

COVINGTON & BURLING LLP

1201 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004-2401
TEL 202 662 6000
FAX 202 662 6291
WWW.COV.COM

BEIJING
BRUSSELS
LONDON
NEW YORK
SAN DIEGO
SAN FRANCISCO
SILICON VALLEY
WASHINGTON

EVE R. POGORILER
TEL 202 662 5345
FAX 202 778 5345
EPOGORILER@COV.COM

May 26, 2011

BY HAND DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Room TW-A325
Washington, DC 20554

Attn: Chief, Media Bureau

**Re: BlueStone License Holdings, Inc.
Petition for Rulemaking**

Dear Ms. Dortch:

On behalf of BlueStone License Holdings, Inc., licensee of full-power commercial television station WCYB-TV, Bristol, Virginia, enclosed please find an original and four copies of a Petition for Rulemaking to amend 47 C.F.R. § 73.622(i), the final DTV Table of Allotments. Please direct any questions concerning this matter to the undersigned.

FILED/ACCEPTED

MAY 26 2011

Federal Communications Commission
Office of the Secretary

Respectfully submitted,



Eve R. Pogoriler
Counsel to BlueStone License
Holdings, Inc.

Enclosure

cc: Joyce Bernstein (via e-mail)
M. Anne Swanson and Scott S. Patrick (via e-mail)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FILED/ACCEPTED

MAY 26 2011

Federal Communications Commission
Office of the Secretary

In the Matter of)
)
Amendment of Section 73.622(i),) MB Docket No. _____
Final DTV Table of Allotments,) RM-_____
Television Broadcast Stations)
(Bristol, Virginia))

To: Chief, Media Bureau

PETITION FOR RULEMAKING

BlueStone License Holdings, Inc. (“BlueStone”), licensee of full-power commercial television station WCYB-TV, Bristol, Virginia (Facility ID 2455) (“WCYB” or the “Station”) respectfully requests that the Commission amend Section 73.622(i) of its rules, the final DTV Table of Allotments, to substitute Channel 29 for Channel 5 at Bristol, Virginia. Moving from the low VHF spectrum band to the UHF spectrum band will improve reception of WCYB’s DTV signal and will enable the Station to provide its viewers with mobile digital television (“mobile DTV”) services. As discussed below, problems with low VHF reception are well-recognized, and WCYB’s case is similar to that of numerous other stations for which the Commission has agreed to grant new UHF allotments.

I. BACKGROUND

WCYB is the NBC affiliate for the Tri-Cities (Bristol-Kingsport-Johnson City) designated market area. It also has a digital multicast channel affiliated with the CW television network. Prior to the completion of the digital transition, WCYB transmitted its digital signal on UHF Channel 28. In connection with the nationwide transition to final digital operations, WCYB began transmitting its digital signal on low VHF Channel 5 (the Station’s former analog channel) in June 2009. The change to low VHF operations caused large numbers of over-the-air

viewers to lose reception of the Station's signal. In order to address the widespread loss of service, WCYB sought Special Temporary Authorization to operate with an effective radiated power ("ERP") of 29.9 kW, which is the maximum power level that the Station's equipment can accommodate. The FCC granted that request.¹ The Station determined that the power increase improved reception for certain viewers, but did not fully resolve the reception problems.² WCYB ultimately sought permanent authorization to operate at 29.9 kW, and the FCC granted that request.³

The Station has continued to receive calls from viewers who are unable to receive a reliable signal from WCYB. As noted below, reception appears to be particularly vulnerable during times when a reliable signal is most critical: *i.e.*, during tornadoes and storms, when lightning and its associated electrical noise cause viewers to lose access to WCYB's broadcasts of emergency information. The Station files this request in order to provide a more robust signal to the many viewers who cannot receive the Station's signal or cannot count on it during severe weather events. It also seeks to move to Channel 29 in order to ensure that it can offer its viewers mobile DTV services. As described in more detail below, WCYB is excited about the opportunity to provide its viewers with mobile DTV offerings and is concerned that its current low VHF channel is not suitable for providing such services.

¹ See FCC File No. BDSTA-20090708AGZ.

² See FCC File No. BEDSTA-20100105AAZ.

³ See FCC File No. BPCDT-20100408ABM.

II. SUBSTITUTION OF CHANNEL 29 WOULD SERVE THE PUBLIC INTEREST.

Amendment of the DTV Table of Allotments so that WCYB can operate on Channel 29 would serve the public interest by enabling WCYB to provide a more reliable signal and mobile DTV services to its viewers.

The Commission has recognized that the VHF channels “have certain characteristics that have posed challenges for their use in providing digital television service.”⁴ It has noted that “the propagation characteristics of these 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 that are generally not well suited to the mobile applications expected under flexible use, relative to UHF channels.”⁵

The low VHF band is particularly problematic. Early in the digital transition process “it was recognized that use of the low-VHF channels 2-6 for digital service could be particularly difficult because of the generally higher levels of background noise on those channels.”⁶ In light of concerns about the suitability of the low VHF band for digital broadcasting, licensees that received tentative channel designations on low VHF channels during the transition process were permitted an opportunity to seek an alternative channel designation.⁷ As post-transition experience has shown, even those stations that constructed final post-transition

⁴ *Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rulemaking, ET Docket No. 10-235, 25 FCC Rcd 16498, para. 42 (rel. Nov. 30, 2010) (“NPRM”).

⁵ *Id.*

⁶ NPRM at para. 43.

⁷ See *Second Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television*, Report and Order, 19 FCC Rcd 18279, at paras. 51 and 63 (2004).

digital facilities on low VHF channels have struggled with the band's characteristics, and many such stations have sought and received authorization to move to UHF channels.

WCYB's viewers experienced widespread service losses during the recent tornadoes and storms in the region, because electrical noise (caused by lightning) affected their ability to receive the Station's low VHF signal.⁸ The possibility of life-threatening and otherwise devastating consequences of service losses during times when WCYB is transmitting emergency information to its viewers underscores the urgency and importance of WCYB's request to move to a UHF channel.

