

FEDERAL COMMUNICATIONS COMMISSION

CLASS OF STATION FM

DLP

The following application is submitted for action by the Chief, Broadcast Bureau.

ST	FILE NUMBER	CALL	APPLICANT AND LOCATION	NATURE OF APPLICATION
AL	BPED -860307MK N/M	WSGN 91.5MHZ	GADSDEN STATE JUNIOR COLLEGE GADSDEN AL	CP TO MAKE CHANGES. CHG FREQUENCY: 91.3MHZ; CHG TL: LOOKOUT MTN., NEAR TUCKAHOE HTS., GADSDEN, AL; CHG ERP: 15 KW (V); CHG HAAT: 158.7 METERS (V). 34 04 29
		KAI-567	GADSDEN AL	86 01 11

LICENSE EXPIRATION DATE APR 1, 1989

CHIEF, LICENSE DIVISION

RECOMMENDATION: GRANT() CONSTRUCTION DATES, START _____ END _____
CONTESTED () UNCONTESTED ()

APPROVED _____

FOR CHIEF, BROADCAST BUREAU

F.C.C.-WASHINGTON, D.C.

860307MK

RECEIVED

MAR 7 - 1986

Handwritten initials and marks

GARDNER, CARTON & DOUGLAS

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370-17TH STREET
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1600 TEXAS COMMERCE BANK TOWER
PLAZA OF THE AMERICAS
LOCK BOX NO. 175
800 NORTH PEARL STREET
DALLAS, TX 75201-2809
(214) 953-1321

F.M. BRANCH

340

March 7, 1986

MARTIN R. HOFFMANN
MICHAEL L. GLASER
FRANCIS E. FLETCHER, JR.
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WILLIAM P. BERNTON, COUNSEL
LYNN M. CLANCY
RONALD J. JARVIS
PAUL KORMAN

Mr. William J. Tricarico
Secretary
Federal Communications Commission
1919 M Street, N.W. - Room 222
Washington, D.C. 20554

RE: Application for Construction
Permit For Noncommercial
Educational Broadcast Station WSGN-FM

Dear Mr. Tricarico:

On behalf of Gadsden State Junior College, licensee of Station WSGN-FM, located at Gadsden, Alabama, there is transmitted herewith, in triplicate, its application on Form 340 for a construction permit for a noncommercial educational broadcast station.

Should any question arise, please contact the undersigned.

Sincerely,

M. Scott Johnson

MSJ/dal

MAR 20 1986

AUDIO SERVICES

ORIGINAL

**APPLICATION FOR CONSTRUCTION PERMIT FOR
NONCOMMERCIAL EDUCATIONAL BROADCAST STATION**
(Carefully read instructions before filling out Form—RETURN ONLY FORM TO FCC)

For Commission Use Only
File No. **860307MK**
RECEIVED

MAR 7 - 1986

Section I

General Information

1. Name of Applicant

Street Address

Gadsden State Junior College

100 George Wallace Dr
FCC
Office of the Secretary

City

State

ZIP Code

Telephone No.

Gadsden

AL

35999-9990

(Include Area Code)

(205) 546-0489

Send notices and communications to the following named person at the address below:

Name

Street Address

Neil D. Mullin, Director
Department of Radio and Television

100 George Wallace Dr

also copies to*

City

State

ZIP Code

Telephone No.

Gadsden

AL

35999-9990

(Include Area Code)

(205) 546-0489

2. This application is for: AM FM TV

(a) Channel No. or Frequency: 91.5 Mhz, 218

(b) Community of license:

City

State

Gadsden AL

(c) Check one of the following boxes:

- Application for new station
- Major Change in Existing station; call sign: WSGN-FM
- Minor Change in Existing station; call sign: _____
- Modification of Construction Permit; File No. of CP: _____
- Amendment to Pending Application; Reference Number (ARN): _____

NOTE: It is not necessary to use this form to amend a previously filed application. Should you do so, however, please submit only Section I and those other portions of the form that contain the amended information.

3. Is this application mutually exclusive with a renewal application?

YES NO

If Yes, State:

Call letters:

Community of license:

City

State

*M. Scott Johnson, Gardner, Carton & Douglas, 1875 Eye Street, N.W., Suite 1050
Washington, D.C. 20006-5472

Name of Applicant Gadsden State Junior College

1. Purpose of authorization applied for:

- Construct a new station
- Install Auxiliary system

- Change:
- Effective radiated power
 - Frequency
 - Antenna height above average terrain
 - Transmitter location
 - Studio location outside community of license
 - Other (Summarize briefly the nature of the changes proposed.)

2. Community of license: State Alabama City or Town Gadsden

3. Facilities requested: Frequency 91.3 MHz Channel No. 217 Class (Check one below)

A B B1 C2 C D

4. Geographic coordinates of antenna (to nearest second)

North Latitude 34° 04' 29" West Longitude 86° 01' 11"

5. Effective radiated power:

<u>Polarization</u>	<u>Horizontal Plane</u>	<u>Maximum (Beam tilt only)</u>
Horizontal	<u>DNA</u> kW	<u>DNA</u> kW
Vertical	<u>15</u> kW	<u>DNA</u> kW

6. Height in meters of antenna radiation center:

	<u>Above Average terrain (HAAT)</u>	<u>Above Mean Sea Level</u>	<u>Above Ground</u>
Horizontal	<u>DNA</u> meters	<u>DNA</u> meters	<u>DNA</u> meters
Vertical	<u>158.7</u> meters	<u>384.1</u> meters	<u>54.9</u> meters

7. Is a directional antenna being proposed? YES NO

If Yes, attach as Exhibit No. DNA an engineering statement with all data specified in Section 73.316(d) of the Commission's Rules.

8. Transmitter location: State Alabama County Etowah
 City or Town _____ Street Address (or other identification) _____
Gadsden Lookout Mtn., near Tuckahoe Hts.
9. Overall height of complete structure above ground, including all appurtenances and lighting (if any, see Part 17). 60.1 meters
10. Attach as Exhibit No. E map(s) (Sectional Aeronautical charts or equivalent) of the area proposed to be served and shown thereon:
- Proposed transmitter location and the radials along which the profile graphs have been prepared;
 - The 1mV/m predicted contour;
 - Area (sq. mi.) and population (latest census) within 1 mV/m contour;
 - Scale of miles or kilometers (kilometers if available).
11. Attach as Exhibit No. E a map (Sectional Aeronautical charts where obtainable) showing the present and proposed 1 mV/m (60 dbu) contours.
- Enter the following from Exhibit above:
- | | |
|-----------|----------------|
| Gain Area | <u>4820</u> km |
| Loss Area | <u>0</u> km |
- Percent change (gain area plus loss area as percentage of present area) 660 %.
 If 50% or more this constitutes a major change. Indicate in question 2(e), Section I, accordingly.
12. If the main studio will not be within the boundaries of the principal community to be served, attach as Exhibit No. DNA a justification pursuant to Section 73.1125(f) of the Commission's Rules.
13. Attach as Exhibit No. E map(s) (7.5 minute U.S. Geographic Survey topographic quadrangles if available) of the proposed antenna location showing the following information:
- Proposed transmitter location accurately plotted with the latitude, the longitude lines clearly marked and showing a scale of statute kilometers.
 - Transmitter location and call letters of all AM broadcast stations within 2 miles of the proposed antenna location.
14. If there are any FM or TV stations within 200 feet of proposed antenna or non-broadcast radio stations (except amateur and citizens band), or established commercial and government receiving stations in the general vicinity which may be adversely affected by the proposed operation, attach as Exhibit No. DNA the expected effect, a description of remedial steps that may be pursued if necessary, and a statement from the applicant accepting full responsibility for the elimination of any objectionable effect on existing stations.

