ENGINEERING STATEMENT

REGARDING WASV-TV

ON BEHALF OF

MEDIA GENERAL BROADCASTING OF

SOUTH CAROLINA HOLDINGS, INC.

July, 2001

Media General Broadcasting

Engineering Statement
Regarding WASV-TV
On Behalf of
Media General Broadcasting of
South Carolina Holdings, Inc.

This Engineering Statement has been prepared on the behalf of Media General Broadcasting of South Carolina Holdings, Inc. (Media General Broadcasting). The statement presents the result of studies of the predicted coverage of television station WASV-TV on analog channel 62 at Asheville, North Carolina in the vicinity of the community of Marion, North Carolina.

According to the Federal Communications Commission database, station WASV-TV is authorized to operate with a directional antenna system that produces 5000 kW effective radiated power (ERP). The WASV-TV antenna height above average terrain (HAAT) is 556 meters.

The WASV-TV coverage area when determined by the prediction procedures of Section 73.684 of the Commission's rules includes some of the roughest terrain in the eastern United States. The rules contain a propagation model in the form of curves that are intended to represent wave propagation over average terrain. Under paragraph (f) of this Section, alternate methods may be used to predict coverage where the results of the Commission's method are expected to yield results that differ from those in practice. As noted in the rules, in some cases a mountain ridge may limit coverage.

Figure 1 is a terrain profile from the WASV-TV transmitting site through Marion, North Carolina. The figure shows the distances to the city limits of Marion that are nearest and farthest from WASV-TV. A line of sight ray is also shown on the profile to the radio horizon pertinent for Marion. Figure 1 shows that Marion is below line of sight; that is, the community is severely obstructed by rough terrain.

Figure 2 is a map showing the predicted City Grade, Grade A and Grade B contours for WASV-TV. The distances to the contours were determined using procedures in Section 73.684 of the rules. Terrain elevations are derived from the NGDC 30-second digitized database. Calculations of distance to the contours were made in increments of ten degrees of azimuth beginning at true north. Figure 2 also shows the results of predictions of WASV-TV coverage based on the Longley-Rice propagation model. The calculations were made using the Institute for Telecommunications Sciences (ITS) service. The Longley-Rice parameters for the study are shown in Table 1. The city limits of Marion are also shown on Figure 2. Although Marion is within the predicted Grade A contour using the FCC's standard propagation model, the Longley-Rice model predicts that the WASV-TV field strength in the community of Marion is less than Grade A.

Figure 3 is a detail of Figure 2 showing Longley-Rice results and the FCC predicted contours in the vicinity of Marion. The WASV-TV predicted Grade A contour by the FCC's standard model
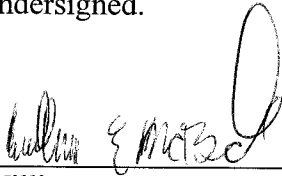
includes the community of Marion. The FCC's standard predicted Grade A contour extends beyond Marion by only approximately 4.2 kilometers (2.5 miles).

The ITS Longley-Rice program calculates field strength at the center of a "cell" or "bin" that is one kilometer per side; thus coverage area is comprised of a square or groups of squares. Figure 3 shows cells where predicted field strength is between Grade B and Grade A, between Grade A and city grade, and greater than city grade. Figure 3 shows that there is no Longley–Rice predicted coverage of Marion for station WASV-TV. That is, not only is there no Grade A coverage, there is no Grade B coverage. These calculations are conservative because UHF field strength is attenuated by environmental "clutter" such as trees and buildings in addition to terrain. The Longley-Rice propagation model includes losses caused by terrain but not by clutter.

In summary, the path from WASV-TV's transmitter to the community of Marion is severely obstructed by terrain. As a result, none of the area within the city limits of Marion and none of the population within the city limits of Marion receives Grade A coverage according to the Longley-Rice model. Furthermore, there is no predicted Grade B coverage in Marion according to calculations using the Longley-Rice propagation model. Actual field strength is expected to be lower because of losses caused by environmental clutter that are not included in the calculations.

If any questions arise concerning this engineering statement, please contact the office of the undersigned.

