

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington DC 20554**

| | | |
|--|---|----------------------|
| In the Matter of |) | |
| |) | |
| Amendment of Section 73.622, |) | MB Docket No. _____ |
| Digital Television Table of Allotments |) | |
| For WTOC-TV, Savannah, Georgia |) | Rulemaking No. _____ |
| (Facility 590) |) | |

To: Office of the Secretary, Federal Communications Commission
Attn: Chief, Media Bureau

PETITION FOR RULEMAKING

Gray Television Licensee, LLC (“Gray”), licensee of Station WTOC-TV (“WTOC”), Savannah, Georgia, hereby requests that the Commission institute a rulemaking proceeding for the purpose of amending the DTV Table of Allotments (the “DTV Table”) contained in Section 73.622(i) of the Commission’s rules.¹ Gray requests that the Commission amend the DTV Table to substitute UHF Channel 23 for VHF Channel 11 with the technical parameters as set forth in the attached Engineering Statement. As set forth herein, grant of this Petition will create a preferential arrangement of allotments by expanding the availability of free over-the-air television service in this market.

The FCC has described the goal of the DTV Table as ensuring the provision of digital television service “to the American people in an expeditious and efficient manner.”² In considering channel substitution requests, the Commission considers the

¹ See 47 C.F.R. §§ 1.401, 1.420, 73.622(i).

² See, e.g., *In the Matter of Amendment of Section 73.622(B), Table of Allotments, Digital Television Broadcast Stations (Nampa, Idaho)*, Report and Order, 19 FCC Rcd. 4491, 4493 (2004); *In the Matter of Amendment of Section 73.622(B), Table of Allotments, Digital Television Broadcast Stations (In the Matter of Amendment of Section*

petitioner's public interest justification and whether the proposal would comply with the principal community coverage requirements of Section 73.625(a).³

This channel substitution serves the public interest because it will resolve significant over-the-air ("OTA") reception problems in WTOC's existing service area.⁴ With viewers increasingly reliant on OTA signals to receive the most valued video content,⁵ providing a strong broadcast signal is more important than it has been in decades. Yet, the challenges with digital reception of VHF signals are well-documented. Ten years ago, the Commission recognized the deleterious effects manmade noise has on the reception of VHF signals, finding that "the propagation characteristics of these

73.622(B), Table of Allotments, Digital Television Broadcast Stations (Albany, New York), 19 FCC Rcd. 4279, 4331 (2004); *see also In the Matter of Advanced Television Systems & Their Impact Upon the Existing Television Broadcast Service*, 12 FCC Rcd. 14588 ¶ 76 (1997).

³ *See, e.g., In Re Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Mesa, Arizona)*, Notice of Proposed Rulemaking, MB Docket No. 20-331, RM-11863, DA-20-1192 (rel. Oct. 13, 2020) ("Mesa NPRM"); *In Re Amendment of Section 73.622(b), Table of Allotments, Digital Television Broad. Stations, Ontario, CA*, Notice of Proposed Rulemaking, 16 FCC Rcd. 2276 (2001); *In Re Amendment of Section 73.606(b), Table of Allotments, Television Broad. Stations, Moscow, Idaho*, Notice of Proposed Rulemaking, 17 FCC Rcd. 19447 (2002).

⁴ *See Mesa NPRM* ¶ 6 (recognizing effect of "VHF propagation challenges"); *In Re Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations, Missoula, Mt.*, Notice of Proposed Rulemaking, 16 FCC Rcd. 2227 (2001) (finding that proposal to substitute channels to improve signal coverage and eliminate interference "warrants consideration").

⁵ *See, e.g., Parks Associates, TV Antenna Usage in US Broadband Households Jumped to 25% in 2019 and Is Expected to Grow More as COVID-19 Keeps Consumers at Home* (Mar. 26, 2020), <http://www.parksassociates.com/blog/article/pr-02762020> (finding that OTA viewing increased from 15% in 2018 to 25% in 2019); Phil Kurz, *New Research Reveals Resurgence in OTA Antenna Viewing*, TVTechnology (Apr. 29, 2019), available at <https://www.tvtechnology.com/news/new-research-reveals-resurgence-in-ota-antenna-viewing> (finding that viewers consume 19% of viewing time over the air); *The Evolving Over-the-Air Home*, Nielsen Local Watch Report (Jan. 14, 2019), available at <https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/q2-2018-local-watch-report.pdf> (finding that more than 14% of TV households lack cable or satellite service).

channels allow undesired signals and noise to be receivable at relatively farther distances, nearby electrical devices tends to emit noise in this band that can cause interference, and reception of VHF signals requires physically larger antennas ... relative to UHF channels.”⁶ The Commission also observed the “large variability in the performance (especially intrinsic gain) of indoor antennas available to consumers, with most antennas receiving fairly well at UHF and the substantial majority not so well to very poor at high-VHF.”⁷

WTOC’s real world experience confirms these observations. Almost immediately after completing its transition to digital on VHF Channel 11, WTOC experienced a substantial drop off in its OTA reception. By moving from VHF Channel 11 to UHF Channel 23, WTOC will be able to deliver a more reliable over-the-air signal to viewers throughout its coverage area.

Attached is an Engineering Statement of Chesapeake RF Consultants, LLC,⁸ which sets forth in detail the proposed WTOC’s Channel 23 DTV Table specifications. This proposal is in compliance with all relevant technical requirements for amendment of the post-transition DTV Table, including the interference protection requirements of 47 C.F.R. §73.616 and the 0.5% de minimis interference standard with respect to all allotments and assignments, existing and proposed. As further reflected in the Engineering Statement, the proposed Channel 23 facility will provide full principal community coverage to Savannah, Georgia.

⁶ See *Matter of Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rulemaking, 25 FCC Rcd. 16498 ¶ 42 (2010) (recognizing that “VHF channels have certain characteristics that have posed challenges for their use in providing digital television service.”)

⁷ *Id.* ¶ 44.

⁸ See Exhibit 1 (“Engineering Statement”).

As demonstrated by the attached Engineering Statement, when compared to WTOC's existing Channel 11 DTV allotment, the proposed Channel 23 facilities will not create any new white or gray areas. Although the proposed Channel 23 facilities will result in a slight theoretical reduction in WTOC's predicted coverage and population served using the standard FCC contours, an analysis using the terrain-limited coverage predictions reveals no loss area at all. And the standard contour prediction almost certainly overstates the actual loss area given the specific VHF propagation challenges WTOC faces. In practice, Gray expects no persons who are currently able to receive WTOC's OTA signal on Channel 11 would no longer be able to receive WTOC's OTA signal as a result of the transition to Channel 23.

For the foregoing reasons, Gray respectfully requests that the Commission grant this Petition and immediately commence a rulemaking proceeding to change the digital allotment for WTOC from Channel 11 to Channel 23 as proposed herein.