In addition to background noise problems in the low VHF band, low VHF digital broadcasting presents serious challenges due to shortcomings in consumer reception equipment. As the Commission has stated, "we would expect that because of the need for longer elements to receive longer wavelength low-VHF signals, it is likely that the reception capabilities of an indoor antenna at low-VHF will generally to be less than at high-VHF. We note that many indoor antennas are not marketed for reception of low-VHF channels."⁹ Technical experts explained at the Commission-hosted Broadcast Engineering Forum that "the options for improving TV service on the VHF channels, especially those in the low-VHF band, are limited."¹⁰

In recognition of the well-recognized and widespread problems with VHF reception, the Commission has proposed to increase the maximum permissible power for stations in Zone I, stating that the proposed power increases would "allow such stations to provide signal

⁸ See Engineering Exhibit at 1-2.

⁹ NPRM at para. 44; *see also id.* at para. 56 (citing indoor antennas' poor low VHF reception capability).

¹⁰ *Id.* at para. 45.

strengths to areas close to their transmitters, *i.e.*, generally their principle community areas.”¹¹

The Commission has not, however, proposed to allow higher power levels for stations in Zone II, where WCYB is located. Moreover, given that the reception problem is at the core of the station’s service area, and given the experience of other stations, we do not believe that a power increase would be sufficient resolve these reception problems.

Operation on Channel 29 would improve reception of WCYB’s signal by viewers in the Station’s core service area. While the Station’s power increase following the transition addressed the reception problems that certain viewers experienced, many viewers still report that they are unable to receive the Station’s signal. The viewers who have contacted the station are in WCYB’s core service area. By moving its digital broadcasts to the UHF spectrum band, the Station would be able to provide a superior signal to these viewers.

Moreover, WCYB is concerned that Channel 5 will not be suitable for future mobile DTV transmissions, regardless of the Station’s power level. Mobile DTV is an innovative new service that allows television stations to offer programming to consumers using mobile-DTV capable netbooks, cell phones, and other devices. Consumers show high demand for live, local news offerings and other programming provided over mobile DTV.¹² Mobile DTV also provides a lifeline during emergencies, permitting immediate dissemination of life-saving emergency information during crises, even when cellular networks are overwhelmed or the power goes out.¹³

¹¹ NPRM at para. 48.

¹² *See* Comments of Pearl Mobile DTV Company, LLC (“Pearl”), Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF, ET Docket No. 10-235, at 3-5 (March 18, 2011).

¹³ Pearl Comments at 5-6.

WCYB sees mobile DTV as a key part of its ability to serve viewers in the future. Yet WCYB will be unable to provide mobile DTV, and its viewers will be deprived of this service, if WCYB remains in the low VHF spectrum band, on Channel 5. As Pearl noted in its recent comments on the NPRM, “the laws of physics and other unavoidable factors may constrain widespread use of the low VHF band for Mobile DTV.”¹⁴ This is due to several factors, including interference problems and the fact that “VHF antennas may need to be considerably larger than the embedded (and thus invisible to the consumer) antennas standard in the mobile handheld marketplace.”

BlueStone has studied the possible channel alternatives in the market, and based on this study, it has determined that Channel 29 is the best of the available alternatives. Other available UHF channels would entail using much lower power levels in order to avoid causing excessive interference to other stations, thus resulting in a reduced service area for WCYB.

If this Petition is granted, BlueStone intends to apply promptly for a permit to construct a full-power digital television facility on Channel 29. As shown in the attached Engineering Exhibit, the proposed Channel 29 facility is predicted to serve 1,462,985 persons over an area of 39,860 square kilometers.¹⁵ WCYB’s current Appendix B facility is predicted to serve 1,934,000 persons over an area of 46,471 square kilometers.¹⁶ Although these figures suggest a predicted service loss, the Station notes that:

- (1) The Station’s Appendix B facility and its current 29.9 kW Channel 5 contour are not an accurate representation of its actual coverage, and therefore the apparent

¹⁴ *Id.* at 11.

¹⁵ *See* Attachment A (Engineering Exhibit), at 2.

¹⁶ *Id.* at 2. These figures are based on the Appendix B figures and do not reflect the power increase obtained by the Station in order to improve service to its viewers.

loss in coverage is overstated. Many locations that are predicted to receive WCYB's signal do not receive a reliable signal due in part to the rugged, mountainous terrain in the area,¹⁷ and due to the demonstrated service disruptions that are reflected by the many viewer complaints received by the Station. The Commission previously has sanctioned similar losses in order to permit stations to move to UHF channels and provide more robust signals to their viewers.¹⁸

- (2) The proposed Channel 29 facility would serve more viewers than were served by the Station's pre-transition Channel 28 DTV coverage. Specifically, the proposed Channel 29 facility would serve 127.2% of the population covered by the Station's pre-transition licensed Channel 28 facility.¹⁹
- (3) WCYB's pre-transition Channel 28 facility was intended to replicate the Station's (former) Channel 5 analog facility and fell short in doing so. Yet, WCYB could have elected to stay on Channel 28 after the transition, despite the potential for any resulting loss in service. In other words, the Commission would have approved a substantially smaller post-transition digital service area than the one that WCYB proposes here.²⁰

¹⁷ *Id.* at 3-4; *see also id.* at 5 (noting that the Channel 5 predicted service contour "overestimates the extent of actual existing service").

¹⁸ *See Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Nashville, Tennessee)*, Report and Order, MB Docket No. 11-29, RM-11622, DA 11-949 (rel. May 25, 2011) (substituting UHF for VHF channel for a station seeking to address service losses in its core service area, despite substantial service losses); *Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Cadillac, Michigan)*, Notice of Proposed Rulemaking, MB Docket No. 08-252, RM-11509, 23 FCC Rcd 18027 (2008) (proposing channel substitution despite theoretical service loss).

¹⁹ *See* Engineering Exhibit at 4.

²⁰ *Id.* at 4-5.

Because the proposed Channel 29 facility would enable more reliable service to the Station's core service area and would improve the Station's ability to provide mobile DTV service,²¹ the Station respectfully submits that the requested allotment change is in the public interest.

III. CONCLUSION

For the foregoing reasons, the public interest would be served by amending the DTV Table of Allotments and substituting Channel 29 for Channel 5 in Bristol, Virginia, with the following specifications:

<u>City and State</u>	<u>Channel</u>	<u>DTV Power (kW)</u>	<u>Antenna HAAT (m)</u>
Bristol, Virginia	29	1,000	759

The proposed allotment will enable WCYB to provide its viewers with mobile DTV services and will improve local reception of its DTV signal.