none

15. Tabulation of Terrain Data. (Calculated in accordance with the procedure prescribed in Section 73.313 of the Commission's Rules utilizing 7.5 minute topographic maps, if available.)

Radial bearing (degrees true)	Height of antenna, radiation center above average elevation of radial (3-16 kilometers) Meters	Predicted Distance
		To the 1 mV/m contour (60 dBu) Kilometers
0°	127.3	38.4
45°	109.0	36.0
90°	176.9	43.9
135°	207.0	46.7
180°	207.4	46.7
225°	202.3	46.3
270°	129.4	38.7
315°	110.3	36.2

Allocation Studies

(See Subpart C of Part 73 of the Commission's Rules and Regulations)

16. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? Yes No
- If Yes, attach as Exhibit No. DNA a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.
17. With regard to stations within 320 kilometers (199 miles) of the common border between the United States and Mexico, attach as Exhibit No. DNA information required in 1/.
18. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), then with regard to stations more than 320 kilometers (199 miles) from the common border between the United States and Mexico or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as Exhibit No. E a complete allocation study to establish the lack of prohibited overlap of contours involving these stations. The allocation study should include the following:
- The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
 - Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
 - Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
 - Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
 - Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
 - When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
 - A scale of miles and properly labeled longitude and latitude lines, shown across the entire (Exhibit(s)). Sufficient lines should be shown so that the location of the sites may be verified.
 - The name of the map(s) used in the exhibit(s).

- 1/ A showing that the proposed operation meets the minimum distance separation requirements. If any separations are proposed that are less than the applicable minimum separation requirements plus 15 kilometers, include these stations. Also include existing stations, proposed stations, and cities which appear in the Table of Assignments, the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

19. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? Yes No
 If Yes, attach as Exhibit No. DNA showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947.

20. With regard to station separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as Exhibit No. E information required in 1 (separation requirements involving intermediate frequency [i.f.] interference).

21. Is the proposed operation on Channel 218, 219 or 220? Yes No
 If Yes, attach as Exhibit No. DNA information required in 1 regarding separation requirements with respect to stations on Channels 221, 222, and 223.

22. Is the proposed station for a channel in the range from Channel 201 to 221 (88.1-91.9 MHz) and the proposed antenna location within the Grade B contour of a channel 6 television station or sufficiently near the Grade B contour that a question of interference to channel 6 may be raised? Yes No
 If Yes, attach as Exhibit No. E a map showing the Grade B contour of the television station and the proposed antenna location. Also include discussion of the possibility of interference to the Channel 6 station and the steps proposed to remedy any interference which may occur.

23. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)? Yes No
 If Yes, attach as Exhibit No. DNA information required in 1 (Except for class D [secondary] proposals.)

24. If the proposed antenna location is in or near a populated area, attach Exhibit No. E a discussion of blanketing and the steps proposed to remedy any interference which may occur.

25. Environmental Statement, See Part I, Subpart 1 of the Commission's Rules.

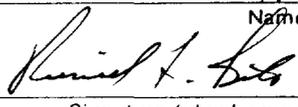
Would a Commission grant of this application be a major action as defined by Section 1.1305 of the Commission's Rules? Yes No

If Yes, attach as Exhibit No. DNA a narrative statement in accordance with Section 1.1311 of the Commission's Rules.

If No, explain briefly. See Exhibit E. Existing tower, no increase in overall height.

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.

Feb. 25, 1986
Date

Richard L. Biby, P. E.
Name

Signature (check appropriate box below)
Communications Engineering Services, P. C.
1600 Wilson Blvd., Suite 1003
Address (include ZIP Code)

Arlington, VA 22209

(703) 522-5722
Telephone No. (include Area Code)

- Technical Director Registered Professional Engineer Chief Operator
 Technical Consultant Other (Specify)

Name of Applicant	Call Sign	Station Location
Gadsden State Junior College	WSGN	Gadsden, AL

Purpose of Application (Put "X" in appropriate box)	Facilities Requested
<input type="checkbox"/> New antenna construction <input checked="" type="checkbox"/> Alteration of existing antenna structure <input type="checkbox"/> Change in location	change of site, height, power and channel. See Exhibit E

1. Location of Antenna:

State	County	City or Town
Alabama	Etowah	Gadsden

Exact antenna location (*street address*). If outside city limits, give name of nearest town and distance and direction of antenna from town.

on Lookout Mountain near Tuckahoe Heights

Geographical coordinates (*to nearest second*). For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude 34^o 04' 29" West Longitude 86^o 01' 11"

2. Is the proposed site the same transmitter-antenna site of other stations authorized by the Commission or specified in another application pending before the Commission? YES NO

If Yes, give call sign:

3. Has the FAA been notified of proposed construction? YES NO

If Yes, give date and office where notice was filed. Southern Region,
February, 1986

4. List all landing areas within 5 miles of antenna site. Give distance and direction to the nearest boundary of each landing area from the antenna site.

Landing Area	Distance	Direction
(a) <u>Gadsden</u>	<u>11.7 km</u>	<u>SSW</u>
(b) _____	_____	_____
(c) _____	_____	_____

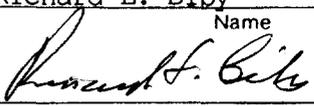
5. Attach as Exhibit No. E a description of the antenna system, including whether tower(s) are self-supporting or guyed. If a directional antenna, give spacing and orientation of towers.

Tower		#1	#2	#3	#4	#5	#6
Overall height above ground (include obstruction lighting)	meters	60.1					
	feet	197					
Overall height above mean sea level (include obstruction lighting)	meters	389.3					
	feet	1277					

- 6. Attach as Exhibit No. E a vertical plan sketch for the proposed total structure (including supporting building, if any) giving heights above ground in feet and meters for all significant features. Clearly indicate existing portions, noting lighting, and distinguish between the skeletal or other main supporting structure and the antenna elements

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.

