

NEW FM BROADCAST STATION  
BALDWIN, FLORIDA  
CHANNEL 289A

CONTENTS OF REPORT

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<b>Section V-B - FM BROADCAST ENGINEERING DATA</b>	<b>FOR COMMISSION USE ONLY</b> File No. _____ ASB Referral Date _____ Referred by _____
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Name of Applicant  
 Sage Broadcasting of Jupiter, Florida

Call letters (if issued)  None	Is this application being filed in response to a window? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, specify closing date: <u>December 14, 1989</u>
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Purpose of Application: (check appropriate boxes)

<input checked="" type="checkbox"/> Construct a new (main) facility	<input type="checkbox"/> Construct a new auxiliary facility
<input type="checkbox"/> Modify existing construction permit for main facility	<input type="checkbox"/> Modify existing construction permit for auxiliary facility
<input type="checkbox"/> Modify licensed main facility	<input type="checkbox"/> Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

<input type="checkbox"/> Antenna supporting-structure height	<input type="checkbox"/> Effective radiated power
<input type="checkbox"/> Antenna height above average terrain	<input type="checkbox"/> Frequency
<input type="checkbox"/> Antenna location	<input type="checkbox"/> Class
<input type="checkbox"/> Main Studio location	<input type="checkbox"/> Other (Summarize briefly)

File Number(s) \_\_\_\_\_

1. Allocation:

Channel No.	Principal community to be served:			Class (check only one box below)
289	City	County	State	<input checked="" type="checkbox"/> A <input type="checkbox"/> B1 <input type="checkbox"/> B <input type="checkbox"/> C3 <input type="checkbox"/> C2 <input type="checkbox"/> C1 <input type="checkbox"/> C
	Baldwin	Duval	FL	

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.  
 On US 90, 0.2 km east of Macclenny, Baker County, Florida

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude      30            17            08	Longitude      82            06            01
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3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)?  Yes  No

If Yes, give call letter(s) or file number(s) or both. N/A

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any. N/A



10. Is a directional antenna proposed?

Yes  No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of the relative field.

Exhibit No.  
N/A

11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.315(a) and (b)?

Yes  No

If No, attach as an Exhibit a request for waiver and justification therefor, including amounts and percentages of population and area that will not receive 3.16 mV/m service.

Exhibit No.  
N/A

12. Will the main studio be within the ~~expected~~ <sup>predicted</sup> 3.16 mV/m field strength contour of this proposal?

Yes  No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125.

Exhibit No.  
N/A

13. (a) Does the proposed facility satisfy the requirements of 47 C.F.R. Section 73.207?

Yes  No

(b) If the answer to (a) is No, does 47 C.F.R. Section 73.213 apply?

N/A  Yes  No

(c) If the answer to (b) is Yes, attach as an Exhibit a justification, including a summary of previous waivers.

Exhibit No.  
N/A

(d) If the answer to (a) is No and the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose.

Exhibit No.  
N/A

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No.  
N/A

- (1) Protected and interfering contours, in all directions (360°), for the proposed operation.
- (2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as the transmitter location.
- (3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
- (4) A scale of kilometers 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.
- (5) The official title(s) of the map(s) used in the exhibit(s).

14. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast (except citizens band or amateur) radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference?

Yes  No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. (See 47 C.F.R. Sections 73.315(b), 73.316(a) and 73.318.)

Exhibit No.  
E-1

15. Attach as an Exhibit a 75 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction V. The map must further clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No.  
E-3

16. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.  
E-5

(a) the proposed transmitter location, and the radials along which profile graphs have been prepared;

(b) the 316 mV/m and 1 mV/m predicted contours; and

(c) the legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 259 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 2520 sq. km. Population 44,282

18. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.  
N/A

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

19. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313)*

Source of terrain data: *(check only one box below)*

Linearly interpolated 90-second database  75 minute topographic map

(Source: NGDC)

Other *(briefly summarize)*

SECTION V-B - FM BROADCAST ENGINEERING DATA (Page 5)

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances	
		To the 3.16 mV/m contour (kilometers)	To the 1 mV/m contour (kilometers)
*			
0			
45			
90	SEE	EXHIBIT NO. E-4	
135			
180			
225			
270			
315			

\*Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT.

