

TECHNICAL EXHIBIT
APPLICATION FOR FM CONSTRUCTION PERMIT
RADIO STATION WRHY(FM)
CENTRE, ALABAMA

SEPTEMBER 20, 2002

CH 290A 0.37 KW 385 M

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Table of Contents

	Technical Narrative
Figure 1	Site Location Map
Figure 2	Tower Sketch
Figure 3	Map Showing FCC Predicted Coverage Contours
Figure 4	Proposed Transmitter Site Allocation Study

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Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of radio station WRHY(FM) on Channel 290A assigned to Centre, Alabama. This application seeks to relocate WRHY(FM) to a location atop *Weisner Mountain*.

The proposal would not be subject to environmental processing in accordance with Section 1.1306. It is believed that this proposal conforms with all applicable rules and regulations of the FCC.

Proposed Transmitter Location

The transmitting facility will be located on a new tower to be constructed atop *Weisner Mountain* near Pine Grove, Alabama. The location is uniquely described by the following geographic coordinates:

34° 01' 25" North Latitude
85° 40' 41" West Longitude

The proposed site is shown on the map contained in Figure 1. A sketch showing the antenna and existing supporting structure is shown on Figure 2.

FCC Predicted Coverage Contours

The predicted coverage contours for the proposed operation were calculated in accordance with the provisions of Section 73.313. Pursuant with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors.

The average terrain elevations from 3 to 13.6 kilometers along eight radials evenly spaced at 45 degree intervals were obtained from the National Geophysical Data Center's (NGDC) 30-second terrain database. The terrain elevations were then used in combination with the effective radiated powers for determining the distances to coverage contours.

Figure 3 is a map showing the predicted coverage contours. As the map illustrates, the FCC predicted 70 dBu contour only encompasses 83 percent of the Centre, Alabama city limits area and 93 percent its population.¹ As these values are greater than 80 percent, the proposed facility is in compliance with the Commission's minimum city coverage requirement policy. The community limits shown were obtained from the 2000 U.S. Census Topologically Integrated Geographic Encoding and Referencing (TIGER) data files.

¹ According to the 2000 U.S. Census of Population and Housing, Centre, Alabama has a population of 3,216 persons over a total area of 28.7 square kilometers.

Allocation Study

Channel 290A at the proposed site will satisfy the Commission's minimum separation distance requirements, specified in Section 73.207(b) of the Rules, to all assignments except to WENN(FM) on Channel 290A assigned to Trussville, Alabama to which 73.215 processing is being requested. As shown on Sheet 2 of Figure 4, no prohibited contour overlap will occur between WENN(FM) and the proposed WRHY(FM).

Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OST Bulletin No. 65, *Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*.² The power density at the base of the tower was calculated using the appropriate procedure contained in Section 2, Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the Bulletin.

For the calculation, a combined horizontal and vertical polarized effective radiated power of 0.74 kilowatt is employed with a radiation center of 55 meters above ground level. A Shively 6800 series 1-bay antenna will be employed. The Commission's FM Model software program was employed for the calculations resulting with a predicted power density at ground level will not exceed 5 $\mu\text{W}/\text{cm}^2$ at ground level. This will be less than 5 percent of the

² OET Bulletin 3.65, Second Edition 97-01, August, 1997.

Commission's guideline value in an uncontrolled environment for a FM radio station.³

Access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.

