

## ENGINEERING STATEMENT

This study was prepared to determine compliance with 47 C.F.R. § 73.3555 for common multiple station ownership. The following stations are proposed to be co-owned or majority controlled by the same entity.

STATION	FREQUENCY	LOCATION
WGHC	1370. kHz	CLAYTON, GEORGIA
WFSC	1050. kHz	FRANKLIN, NORTH CAROLINA
WNEG	630. kHz	TOCCOA, GEORGIA
WSGC	1400. kHz	ELBERTON, GEORGIA
WRGC	680. kHz	SYLVA, NORTH CAROLINA
WGOG	1000. kHz	WALHALLA, SOUTH CAROLINA
WSNW	1150. kHz	SENECA, SOUTH CAROLINA
WBCU	1460. kHz	UNION, SOUTH CAROLINA
WRBN(FM)	104.1 MHz	CLAYTON, GEORGIA
WNCC-FM	96.7 MHz	FRANKLIN, NORTH CAROLINA
WEHR(FM)	105.1 MHz	ELBERTON, GEORGIA
WGOG-FM	96.3 MHz	WALHALLA, SOUTH CAROLINA
WGVC(FM)	106.3 MHz	NEWBERRY, SOUTH CAROLINA
WWRK-FM	92.1 MHz	ELBERTON, GEORGIA

Attached is a wide-area map showing the city grade contours of the aforementioned stations. There are four separately identifiable markets to be studied. Market 1 is comprised of stations WRGC, WFSC and WNCC-FM, Market 2 is WRBN(FM) and WGHC, Market 3 is WSNW, WGOG and WGOG-FM, and Market 4 is WWRK-FM, WEHR(FM) and WSGC. Each of these markets was studied individually and the results are attached. The resultant market contributors are shown graphically for markets 1 through 4 on the attached maps.

It should be noted that station WNCC-FM has a licensed facility, FCC File No. BMLH-19900508KB and a pending application for construction permit, FCC File No. BPH-20010301ABB. Station WSNW has a licensed facility, FCC File No. BL-

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19900326AH and an outstanding construction permit, FCC File No. BP-19990816AB. Both facilities of each station were included in the studies and are so marked on the corresponding maps.

## **I. MARKET DEFINITION**

A radio market is defined to be the union of the principal community contours of the stations in question. For the purposes of this study, the principal community contour for FM stations is the predicted 3.16 mV/m contour and for AM stations the predicted or measured 5 mV/m contour. Market contributors are those commercial licensed stations whose principal community contours overlap, in whole or in part, with the principal community contours of the stations in question (i.e., the station for which an authorization is sought and any station in the same service that would be commonly owned whose principal community contour overlaps the principal community contour of that station).

## **II. FM 3.16 mV/m CONTOURS**

Technical data for FM broadcast stations were obtained from the latest version of the FCC CDBS Database. The operational status of each station was based on information contained within the appropriate database records.

For each FM station, terrain elevation data from three to sixteen kilometers on radials spaced at one-degree azimuthal intervals starting with True North were extracted from topographic data obtained from the computerized Defense Mapping Agency three arc-second point elevation database. Along each radial 261 points were linearly interpolated according to § 73.312(d). The height above average terrain along each of the 360 radials was computed by averaging the elevations between three and sixteen kilometers below the antenna radiation center in accordance with § 73.313(d)(3).

The locations of the 3.16 mV/m F(50,50) principal community contours of all FM stations shown on the attached map were calculated according to the computer methods outlined in F.C.C. publication PB-249144, *Field Strength Calculations for TV And FM Broadcasting*. The computer methods use digitized data taken directly from the graph of § 73.333 Figure 1. Intermediate values are obtained using bivariate interpolation techniques for surface fitting.

## **III. AM 5 mV/m CONTOURS**

Technical data for AM broadcast stations were obtained from the latest version of the FCC CDBS Database. Soil conductivities used in the determination of distances to the 5 mV/m groundwave contours were derived from the computerized FCC M-3 soil

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conductivity database. Conductivity data were extracted for every one degree of azimuth.

For stations employing directional antenna systems, the Standard Radiation using the theoretical operating parameters contained within the AM Engineering Database was computed and used for inverse field strength. In the case of nondirectional stations, the effective field strengths at one kilometer were employed.

In accordance with § 73.183(e), the "equivalent-distance" (Kirke) method was used to determine the distances to the 5 mV/m groundwave contours where more than one conductivity zone exists over the path length.

Distances to contours along intermediate azimuths were obtained mathematically by third order piecewise polynomial approximations.

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**MARKET 1**  
**RADIO MARKET DUOPOLY ANALYSIS**  
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**Proposed Station Combination**

STATION	FREQUENCY	LOCATION
WRGC	680. kHz	Sylva, North Carolina
WFSC	1050. kHz	Franklin, North Carolina
WNCC-FM	96.7 MHz	Franklin, North Carolina

**AM Market Contributors**

CUMULATIVE MARKET SIZE	STATION	LOCATION	FREQUENCY IN KHZ
1	WRGC	SYLVA, NC, US	680
2	WFSC	FRANKLIN, NC, US	1050
3	WWIT	CANTON, NC, US	970
4	WMXF	WAYNESVILLE, NC, US	1400
5	WPFJ	FRANKLIN, NC, US	1480
6	WBHN	BRYSON CITY, NC, US	1580

**FM Market Contributors**

CUMULATIVE MARKET SIZE	STATION	LOCATION	FREQUENCY IN MHZ
7	WNCC-FM	FRANKLIN, NC, US	96.7
8	WESC-FM	GREENVILLE, SC, US	92.5
9	WFBC-FM	GREENVILLE, SC, US	93.7
10	WKSF(FM)	ASHEVILLE, NC, US	99.9
11	WMYK(FM)	HENDERSONVILLE, NC, US	102.5
12	WHLC(FM)	HIGHLANDS, NC, US	104.5
13	WQNS(FM)	WAYNESVILLE, NC, US	104.9
14	WIVK-FM	KNOXVILLE, TN, US	107.7

