Fac ID 61196

MIDAMERICA ELECTRONICS SERVICE, INC.
Peter C. L. Boyce, President
410 MT. TABOR ROAD
NEW ALBANY, IN 47150

• BROADCAST and INDUSTRIAL ELECTRONICS
• INSTALLATION • MAINTENANCE • EMERGENCY SERVICE

Office (812) 945-1209

November 19, 1987

Secretary
Federal Communications Commission
AM Branch
1919 M Street N.W.
Washington, D.C. 20554

NOV 23 1987

Dear Secretary:

Please accept this letter to correct the co-ordinates of WINN tower from north latitude 38° 59' 46" west longitude 85° 39' 02" TO north latitude 38° 59' 52" west longitude 85° 38' 48". This corrects page 4 of FCC form 302 dated 12 October 1987 for license of FM auxiliary of WNVI-FM.

The co-ordinates error was discovered in recent engineering checks of U.S.G.A. topo map when FM application was filed. (BPH-850711 IH)

If there are any further questions, please contact me at (812) 945-1209.

Sincerely,

Peter C. L. Boyce jb

Peter C. L. Boyce
Secretary
Southeast Indiana Radio, Inc.

cc: May Bradfield-FCC

Name of Applicant Southeast Indiana Radio, Inc (WINN)

1. Purpose of Authorization applied for:

☐ Construct a new station

☑ To make changes in one of the following: CORRECT CO-ORDINATES EXISTING SITE.

☐ Antenna system (including increase in height by addition of FM or TV antenna)

☐ Main studio location point outside the city limits and not at transmitter site.

☐ Station location to a different city or town

☐ Transmitter location

☐ Hours of operation

☐ Power

☐ Frequency

☐ From DA to Non-DA

☐ From Non-DA to DA

☐ Other (summarize briefly the nature of the changes proposed)

2. Facilities requested:

Frequency ________ kHz

Hours of Operation ________

Power

Night ________ kW.

Day ________ kW.

3. Station location: State IN City or Town North Vernon

4. Geographic coordinates (to nearest second). For directional antenna systems use coordinates of the center of array. For single vertical radiator give tower location.

North Latitude 38 ° 59 ' 52 "

West Longitude 85 ° 38 ' 48 "

5. Antenna System (including ground or counterpoise)

No change

Non-Directional

☐ Day ☐ Night

Estimated Efficiency: ________ mV/m/kW/ at one Kilometer.

If antenna is either top loaded or sectionalized, describe fully in attached Exhibit No. ________.
(include apparent electrical height).

Directional

☐ Day only (DA-D)

☐ Night only (DA-N)

☐ Same constants and power day and night (DA-1)

☐ Different constants or power day and night (DA-2)

☐ Different constants or power night and critical hours (DA-3)

Submit complete engineering data in accordance with Section 73.150 of the Commission's Rules for each Directional Antenna pattern proposed.

Type of feed circuits (excitation): ☐ Series feed ☐ Shunt feed ☐ Other (explain)

Height of complete radiator above base insulator, or above base if grounded. ________ ft.

Overall height above ground (without obstruction lighting) ________ ft.

FacID 61196

TRIPLICATE

United States of America
Federal Communications Commission
Washington, D.C. 20554

RECEIVED

OCT 22 1987

Federal Communications Commission
Office of the Secretary

Approved by OMB
3060-0029
Expires 9/30/87

APPLICATION FOR NEW BROADCAST STATION LICENSE
(Carefully read instructions before filling out Form—
RETURN ONLY FORM TO FCC)

For Commission Use Only
File No. BZ-871022AD

SECTION I General Data

Legal Name of Applicant: SOUTHEAST INDIANA RADIO, INC.