Respectfully submitted,

GRAY TELEVISION LICENSEE, LLC

By: /s/ Joan Stewart

Joan Stewart
Ari Meltzer
Wiley Rein LLP
1776 K Street NW
Washington DC 20006
202.719.7438

jstewart@wiley.law
ameltzer@wiley.law

Dated: November 27, 2020

Exhibit 1

Engineering Statement

prepared for

Gray Television Licensee, LLC

WTOC-TV Savannah, GA

Facility ID 590

Ch. 23 1000 kW 442 m

This engineering statement has been prepared on behalf of *Gray Television Licensee, LLC* (“*Gray*”), licensee of WTOC-TV (Facility ID 590, Savannah GA) in support of a *Petition for Rulemaking* to amend §73.622(i)¹ by changing WTOC-TV’s digital television channel assignment. WTOC-TV is licensed to operate on Channel 11 (BLCDDT-20090622ABP). As described herein, *Gray* requests substitution of Channel 23 in lieu of Channel 11 for WTOC-TV.

The WTOC-TV Channel 11 facility is in the VHF spectrum and has proven to be ineffective for satisfactory viewer reception as discussed herein and elsewhere in the petition. The use of Channel 23 would place WTOC-TV in the UHF spectrum which is known to provide robust signal levels for home reception.

Gray has determined that many viewers experience significant difficulty in receiving WTOC-TV’s signal. Problems with digital VHF reception by stations in many markets were widely publicized since the 2009 digital transition date. It has been established that indoor reception is difficult for digital VHF stations such as WTOC-TV due to the longer wavelength signal’s inability to readily pass through buildings (the windows are smaller than the wavelength size), the ineffectiveness of many indoor antennas many of which were designed to emphasize the shorter wavelengths for UHF reception, and high levels of manmade and environmental noise.

¹The post-incentive auction transition period ended on July 13, 2020, pursuant to the *Incentive Auction Closing and Channel Reassignment Public Notice* (DA 17-317, released April 13, 2017). The FCC’s rules have not yet been amended to reflect all new full power channel assignments in a revised Table of Allotments. Because the Table has not yet been amended, it is understood that FCC’s Media Bureau will continue to refer to the Post-Transition Table of DTV Allotments, 47 CFR § 73.622(i) (2018), for the purpose of post-auction channel change rulemaking proceedings.

No change in transmitting location is proposed. The WTOC-TV tower structure corresponds to FCC Antenna Structure Registration (“ASR”) number 1018626. Gray proposes to implement the Channel 23 substitution with a top-mounted transmitting antenna on the existing tower structure which would replace the existing top-mounted Channel 11 antenna.

The licensed Channel 11 facility operates with 24.4 kW effective radiated power (“ERP”) nondirectional at 441 meters antenna height above average terrain (“HAAT”). Gray proposes herein to utilize 1000 kW ERP directional on Channel 23 at 442 meters antenna HAAT.²

A summary of the licensed Channel 11 and proposed Channel 23 technical parameters is provided in the following.

Licensed Channel 11 Parameters (file# BLCDDT-20090622ABP)

| FacID | Call | Ch | City | St | Lat | Lon | RCAMSL | HAAT | ERP | DA |
|-------|---------|----|----------|----|--------|--------|--------|------|------|----|
| 590 | WTOC-TV | 11 | SAVANNAH | GA | 320315 | 812100 | 448 | 441 | 24.4 | ND |

Proposed Channel 23 Parameters

| FacID | Call | Ch | City | St | Lat | Lon | RCAMSL | HAAT | ERP | DA |
|-------|---------|----|----------|----|--------|--------|--------|------|------|----|
| 590 | WTOC-TV | 23 | SAVANNAH | GA | 320315 | 812100 | 448 | 442 | 1000 | DA |

The proposed directional antenna azimuthal pattern is plotted in Figure 1. A map is supplied as Figure 2, which depicts the standard predicted coverage contours. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire community of Savannah will be encompassed by the 48 dBμ contour.

Interference study per FCC OET Bulletin 69³ shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby full service and Class A television

²The antenna height above ground and above mean sea level are unchanged from licensed values. The antenna HAAT is recalculated to be 441.6 meters, based on FCC 30 meter terrain data developed by OET.

³FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). This analysis employed the FCC’s current “TVStudy” software with the default application processing template settings, 2 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC’s implementation of TVStudy show excellent correlation.

stations and reassignments as required by §73.616. The interference study output report is provided as Table 1.

The proposed 1000 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 442 meters permitted by §73.622(f)(8)(i). Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. As demonstrated in Figure 3, the total area within the proposed WTOC-TV noise limited service contour (“NLSC”) is 37,310 square kilometers, which does not exceed the NLSC area of the licensed WTOC-TV Channel 11 facility (38,421 sq. km). Thus, the 1000 kW ERP specified herein complies with §73.622(f)(5) of the FCC’s Rules.

Figure 3 also shows that the proposed Channel 23 NLSC will fall short of matching that of the licensed Channel 11 facility at locations to the west and northwest. These areas are in the pattern minima region of the proposed directional antenna. On Channel 23, the best available UHF channel at Savannah, the directional pattern is necessary to avoid causing impermissible interference to WPGA-TV (Ch. 23, Fac ID 54728, Perry GA).

Figure 3 depicts the proposed WTOC-TV Channel 23 resulting NLSC loss areas along with the NLSC of overlapping alternative authorized television services. The stations⁴ providing the alternative services are listed in Table 2. The areas on Figure 3 that are tinted yellow represent locations where there are less than 5 other TV services remaining in the loss area. A summary of the number of alternative services for the loss area is provided on the map and in the following table.

⁴Class A television stations are included in the alternative service facility count to determine if an area is well-served, as they have the same primary status and public service obligations as full-power television stations.

Loss Area Analysis – Standard FCC Contours

| WTOC-TV Population Within NLSC | (2010 census) | |
|--------------------------------|-----------------|-----------------|
| Licensed Ch. 11 Total: | 992,417 | |
| Proposed Ch. 23 Total: | 968,120 | |
| Gain Area Population: | 5,535 | |
| Loss Area Population: | 29,832 | |
| Common Area Population: | 962,585 | |
| Number of Other Services | <u>Loss Pop</u> | <u>Gain Pop</u> |
| 0 | 0 | 0 |
| 1 | 0 | 0 |
| 2 | 250 | 0 |
| 3 | 992 | 102 |
| 4 | 12,943 | 300 |
| 5 or more | 15,647 | 5,133 |
| Total Change | 29,832 | 5,535 |
| Total less than 5 services | 14,185 | 402 |
| Total less than 5 (percentage) | 1.43% | 0.04% |

The licensed Channel 11 facility’s NLSC encompasses 992,417 persons and the proposed Channel 23 facility’s NLSC would encompass 968,120 persons. The resulting NLSC loss population is 29,832 persons, of which 12,943 persons would have less than five other services representing 1.43 percent of the total population within the licensed WTOC-TV Channel 11 NLSC. Most of the NLSC loss area population (15,647 persons) is well-served, having 5 or more other TV services. The proposal will result in the WTOC-TV NLSC expanding slightly to the northeast and southwest, representing a gain of 5,535 persons.

