of feedback power is transmitter adjusted (in db) _____ Efficiency of the last radio frequency amplifier stage as now adjusted _____ (use formula $\frac{I_p^2 R_a (100)\%}{E_p I_p}$)				Excitation _____ Series <input type="checkbox"/> Shunt. <input type="checkbox"/>		Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.																																																									
				North latitude _____ West longitude _____		If not fully described above, give further details and dimensions including any other antennas mounted on tower and associated isolation circuits as Exhibit No.																																																									
				Details and dimensions of ground system: (Attach sketch as Exhibit No. if necessary for complete description)																																																											

Not applicable

9. Antenna resistance measurement

Attach as Exhibit No. _____ the following:

- a. Qualifications of engineers taking measurements
- b. Schematic diagram showing clearly all components of coupling circuits, point of resistance measurement, location of antenna ammeter, connections to and characteristics of all tower lighting isolation circuits, static drains, and any other fixtures, lines, etc., connected to or supported by the antenna, including other antennas and associated circuits.
- c. Full description of method used to make measurements.
- d. Manufacturer's name of each calibrated instrument used and manufacturer's rated accuracy.
- e. Date, accuracy, and by whom each instrument was last calibrated.
- f. Table of complete data taken.
- g. The graph drawn of 10 to 12 readings in a band 50 to 60 kilohertz wide with the operating frequency near the center.

10. Modulation monitor

Make _____ Type No. _____

11. Frequency monitor

Make _____ Type No. _____

By what method and how often will regular measurements of the calibration of the frequency monitor be repeated?

12. Give method of varying power to compensate for variation of line voltage.

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

Give the following data on the frequency measurements

Date and time _____ Name of measurement agency or method used _____

1. _____

2. _____

3. _____

4. _____

14. Give reason for the change in antenna or common point resistance.

Frequency measured by such agency or method (before adjustment to zero)

Monitor reading high or low

1. _____

2. _____

3. _____

4. _____

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.

Date _____

Signature _____
(check appropriate box below)

- ☐ Technical Director
☐ Registered Professional Engineer
☐ Consulting Engineer
☐ Chief Operator

Broadcast Application			FEDERAL COMMUNICATIONS COMMISSION			Section II-B		
LICENSE APPLICATION ENGINEERING DATA NONCOMMERCIAL EDUCATIONAL FM STATION			Name of Applicant Educational Foundation of Alfred, Inc			FOR COMMISSION USE ONLY File No.		
Facilities authorized in construction permit						8. Transmission line		
Call Letters WETD		File No. of construction permit BPED-1298		Make Andrew		Type No. FHJ4-50B		Description Foam Heliac
Frequency 91.3MHz		Effective Radiated Power (aural) in dbk: -17.82 in kw: .0165kw		Antenna height above average terrain -98 feet		Size: (nominal inside transverse dimension) in inches .5		Length in feet 100 ft.
2. Transmitter location						Rated efficiency in percent for this length 84		
State New York		County Allegany				9. Modulation monitor n/a		
City or town Alfred		Street Address (or other ident.) Angeline-Wood Hall				Make not applicable		
3. Main studio location						Type No.		
State New York		County Allegany				10. Frequency monitor		
City or town Alfred		Street Address				Make not applicable		
4. Remote control point location						Type No.		
State None		City or town				By what method and how often will regular measurements of the calibration of the frequency monitor be repeated? n/a		
Street Address (or other identification) Alfred State College						Give the following data on the frequency measurements		
5. Transmitter installed						Date and time		
Make Gates		Type No. BFE-10G3		Rated Power 10.0W		Name of measurement agency or method used		
Operating constants						1. 12/28/72 2:45PM h/p 5248M		
D.C. plate current in last radio stage, in amperes .78A		Applied D.C. plate voltage of last radio stage, in volts 23.6V				2. 12/29/72 2:50PM freq. counter		
Plate input power to last radio stage, in kilowatts .01841KW		Efficiency factor F of transmitter at operating power, in percent 54.3				3. 1/3/73 3:00PM		
Transmitter power output in kw by indirect method .010KW		RF transmission line meter reading N/A				4. 1/4/73 3:50PM		
7. Antenna Direct						Frequency measured by such agency or method		
Antenna make and type No. Marti EA-2V		Number of sections 2		Power gain 3.0		1. 91.300036 MHz. N/A		
Overall height of antenna system above ground in feet. 55						2. 91.300050 MHz.		
Geographical coordinates of antenna (to nearest second) North latitude 42° 15' 24" West Longitude 77° 47' 41"						3. 91.300045 MHz.		
Antenna supporting structure (describe fully) Self-supporting						4. 91.299983 MHz.		
11. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit? The apparatus constructed differs from the original Construction Permit; the modifications are described on the modification of the Construction Permit dated 11/3/72, file BMPED-939.						Monitor reading high or low		