²¹ See *Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Flagstaff, Arizona)*, Notice of Proposed Rulemaking, MB Docket No. 08-110, RM-11453, 24 FCC Rcd 10245 (2009) (proposing UHF channel substitution for VHF station seeking to provide mobile DTV services); Supplement to Petition for Rulemaking, MB Docket No. 08-110, RM-11453 (Sept. 22, 2008) (noting that much of the predicted service loss for this proposal would be theoretical); Report and Order, MB Docket No. 08-110, RM-11453, 24 FCC Rcd 11892 (2009) (granting channel substitution). See also *Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Colorado Springs, Colorado)*, Notice of Proposed Rulemaking, MB Docket No. 09-111, RM-11541, 24 FCC Rcd 8559 (2009) and Report and Order, 24 FCC Rcd 10259 (2009) (proposing and then granting UHF channel substitution for VHF station seeking to enhance its service and improve its ability to offer mobile DTV service).

EXPEDITED PROCESSING REQUESTED

Respectfully submitted,

BLUESTONE LICENSE HOLDINGS, INC.

By: 
Jennifer A. Johnson

Eve R. Pogoriler

COVINGTON & BURLING LLP

1201 Pennsylvania Avenue NW

Washington, D.C. 20004

(202) 662-6000

Its Attorneys

May 25, 2011

DECLARATION OF THOMAS M. CUPP

I, Thomas M. Cupp, hereby declare under penalty of perjury that:

1. I am the Vice President of Engineering for Bonten Media Group, parent company of BlueStone License Holdings, Inc.

2. I have reviewed the foregoing Petition for Rulemaking and the factual matters contained therein are true and correct to the best of my information, knowledge, and belief.

5-24, 2011
Date


Thomas M. Cupp

Attachment A



Engineering Statement
Digital Television Channel Change
prepared for
Bluestone License Holdings Inc.
WCYB-TV Bristol, VA
Facility ID 2455
Ch. 29 1000 kW 759 m

This engineering statement has been prepared on behalf of *Bluestone License Holdings Inc.* ("*Bluestone*"), licensee of WCYB-TV (Facility ID 2455, Bristol, VA) in support of a *Petition for Rulemaking* to change the WCYB-TV digital television post-transition channel assignment. WCYB-TV's pre-transition operations were on analog VHF Channel 5 and digital UHF Channel 28. Post transition, WCYB-TV is currently licensed as digital on Low-Band VHF Channel 5 (BLCDT-20100629AUD) as established in Appendix B of the Seventh Report and Order in MB Docket 87-268. *Bluestone* herein requests a channel substitution for the post-transition WCYB-TV.

Bluestone proposes herein to substitute UHF Channel 29 in lieu of the current VHF Channel 5 digital allotment. The substitution is intended to aid in recovering viewers that were lost when WCYB-TV ceased analog operation on the transition date. Since the transition to digital, many viewers continue to experience significant difficulty in receiving WCYB-TV's digital signal as described elsewhere in the *Petition for Rulemaking*. Problems with digital VHF reception by stations in many markets have been widely publicized since the transition date. WCYB-TV's experience is similar to other stations using Low-Band VHF channels in the post-transition period. It has been found that indoor reception is difficult for digital Low-Band VHF stations such as WCYB-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.

Bluestone believes that changing to a UHF channel will substantially restore service and especially improve indoor reception as well as offer better reception by mobile/handheld devices.



The need for robust coverage to provide over-the-air weather warnings and other local emergency news has recently been emphasized by numerous severe weather events¹ across the country which includes a fatal tornado in the WCYB-TV service area.² During recent severe storms, WCYB-TV's viewers have had even more difficulty getting over the air emergency information due to additional electrical noise (lightning) affecting reception of the Low-Band VHF Channel 5 signal.

The proposal specifies use of the licensed WCYB-TV site location³ and facilities as summarized in the following. The proposed Channel 29 antenna will be placed at the same location as WCYB-TV's formerly licensed pre-transition digital Channel 28 antenna system, which is top-mounted above the licensed digital Channel 5 antenna.

Present Channel 5 Parameters (Appendix B)

Facility ID	State and City		NTSC	DTV								
				Chan	Chan	ERP (kW)	HAAT (m)	Antenna ID	Latitude (DDMMSS)	Longitude (DDMMSS)	Area (sq km)	Population (thous)
2455	VA	BRISTOL	5	5	8.93	680	80200	36-26-57	82-06-31	46,471	1,934	0.7

Antenna C/R AMSL: 680 meters

Proposed Channel 29 Parameters

Facility ID	State and City		NTSC	DTV								
				Chan	Chan	ERP (kW)	HAAT (m)	Antenna ID	Latitude (DDMMSS)	Longitude (DDMMSS)	Area (sq km)	Population (thous)
2455	VA	BRISTOL	5	29	1000	759	Non-D	36-26-58	82-06-29	39,860	1,463	5.5

Antenna C/R AMSL: 1404 meters

Population and Coverage

A map is supplied as Figure 1, which depicts the standard predicted coverage contours. This map includes the boundaries of Bristol, VA, WCYB-TV's principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 48 dBμ contour.

¹ Recent events include record setting fatal tornado outbreaks and ongoing historic flooding of the Mississippi River.

² <http://www2.tricity.com/news/2011/apr/29/heavy-storms-spawn-tornadoes-kill-least-14-region-ar-1004558/>.

³ Updated geographic coordinates (one-second change in Latitude, two-second change in Longitude) are specified in order to conform to the WCYB-TV tower's Antenna Structure Registration data (#1225306).

Figure 2 provides a coverage contour comparison, demonstrating that the channel substitution would not result in any appreciable contour loss area from the pre-transition analog and digital facilities as well as the post-transition digital Channel 5 Appendix B facility. The proposed WCYB-TV allotment’s predicted service population of 1,462,985 persons provides a 75.9 percent match of the current Appendix B facility, as detailed in the following table.

Population Summary (2000 Census) OET Bulletin 69 method ⁴ (2 km cell, 0.2 km step)	Appendix B Channel 5	Proposed Channel 29
Within Noise Limited Contour	2,215,776	2,240,168
Not affected by terrain losses	1,930,838	1,547,687
Lost to all interference	2,718	84,702
Net DTV Service	1,928,120	1,462,985
Match of Appendix B	---	75.88%

Although the proposed Channel 29 coverage contour matches or exceeds all of the pre-transition analog and digital contour areas and that of the post-transition Appendix B facility, the population match to the Appendix B Channel 5 is 75.9 percent. However WCYB-TV’s former analog facility on Channel 5 (BLCT-20020708AAW) provided an interference-free service population of 1,610,844 persons, and the proposed Channel 29 allotment would match 90.8 percent of that population.