The results of additional loss area analysis are provided in Figure 4, now to consider terrain-limited coverage predictions of the licensed Channel 11 facility and the proposed Channel 23 operation. Here, the FCC’s TVStudy computer program was used to determine terrain-limited coverage predictions at locations beyond the proposed Channel 23 NLSC. The study area was set using the “fixed geography” option to match the WTOC-TV licensed Channel 11 NLSC. Default cell size and profile step settings were employed. The analysis included examination of each cell that is located beyond the Channel 23 NLSC and beyond the NLSC of at least five other stations (the same, yellow-tinted area as Figure 3) as bounded by the existing Channel 11 facility’s NLSC. The results regarding the number of alternative services for the loss areas are provided on Figure 4 and in the following table.

Loss Area Analysis – Terrain-Limited

| | |
|---|-----------------|
| WTOC-TV Terrain-Limited Population TVStudy at Fixed Geography Area | (2010 census) |
| Licensed Ch. 11 Total | 992,658 |
| Number of Other Services | <u>Loss Pop</u> |
| 0 | 0 |
| 1 | 0 |
| 2 | 0 |
| 3 | 0 |
| 4 | 0 |
| 5 or more | 0 |
| Total Loss | 0 |
| Total less than 5 services | 0 |
| Total less than 5 (percentage) | 0.00% |

This analysis shows that all of the terrain-limited service area achieved by the licensed WTOC-TV within its NLSC will receive terrain-limited service from the proposed Channel 23. The terrain-limited analysis shows that the proposed Channel 23 facility will not create any loss of service.

Conclusion

The proposed channel substitution complies with the FCC’s principal community coverage requirements of §73.625 and the interference protection requirements of §73.616. No area of service loss would be created.

List of Attachments

- Figure 1 Antenna Azimuthal Pattern
- Figure 2 Proposed Coverage Contours
- Figure 3 Coverage Contour Comparison; Loss Area Analysis – Standard FCC Contours
- Figure 4 Loss Area Analysis – Terrain-Limited Method
- Table 1 TVStudy Analysis of Proposal
- Table 2 Overlapping Authorized Alternate Television Services

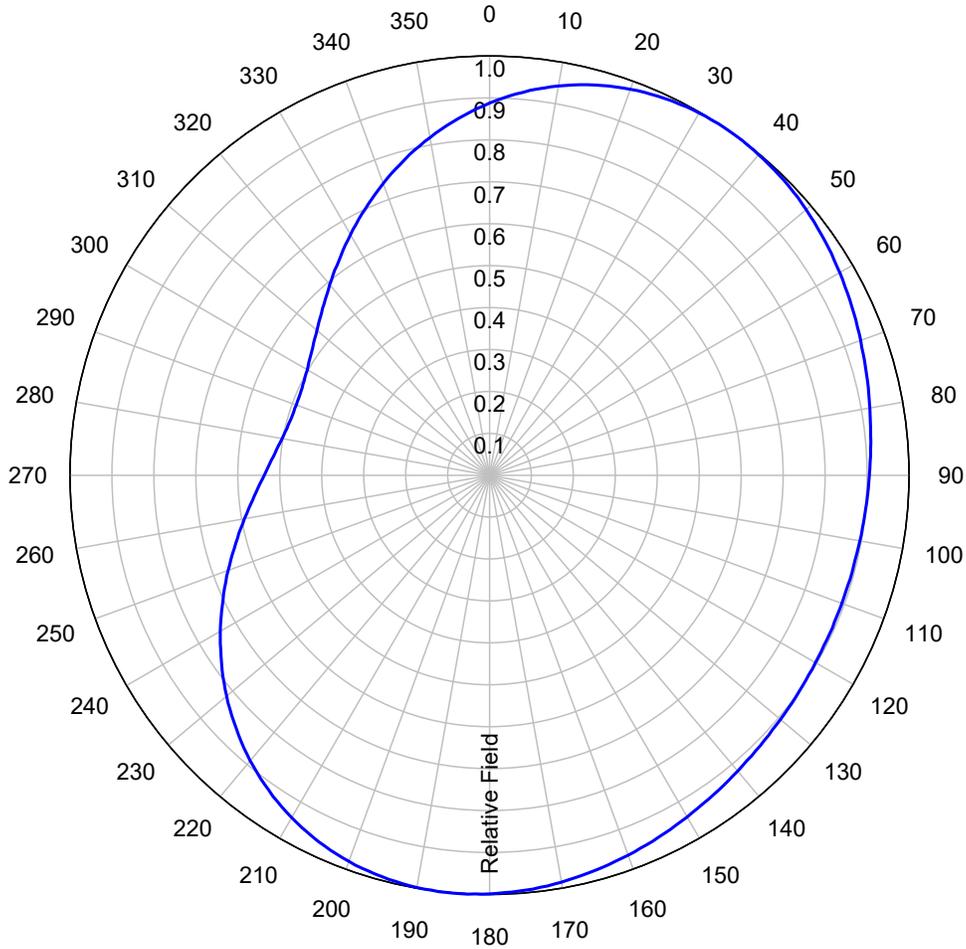
Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E. November 19, 2020
 207 Old Dominion Road Yorktown, VA 23692 703-650-9600

AZIMUTH PATTERN

Type: ATW-WC
 Directivity: Numeric 1.40 dBd 1.46
 Peak(s) at: _____

Channel: 23
 Location: Savannah, GA
 Polarization: Horizontal
 Note: Pattern shape and directivity may vary with channel and mounting configuration.



Preliminary, subject to final design and review.

ELECTRONICS RESEARCH, INC. **ERI**



Figure 1
Antenna Azimuthal Pattern
WTOC-TV Savannah, GA
Facility ID 590
Ch. 23 1000 kW 442 m