Richard L. Biby
 Name


 Signature (Check appropriate box below)

Communications Engineering Services, P.C.
1600 Wilson Blvd., Suite 1003
 Address (include ZIP Code)

Arlington, VA 22209

(703) 522-5722
 Telephone No. (Include Area Code)

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

Section VI

Equal Employment Opportunity Program

1. Does the applicant propose to employ five or more fulltime employees? DNA YES NO

If the answer is Yes, the applicant must include an EEO program called for in the separate 5 Point Model EEO Program [FCC Form 396 (A)].

Section VII

Certification

1. Has or will the applicant comply with the public notice requirement of Section 73.3580 of the Commission's Rules? YES NO

The APPLICANT hereby waives any claim to the use of any particular frequency 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 that all exhibits are a material part hereof and are incorporated herein.

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.

In accordance with Section 1.65 of the Commission's Rules, the APPLICANT has a continuing obligation to advise the Commission, through amendments, of any substantial and significant changes in information furnished.

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

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 26th day of February, 1986.

Gadsden State Junior College Robert W. Howard
Name of Applicant Signature

by Robert W. Howard President
Title

**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 principal purpose for which the information will be used is to determine if the benefit requested is consistent with the public interest. The staff, consisting variously of attorneys, accountants, engineers, and application examiners, will use the information to determine whether the application should be granted, denied, dismissed, or designated for hearing. If all the information requested 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. Accordingly, every effort should be made to provide all necessary information. Your response is required to obtain the requested Permit.

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.

EXHIBIT E
ENGINEERING STATEMENT IN RE:
APPLICATION FOR MAJOR CHANGES
WSGN (FM) CH. 217C2 91.3 MHZ 15 KW 158.7 METERS
GADSDEN STATE JUNIOR COLLEGE
GADSDEN, ALABAMA

INTRODUCTION

This engineering statement, together with Section V-B and V-G of FCC Form 340 to which it is attached as Exhibit E, furnishes complete engineering and technical data in support of an application for authority to make major changes to Educational FM Broadcast Station WSGN at Gadsden, Alabama.

Gadsden State Junior College, (hereafter GSJC), licensee of WSGN (FM), proposes to move the WSGN transmission facility to a new site approximately 8 kilometers north-northwest of its present location; to increase the height of the radiation center of the antenna from 23 meters to 158.7 meters above average terrain (HAAT); to increase the effective radiated power from 3.5 kW to 15 kW; and to change channel from 218C (91.5 MHz) to 217C2 (91.3 MHz).

All calculations, graphs, contours, and other technical data have been determined in accordance with the existing Rules and Regulations of the Federal Communications Commission (the FCC Rules).

REASON FOR MAJOR CHANGE

WSGN is severely restricted on its present channel by WLJS, which serves Jacksonville, AL on Channel 220 as a Class A facility. As a result of its strong desire to maximize educational service to the public, GSJC proposes to change channels to 217, and to serve Gadsden and the surrounding area as a Class C2 facility. This change will allow WSGN to maximize educational service to the public, while also providing a first aural educational service to a large portion of the area within the predicted 60 dBu contour. No interference will be caused to any existing FM station, and the existing predicted Television Channel 6

interference area will be significantly reduced, so that the population which is predicted to receive new interference to Television Channel 6 is less than 50% of the non-common population which is presently predicted to receive interference to Television Channel 6. In accordance with Section 73.3573(a)(1) of the FCC Rules, this application is classed as a "Major Change".

PROPOSED FACILITIES

The effective radiated power of the proposed operation will be 15 kW using a nondirectional, three bay vertically polarized antenna which will be side mounted on an existing tower. There will be no resulting increase in overall height.

DESCRIPTION OF NEW TRANSMITTER LOCATION

The new transmitter site is approximately 8 kilometers north-northwest of Gadsden, on Lookout Mountain in the region known as Tuckahoe Heights, as is shown on the detailed topographic maps attached hereto as Figures 1 and 2.

Figure 1 is a full scale reproduction of a portion of the Gadsden, AL (7-1/2 minute) topographic quadrangle, so arranged as to show one corner of the map. Figure 2 is a reduced scale copy of a map, depicting the nature of the area within 3.2 kilometers (or more) of the proposed tower location.

There are no FM or television stations within 61 meters (200 feet) of the proposed site, nor are there any Standard Broadcast (AM) stations located within 3.2 km of the proposed site.

CHANNEL UTILIZATION DATA - FM

Studies of the channel utilization constraints relative to other FM operations are included in map form as Figure 4. That map depicts all potentially interfering contours of the proposed operation; the proposed service (60 dBu) contour, the protected (60 dBu) contours of all other stations which are close enough to required detailed study, and their potentially interfering contours.

✓ Except for the mutually exclusive proposal by Sable Community Broadcasting to construct a new station to serve Hobson City, AL, on Channel 217 (FCC File No. 851003MB), no interference is predicted to be caused by the proposed operation. There will be minor levels of received interference.

There are no operations, either existing or proposed, on Channels 270 or 271 (i.e., the "image" channels), which are close enough to require detailed consideration.

REQUEST FOR WAIVER OF SECTION 73.509(a)

✓ As is shown by Figure 4, attached, the proposed WSGN 60 dBu contour will overlap the proposed WLJS 100 dBu contour. The total area affected is on the order of 7 square kilometers. According to Memorandum Report and Order, Docket No. 20735, Adopted June 20, 1985, the permitted level of received interference may be as great as 10% of the proposed service area. The total overlap area under consideration is approximately one tenth of one percent (0.1%) of the 5550 square kilometers within the proposed 60 dBu contour. The interference area is clearly miniscule. Therefore, it is requested that a waiver of the non-overlap requirements of Section 73.509(a) of the FCC Rules be granted.

CHANNEL UTILIZATION DATA - TV CHANNEL 6

A detailed study has also been made which examines potential interference to television Channel 6 operations. There is only one TV-6 operation which is within the 174 km range specified in Section 73.525(a)(1) of the FCC Rules, which is WBRC in Birmingham, AL. Figure 5, attached, depicts WBRC's predicted F(50,50) 47 dBu (Grade B) contour, the present predicted interference area, and the proposed predicted interference area.

