



Kessler and Gehman Associates

Consultants • Broadcast • Wireless

**APPLICATION FOR
SPECIAL TEMPORARY
AUTHORITY OF A
TRANSITIONING
INCENTIVE AUCTION
TELEVISION BROADCAST
STATION**

CALL SIGN: WHMC-TV

FACILITY ID: 61004

LOCATION: CONWAY, SC

Prepared For:

South Carolina Educational
Television Commission
1041 George Rogers Boulevard
Columbia, SC 29201

Prepared By:

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1.0 PROPOSED SPECIAL TEMPORARY AUTHORITY

Kessler and Gehman Associates, Inc. has been authorized by South Carolina Educational Television Commission licensee of WHMC-TV to prepare an engineering Special Temporary Authority (STA) application to operate WHMC-TV using a temporary antenna to help facilitate construction of its mandated post transition construction permit. The licensed¹ WHMC-TV VHF antenna consists of 3 panels which are wrapped around the top level of the support structure face. The new WHMC-TV post-transition channel 28 antenna shall be mounted to the top of steel and will require the licensed panel antenna to be removed to allow the installation of a gin pole to aid construction. It is herein proposed to commence operation on channel 9 from a temporary antenna mounted at 400' AGL for the duration of the post transition facility construction.

The grant of this STA is in the public interest since it will allow WHMC-TV to broadcast on its pre transition channel using an interim antenna while the construction permitted antenna is installed and proofed.

2.0 PREDICTED COVERAGE CONTOUR

Appendix A demonstrates the predicted noise limited coverage contours of the proposed STA facility and its associated main construction permitted facility having FCC File No.: BLEDT-20090622ADN. The contours were generated in accordance with the method described in 47 CFR Section 73.625 utilizing the appropriate F(50,90) propagate curves.

Appendix A clearly illustrates that the proposed STA contour is 100% subsumed by the licensed contour. The instant STA facility shall substantially achieve its

¹ FCC File Number: BLEDT-20090622ADN

goal of providing comparable coverage to its viewers while the main post transition antenna is being installed.

3.0 RADIO FREQUENCY RADIATION COMPLIANCE

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in OET Bulletin 65, Edition 97-01. The RFR analysis is conducted pursuant to the following methodology:

Terrain² extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360-degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

The resulting RFR study in Appendix B demonstrates that the peak exposure is 1.191% of the most restrictive permissible exposure threshold. Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites only those licensees whose

² Terrain extraction is based upon a 3 arc second point spacing terrain database.

transmitters produce power density levels greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is within 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of the proposed facility were not taken into account. The instant application is compliant with the FCC limits for human exposure to RF radiation and is excluded from further environmental processing since no changes are proposed to the tower structure in order to accommodate the proposed antenna.

A chain link fence encloses the support structure and the applicant will cooperate with any other users of the tower by reducing the power to the antenna or if necessary, completely cutting it off to protect maintenance workers on the tower.

4.0 CERTIFICATION

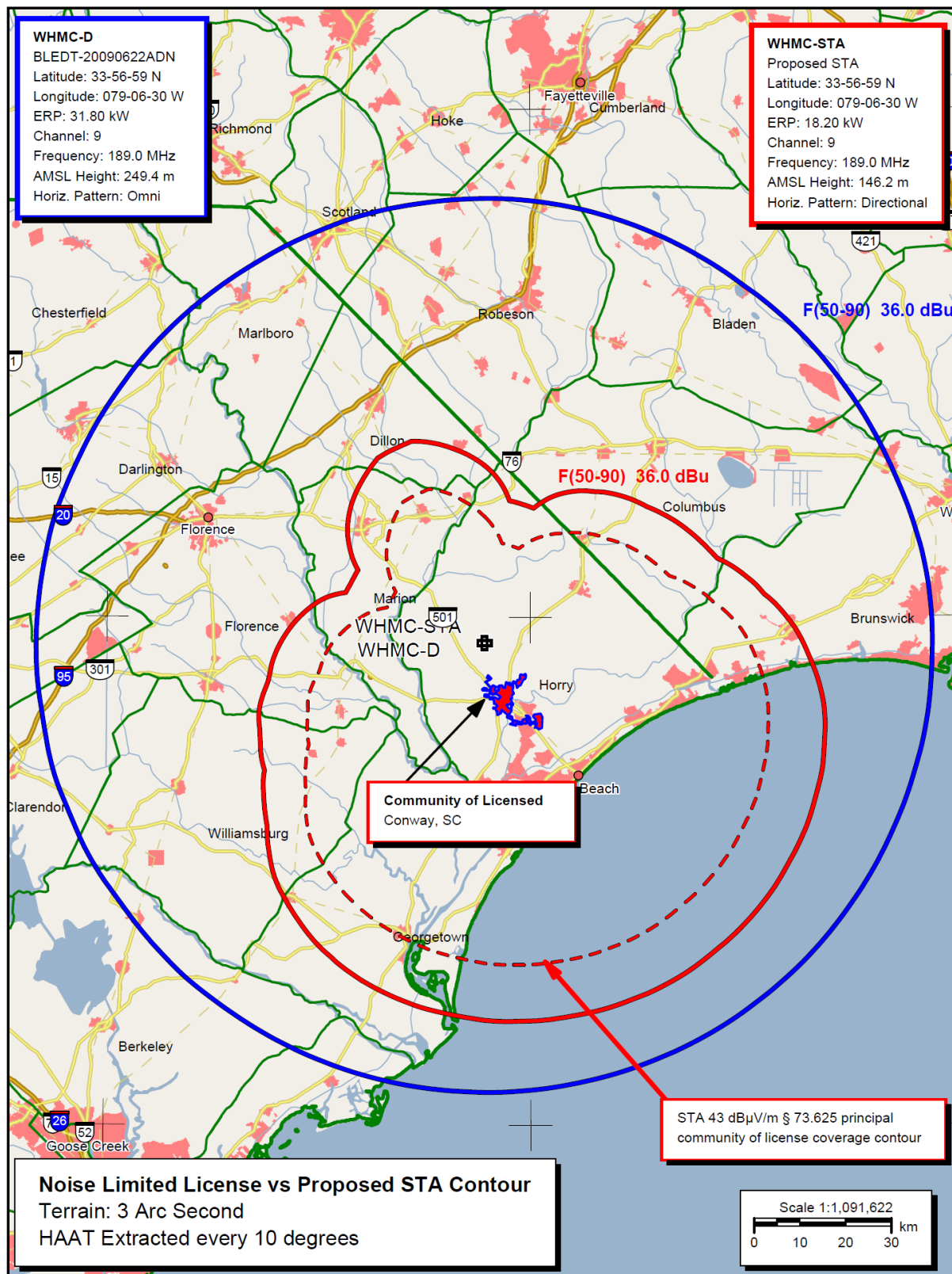
I, Ryan Wilhour, am an engineering associate of Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and have been working in the field of radio and television broadcast consulting since 1996. The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge.

Ryan Wilhour



Consulting Engineer
May 6, 2020

APPENDIX A – Section 73.625(a) Community of License Coverage Map



APPENDIX B – Far Field Exposure to RF Emissions