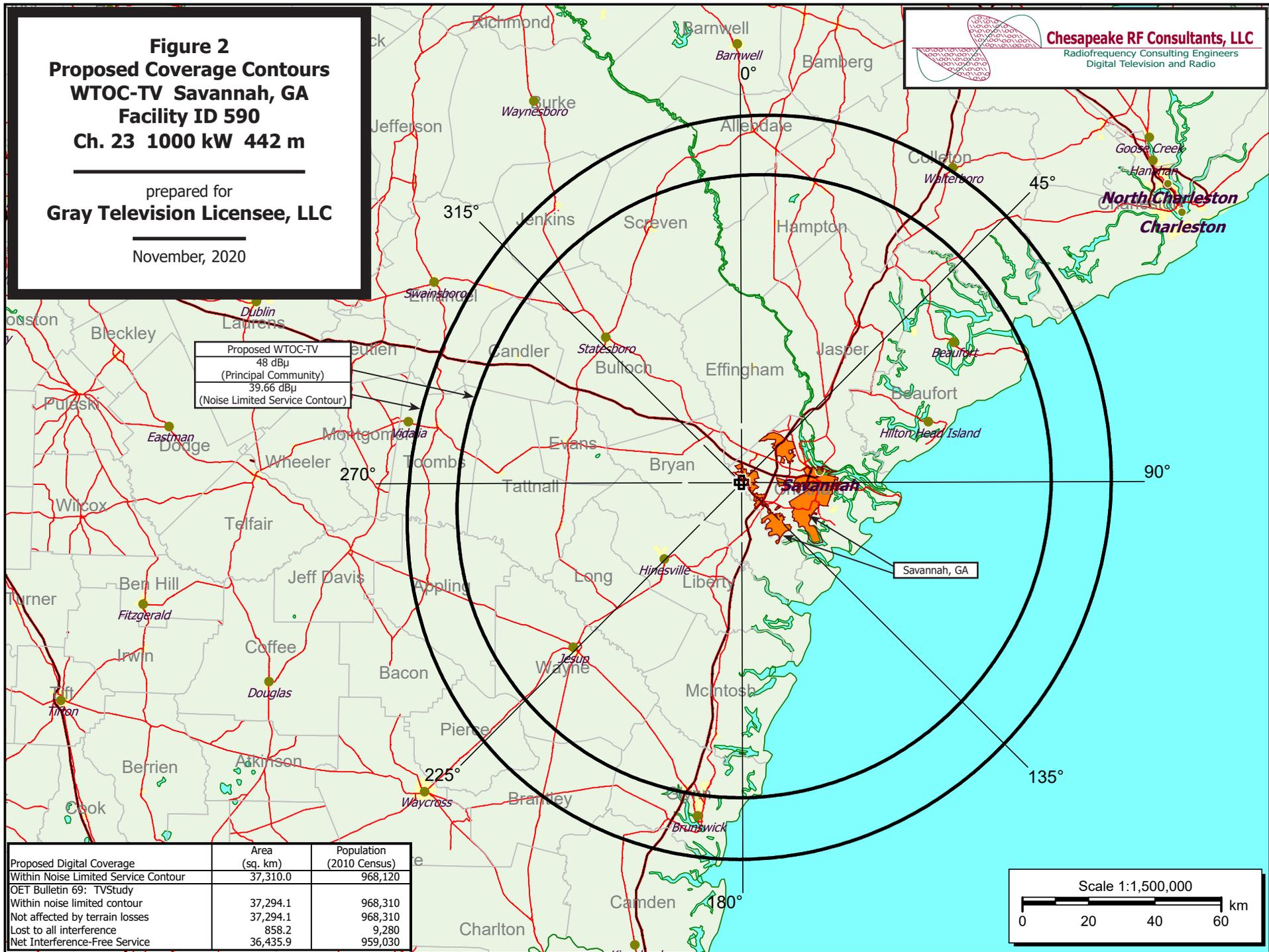
prepared for
Gray Television Licensee, LLC

November, 2020

Figure 2
Proposed Coverage Contours
WTOC-TV Savannah, GA
Facility ID 590
Ch. 23 1000 kW 442 m

prepared for
Gray Television Licensee, LLC

November, 2020



Proposed WTOC-TV
 48 dBμ
 (Principal Community)
 39.66 dBμ
 (Noise Limited Service Contour)

| Proposed Digital Coverage | Area (sq. km) | Population (2010 Census) |
|--------------------------------------|---------------|--------------------------|
| Within Noise Limited Service Contour | 37,310.0 | 968,120 |
| OET Bulletin 69: TVStudy | | |
| Within noise limited contour | 37,294.1 | 968,310 |
| Not affected by terrain losses | 37,294.1 | 968,310 |
| Lost to all interference | 858.2 | 9,280 |
| Net Interference-Free Service | 36,435.9 | 959,030 |

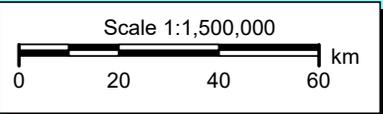
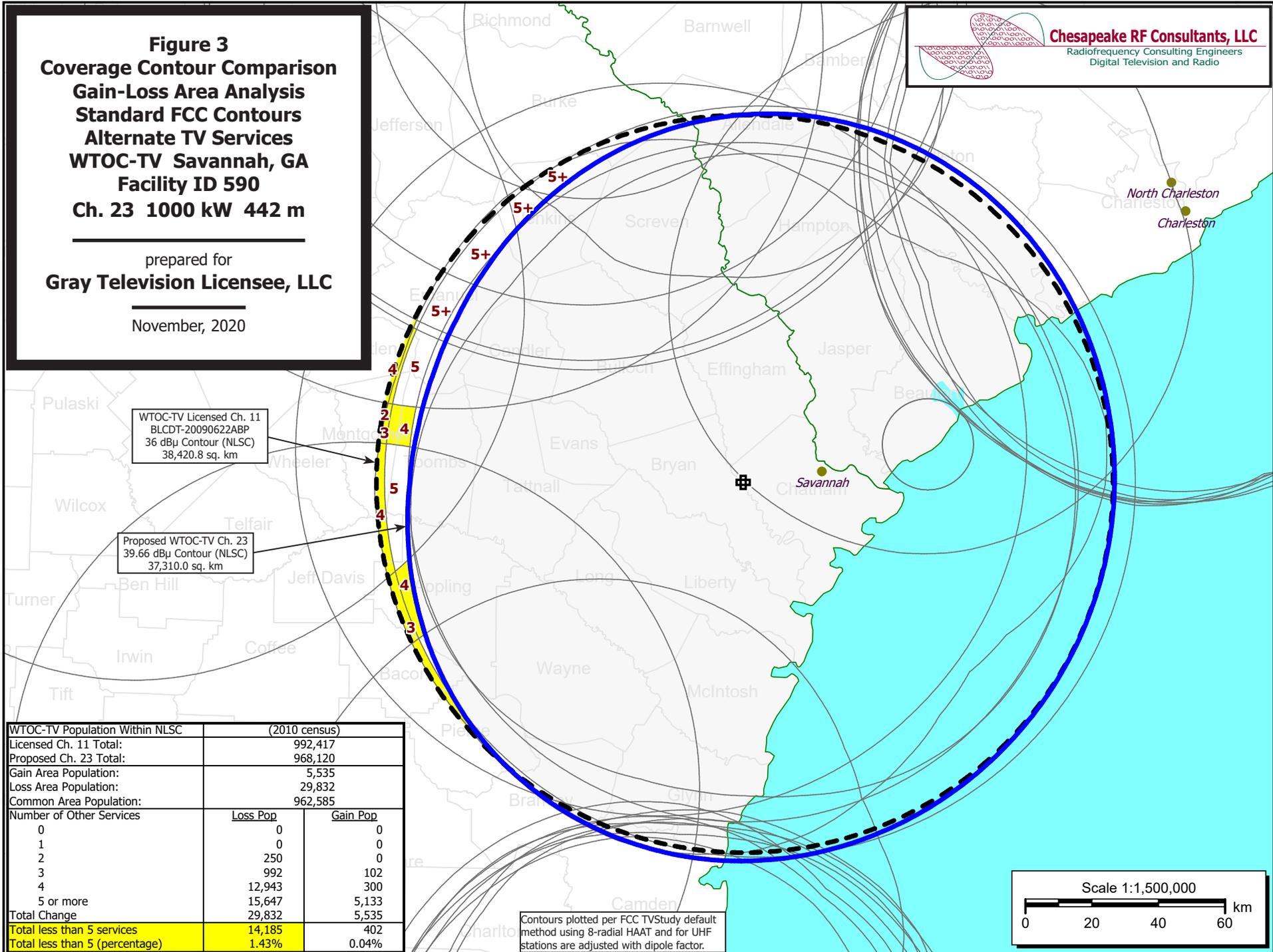