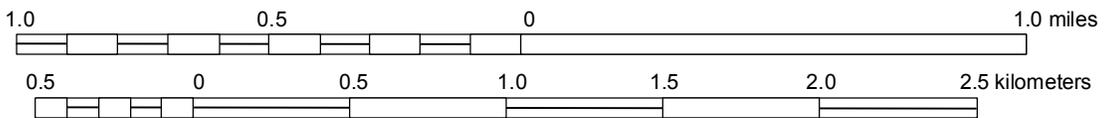
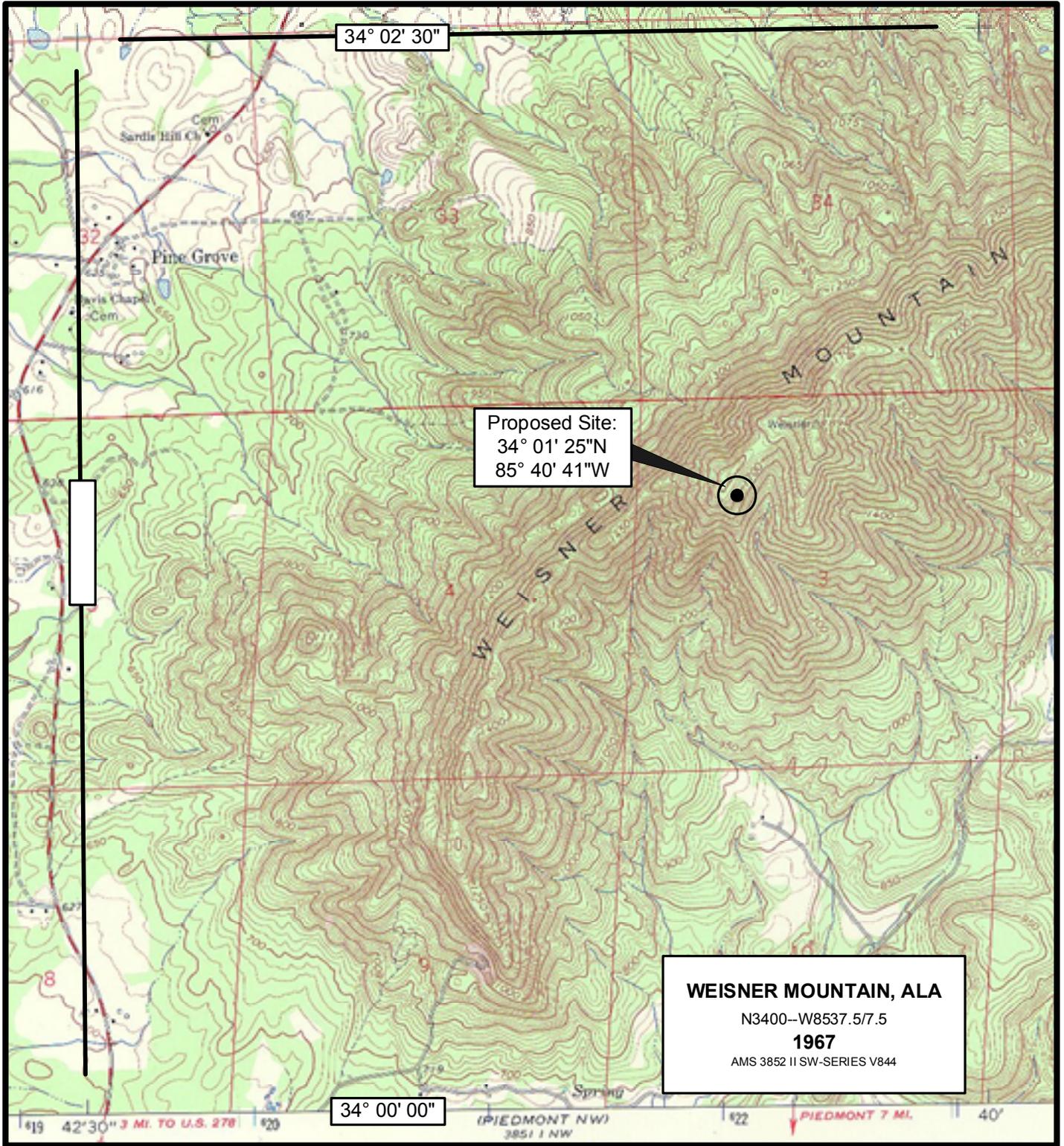
Charles A. Cooper

September 20, 2002

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
941.329.6000

³ The FCC maximum guideline for a FM broadcast station in an uncontrolled environment is 0.2 mW/cm².