The decrease in service population is due to the impact of terrain blockage and how the OET Bulletin 69 methodology treats Low-Band VHF as compared to UHF frequencies when significant terrain is a factor. The signal from WCYB-TV’s low-band VHF Channel 5 (analog or digital) is considered by OET Bulletin 69 to refract much better over terrain obstructions than signal from a UHF facility. WCYB-TV serves an area surrounded by rugged mountains in southwestern Virginia and northeastern Tennessee. The “Tri-Cities” area is in a valley region and consists principally of Bristol, VA and Kingsport and Johnson City, TN. Areas of North Carolina and West Virginia that

⁴FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004. The implementation of OET Bulletin 69 for these studies followed the guidelines of OET-69 as specified therein. A cell size of 2 km and terrain step size of 0.2 km were employed for all analyses summarized herein. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission’s implementation of OET-69 show excellent correlation.

are within the service contour are largely terrain-blocked from the WCYB-TV antenna location. Thus, many locations that were predicted to receive Low-Band Channel 5 analog or digital signals would be utilizing a refracted signal in terrain-shadowed areas, and that type of service is not particularly reliable under varying atmospheric and other local conditions.

WCYB-TV's pre-transition digital Channel 28 allotment was for 1000 kW effective radiated power ("ERP") at 680 meters antenna height above average terrain ("HAAT") in MB Docket 87-268⁵ (Second MO&O on the Fifth and Sixth Report and Orders "1998 Appendix B"). These Channel 28 parameters were considered to replicate the analog Channel 5 facility. OET Bulletin 69 analysis with 2000 census data shows that the pre-transition Channel 28 allotment for WCYB-TV would achieve an interference-free service population of 1,413,545 persons, and the pre-transition WCYB-TV licensed facility on Channel 28 (BLCDT-20020812ACC) provided interference-free service to 1,150,524 persons. The proposed Channel 29 allotment's service population of 1,462,985 persons represents a 103.5 percent match of the 1998 Appendix B WCYB-TV facility and a 127.2 percent match of the pre-transition WCYB-TV licensed facility.

Data within the 1998 Appendix B allotment table shows that even the pre-transition Channel 28 replication allotment (1000 kW ERP at 680 m HAAT) would have a population shortfall. There, the 1990 census data showed the analog service population at 1387 thousand persons and the digital television service population at 1255 thousand persons, which is a 90.5 percent match. The proposed Channel 29 allotment would result in a 90.8 percent population match of post-transition digital (1,462,985 persons) to pre-transition analog (1,610,844 persons), which exceeds the 1998 Appendix B 90.5 percent benchmark for WCYB-TV.

During the channel election process, Bluestone could have elected to remain on its UHF Channel 28 at replication parameters. In that case, the WCYB-TV post-transition allotment would have been 1000 kW ERP at 680 m HAAT, which is a smaller facility than the Channel 29 parameters proposed herein (1000 kW ERP at 759 m HAAT). The contour comparison on Figure 2

⁵ *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, MB Docket No. 87-268, FCC 98-315, released December 18, 1998.

also demonstrates that the proposed Channel 29's service contour would exceed that of the pre-transition 1998 Appendix B Channel 28 facility.

For completeness, the presently licensed WCYB-TV Channel 5 (BLCDT-20100629AUD) service contour is also provided on Figure 2 however it overestimates the extent of actual existing service. To aid in recovering viewers lost at the transition date WCYB-TV was granted a waiver of the maximum ERP rule §73.622(f)(6) in order to exceed replication parameters and increase power to 29.9 kW ERP. The purpose of the power increase was not intended (or expected) to expand WCYB-TV's actual coverage area but rather to help restore service losses that have been experienced within its principal community and other areas within the prior analog facility's Grade B service area with the transition to digital operation. The FCC has acknowledged that Low-Band VHF digital stations such as WCYB-TV are suffering from the inability to provide service replication on those channels.

From FCC 10-196 (para. 42-45)⁶:

"VHF channels have certain characteristics that have posed challenges for their use in providing digital television service. In particular, the propagation characteristics of these 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 that are generally not well suited to the mobile applications expected under flexible use, relative to UHF channels. We recognize that television broadcasters have had some difficulty in ensuring consistent reception of VHF signals....

"The VHF TV reception difficulties appear to be most common among consumers who use indoor antennas. Complaints from individuals typically have indicated that a consumer who was previously able to receive a station's analog VHF signal was not able to receive that station's digital VHF signal. Most of these reports involved situations where the consumer was using an indoor antenna. In addition, earlier in the transition process it was recognized that use of the low-VHF channels 2-6 for digital service could be particularly difficult because of the generally higher levels of background noise on those channels.... We note that many indoor antennas are not marketed for reception of low-VHF channels.

"As indicated above, the engineers participating in our Broadcast Engineering Forum indicated the view that the options for improving TV service on the VHF channels, especially those in the low-VHF band, are limited. They indicated that while practical power increases could marginally improve reception there are physical and practical limitations to achieving any significant reception improvement. Their general opinion was that the effect of a power increase would not be sufficient to compensate for reception problems caused by the increased RF noise level in the band and physical limitations on the size and efficiency of the transmit and receive antennas."

⁶*Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rulemaking, ET Docket 10-235, FCC 10-196, released November 30, 2010.

Allocation and Interference

A detailed interference study per OET Bulletin 69 shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby stations, except with respect to a recently filed petition by WJHL-TV (Johnson City, TN, 3.3 km distant) to substitute Channel 29 for its existing Channel 11. The WJHL-TV petition should be considered as mutually exclusive to *Bluestone's* proposal herein for WCYB-TV to change to Channel 29. The interference study output report is provided as Table 1 (omitting consideration of WJHL-TV). FCC processing of this proposal is requested on the basis of a 2 km cell size and 0.2 km terrain profile step size. Protection requirements towards authorized Class A stations are also satisfied.