The basic U/D ratio for Channel 217 is 29 dB (32.5 dB for Channel 218), and that portion of the predicted interfering contour which is within the angle of +/- 110° from WSGN to WBRC has been increased by 6 dB to allow for television antenna directivity. The 47 dBu contour, plus the U/D value, plus the 6 dB antenna directivity value result in a

potentially interfering 82 dBu F(50,10) contour from the proposed WSGN operation on Channel 217, and 85.5 dBu for the present operation on Channel 218. Those predicted interfering contours were predicted by using a fortieth of the proposed vertically radiated power to account for television antenna polarization discrimination plus, in the case of the present operation, the horizontally radiated power. Therefore a power level of 3.59 kW (5.55 dBk) was used to define the present predicted interference area, and a power level of 375 Watts (-4.26 dBk) was used to define the predicted proposed interference area.

The unique (non-common) population which is predicted to receive new interference is less than half of the population which is presently predicted to receive interference to Television Channel 6 reception. The population data were derived by accurately constructing the predicted present and proposed interference areas in strict accordance with Section 73.525 of the FCC Rules, and translating those interference areas into bearings and distances. Those data were then entered into a computer program which calculates population using Census Tract divisions, which are much smaller (i.e. more detailed) than the more commonly used Minor Civil Divisions. The results were checked manually, with excellent agreement. As can be seen the data set forth above, this proposal is in full accord with the FCC Rules regarding interference to Television Channel 6 operations.

ELEVATION AND CONTOUR DATA

A computerized terrain data file was used to determine the average elevation of the terrain within the distance of between 3 and 16 km. from the proposed transmitter site for a total of 24 directions, starting at True North and proceeding clockwise in 15 degree increments. The National Oceanic and Atmospheric Administration (NOAA) 30 second point source data file used in this study is in accordance with the FCC Rules.

The terrain height data, along with the height of the radiation center and the computed distances to the 70 dBu and 60 dBu signal strength contours, are shown in map form as Figure 6 and are tabulated on Page 12 of FCC Form 340.

NUISANCE CONTOUR CONSIDERATIONS

As can be seen from the 115 dBu "Blanketing" contour resulting from the vertically radiated power of 15 kW (see Figure 2), the blanketed area is sparsely populated. Significant interference problems are not expected, but if they do occur GSJC will take such steps as are necessary to remedy the interference in accordance with the terms of Section 73.318 of the FCC Rules.

POPULATION AND AREA DATA

The number of persons residing within the predicted 60 dBu field strength contour of the proposed facility is approximately 240,000. In order to make that determination, the predicted distances to the 60 dBu (1 mV/m) contour were used in conjunction with the MARF II, 1980 U.S. Census data base. This source provides census tract and sub-tract population data for each Minor Civil Division, with clearly defined geographic reference coordinates. All sub-tracts which were located within the 60 dBu contour were summed to establish the total population which is predicted to receive 60 dBu or greater signal strength from the proposed FM broadcast facility.

The land area contained within the predicted 60 dBu contour is 5550 square kilometers (see Figure 6). The area was calculated by a computer program which utilizes detailed contour data. The change in the 60 dBu contour area (660 %) and also the specified channel change make this application one for a major change, as is stated Page 11 of FCC Form 340.

ENVIRONMENTAL CONSIDERATIONS

The proposed operation is not a major environmental action as defined in Section 1.1305 of the FCC Rules, in as much as it is proposed to utilize an existing supporting structure for an FM operation with no resulting increase in overall height.

COMPLIANCE WITH GUIDELINES FOR EXPOSURE TO RADIOFREQUENCY ENERGY

Reference is made to "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation (OST Bulletin

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION		Aeronautical Study Number
1. Nature of Proposal (From FCC Grant)		2. Complete Description of Structure
A. Type <input type="checkbox"/> New Construction <input checked="" type="checkbox"/> Alteration	B. Class <input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Temporary (Duration _____ months)	C. Work Schedule Dates Beginning <u>60 Days</u> End <u>6 Months</u>
3A. Name and address of individual, company, corporation, etc. proposing the construction or alteration. <i>(Number, Street, City, State and Zip Code)</i> (703) <u>522-5722</u> area code Telephone Number <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> Gadsden State Junior College c/o Communications Engineering Services, P. C. 1600 Wilson Blvd., Suite 1003 Arlington, VA 22209 </div>		A. Include effective radiated power and assigned frequency of all existing, proposed or modified AM, FM, or TV broadcast stations utilizing this structure. B. Include size and configuration of power transmission lines and their supporting towers in the vicinity of FAA facilities and public airports. C. Include information showing site orientation, dimensions, and construction materials of the proposed structure. Addition of WSGN-FM antenna to existing tower, no increase in overall height. 15 kw maximum power.
B. Name, address and telephone number of proponent's representative if different than 3 above. DNA		
4. Location of Structure		5. Height and Elevation <i>(Complete to the nearest foot)</i>
A. Coordinates <i>(To nearest second)</i> 34° 04' 29" Latitude 86° 01' 11" Longitude	B. Nearest City or Town, and State Jacksonville, AL 7 km Miles North of town	C. Name of nearest airport, heliport, flight park, or seaplane base Gadsden (1) Distance from structure to nearest point of nearest runway <u>11.7 km</u> (2) Direction from structure to airport SSW
D. Description of location of site with respect to highways, streets, airports, prominent terrain features, existing structures, etc. Attach a U.S. Geological Survey quadrangle map or equivalent showing the relationship of construction site to nearest airport(s). <i>(if more space is required, continue on a separate sheet of paper and attach to this notice.)</i> On Lookout Mountain near Tuckahoe Heights. See attached maps.		A. Elevation of site above mean sea level 1080 B. Height of Structure including all appurtenances and lighting <i>(if any)</i> above ground, or water if so situated 197 C. Overall height above mean sea level (A + B) 1277
Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1101). Persons who knowingly and willingly violate the Notice requirements of Part 77 are subject to a fine (criminal penalty) of not more than \$500 for the first offense and not more than \$2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1472(a)).		
I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards if necessary.		
Date <u>Feb. 25, 1986</u>	Typed Name/Title of Person Filing Notice Richard L. Biby, P. E.	Signature
FOR FAA USE ONLY FAA will either return this form or issue a separate acknowledgement.		
The Proposal:		
<input type="checkbox"/> Does not require a notice to FAA. <input type="checkbox"/> Is not identified as an obstruction under any standard of FAR, Part 77, Subpart C, and would not be a hazard to air navigation. <input type="checkbox"/> Is identified as an obstruction under the standards of FAR, Part 77, Subpart C, but would not be a hazard to air navigation. <input type="checkbox"/> Should be obstruction <input type="checkbox"/> marked, <input type="checkbox"/> lighted per FAA Advisory Circular 70/7480-1, Chapter(s) _____ <input type="checkbox"/> Obstruction marking and lighting are not necessary.		
Supplemental Notice of Construction FAA Form 7480-2 is required any time the project is abandoned, or <input type="checkbox"/> At least 48 hours before the start of construction. <input type="checkbox"/> Within five days after the construction reaches its greatest height. This determination expires on _____ unless: (a) extended, revised or terminated by the issuing office; (b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC on or before the above expiration date. In such case the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application. NOTE: Request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date. If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that Agency.		
Remarks:		
Issued In	Signature	Date