Figure 1



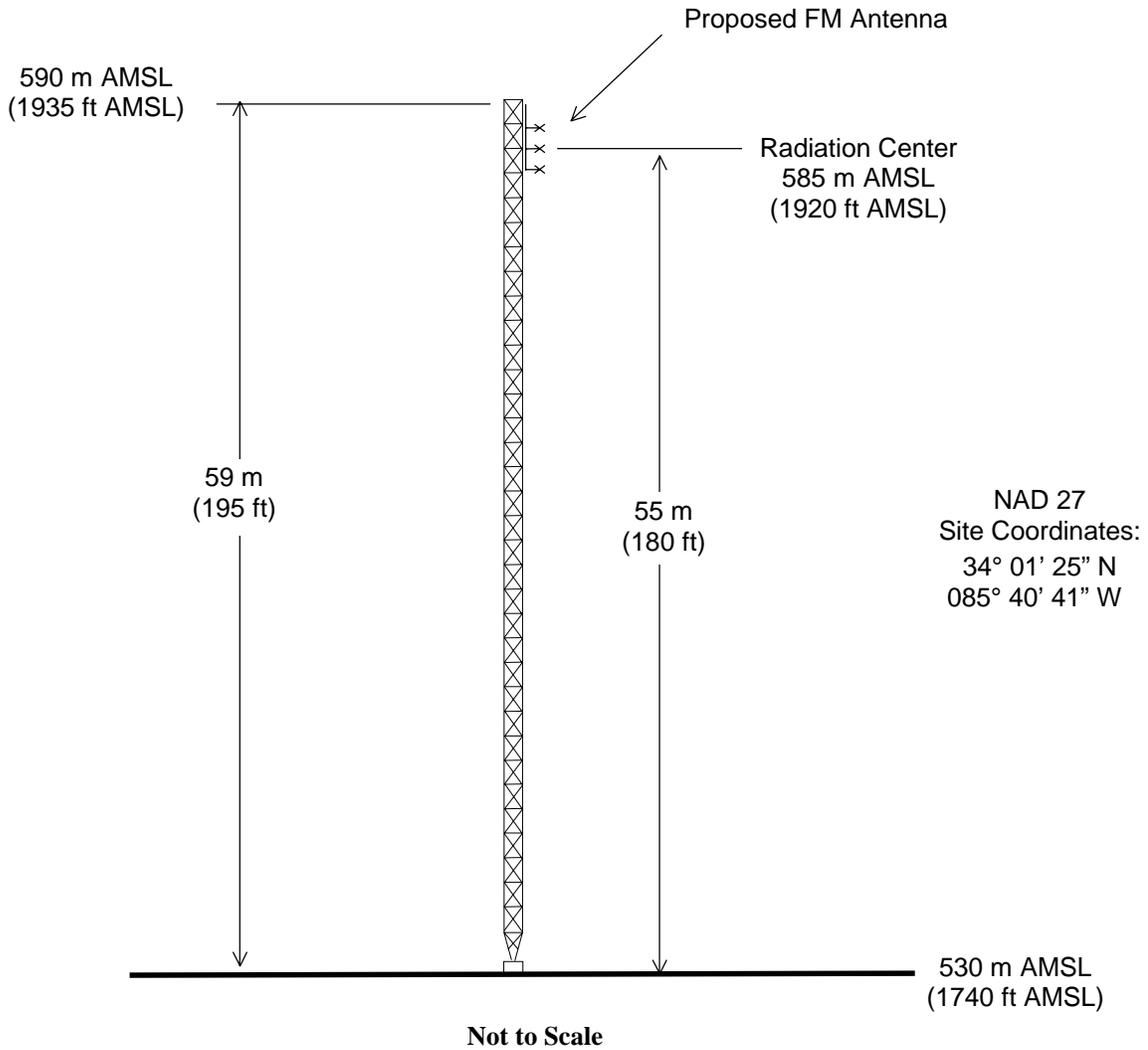
PROPOSED TRANSMITTER LOCATION

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FCC Tower Registration Number
None Needed