The proposed 1000 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 759 meters currently 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. The total area within the proposed WCYB-TV 41 dB μ contour is 51,047 square kilometers, which does not exceed the 51,955 square kilometers within the 28 dB μ service contour for WCYB-TV's Channel 5 Appendix B facility. Thus, the ERP specified herein is in compliance with §73.622(f)(5) of the Commission's Rules.

Certification

The undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief.



Joseph M. Davis, P.E.
May 26, 2011

Chesapeake RF Consultants, LLC
207 Old Dominion Road
Yorktown, VA 23692
703-650-9600

List of Attachments

Figure 1	Proposed Coverage Contours
Figure 2	Coverage Contour Comparison
Table 1	OET Bulletin 69 Interference Study

Chesapeake RF Consultants, LLC

Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 1
Proposed Coverage Contours
WCYB-TV Bristol, VA
Facility ID 2455
Ch. 29 1000 kW 759 m

prepared for
Bluestone License Holdings Inc.

May, 2011

Proposed WCYB-TV Ch. 29
DTV City Grade (48 dBμ)
DTV Service (42 dBμ)

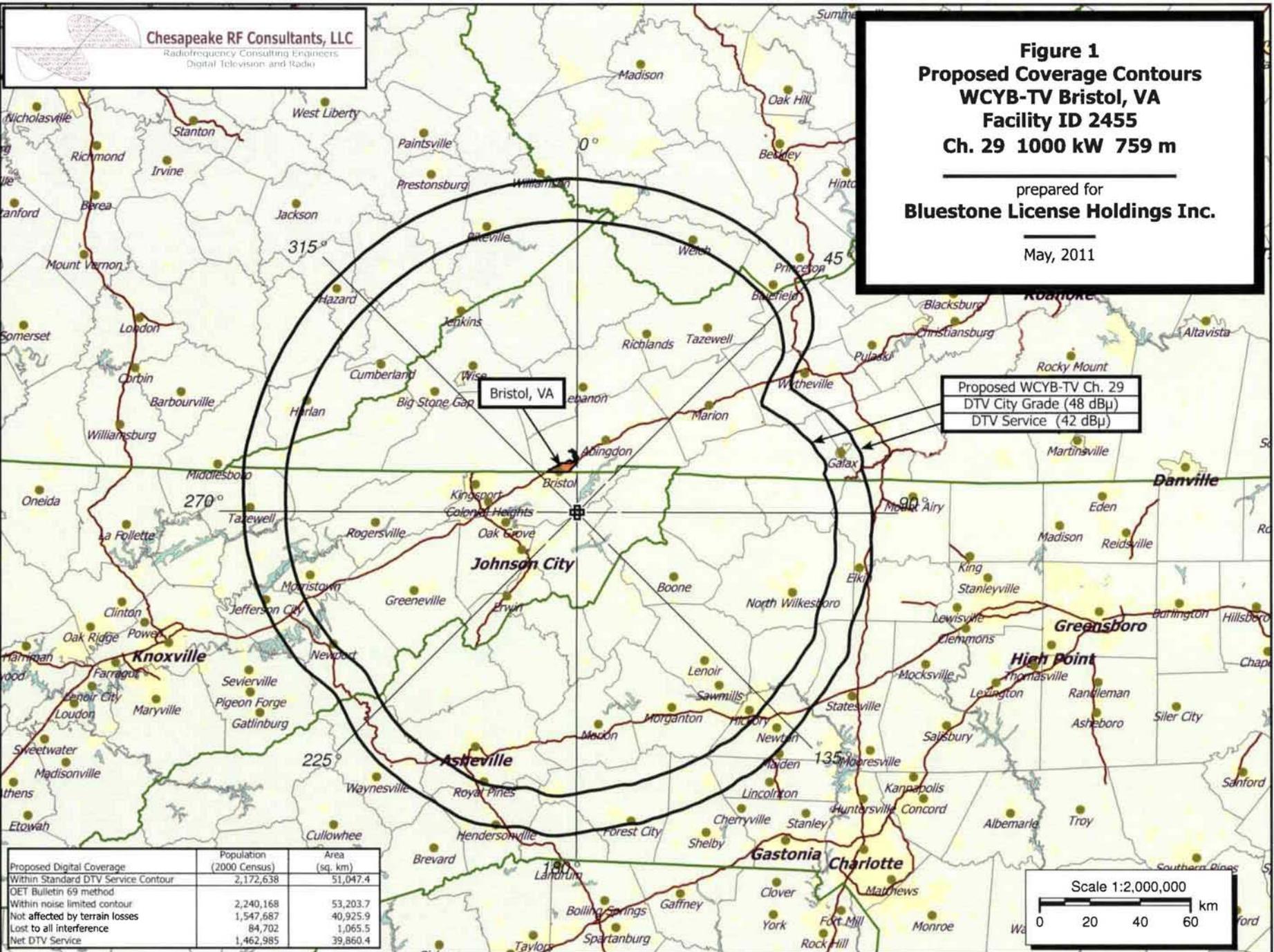


Figure 2
Coverage Contour Comparison
WCYB-TV Bristol, VA
Facility ID 2455
Ch. 29 1000 kW 759 m

prepared for
Bluestone License Holdings Inc.