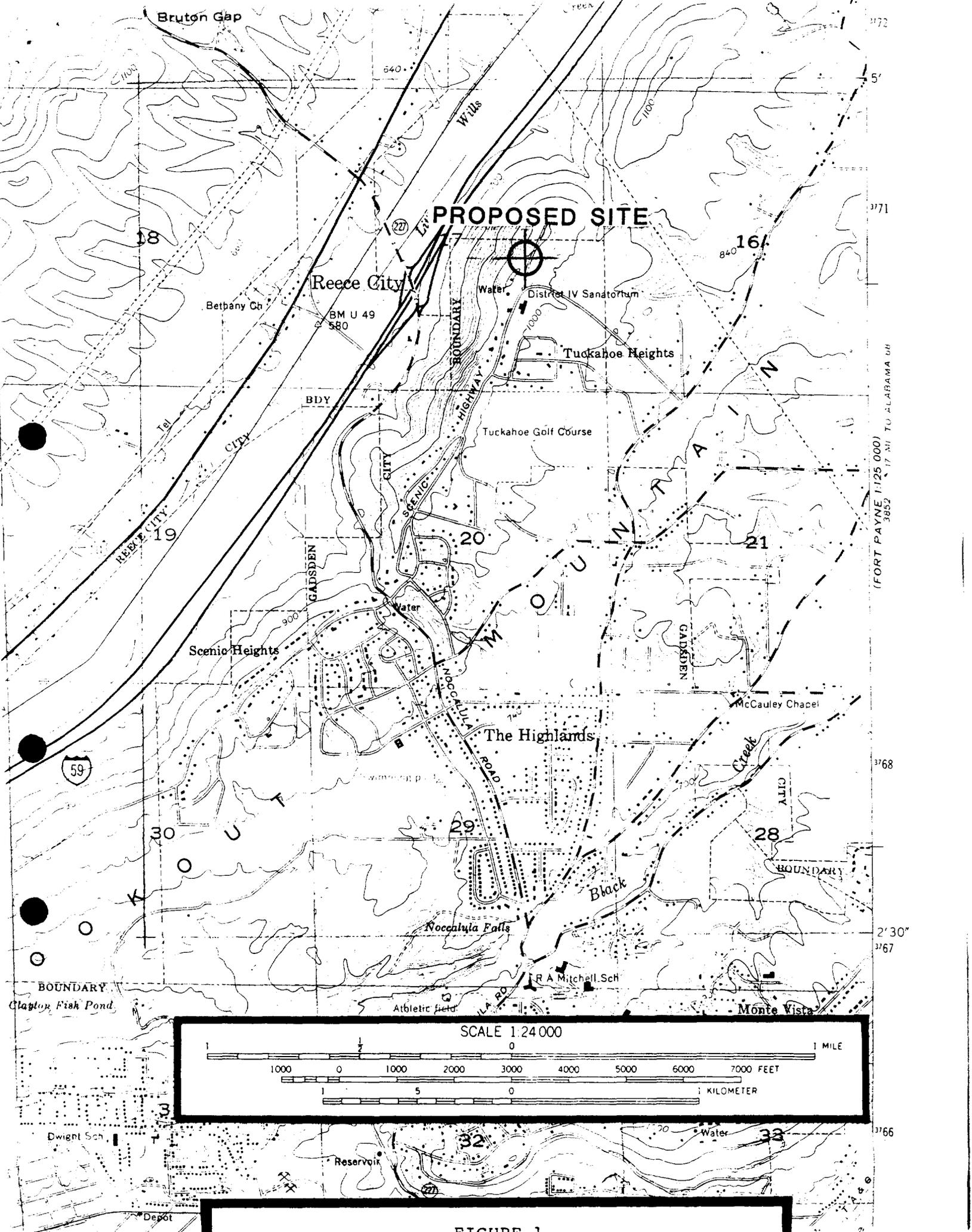


FIGURE 1

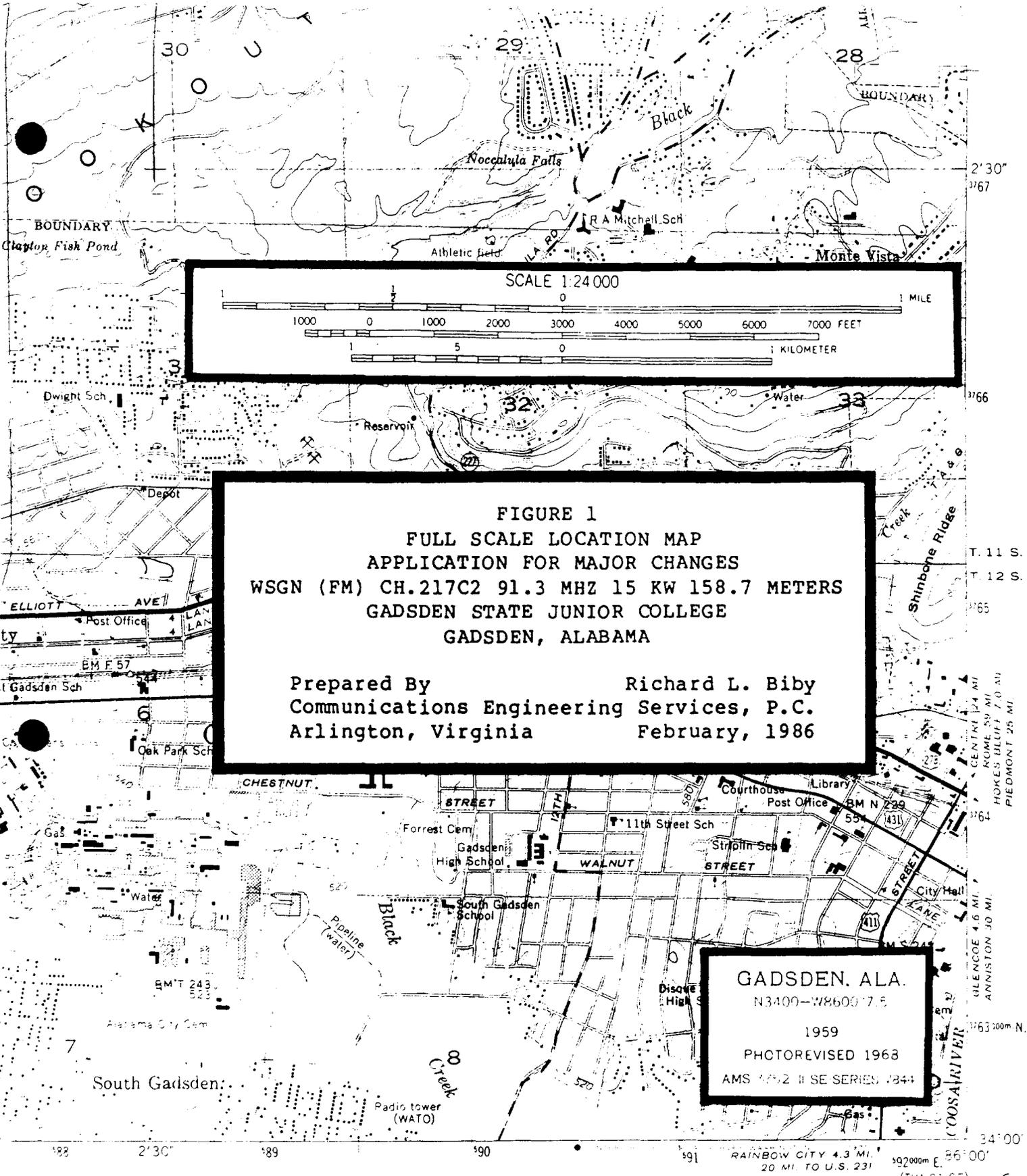


FIGURE 1
FULL SCALE LOCATION MAP
APPLICATION FOR MAJOR CHANGES
WSGN (FM) CH.217C2 91.3 MHZ 15 KW 158.7 METERS
GADSDEN STATE JUNIOR COLLEGE
GADSDEN, ALABAMA