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.

Signature

Richard L. Hand
 Richard L. Hand

Date 1/5/73

☒ Technical Director

☒ Chief Operator

☐ Registered Professional Engineer

☐ Consulting Engineer

8. Frequency monitors

(a) Visual monitor

Make	Normal limits of deviation of carrier frequency shown by monitor			
Type	high cps.	to	high cps.	low

(b) Aural monitor

Make	Normal limits of deviation of carrier frequency shown by monitor			
Type	high cps.	to	high cps.	low

If either frequency monitor indicates any carrier deviation in excess of the permissible tolerance, describe in Exhibit No. _____ and state the corrective measures taken.

If the carrier frequencies have been measured by other means, describe in Exhibit No. _____, giving the date, method used or frequency measuring service employed, the results obtained and the monitor readings (high or low) at the time.

9. Performance data - Visual transmitter

a. Attach as Exhibit No. _____ data showing the following:

1. Overall attenuation versus frequency of the visual transmitter;
2. Field strength of voltage of the lower side-band for a modulating frequency of 1.25 MHz or greater, and of the upper side-band for a modulating frequency of 4.75 MHz or greater;
3. A description of the equipment and technique used in making these measurements.

b. Attach as Exhibit No. _____ data demonstrating that the waveform of the transmitted signal conforms to that specified by the standards. Until the form of these measurements may be specified by the Commission, the character of this data is left to the discretion of the applicant.

c. Attach as Exhibit No. _____ a photograph of a test pattern taken from a receiver or monitor connected to the transmitter output.

10. Performance data - Aural transmitter

Attach as Exhibit No. _____ data, diagrams, and appropriate graphs together with description of measurement procedures and instruments with regard to the following: (All measurements shall be made with the equipment adjusted for normal program operation and shall include all circuits between the main studio microphone terminals and the antenna output, including telephone lines, pre-emphasis circuits and any equalizers employed except for microphones, and without compression if a compression amplifier is installed.)

- a. Audio frequency response from 50 to 15,000 Hertz for approximately 25, 50 and 100 percent modulation. Measurements shall be made on at least the following audio frequencies: 50, 100, 400, 1000, 5000, 10,000 and 15,000 Hertz. The frequency response measurements should normally be made without deemphasis; however, standard 75 microsecond deemphasis may be employed the measuring equipment or system provided the accuracy of the deemphasis circuit is sufficient to insure that the measured response is within the prescribed limits.
- b. Audio frequency harmonic distortion for 25, 50 and 100 percent modulation for the fundamental frequencies of 50, 100, 400, 1000 and 5000 Hertz. Audio frequency harmonics for 100 percent modulation for fundamental frequencies of 10,000 and 15,000 Hertz. Measurements shall normally include harmonics to 30,000 Hertz. The distortion measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.
- c. Output noise level (frequency modulation) in the band of 50 to 15,000 Hertz in decibels below the audio frequency level representing a frequency swing of 25 kilohertz. The noise measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.
- d. Output noise level (amplitude modulation) in the band of 50 to 15,000 Hertz in decibels below the level representing 100 percent amplitude modulation. The noise measurements shall be employing 75 microsecond deemphasis in the measuring equipment or system.

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

(Date)

Signature _____

(check appropriate box below)

☐ Technical Director ☐ Chief Operator ☐ Registered Professional Engineer ☐ Consulting Engineer