May, 2011

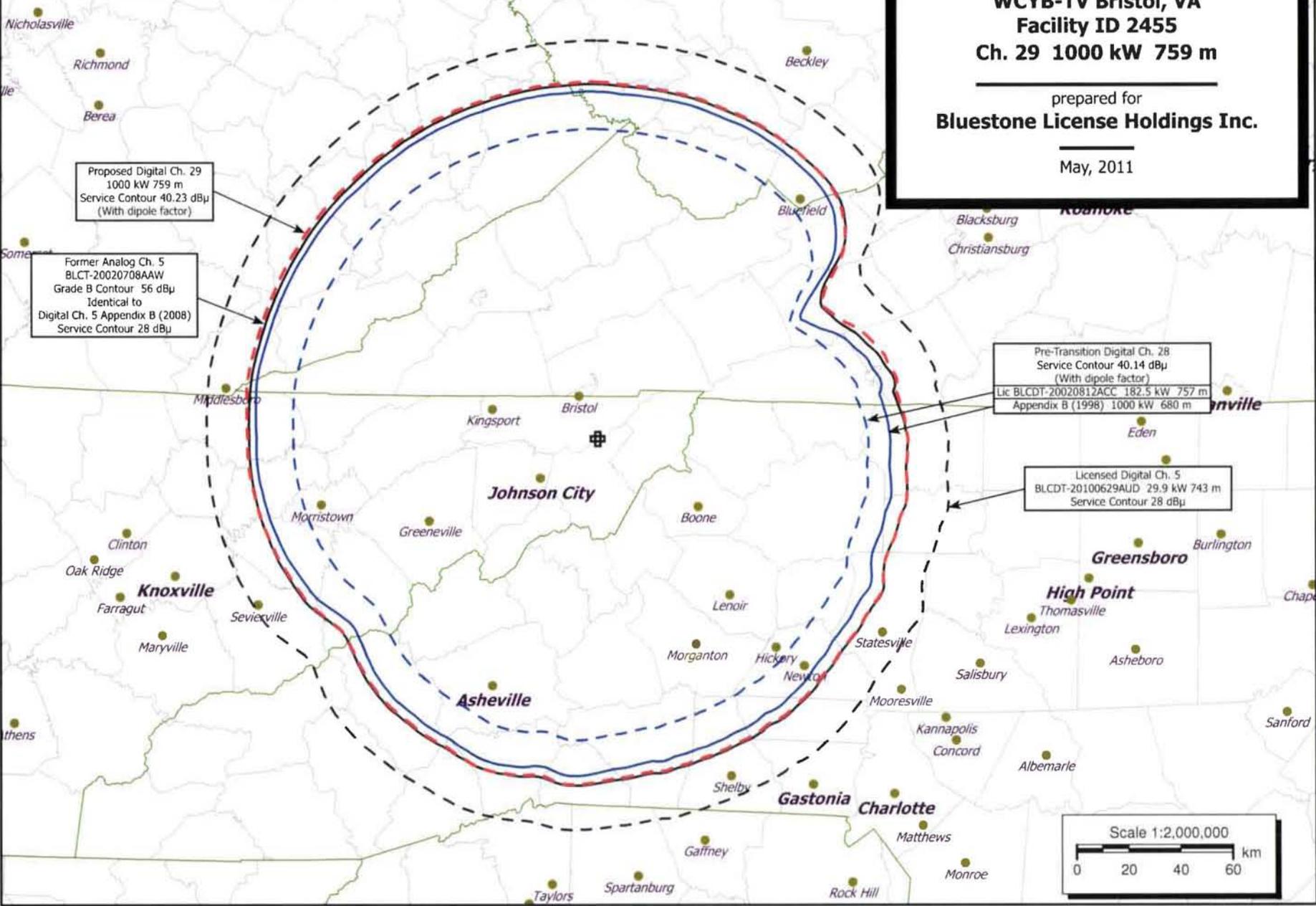


Table 1 WCYB-TV OET Bulletin 69 Interference Study
 (worst-case scenarios shown page 1 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

TW Census data selected 2000
 Data Base Selected
 /space/software/cdbs/pt_tvdb.sff
 TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 05-23-2011 Time: 14:00:10

Record Selected for Analysis

WCYB-TV USERRECORD-01 BRISTOL JD VA US
 Channel 29 ERP 1000. kW HAAT 759. m RCAMSL 01404 m
 Latitude 036-26-58 Longitude 0082-06-29
 Status APP Zone 2 Border Site number: 01
 Last update Cutoff date Docket
 Comments
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 0.20 km

Facility (site # 01) does not meet maximum height/power limits
 Channel 29 ERP = 1000.00 HAAT = 759.

Site number 1			
Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	976.738	880.2	132.9
45.0	994.854	756.9	128.4
90.0	1000.000	560.6	118.3
135.0	1000.000	644.0	123.0
180.0	993.898	763.2	128.7
225.0	1000.000	691.6	125.5
270.0	977.470	875.0	132.7
315.0	974.077	898.9	133.6

Evaluation toward Class A Stations from site # 01

Contour overlap to Class A station
 WKPT-LP 25 KINGSPOINT TN BLTTA 20001211AEW
 Contour overlap to Class A station
 WKPT-LP 25 KINGSPOINT TN BLTT 19871119IB
 Contour overlap to Class A station
 WAPW-CA 31 ABINGDON VA BLTTA 20030618AAZ
 Station inside contour of Class A station
 WAPK-CA 36 KINGSPOINT TN BLTTA 20030618AAX

Class A Evaluation Complete

Table 1 WCYB-TV OET Bulletin 69 Interference Study
 (worst-case scenarios shown page 2 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

Checks to Site Number 01

Proposed facility OK to FCC Monitoring Stations
 Proposed facility OK toward West Virginia quiet zone
 Proposed facility OK toward Table Mountain
 Proposed facility is beyond the Canadian coordination distance
 Proposed facility is beyond the Mexican coordination distance
 Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
29	WCYB-TV	BRISTOL JD VA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist (km)	Status	Application	Ref. No.
14	WAPG-CA	GREENEVILLE TN	72.2	LIC	BLTTA	20030709AAE
25	WKPT-LP	KINGSPOINT TN	43.7	APP	BSTA	20060331AAX
25	WKPT-LP	KINGSPOINT TN	43.7	LIC	BLTTA	20001211AEW
25	WKPT-LP	KINGSPOINT TN	43.7	LIC	BLTT	19871119IB
28	WGVB-LP	CHARLOTTE NC	184.7	APP	BDFCDDTA	20091211ACU
29	WXIX-TV	NEWPORT KY	366.3	LIC	BLCDT	20000908ABI
29	WUNJ-TV	WILMINGTON NC	423.7	LIC	BLEDT	20080821AAH
29	WXLV-TV	WINSTON-SALEM NC	214.9	LIC	BLCDT	20050624ABB
29	WTCI	CHATTANOOGA TN	317.5	LIC	BLEDT	20060629AAC
30	WVLT-TV	KNOXVILLE TN	173.2	CP	BPCDT	20080618AAM
30	WVLT-TV	KNOXVILLE TN	173.2	LIC	BLCDT	20040420AAF
30	WSLS-TV	ROANOKE VA	193.3	CP	BPCDT	20080619ABS
30	WSLS-TV	ROANOKE VA	193.3	LIC	BLCDT	20050705AAR
31	WAPW-CA	ABINGDON VA	41.4	LIC	BLTTA	20030618AAZ
36	WAPK-CA	KINGSPOINT TN	3.3	LIC	BLTTA	20030618AAX