Figure 3
Coverage Contour Comparison
Gain-Loss Area Analysis
Standard FCC Contours
Alternate TV Services
WTOC-TV Savannah, GA
Facility ID 590
Ch. 23 1000 kW 442 m

prepared for
Gray Television Licensee, LLC

November, 2020



WTOC-TV Licensed Ch. 11
BLCDT-20090622ABP
36 dBµ Contour (NLSC)
38,420.8 sq. km

Proposed WTOC-TV Ch. 23
39.66 dBµ Contour (NLSC)
37,310.0 sq. km

| WTOC-TV Population Within NLSC | | (2010 census) | |
|--------------------------------|-----------------|-----------------|--|
| Licensed Ch. 11 Total: | | 992,417 | |
| Proposed Ch. 23 Total: | | 968,120 | |
| Gain Area Population: | | 5,535 | |
| Loss Area Population: | | 29,832 | |
| Common Area Population: | | 962,585 | |
| Number of Other Services | <u>Loss Pop</u> | <u>Gain Pop</u> | |
| 0 | 0 | 0 | |
| 1 | 0 | 0 | |
| 2 | 250 | 0 | |
| 3 | 992 | 102 | |
| 4 | 12,943 | 300 | |
| 5 or more | 15,647 | 5,133 | |
| Total Change | 29,832 | 5,535 | |
| Total less than 5 services | 14,185 | 402 | |
| Total less than 5 (percentage) | 1.43% | 0.04% | |

Contours plotted per FCC TVStudy default method using 8-radial HAAT and for UHF stations are adjusted with dipole factor.

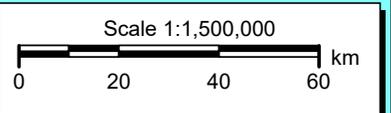
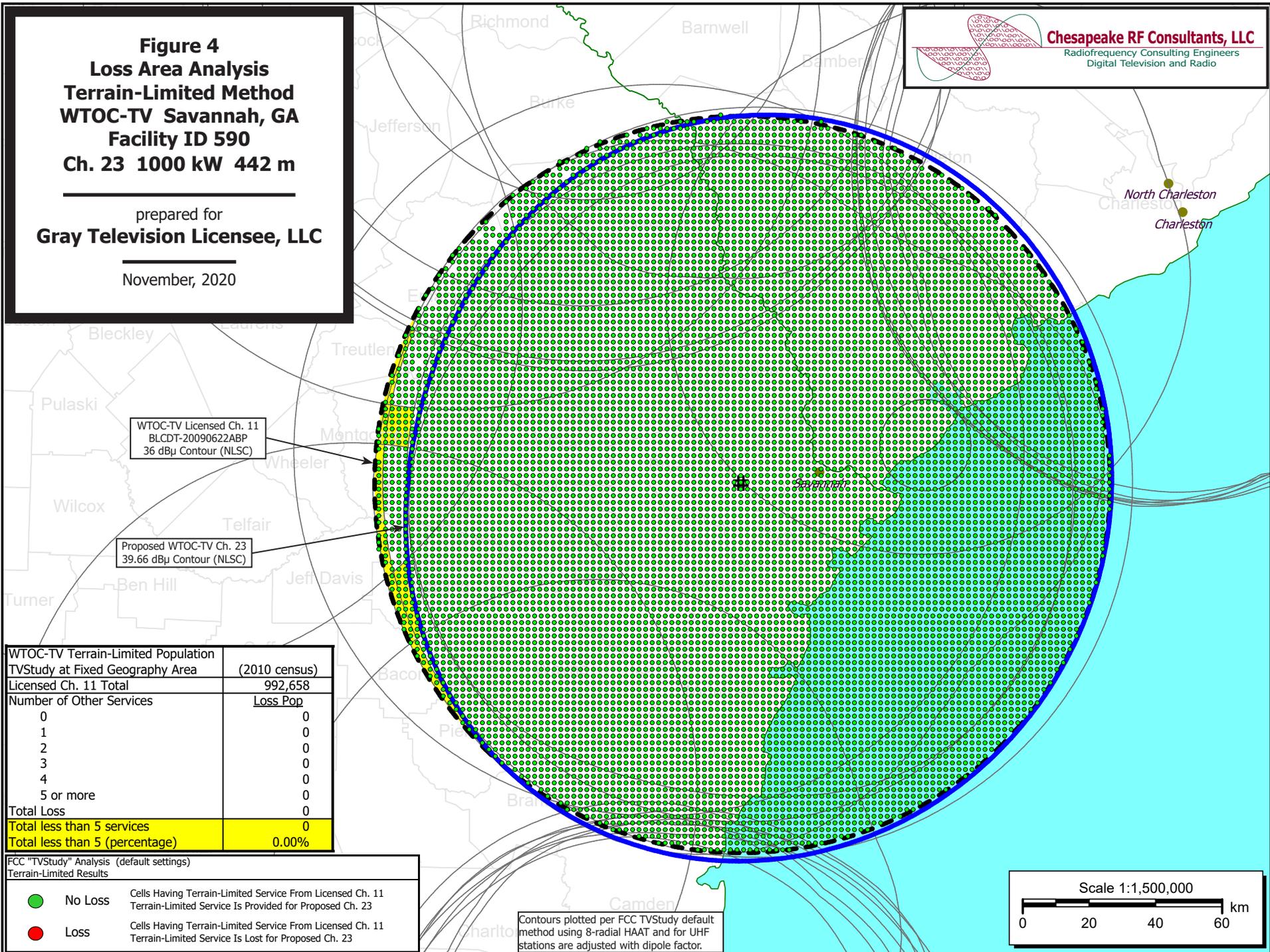


Figure 4
Loss Area Analysis
Terrain-Limited Method
WTOC-TV Savannah, GA
Facility ID 590
Ch. 23 1000 kW 442 m

prepared for
Gray Television Licensee, LLC

November, 2020



WTOC-TV Licensed Ch. 11
 BLCDT-20090622ABP
 36 dBµ Contour (NLSC)

Proposed WTOC-TV Ch. 23
 39.66 dBµ Contour (NLSC)

| WTOC-TV Terrain-Limited Population TVStudy at Fixed Geography Area | (2010 census) |
|--|-----------------|
| Licensed Ch. 11 Total | 992,658 |
| Number of Other Services | <u>Loss Pop</u> |
| 0 | 0 |
| 1 | 0 |
| 2 | 0 |
| 3 | 0 |
| 4 | 0 |
| 5 or more | 0 |
| Total Loss | 0 |
| Total less than 5 services | 0 |
| Total less than 5 (percentage) | 0.00% |

FCC "TVStudy" Analysis (default settings)
 Terrain-Limited Results

| | |
|--|---|
| ● No Loss | Cells Having Terrain-Limited Service From Licensed Ch. 11 Terrain-Limited Service Is Provided for Proposed Ch. 23 |
| ● Loss | Cells Having Terrain-Limited Service From Licensed Ch. 11 Terrain-Limited Service Is Lost for Proposed Ch. 23 |

Contours plotted per FCC TVStudy default method using 8-radial HAAT and for UHF stations are adjusted with dipole factor.