William E. McBride
Senior Engineer
MLJ
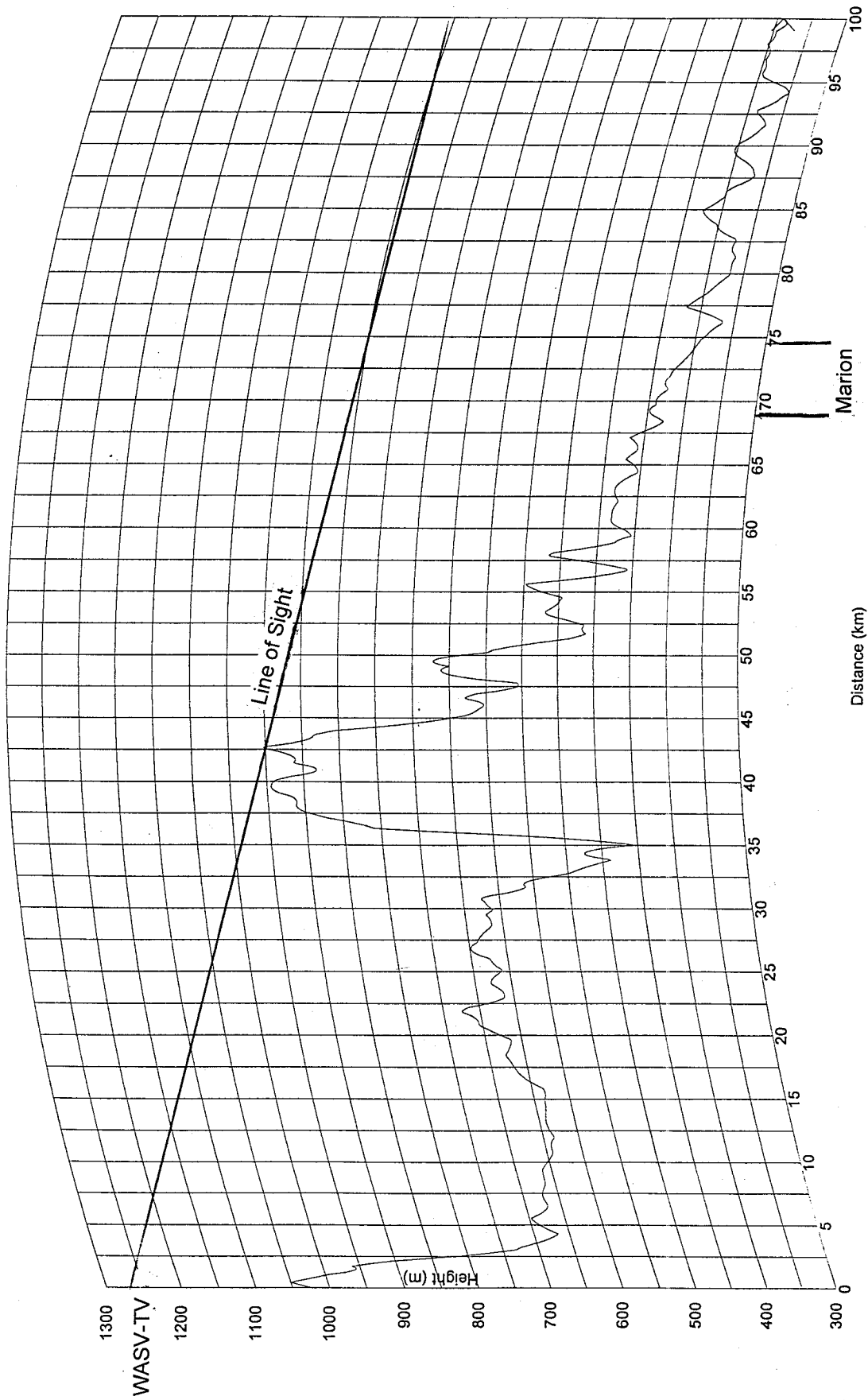110 North Glebe Road
Arlington, Virginia 22201

(703) 741-3578

July, 2001

Table 1
Longley Rice Calculation Parameters

```
Model:                              Point-to-point irregular terrain
Output option:                      Field intensity
Length units:                       Metric (km and m)
Service Application:                 Broadcast
Location variability:               50.00 %
Time availability:                  50.00 %
Situation variability:              50.00 %
Frequency:                          761.000 MHz
Conductivity:                       0.005 S/m
Dielectric constant:                15.0
Climate zone:                       Continental temperate
Transmitter name:                   WASV-TV
Transmitter location:
                Latitude                    Longitude
                Deg N                       Deg W
        35.2222   35,13,20.0         82.5494    82,32,58.0
Xmtr site elevation:            1048.9 m        3441.2 ft
Xmtr ant ht AMSL:      1256.00 m       4120.73 ft
Xmtr ant ht AGL:        207.11 m       679.49 ft
Transmitter radiation option:       ERP
Effective Radiated Power:           5000001.0 W
Effective Isotropic Radiated Power: 8202950.5 W
Transmitter ant horiz pattern:      Directional
```

Figure 1
Terrain Profile
WASV-TV Through Marion, North Carolina

Path Id :

Transmit Site Coordinates : 35° 13' 20.00" N 82° 32' 58.00" W

Bearing : 43.6 degrees true

Recieve Distance : 100 Km

Earth Radius Factor : 1.33

MLJ

A Service of JMSWORLDWIDE, INC.
CONSULTING TELECOMMUNICATIONS ENGINEERS

FIGURE 2 - PREDICTED WASV-TV COVERAGE WITH FCC & LONGLEY-RICE PROPAGATION MODELS

Marion
City Limits

FCC
Grade B

FCC
Grade A

FCC
City Grade

LONGLEY-RICE
COVERAGE

>80 dBu (City Grade)
74 - 80 dBu (Gr. A)
64 - 74 dBu (Gr.B)