Prepared By **Richard L. Biby**
Communications Engineering Services, P.C.
Arlington, Virginia **February, 1986**

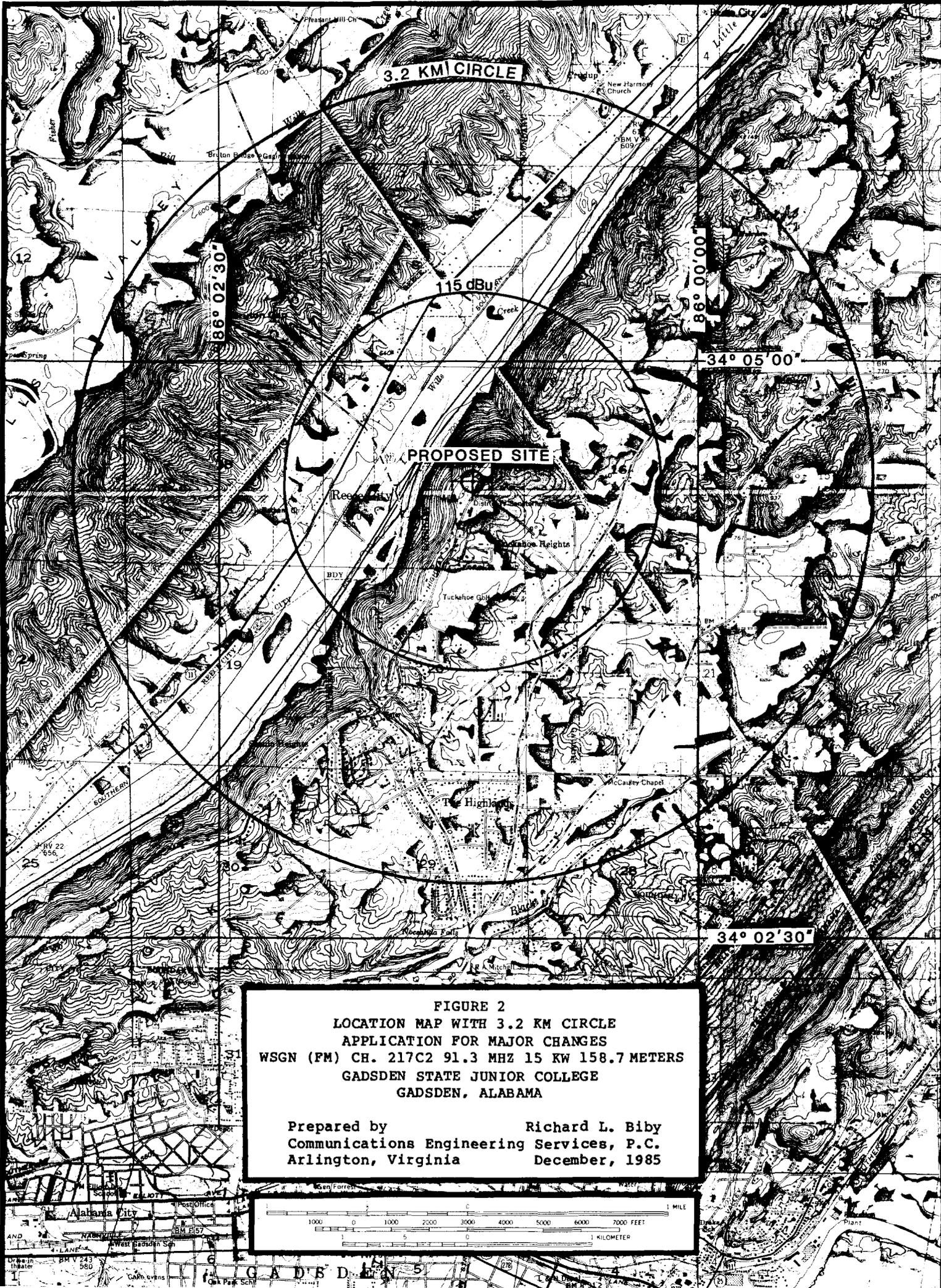
GADSDEN, ALA.
 N3400-W8600-7.5
 1959
 PHOTOREVISED 1968
 AMS 4752 II SE SERIES 7844