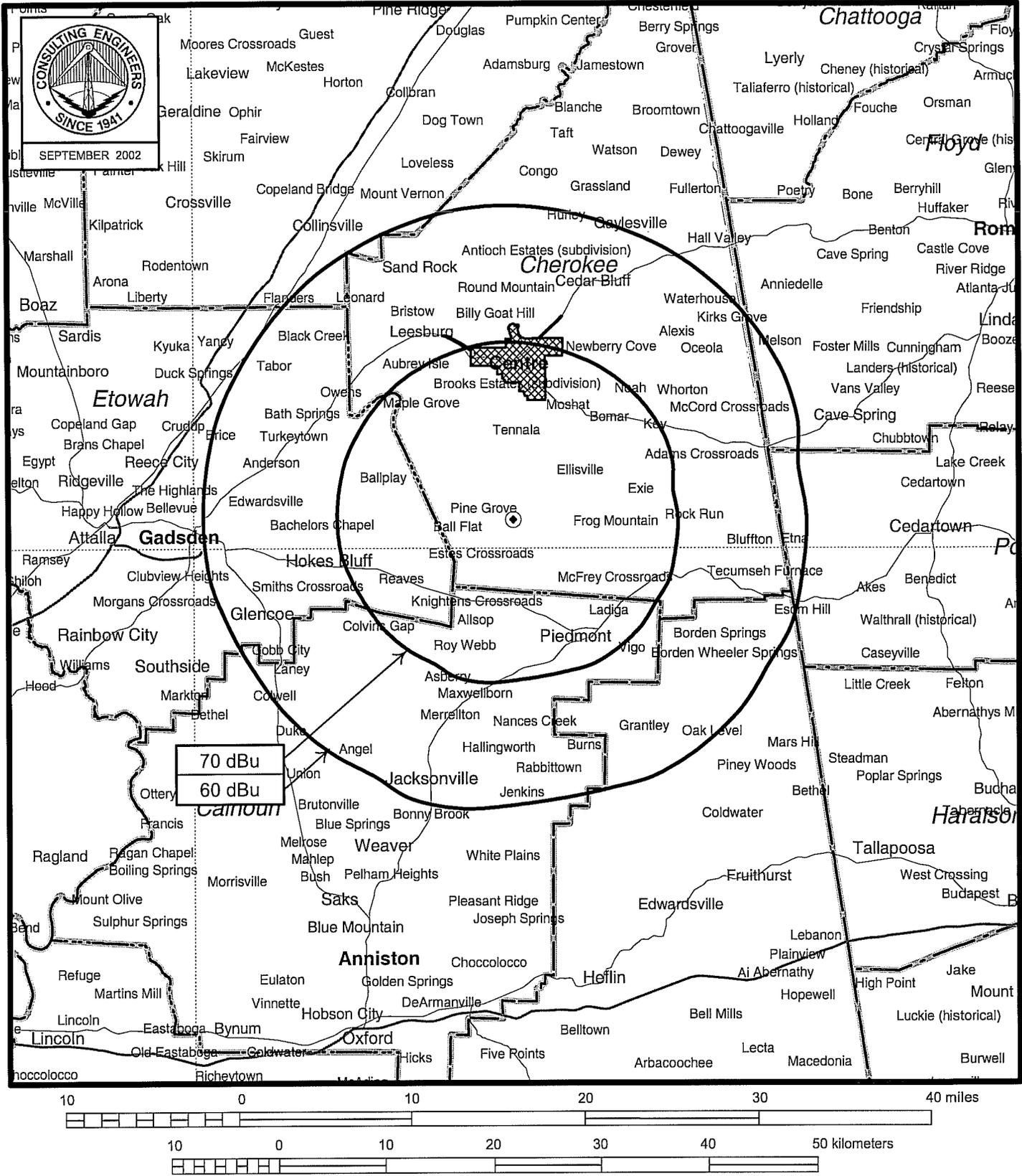
PROPOSED ANTENNA AND SUPPORTING STRUCTURE

RADIO STATION WRHY(FM)

CENTRE, ALABAMA

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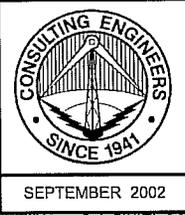
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