Analysis of Interference to Affected Station 1

Analysis of current record						
Channel	Call	City/State	Application	Ref. No.		
14	WAPG-CA	GREENEVILLE TN	BLTTA	-20030709AAE		

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist (km)	Status	Application	Ref. No.
14	WKSO-TV	SOMERSET KY	227.2	LIC	BLEDT	-20020304ALK
14	WGPX-TV	BURLINGTON NC	275.8	CP	BPCDT	-20080620AFW
14	WGPX-TV	BURLINGTON NC	275.8	LIC	BLCDT	-20060418ADO
14	W14AS	WEST ASHEVILLE NC	51.2	LIC	BLTT	-19890109IG
14	W14AS	WEST ASHEVILLE NC	51.2	CP	BDFCDDT	-20060314ACB
14	WMYA-TV	ANDERSON SC	158.2	CP MOD	BMPCDT	-20080620ADM
14	WMYA-TV	ANDERSON SC	158.2	LIC	BLCDT	-20080714AFN

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 3 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

14	W14AQ	HARROGATE TN	105.6	LIC	BLTTL	-19900206JD
14	W14CX-D	KNOXVILLE TN	111.6	LIC	BLDTL	-20090729ACQ
16	WKHA	HAZARD KY	136.7	LIC	BLEDT	-20020205AAW
16	WGGS-TV	GREENVILLE SC	123.5	LIC	BLCDDT	-20090612ABO
16	WGGS-TV	GREENVILLE SC	123.5	CP MOD	BMPCDT	-20080619AAM
17	WUNE-TV	LINVILLE NC	78.6	LIC	BLEDT	-20091118ADR
17	WKOP-TV	KNOXVILLE TN	111.6	LIC	BLEDT	-20040405ACC
21	WHNS	GREENVILLE SC	93.5	CP MOD	BMPCDT	-20080619AFO
29	WCYB-TV	BRISTOL JD VA	72.2	APP	USERRECORD-01	

Proposed station is beyond the site to nearest cell evaluation distance

Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
25	WKPT-LP	KINGSPORT TN	BSTA	-20060331AXC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
17	WUNE-TV	LINVILLE NC	84.2	LIC	BLEDT	-20091118ADR
17	WKOP-TV	KNOXVILLE TN	136.2	LIC	BLEDT	-20040405ACC
23	WPXK-TV	JELLYCO TN	134.7	CP	BPCDDT	-20080620AGZ
24	WKPI-TV	PIKEVILLE KY	84.5	LIC	BLEDT	-20020313ABL
25	WATL	ATLANTA GA	341.6	LIC	BLCDDT	-20020716AAH
25	WUNF-TV	ASHEVILLE NC	123.3	LIC	BLEDT	-20030401BAI
25	WJTV-LP	ASHEVILLE NC	111.4	LIC	BLTTL	-19990120JB
25	WUNF-TV	ASHEVILLE NC	123.3	CP	BPEDT	-20080619AEH
25	WUNF-TV	ASHEVILLE NC	123.3	CP MOD	BMPEDT	-20090511ANS
25	WUNF-TV	ASHEVILLE NC	134.5	CP MOD	BMPEDT	-20090511ANS
25	WUNC-TV	CHAPEL HILL NC	315.5	LIC	BLEDT	-20090824ABP
25	WDMC-LP	CHARLOTTE NC	222.2	CP	BPITL	-20060323ABK
25	W25AY-D	JEFFERSON NC	98.4	LIC	BLDDT	-20100503ABO
25	WTVF-DR	NASHVILLE TN	376.9	APP	BPFS	-20100830ACL
27	WUNW	CANTON NC	110.3	CP	BPEDT	-20110114ABP
27	WKPT-TV	KINGSPORT TN	41.6	CP MOD	BMPCDT	-20050303AAJ
32	WSBN-TV	NORTON VA	41.4	LIC	BLEDT	-20030428ABR
40	WHKY-TV	HICKORY NC	143.2	LIC	BLCDDT	-20060630ABW
40	WHKY-TV	HICKORY NC	143.4	CP	BPCDDT	-20080619AAH
40	WHKY-TV	HICKORY NC	143.4	CP MOD	BMPCDT	-20090310ADE
40	WLFB	BLUEFIELD WV	140.8	LIC	BLCDDT	-20090622ADS
29	WCYB-TV	BRISTOL JD VA	43.7	APP	USERRECORD-01	
40	WHKY-TV	HICKORY NC		CP MOD	BMPCDT	-20090310ADE

Proposed station is beyond the site to nearest cell evaluation distance

Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
25	WKPT-LP	KINGSPORT TN	BLTTA	-20001211AEW

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 4 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
17	WUNE-TV	LINVILLE NC	84.2	LIC	BLEDT	-20091118ADR
17	WKOP-TV	KNOXVILLE TN	136.2	LIC	BLEDT	-20040405ACC
23	WPXK-TV	JELLYCO TN	134.7	CP	BPCDDT	-20080620AGZ
24	WKPI-TV	PIKEVILLE KY	84.5	LIC	BLEDT	-20020313ABL
25	WATL	ATLANTA GA	341.6	LIC	BLCDDT	-20020716AAH
25	WUNF-TV	ASHEVILLE NC	123.3	LIC	BLEDT	-20030401BAI
25	WJTV-LP	ASHEVILLE NC	111.4	LIC	BLTTL	-19990120JB
25	WUNF-TV	ASHEVILLE NC	123.3	CP	BPEDT	-20080619AEH
25	WUNF-TV	ASHEVILLE NC	123.3	CP MOD	BMPEDT	-20090511ANS
25	WUNF-TV	ASHEVILLE NC	134.5	CP MOD	BMPEDT	-20090511ANS
25	WUNC-TV	CHAPEL HILL NC	315.5	LIC	BLEDT	-20090824ABP
25	WDMC-LP	CHARLOTTE NC	222.2	CP	BPITL	-20060323ABK
25	W25AY-D	JEFFERSON NC	98.4	LIC	BLDDT	-20100503ABO
25	WTVF-DR	NASHVILLE TN	376.9	APP	BPFS	-20100830ACL
27	WUNW	CANTON NC	110.3	CP	BPEDT	-20110114ABP
27	WKPT-TV	KINGSPORT TN	41.6	CP MOD	BMPCDT	-20050303AAJ
32	WSBN-TV	NORTON VA	41.4	LIC	BLEDT	-20030428ABR
40	WHKY-TV	HICKORY NC	143.2	LIC	BLCDDT	-20060630ABW
40	WHKY-TV	HICKORY NC	143.4	CP	BPCDDT	-20080619AAH
40	WHKY-TV	HICKORY NC	143.4	CP MOD	BMPCDT	-20090310ADE
40	WLFB	BLUEFIELD WV	140.8	LIC	BLCDDT	-20090622ADS
29	WCYB-TV	BRISTOL JD VA	43.7	APP	USERRECORD-01	
40	WHKY-TV	HICKORY NC		CP MOD	BMPCDT	-20090310ADE