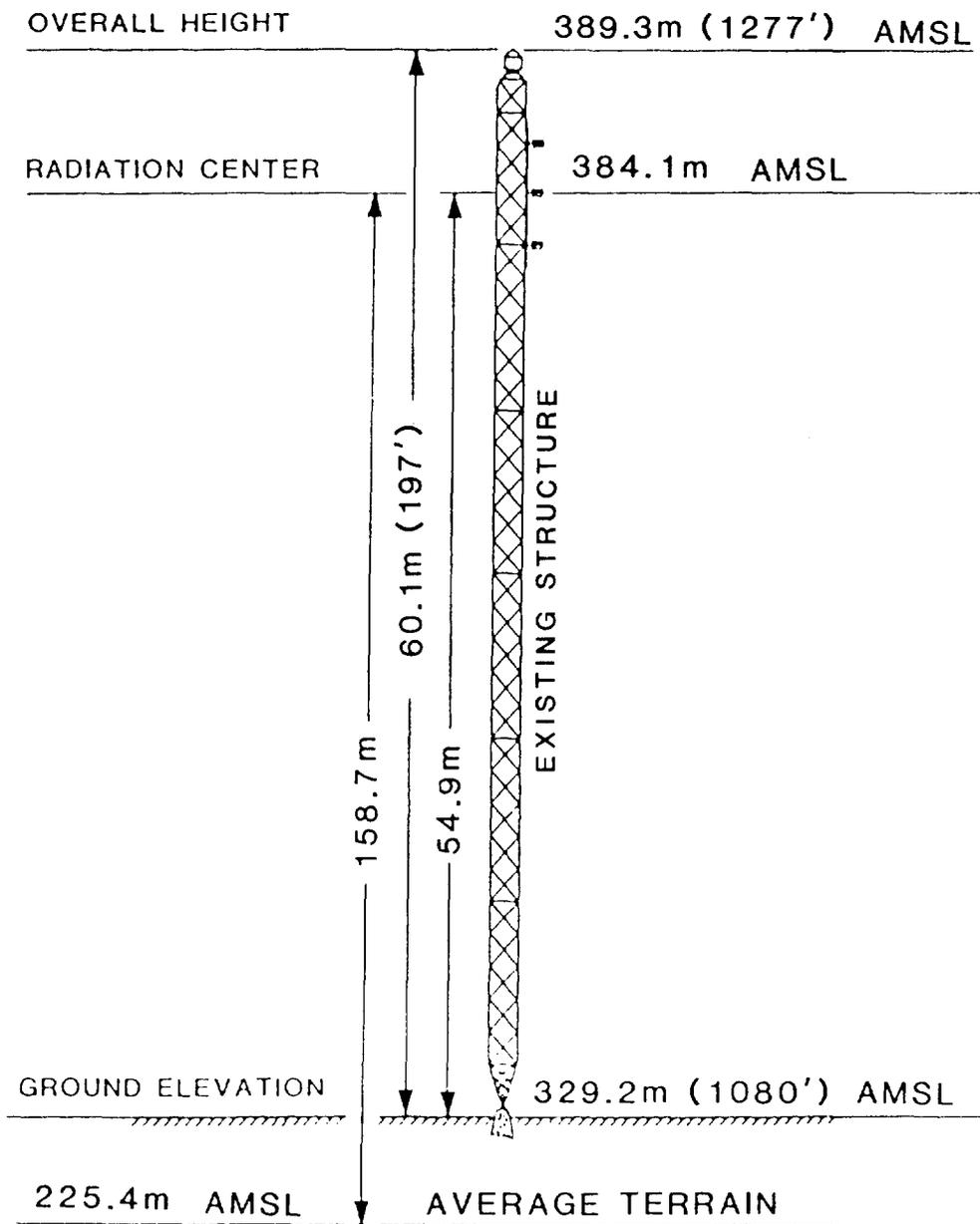
ROAD CLASSIFICATION

- | | | | |
|-------------|-------|----------------------|-----------|
| Heavy-duty | ————— | Poor motor road | |
| Medium-duty | ——— | Wagon and jeep track | - - - - - |
| Light-duty | | Foot trail | |

ILL

(GLE)
3851 IV



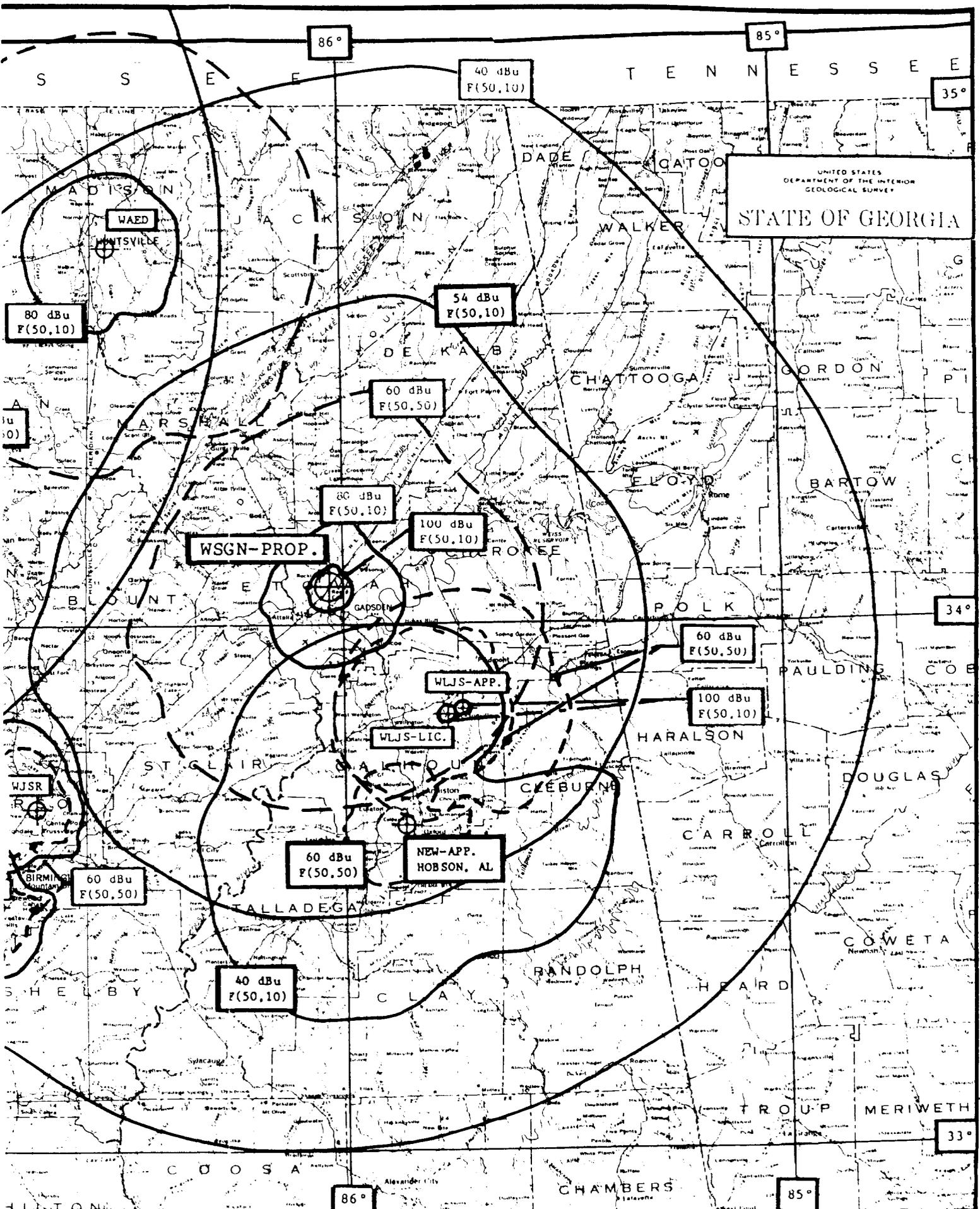


NORTH LATITUDE 34° 04' 29"
 WEST LONGITUDE 86° 01' 11"