FCC PREDICTED COVERAGE CONTOURS

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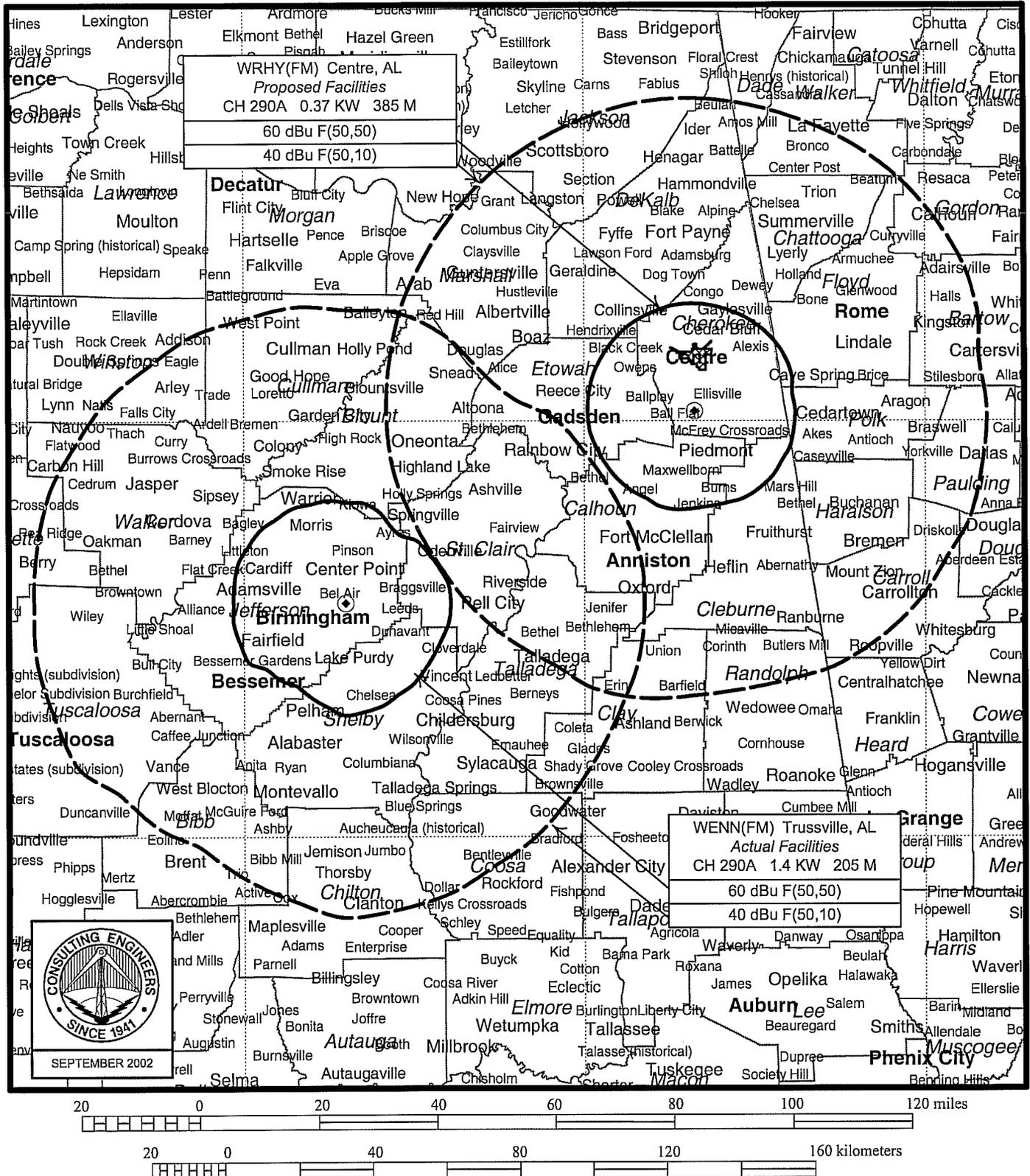


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Channel 290A Allocation Study

34° 01" 25" North Latitude
085° 40' 41" West Longitude

Call Id	City St	File Status Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km)
DWSRM 30623	COOSA GA	CP C 19900226MD	BPH 237A 95.3	3 100	N	34-11-41 085-20-55	N	57.8	35.84	10.0
WMAX-F 63406	BOWDON GA	LIC C 20020220AAB	BLH 287C1 105.3	61 367	N	33-24-41 084-49-48	N	130.7	103.88	75.0
WMXV 10698	CANTON GA	LIC C 20000418AAV	BLH 289C2 105.7	16.5 252	N	34-03-55 084-27-14	Y	87.3	113.13	106.0
WRHY 10701	CENTRE AL	LIC C 19930414KB	BLH 290A 105.9	6 100	N	34-12-14 085-46-20	N	336.6	21.80	
<i>(Applicant's existing station.)</i>										
WENN 62278	TRUSSVILLE AL	LIC C 19930903KB	BLH 290A 105.9	1.4 205	N	33-33-38 086-42-11	Y	241.8	107.93	115.0
<i>(Requesting Section 73.215 processing toward WENN(FM) on Channel 290A)</i>										
WTAK-F 25383	HARTSELLE AL	LIC C 19931026KB	BLH 291C3 106.1	5.4 221	N	34-27-45 086-38-36	Y	299.1	101.38	89.0
WSTH-F 60763	ALEXANDER AL	LIC C 19950410KB	C BLH 291C1 106.1	86 319	N	32-45-30 085-28-20	N	172.2	141.63	133.0



SECTION 73.215 ALLOCATION STUDY

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du Treil, Lundin & Rackley, Inc., Sarasota, Florida