Mailing Address: HWY. 50 EAST

NOV 05 1987
AM BRANCH

City	State	ZIP Code	Telephone No. (Include Area Code)
NORTH VERNON	IN	47265	(812) 346-2777

1. Facilities authorized by construction permit

This application is for: [X] Commercial [ ] Noncommercial

Return to Direct Measurement of Power [X] AM [ ] FM [ ] TV

Call Letters	Community of License	Construction Permit File No.	Modification of Construction Permit File No(s).	Expiration Date of last Construction Permit
WINN	North Vernon, Indiana	BPH-850711IH (FM Auxiliary)	---	SEE EXHIBIT C

2. Is the station now operating pursuant to automatic program test authority in accordance with Section 73.1620 of the Commission's Rules?
[ ] YES [X] NO

If No, explain.

3. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?
[X] YES [ ] NO

If No, state exceptions.

4. Apart from changes already reported, has any cause or circumstance arisen since the grant of the underlying construction permit which would cause any statement or representation contained in the construction permit application to be now incorrect?
[ ] YES [X] NO

If Yes, explain.

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 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, as amended.)
THE APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations, and all exhibits are a material part hereof and are incorporated herein.

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.

Signed and dated this 12th day of October, 1987.

Southeast Indiana Radio, Inc.
Name of Applicant

Signature Peter C. L. Boyce

Secretary
Title

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

Name of Applicant
Southeast Indiana Radio, Inc.

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

	Answer Items
☐ Station License	1-9
☒ Direct measurement of power	1, 2, 6, 7, 8 and 10

1. Facilities authorized in construction permit

Call Sign	File No. of Construction Permit	Frequency	Hours of operation	Power in kilowatts Night	Power in kilowatts Day
WINN	BPH-850711IH (FM auxiliary)	1460 khz	day		1

2. Station location

State	City or town
Indiana	North Vernon

3. Transmitter location

State	County	City or town	State address (*or other identification*)

4. Main Studio location

State	County	City or town	Number and Street

5. Remote control point location (only if authorized)

State	City or town	Street address (*or other identification*)

6. Operating constants:

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
	4.48 A

Actual measured antenna or common point *resistance* (in ohms) at operating frequency		Actual measured antenna or common point *reactance* (in ohms) at operating frequency	
Night	Day 50	Night	Day +j70

Antenna monitor indication for directional operation N/A

Tower	Phase reading in degrees		Antenna base current		Antenna monitor sample current ratio	
	Night	Day	Night	Day	Night	Day

Manufacturer and type of antenna monitor:

7. 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.)

Type radiator	Height in feet of complete radiator above base insulator, or above base if grounded.	Overall height in feet above ground (without obstruction lighting)	If antenna is either top loaded or sectionalized, describe fully in Exhibit No. ____
Guyed Uniform cross section	150'	150'	N/A

Excitation ☐ Series Folded Unipole ☒ Shunt

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

North latitude	38 °	59 ′	52 ″	West longitude	85 °	38 ′	48 ″

If not fully described above, attach as Exhibit No. A further details and dimensions including any other antenna mounted on tower and associated isolation circuits. Also, if necessary for a complete description attach as Exhibit No. ____ a sketch of the details and dimensions of ground system.

8. Antenna resistance measurement

Attach as Exhibit No. B the following:

(a) Qualifications of persons taking measurements.

(b) Schematic diagram showing clearly all components of coupling circuits, point of resistance measurements, location of antenna ammeter, connection 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.

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

see FM application... no change.

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

Change of FM antenna side mounted at top of tower.
Addition of microwave link antennas to feed remote FM site.
Change to Folded unipole feed system.