0   25   50

Kilometers

MLJ   A Service of JMSWORLDWIDE, INC.
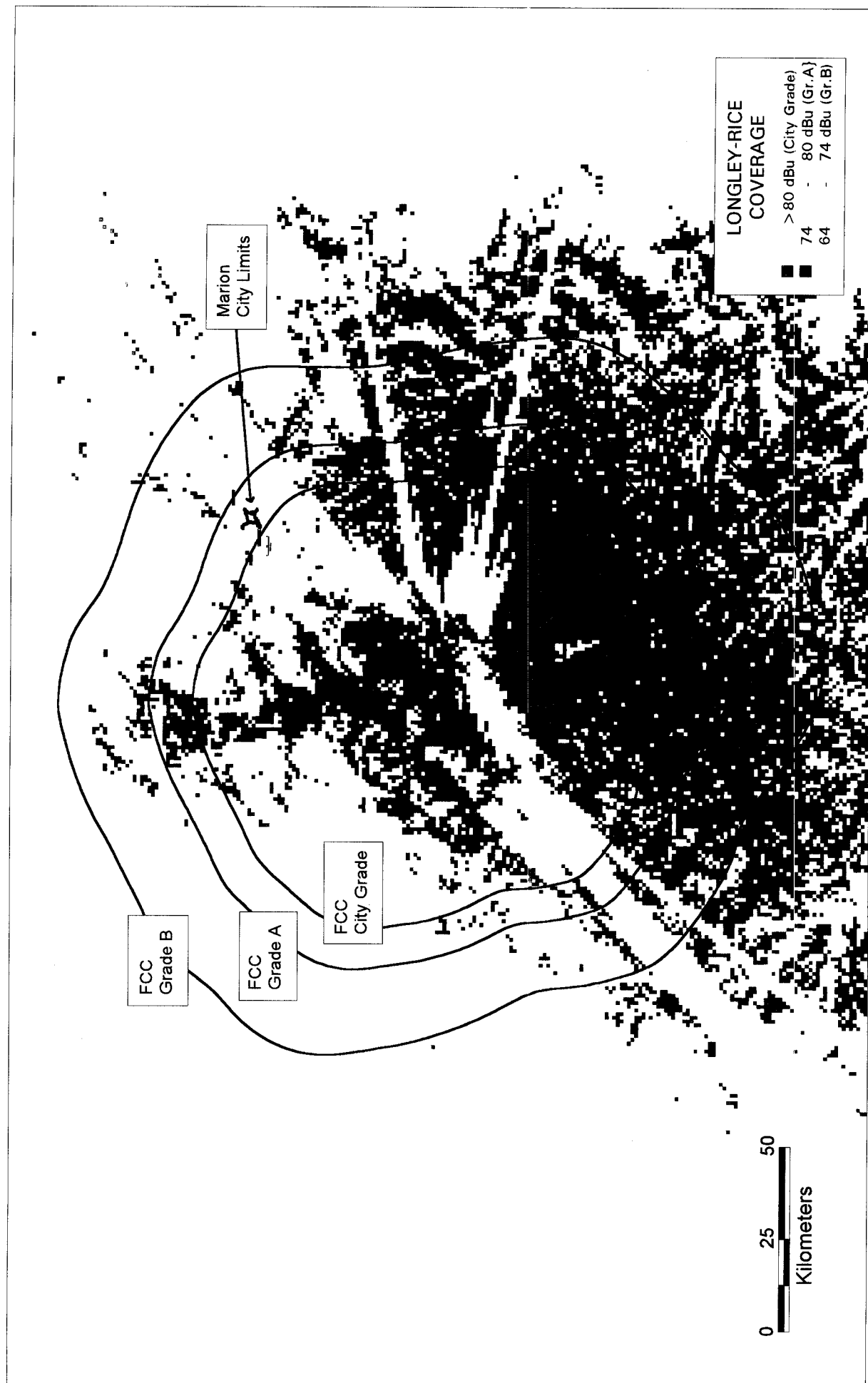CONSULTING TELECOMMUNICATIONS ENGINEERS

FIGURE 3 - DETAIL OF PREDICTED WASV-TV COVERAGE WITH FCC & LONGLEY-RICE PROPAGATION MODELS

FCC GRADE A CONTOUR

LONGLEY-RICE
COVERAGE

>80 dBu (City Grade)
74 - 80 dBu (Gr.A)
64 - 74 dBu (Gr.B)

MARION

FCC CITY GRADE CONTOUR

0   2.5   5
Kilometers

MLJ A Service of JMSWORLDWIDE, INC.
CONSULTING TELECOMMUNICATIONS ENGINEERS