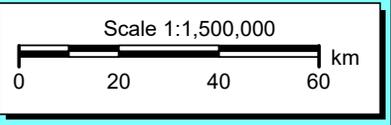


Table 1 WTOC-TV TVStudy Analysis of Proposal
(page 1 of 4)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WTOC-TV to Ch23_DA-WC, Model: Longley-Rice
Start: 2020.11.19 09:21:12

Study created: 2020.11.19 09:21:12

Study build station data: LMS TV 2020-11-19

Proposal: WTOC-TV D23 DT APP SAVANNAH, GA
File number: WTOC-TV to Ch23 DA-WC
Facility ID: 590
Station data: User record
Record ID: 3062
Country: U.S.
Zone: II

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

| IX | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-----|---------|------|-----|--------|----------------|------------------|----------|
| Yes | WJCL | D22 | DT | LIC | SAVANNAH, GA | BLANK0000029019 | 1.2 km |
| No | WACH | D22 | DT | LIC | COLUMBIA, SC | BLANK0000093772 | 235.6 |
| No | WKCF | D23 | DT | LIC | CLERMONT, FL | BLANK0000113322 | 386.2 |
| No | WKTB-CD | D23 | DC | LIC | NORCROSS, GA | BLANK0000081811 | 337.0 |
| Yes | WPGA-TV | D23 | DT | LIC | PERRY, GA | BLANK0000116580 | 221.2 |
| Yes | WBTV | D23 | DT | LIC | CHARLOTTE, NC | BLCDT19991025AEB | 368.2 |
| No | WECT | D23 | DT | LIC | WILMINGTON, NC | BLANK0000111584 | 374.2 |
| Yes | WPXC-TV | D24 | DT | LIC | BRUNSWICK, GA | BLCDT20110426AAQ | 141.3 |
| Yes | WITV | D24 | DT | LIC | CHARLESTON, SC | BLANK0000118279 | 182.5 |

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D23
Latitude: 32 3 15.00 N (NAD83)
Longitude: 81 21 0.00 W
Height AMSL: 448.0 m
HAAT: 442.0 m
Peak ERP: 1000 kW
Antenna: ERI ATW-WC 110.0 deg
Elev Pattn: Generic
Elec Tilt: 0.75

39.7 dBu contour:

| Azimuth | ERP | HAAT | Distance |
|---------|--------|---------|----------|
| 0.0 deg | 789 kW | 437.4 m | 110.3 km |
| 45.0 | 983 | 442.4 | 113.0 |
| 90.0 | 819 | 444.9 | 111.3 |
| 135.0 | 833 | 445.3 | 111.5 |
| 180.0 | 996 | 445.2 | 113.4 |
| 225.0 | 728 | 443.3 | 110.0 |
| 270.0 | 288 | 435.3 | 100.1 |
| 315.0 | 319 | 438.5 | 101.3 |

ERP exceeds maximum
ERP: 1000 kW ERP maximum: 693 kW

Distance to Canadian border: 1073.6 km

Distance to Mexican border: 1655.5 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 303.5 degrees Distance: 373.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 299.5 degrees Distance: 2315.1 km

Table 1 WTOC-TV TVStudy Analysis of Proposal
(page 2 of 4)



Study cell size: 2.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLANK0000029019 LIC scenario 1

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|--------------------|--------------|---------|-----------------|---------|-------------------|-----------------------|---------------------------|
| | WJCL | D22 | DT | LIC | SAVANNAH, GA | BLANK0000029019 | |
| Undesireds: | WTOC-TV | D23 | DT | APP | SAVANNAH, GA | WTOC-TV to Ch23 DA-WC | 1.2 km |
| | WEBA-TV | D21 | DT | LIC | ALLENDALE, SC | BLANK0000081199 | 125.7 |
| | WTWC-TV | D22 | DT | LIC | TALLAHASSEE, FL | BLANK0000118579 | 293.1 |
| | WHSG-TV | D22 | DT | LIC | MONROE, GA | BLANK0000081582 | 338.6 |
| | WACH | D22 | DT | LIC | COLUMBIA, SC | BLANK0000093772 | 234.9 |
| | Service area | | Terrain-limited | | IX-free, before | IX-free, after | Percent New IX |
| | 32206.9 | 938,086 | 32206.9 | 938,086 | 32046.3 | 935,822 | 31998.2 934,791 0.15 0.11 |
| Undesired | | | Total IX | | Unique IX, before | Unique IX, after | |
| WTOC-TV D23 DT APP | | 48.1 | 1,031 | | 48.1 | 1,031 | |
| WTWC-TV D22 DT LIC | | 60.4 | 575 | 56.4 | 462 | 56.4 | 462 |
| WHSG-TV D22 DT LIC | | 8.0 | 124 | 0.0 | 0 | 0.0 | 0 |
| WACH D22 DT LIC | | 104.3 | 1,802 | 96.2 | 1,678 | 96.2 | 1,678 |

Interference to BLANK0000116580 LIC scenario 1

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|--------------------|--------------|---------|-----------------|---------|-------------------|-----------------------|---------------------------|
| | WPGA-TV | D23 | DT | LIC | PERRY, GA | BLANK0000116580 | |
| Undesireds: | WTOC-TV | D23 | DT | APP | SAVANNAH, GA | WTOC-TV to Ch23 DA-WC | 221.2 km |
| | WKTB-CD | D23 | DC | LIC | NORCROSS, GA | BLANK0000081811 | 142.7 |
| | WFLI-TV | D23 | DT | LIC | CLEVELAND, TN | BLANK0000093785 | 313.2 |
| | Service area | | Terrain-limited | | IX-free, before | IX-free, after | Percent New IX |
| | 13486.2 | 559,495 | 13454.2 | 559,025 | 13406.3 | 558,676 | 13293.9 556,348 0.84 0.42 |
| Undesired | | | Total IX | | Unique IX, before | Unique IX, after | |
| WTOC-TV D23 DT APP | | 124.4 | 2,408 | | 112.4 | 2,328 | |
| WKTB-CD D23 DC LIC | | 48.0 | 349 | 32.0 | 264 | 28.0 | 255 |
| WFLI-TV D23 DT LIC | | 16.0 | 85 | 0.0 | 0 | 0.0 | 0 |