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 October 12, 1987

Name Peter C. L. Boyce
(Please Print or Type)

812 945-1209
Telephone No. (Include Area Code)

Signature
(Check appropriate box below)

410 Mt. Tabor Road
Address (Include ZIP Code)
New Albany, Indiana 47150

- [X] Technical Director
- [ ] Registered Professional Engineer
- [ ] Chief Operator
- [ ] Technical Consultant
- [ ] Other (specify)

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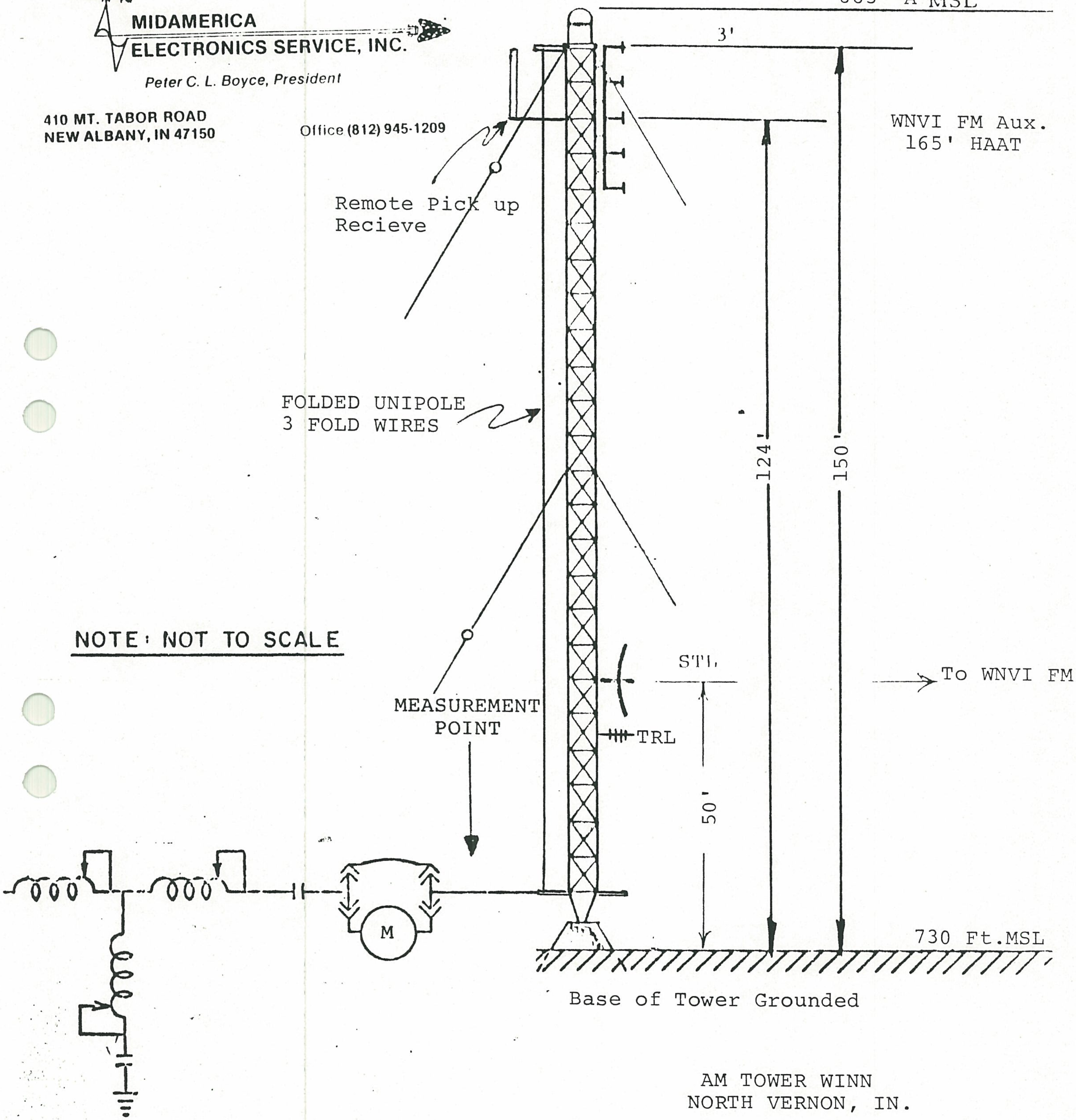

AM TOWER WINN
NORTH VERNON, IN.

October 12, 1987

EXHIBIT B

MEASUREMENT OF IMPEDANCE

WINN

NORTH VERNON, IN.