20. Environmental Statement (See 47 C.F.R. Section 1.1301 et seq.)

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?  Yes  No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No.  
N/A

If No, explain briefly why not. See Exhibit No. E-1

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name (Typed or Printed) Charles I. Gallagher	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer
Signature 	Address (Include ZIP Code) Gallagher & Associates 5385 Broadwater Lane Clarksville, MD 21029
Date December 12, 1989	Telephone No. (Include Area Code) ( 301 ) 854-2636

ENGINEERING STATEMENT  
IN REGARD TO THE  
APPLICATION FOR CONSTRUCTION PERMIT  
NEW FM BROADCAST STATION  
CHANNEL 289A, BALDWIN, FLORIDA  
ERP 6.0 kW AT 100 METRES AAT

This engineering statement and associated exhibits have been prepared on behalf of Sage Broadcasting of Jupiter, Florida, an applicant for a new FM broadcast station at Baldwin, Florida, to operate on Channel 289A with an effective radiated power of 6.0 kW and an antenna height of 100 metres above average terrain. This engineering report contains Section V-B of FCC Form 301 and the exhibits and data required by that section and the FCC Rules.

The location of the proposed transmitting site is described on the forms and exhibits attached hereto. When rounded to the nearest whole kilometre, the transmitting site will comply with all of the separation requirements of the new Section 73.207 of the FCC Rules. One FM station and one TV station are located within 10 kilometres of the site proposed herein. The applicant will employ such measures as necessary to assure operation in accordance with Section 73.317 of the FCC Rules. The effects of receiver induced intermodulation are dependent on the characteristics of the individual receivers involved and therefore cannot be predicted. If complaints of interference are received, the applicant agrees to rectify any complaints in accordance with Section 73.318 of the Commission's Rules, and past policies regarding such interference.

Exhibit No. E-5 is a Department of Commerce Sectional Aeronautical Chart showing the proposed site, radials used for terrain analysis, the 3.16 mV/m and 1 mV/m contours, and the city limits of Baldwin, as well as the original printed latitude and longitude markings.

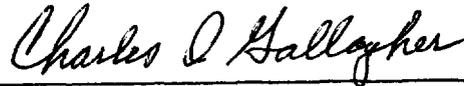
The distance to the field strength contours shown were determined in accordance with Section 73.313 of the Commission's Rules using a computer program that duplicates the results that would be obtained from Figure 1 and Figure 1a of Section 73.333 of the Rules. The average 3 to 16 kilometre terrain elevation of each radial was computer generated using the National Geophysical Data Center thirty-second point data base.

In October, 1985, the Commission issued OST Bulletin No. 65, entitled "Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Radiation". The following evaluation is based on worst case figures from Table 1 for FM, page 37, (Appendix B) of OST No. 65. That table shows that an FM station with a combined effective radiated power (ERP) of 25 kW (H+V) must have a center of radiation above ground level of at least 28.9 metres. It is proposed to operate with a combined ERP of 12 kW and an antenna height of 92 metres above ground level. As can be seen, the operation as proposed herein will comply with the guidelines in OST-65, since none of the area within 29 metres of the antenna will be accessible to the public. A fence or anti-climbing device will be installed to prevent unauthorized access to the tower. Suitable procedures will, of course, be instituted regarding workers who must climb the tower.

The proposed transmitting site would not involve construction in conflict with any of the conditions described in Section 1.1307 of the FCC Rules. Further, as discussed above, the proposed operation would not involve conflict with Section 1.1307(b) of the FCC Rules. Therefore, pursuant to Section 1.1306(b) of the Rules, any Commission action with respect to this application would be categorically excluded from environmental processing.

It is believed that the operation proposed herein will be in accordance with all of the allocation and technical requirements of the FCC Rules governing FM broadcast stations.