Interference to BLCDT19991025AEB LIC scenario 1

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|--------------------|--------------|-----------|-----------------|-----------|----------------------|-----------------------|-----------------------------|
| | WBTV | D23 | DT | LIC | CHARLOTTE, NC | BLCDT19991025AEB | |
| Undesireds: | WTOC-TV | D23 | DT | APP | SAVANNAH, GA | WTOC-TV to Ch23 DA-WC | 368.2 km |
| | WUVC-DT | D22 | DT | LIC | FAYETTEVILLE, NC | BLANK0000125505 | 200.7 |
| | WACH | D22 | DT | LIC | COLUMBIA, SC | BLANK0000093772 | 144.0 |
| | WKPT-CD | D22 | DC | LIC | KINGSFORT, TN | BLDTA20120420ACJ | 180.5 |
| | WKPT-TV | D23 | DT | LIC | PIKEVILLE, KY | BLANK0000087418 | 244.8 |
| | WARZ-CD | D23 | DC | LIC | SMITHFIELD-SELMA, NC | BLANK0000124859 | 261.8 |
| | WECT | D23 | DT | LIC | WILMINGTON, NC | BLANK0000111584 | 306.2 |
| | WAPW-CD | D23 | DC | LIC | ABINGDON, ETC., VA | BLANK0000116775 | 173.8 |
| | WTVR-TV | D23 | DT | LIC | RICHMOND, VA | BLANK0000109887 | 399.7 |
| | WCNC-TV | D24 | DT | LIC | CHARLOTTE, NC | BLANK0000087279 | 2.4 |
| | Service area | | Terrain-limited | | IX-free, before | IX-free, after | Percent New IX |
| | 46318.9 | 4,433,020 | 44105.4 | 4,295,962 | 43018.8 | 4,267,365 | 42998.8 4,266,654 0.05 0.02 |
| Undesired | | | Total IX | | Unique IX, before | Unique IX, after | |
| WTOC-TV D23 DT APP | | 95.7 | 2,183 | | 19.9 | 711 | |
| WUVC-DT D22 DT LIC | | 40.4 | 1,274 | 8.1 | 255 | 8.1 | 255 |
| WACH D22 DT LIC | | 359.0 | 4,511 | 347.0 | 4,471 | 287.2 | 3,039 |
| WKPT-CD D22 DC LIC | | 4.0 | 183 | 0.0 | 0 | 0.0 | 0 |

Table 1 WTOC-TV TVStudy Analysis of Proposal
(page 3 of 4)



| | | | | | | |
|--------------------|-------|--------|-------|--------|-------|--------|
| WKPI-TV D23 DT LIC | 24.0 | 557 | 12.0 | 170 | 12.0 | 170 |
| WARZ-CD D23 DC LIC | 8.1 | 393 | 0.0 | 0 | 0.0 | 0 |
| WECT D23 DT LIC | 388.1 | 10,898 | 343.9 | 9,839 | 343.9 | 9,839 |
| WAPW-CD D23 DC LIC | 28.0 | 351 | 20.0 | 147 | 20.0 | 147 |
| WTVR-TV D23 DT LIC | 4.0 | 1,644 | 4.0 | 1,644 | 4.0 | 1,644 |
| WCNC-TV D24 DT LIC | 295.4 | 10,625 | 295.4 | 10,625 | 291.4 | 10,625 |

Interference to BLCDT19991025AEB LIC scenario 2

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|----------------------|-----------------------|----------|
| | WBTV | D23 | DT | LIC | CHARLOTTE, NC | BLCDT19991025AEB | |
| Undesireds: | WTOC-TV | D23 | DT | APP | SAVANNAH, GA | WTOC-TV to Ch23 DA-WC | 368.2 km |
| | WUVC-DT | D22 | DT | LIC | FAYETTEVILLE, NC | BLANK0000125505 | 200.7 |
| | WACH | D22 | DT | LIC | COLUMBIA, SC | BLANK0000093772 | 144.0 |
| | WKPT-CD | D22 | DC | LIC | KINGSFORT, TN | BLDTA20120420ACJ | 180.5 |
| | WKPI-TV | D23 | DT | LIC | PIKEVILLE, KY | BLANK0000087418 | 244.8 |
| | WARZ-CD | D23 | DC | APP | SMITHFIELD-SELMA, NC | BLANK0000123118 | 242.3 |
| | WECT | D23 | DT | LIC | WILMINGTON, NC | BLANK0000111584 | 306.2 |
| | WAPW-CD | D23 | DC | LIC | ABINGDON, ETC., VA | BLANK0000116775 | 173.8 |
| | WTVR-TV | D23 | DT | LIC | RICHMOND, VA | BLANK0000109887 | 399.7 |
| | WCNC-TV | D24 | DT | LIC | CHARLOTTE, NC | BLANK0000087279 | 2.4 |

| Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New IX |
|--------------------|-----------------|-------------------|------------------|----------------|
| 46318.9 | 4,433,020 | 44105.4 | 4,295,962 | 43018.8 |
| | | 4,267,365 | 42998.8 | 4,266,654 |
| | | | | 0.05 |
| | | | | 0.02 |
| Undesired | Total IX | Unique IX, before | Unique IX, after | |
| WTOC-TV D23 DT APP | 95.7 | 2,183 | 19.9 | 711 |
| WUVC-DT D22 DT LIC | 40.4 | 1,274 | 8.1 | 255 |
| WACH D22 DT LIC | 359.0 | 4,511 | 347.0 | 4,471 |
| WKPT-CD D22 DC LIC | 4.0 | 183 | 0.0 | 0 |
| WKPI-TV D23 DT LIC | 24.0 | 557 | 12.0 | 170 |
| WARZ-CD D23 DC APP | 4.0 | 177 | 0.0 | 0 |
| WECT D23 DT LIC | 388.1 | 10,898 | 343.9 | 9,839 |
| WAPW-CD D23 DC LIC | 28.0 | 351 | 20.0 | 147 |
| WTVR-TV D23 DT LIC | 4.0 | 1,644 | 4.0 | 1,644 |
| WCNC-TV D24 DT LIC | 295.4 | 10,625 | 295.4 | 10,625 |

Interference to BLCDT20110426AAQ LIC scenario 1

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|----------------------|-----------------------|----------|
| | WPXC-TV | D24 | DT | LIC | BRUNSWICK, GA | BLCDT20110426AAQ | |
| Undesireds: | WTOC-TV | D23 | DT | APP | SAVANNAH, GA | WTOC-TV to Ch23 DA-WC | 141.3 km |
| | WDSC-TV | D24 | DT | LIC | NEW SMYRNA BEACH, FL | BLANK0000090505 | 255.1 |
| | WWSB | D24 | DT | CP | SARASOTA, FL | BLANK0000035646 | 368.4 |
| | WTLF | D24 | DT | CP | TALLAHASSEE, FL | BLANK0000035775 | 213.8 |
| | WITV | D24 | DT | LIC | CHARLESTON, SC | BLANK0000118279 | 302.4 |

| Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New IX |
|--------------------|-----------------|-------------------|------------------|----------------|
| 31644.1 | 1,561,014 | 31644.1 | 1,561,014 | 30168.3 |
| | | 1,554,250 | 29871.0 | 1,548,161 |
| | | | | 0.99 |
| | | | | 0.39 |
| Undesired | Total IX | Unique IX, before | Unique IX, after | |
| WTOC-TV D23 DT APP | 309.5 | 6,102 | 297.3 | 6,089 |
| WDSC-TV D24 DT LIC | 4.0 | 0 | 4.0 | 0 |
| WTLF D24 DT CP | 1459.7 | 6,751 | 1459.7 | 6,751 |
| WITV D24 DT LIC | 12.2 | 13 | 12.2 | 13 |