September 5, 1987

QUALIFICATIONS OF ENGINEER

Peter C. L. Boyce states that he is President of MIDAMERICA ELECTRONICS SERVICE, INC. located in New Albany, Indiana.

He further states that he is graduate of Louisville Radio School Division of Electronic Laboratories, Inc. and that he is holder of FCC Radiotelphone Licence No. P1-18- 11969 and that the attached engineering information was prepared by him or under his direction, That he believes it to be true and correct, That he has been associated with the technical phases of broadcasting for more than twenty consecutive years and that his engineering work has been accepted by the Federal Communications Commission.

October 12, 1987

Date

City of New Albany

State of Indiana

Peter C. L. Boyce

Peter C. L. Boyce

President

MIDAMERICA ELECTRONICS SERVICE, INC.

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ELECTRONICS SERVICE, INC.®
Peter C. L. Boyce, President

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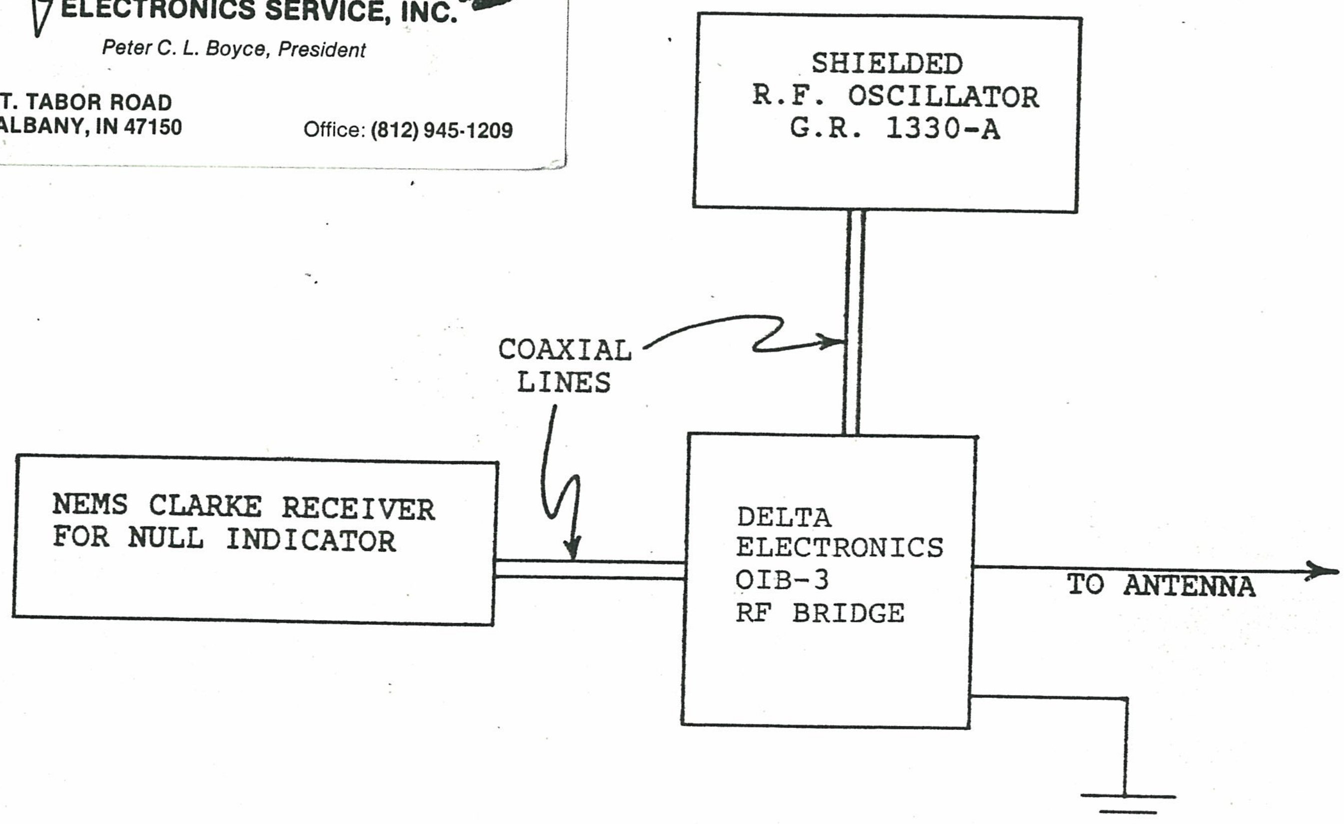