Not to Scale

FIGURE 3
 ANTENNA SKETCH
 APPLICATION FOR MAJOR CHANGES
 WSGN (FM) CH.217C2 91.3 MHZ 15 KW 158.7 METERS
 GADSDEN STATE JUNIOR COLLEGE
 GADSDEN, ALABAMA

Prepared By Richard L. Biby
 Communications Engineering Services, P.C.
 Arlington, Virginia February, 1986



STATE OF ALABAMA

Scale 1:1,000,000
1 inch equals approximately 16 miles

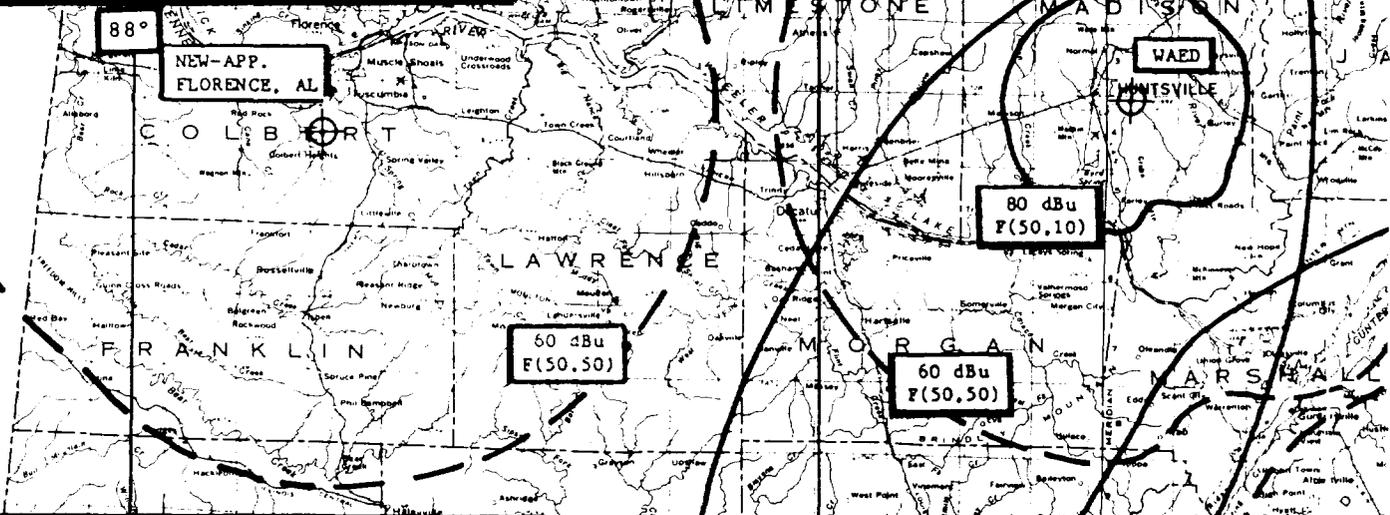
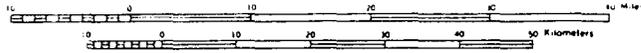
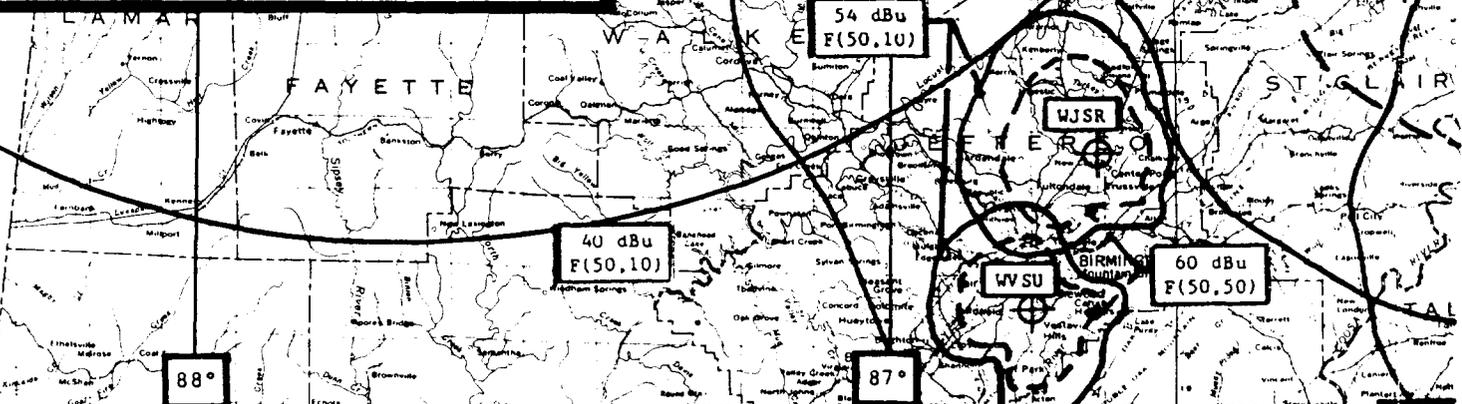


FIGURE 4
FM ALLOCATIONS STUDY
APPLICATION FOR MAJOR CHANGES
WSGN (FM) CH.217C2 91.3 MHZ 15 KW 158.7 METERS
GADSDEN STATE JUNIOR COLLEGE
GADSDEN, ALABAMA

Prepared By **Richard L. Biby**
Communications Engineering Services, P.C.
Arlington, Virginia February, 1986



LEGEND

CALL	STATUS	REF. #	LOCATION	CH/CL	ERP	HAAT
WAED	CP	BPED-1618	Huntsville, AL	215C	7.0 kW	295 m
WJSR	LIC	BLED-840420DM	Birmingham, AL	216A	0.23	59
WVSU	LIC	BLED-840420DM	Birmingham, AL	216A	0.12	66
NEW	APP	-851003MB	Hobson City, AL	217A	0.10	141
NEW	APP	BPED-841017IA	Florence, AL	217C2	30.0	183
WLJS	LIC	BLED-810415AA	Jacksonville, AL	220A	3.0	44
WLJS	APP		Jacksonville, AL	220A	0.32	308

--- F(50,50) Service Contours
— F(50,10) Interference Contours

TO WBRC-TV CH. 6
AZ. N 228° E

PRESENT PREDICTED
INTERFERENCE AREA

WSO
PRI
SIC

110°

110°

TO WBRC-TV CH. 6
AZ. N 233° E