Interference to BLCDT20110426AAQ LIC scenario 2

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|----------------------|-----------------------|----------|
| | WPXC-TV | D24 | DT | LIC | BRUNSWICK, GA | BLCDT20110426AAQ | |
| Undesireds: | WTOC-TV | D23 | DT | APP | SAVANNAH, GA | WTOC-TV to Ch23 DA-WC | 141.3 km |
| | WDSC-TV | D24 | DT | LIC | NEW SMYRNA BEACH, FL | BLANK0000090505 | 255.1 |
| | WWSB | D24 | DT | CP | SARASOTA, FL | BLANK0000035646 | 368.4 |
| | WITV | D24 | DT | LIC | CHARLESTON, SC | BLANK0000118279 | 302.4 |

| Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New IX |
|--------------|-----------------|-----------------|----------------|----------------|
| 31644.1 | 1,561,014 | 31644.1 | 1,561,014 | 31627.9 |
| | | 1,561,001 | 31330.6 | 1,554,912 |
| | | | | 0.94 |
| | | | | 0.39 |

Table 1 WTOC-TV TVStudy Analysis of Proposal
(page 4 of 4)



| Undesired | | Total IX | Unique IX, before | | Unique IX, after | |
|--------------------|-------|----------|-------------------|----|------------------|-------|
| WTOC-TV D23 DT APP | 309.5 | 6,102 | | | 297.3 | 6,089 |
| WDSC-TV D24 DT LIC | 4.0 | 0 | 4.0 | 0 | 4.0 | 0 |
| WITV D24 DT LIC | 12.2 | 13 | 12.2 | 13 | 0.0 | 0 |

Interference to BLANK0000118279 LIC scenario 1

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|--------------|---------|-----------------|---------|-----------------|-----------------------|----------------|
| | WITV | D24 | DT | LIC | CHARLESTON, SC | BLANK0000118279 | |
| Undesireds: | WTOC-TV | D23 | DT | APP | SAVANNAH, GA | WTOC-TV to Ch23 DA-WC | 182.5 km |
| | WCIV | D25 | DT | LIC | CHARLESTON, SC | BLANK0000081822 | 1.8 |
| | Service area | | Terrain-limited | | IX-free, before | IX-free, after | Percent New IX |
| | 28696.5 | 871,783 | 28696.5 | 871,783 | 26919.2 | 858,541 | 0.28 0.02 |

| Undesired | | Total IX | Unique IX, before | | Unique IX, after | |
|--------------------|--------|----------|-------------------|--------|------------------|--------|
| WTOC-TV D23 DT APP | 76.5 | 145 | | | 76.5 | 145 |
| WCIV D25 DT LIC | 1777.3 | 13,242 | 1777.3 | 13,242 | 1777.3 | 13,242 |

Interference to proposal scenario 1
0.96% interference received

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|--------------------|--------------|----------|-----------------|-----------|-----------------|-----------------------|-----------|
| | WTOC-TV | D23 | DT | APP | SAVANNAH, GA | WTOC-TV to Ch23 DA-WC | |
| Undesireds: | WJCL | D22 | DT | LIC | SAVANNAH, GA | BLANK0000029019 | 1.2 km |
| | WPGA-TV | D23 | DT | LIC | PERRY, GA | BLANK0000116580 | 221.2 |
| | WPXC-TV | D24 | DT | LIC | BRUNSWICK, GA | BLCDT20110426AAQ | 141.3 |
| | WITV | D24 | DT | LIC | CHARLESTON, SC | BLANK0000118279 | 182.5 |
| | Service area | | Terrain-limited | | IX-free | Percent IX | |
| | 37294.1 | 968,310 | 37294.1 | 968,310 | 36435.9 | 959,030 | 2.30 0.96 |
| Undesired | | Total IX | | Unique IX | Prcnt Unique IX | | |
| WJCL D22 DT LIC | 4.0 | 25 | 4.0 | 25 | 0.01 | 0.00 | |
| WPGA-TV D23 DT LIC | 28.2 | 213 | 28.2 | 213 | 0.08 | 0.02 | |
| WPXC-TV D24 DT LIC | 548.7 | 6,801 | 548.7 | 6,801 | 1.47 | 0.70 | |
| WITV D24 DT LIC | 277.2 | 2,241 | 277.2 | 2,241 | 0.74 | 0.23 | |

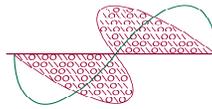


Table 2

Overlapping Authorized Alternate Television Services

prepared for

Gray Television Licensee, LLC

WTOC-TV Savannah, GA

| Call Sign | Ch. | Facility ID | Status | File Number | Community |
|-----------|-----|-------------|--------|--------------------|------------------------|
| WCES-TV | 6 | 23937 | Lic | 0000016506 | Wrens, GA |
| WXGA-TV | 7 | 23929 | Lic | 0000113481 | Waycross, GA |
| WVAN-TV | 8 | 23947 | Lic | 0000113482 | Savannah, GA |
| WJCT | 9 | 73130 | Lic | 0000124636 | Jacksonville, FL |
| WMUM-TV | 9 | 23935 | Lic | 0000124672 | Cochran, GA |
| WJXX | 10 | 11893 | Lic | BLCDDT-20090702AAK | Orange Park, FL |
| WRDW-TV | 12 | 73937 | Lic | BLCDDT-20090227ABQ | Augusta, GA |
| WTLV | 13 | 65046 | Lic | BLCDDT-20090702AAJ | Jacksonville, FL |
| WFOX-TV | 14 | 11909 | Lic | 0000120746 | Jacksonville, FL |
| WSAV-TV | 16 | 48662 | Lic | 0000055021 | Savannah, GA |
| WTAT-TV | 17 | 416 | Lic | 0000118551 | Charleston, SC |
| WJXT | 18 | 53116 | Lic | 0000097950 | Jacksonville, FL |
| WCSC-TV | 19 | 71297 | Lic | 0000054856 | Charleston, SC |
| WJAX-TV | 19 | 35576 | Lic | BLCDDT-20030328ANV | Jacksonville, FL |
| WCBF-TV | 20 | 10587 | Lic | 0000081288 | Charleston, SC |
| WCWJ | 20 | 29712 | Lic | 0000097952 | Jacksonville, FL |
| WEBA-TV | 21 | 61003 | Lic | 0000081199 | Allendale, SC |
| WJEB-TV | 21 | 29719 | Lic | 0000105949 | Jacksonville, FL |
| WJCL | 22 | 37174 | Lic | 0000029019 | Savannah, GA |
| WITV | 24 | 61005 | Lic | 0000118279 | Charleston, SC |
| WPXC-TV | 24 | 71236 | Lic | BLCDDT-20110426AAQ | Brunswick, GA |
| WCIV | 25 | 9015 | Lic | 0000081822 | Charleston, SC |
| WTGS | 26 | 27245 | Lic | 0000112289 | Hardeeville, SC |
| WJBF | 28 | 27140 | Lic | 0000116201 | Augusta, GA |
| W30CV-D | 30 | 67140 | Lic | BLDTL-20110110AAR | Hilton Head Island, SC |
| WAGT-CD | 30 | 3369 | Lic | 0000063630 | Augusta, GA |
| WJWJ-TV | 32 | 61007 | Lic | 0000100564 | Beaufort, SC |
| WGWG | 34 | 21536 | Lic | BLCDDT-20060630ADJ | Charleston, SC |
| WSCG | 35 | 69446 | Lic | BLCDDT-20071120AJC | Baxley, GA |
| WFXG | 36 | 3228 | Lic | 0000081277 | Augusta, GA |