CONNECTIONS AND EQUIPMENT USED FOR
MEASURING IMPEDANCE WITH R.F. BRIDGE

ANTENNA IMPEDANCE MEASUREMENT

Instruments Used:

Delta Electronics Type OIB-3 RF Bridge

General Radio Type 1330A Standard Signal Generator

General Radio Type 505E Standard Condensors

General Radio Type 500C Standard Resistors

Nems Clark Field Meter (modified for external input)

Calibration Check of Instruments:

The General Radio Type 1330A Standard Signal Generator was checked by zero beating it against low power signal from the transmitter crystal oscillator at the operating frequency and beating against Standard Broadcast Stations at other points on the curve.

The Delta Electronics Radio Frequency Bridge Calibration was checked at the time of making the measurements by use of General Radio Type 505E Standard Condensers and General Radio Type 500C Standard Resistor. With instruments set up at the antenna tuning unit, the 50 ohm Standard Resistor was substituted for the antenna and the measured resistance was 50 ohms. The manufacturer's rated accuracy of the Type 500C Standard Resistor is ± .1% of stated value, and of the Type 505E Standard Condenser is ± 2%.

The manufacturers rated accuracy of the Delta OIB-3 impedance bridge is ± 2% ± 1 ohm for resistance and ± 2% ± 1 ohm for reactance.

DESCRIPTION OF METHOD USED FOR MEASUREMENT

The Delta Bridge was set up as close as possible to the point at which antenna current is measured and the proper leads supplied with the bridge were used to connect to the antenna.

Shielded coaxial leads were used to connect from the signal generator to the bridge and from the bridge to the detector.

An initial check of the bridge was made by connecting to the general radio standard resistor and capacitor before commencing with the measurement of the antenna.

Measurements were taken at the operating frequency and at 5, 10, 15, 20, 25, and 30 Kilohertz on each side of the operating frequency. This data was Plotted on coordinate graph paper with frequency as abscisa and resistance in ohms as ordinate and a smooth curve drawn. The point on the ordinate wher this curve intersects the operating frequency gives the value of operating impedance.

Attached hereto are the graphs and tabulations of impedance measurements.

ANTENNA IMPEDANCE MEASUREMENT

WINN RADIO

NORTH VERNON, IN.

September 5, 1987

FREQUENCY	RESISTANCE	REACTANCE
1490	46.5	+ j71.5
1485	47.5	+ j72
1480	48.5	+ j70
1475	49	+ j70
1470	50	+ j71
1465	51	+ j72
*1460	50	+ j70
1455	53.5	+ j67
1450	55	+ j66
1445	56.5	+ j64.5
1440	58	+ j63
1435	60	+ j62
1430	62	+ j61

* operating frequency

EXHIBIT C

SOUTHEAST INDIANA RADIO, INC.

On May 8, 1986, the Commission granted a construction permit (File No. BPH-850711IH) to Southeast Indiana Radio, Inc. authorizing modification of former main facilities of station WNVI-FM, North Vernon, Indiana (with slightly reduced power) for use as auxiliary facilities. This permit was inadvertently permitted to expire October 5, 1987. An application to reinstate the FM permit and to extend it for 60 days was filed October 15, 1987 and is pending.

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ELECTRONICS SERVICE, INC.