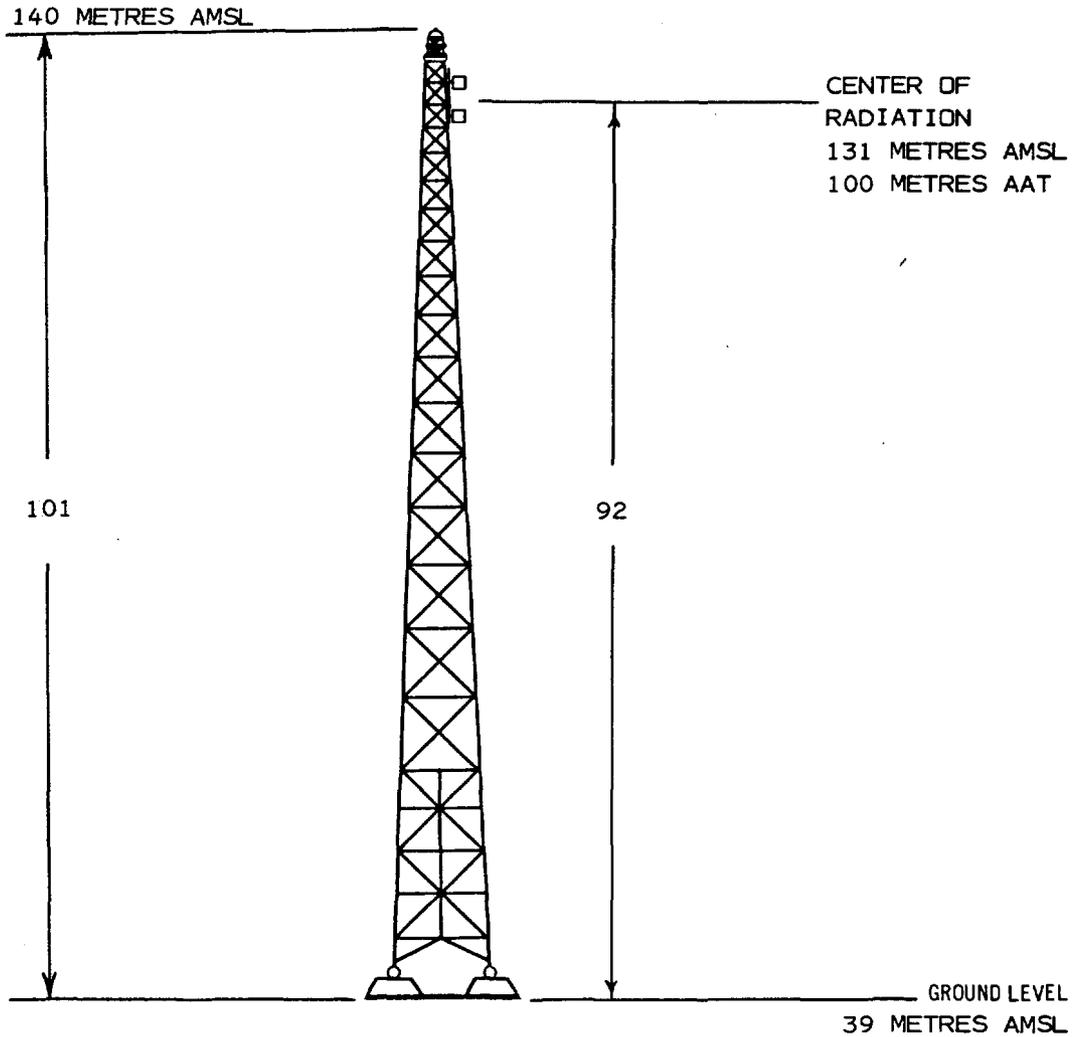
This engineering statement and associated exhibits have been prepared by or under the direct supervision of Charles I. Gallagher, who states that he is a Consulting Radio Engineer, and a Registered Professional Engineer in the State of Maryland, No. 11415, that his qualifications are a matter of record with the Federal Communications Commission, having been presented on previous occasions. All data and statements contained herein are true and correct to the best of his knowledge and belief.



Charles I. Gallagher

December 12, 1989

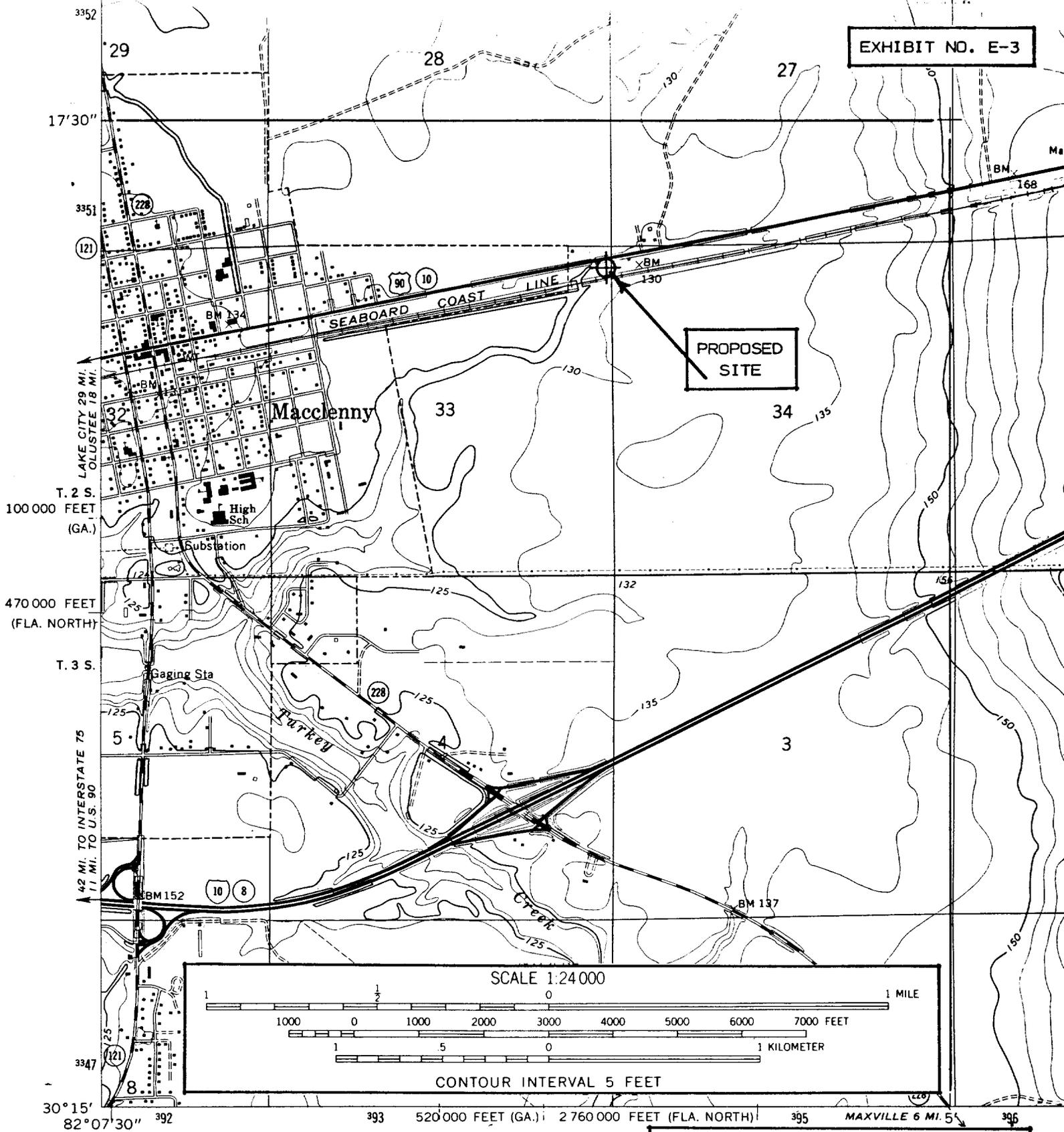
ALL HEIGHTS IN METRES



*not to scale*

**GALLAGHER & ASSOCIATES**  
CONSULTING RADIO ENGINEERS      CLARKSVILLE MD

VERTICAL SKETCH  
PROPOSED NEW FM STATION  
BALDWIN, FLORIDA



Mapped, edited, and published by the Geological Survey

Control by USGS and Topography by photogrammetry taken January 1970.