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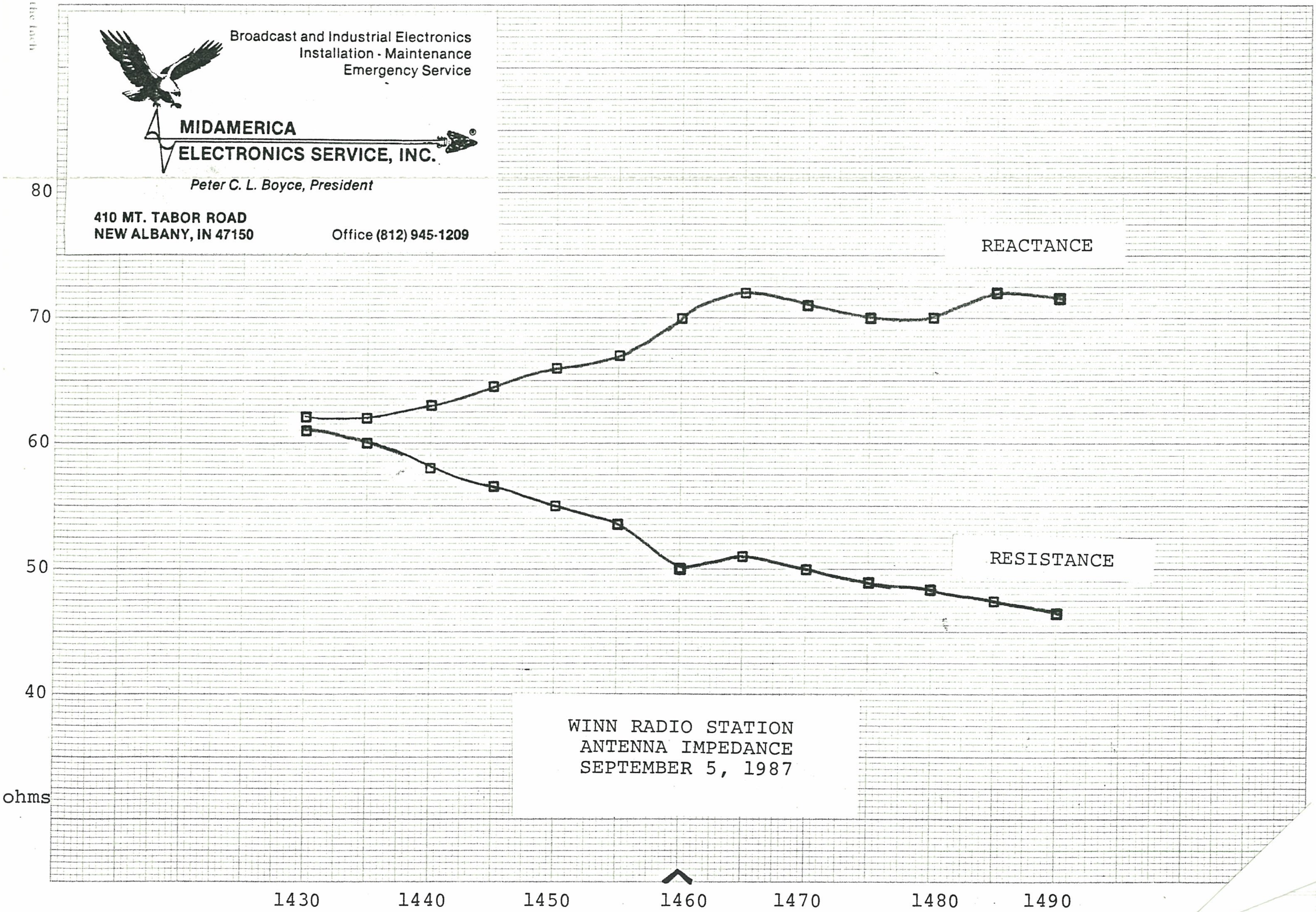

WINN RADIO STATION
ANTENNA IMPEDANCE
SEPTEMBER 5, 1987