Projection: Florida conic (Lambert conformal conic) 10,000-foot grid ticks and east zones, and Georgia coordinate system, east zone. 1000-meter Universal Transverse Mercator grid ticks, zone 17, shown in blue. 1927 North American datum

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked

**MACCLENNY EAST, FLA. - GA.**  
 SE/4 MACCLENNY 15' QUADRANGLE  
 N3015 - W8200/7.5  
 1972  
 AMS 4544 1 SE - SERIES V847

**GALLAGHER & ASSOCIATES**  
 CONSULTING RADIO ENGINEERS  
 CLARKSVILLE MD

**PROPOSED NEW FM STATION**  
 BALDWIN, FLORIDA  
 105.7 MHZ, 6 KW AT 100 METRES AAT

UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

(MANNING) 4544 11 NW

# GALLAGHER & ASSOCIATES

CONSULTING RADIO ENGINEERS

CLARKSVILLE MD

EXHIBIT NO. E-4

CALCULATED COVERAGE CONTOURS  
NEW FM BROADCAST STATION  
BALDWIN, FLORIDA  
ERP 6 KW AT 100 METRES AAT

AZIMUTH DEGREES	ANTENNA HAAT (METRES)	E.R.P. IN KW	70 dBu KILOMETRES	60 dBu KILOMETRES
0	94	6.0	15.6	27.4
45	112	6.0	17.1	29.8
90	108	6.0	16.8	29.3
135	101	6.0	16.2	28.4
180	90	6.0	15.2	26.9
225	98	6.0	15.9	28.0
270	94	6.0	15.6	27.4
315	102	6.0	16.3	28.5
80*	109	6.0	16.9	29.4

Antenna height above average terrain = 100 METRES

\* Radial through principal community, NOT included in average  
Average figures are expressed to the nearest whole  
number and are based on accuracy to nearest metre.

EXHIBIT NO. E-5

PROPOSED SITE

BALDWIN CITY LIMITS

70 DBU  
3.16 MV/M  
CONTOUR

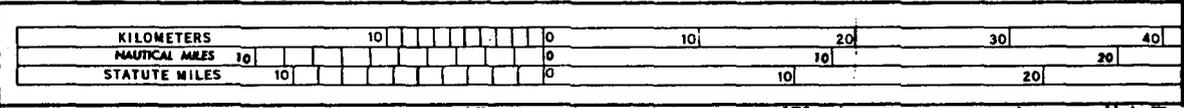
60 DBU  
1 MV/M  
CONTOUR

The Field Strength Contours shown on this map were calculated using the procedures set forth in the FCC Rules. Actual Field Strength may be different than shown.

**GALLAGHER & ASSOCIATES**  
CONSULTING RADIO ENGINEERS  
CLARKSVILLE MD

**JACKSONVILLE**  
SECTIONAL AERONAUTICAL CHART  
SCALE 1:500,000

CALCULATED COVERAGE CONTOURS  
NEW FM BROADCAST STATION  
BALDWIN, FLORIDA  
105.7 MHZ, 6 KW AT 100 METRES AAT



**V. TRAINING**

- Station resources and/or needs will be such that we will be unable or do not choose to institute programs for upgrading the skills of employees.
- We will provide on-the-job training to upgrade the skills of employees.
- We will provide assistance to students, schools, or colleges in programs designed to enable qualified minorities and women to compete in the broadcast employment market on an equitable basis:

School or Other Beneficiary	Proposed Form of Assistance
_____	_____
_____	_____
_____	_____

Other (specify)

**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 application requested is consistent with the public interest. The staff, consisting variously of attorneys, analysts, engineers, and applications 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 authority.

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.