Total scenarios = 3

Result key: 1
Scenario 1 Affected station 3
Before Analysis

Results for: 25N TN KINGSPORT	BLTTA	20001211AEW	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	161457	1726.1	
not affected by terrain losses	155386	1572.8	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	574	20.2	
lost to all IX	574	20.2	

Potential Interfering Stations Included in above Scenario 1

25A NC ASHEVILLE	BLEDT	20030401BAI	LIC
------------------	-------	-------------	-----

After Analysis

Results for: 25N TN KINGSPORT	BLTTA	20001211AEW	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	161457	1726.1	
not affected by terrain losses	155386	1572.8	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	810	24.2	
lost to all IX	810	24.2	

Potential Interfering Stations Included in above Scenario 1

25A NC ASHEVILLE	BLEDT	20030401BAI	LIC
29A VA BRISTOL JD	USERRECORD01		APP

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 5 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

Percent new IX = 0.1462%
Worst case new IX 0.1462% Scenario 1

#####

Analysis of Interference to Affected Station 4

Analysis of current record
Channel Call City/State Application Ref. No.
25 WKPT-LP KINGSPORT TN BLTT -19871119IB

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
17	WUNE-TV	LINVILLE NC	84.2	LIC	BLEDT -20091118ADR
17	WKOP-TV	KNOXVILLE TN	136.2	LIC	BLEDT -20040405ACC
23	WPXK-TV	JELICO TN	134.7	CP	BPCDT -20080620AGZ
24	WKPI-TV	PIKEVILLE KY	84.5	LIC	BLEDT -20020313ABL
25	WATL	ATLANTA GA	341.6	LIC	BLCDT -20020716AAB
25	WUNF-TV	ASHEVILLE NC	123.3	LIC	BLEDT -20030401BAI
25	WJVV-LP	ASHEVILLE NC	111.4	LIC	BLTTL -19990120JB
25	WUNF-TV	ASHEVILLE NC	123.3	CP	BPEDT -20080619AEH
25	WUNF-TV	ASHEVILLE NC	123.3	CP MOD	BMPEDT -20090511ANS
25	WUNF-TV	ASHEVILLE NC	134.5	CP MOD	BMPEDT -20090511ANS
25	WUNC-TV	CHAPEL HILL NC	315.5	LIC	BLEDT -20090824ABP
25	WDMC-LP	CHARLOTTE NC	222.2	CP	BPTTL -20060323ABK
25	W25AY-D	JEFFERSON NC	98.4	LIC	BLDTH -20100503ABO
25	WTVF-DR	NASHVILLE TN	376.9	APP	BPFS -20100803OACL
27	WUNW	CANTON NC	110.3	CP	BPEDT -20110114ABP
27	WKPT-TV	KINGSPORT TN	41.6	CP MOD	BMPCDT -20050303AAJ
32	WSBN-TV	NORTON VA	41.4	LIC	BLEDT -20030428ABR
40	WHKY-TV	HICKORY NC	143.2	LIC	BLCDT -20060630ABW
40	WHKY-TV	HICKORY NC	143.4	CP	BPCDT -20080619AAH
40	WHKY-TV	HICKORY NC	143.4	CP MOD	BMPCDT -20090310ADE
40	WLFV	BLUEFIELD WV	140.8	LIC	BLCDT -20090622ADS
29	WCYB-TV	BRISTOL JD VA	43.7	APP	USERRECORD-01
40	WHKY-TV	HICKORY NC		CP MOD	BMPCDT -20090310ADE

Total scenarios = 3

Result key: 4
Scenario 1 Affected station 4
Before Analysis

Results for: 25N TN KINGSPORT BLTT 19871119IB LIC
POPULATION AREA (sq km)
within Noise Limited Contour 161457 1726.1
not affected by terrain losses 155386 1572.8
lost to NTSC IX 0 0.0
lost to additional IX by ATV 574 20.2
lost to all IX 574 20.2

Potential Interfering Stations Included in above Scenario 1

25A NC ASHEVILLE BLEDT 20030401BAI LIC

After Analysis

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 6 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

Results for: 25N TN KINGSPORT BLTT 19871119IB LIC
POPULATION AREA (sq km)
within Noise Limited Contour 161457 1726.1
not affected by terrain losses 155386 1572.8
lost to NTSC IX 0 0.0
lost to additional IX by ATV 810 24.2
lost to all IX 810 24.2

Potential Interfering Stations Included in above Scenario 1

25A NC ASHEVILLE BLEDT 20030401BAI LIC
29A VA BRISTOL JD USERRECORD01 APP

Percent new IX = 0.1462%
Worst case new IX 0.1462% Scenario 1

#####

Analysis of Interference to Affected Station 5

Analysis of current record
Channel Call City/State Application Ref. No.
28 WGTB-LP CHARLOTTE NC BDFCDTA -20091211ACU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
27	WCCB	CHARLOTTE NC	4.7	LIC	BLCDT -20020227AAZ
28	WDWW-LP	CLEVELAND GA	296.3	LIC	BLTTL -20070215AAL
28	WRDC	DURHAM NC	200.4	CP MOD	BMPCDT -20080620AJU
28	WTGS	HARDEEVILLE SC	361.4	LIC	BLCDT -20090706AEU
28	W28DB-D	HONEA PATH SC	160.6	LIC	BLDTH -20100825AAD
28	WRJA-TV	SUMNER SC	157.0	LIC	BLEDT -20040805ABA
28	WCYB-TV	BRISTOL VA	184.7	APP	BDRTCDT -20090824ABQ
28	W28DC-D	ROANOKE, ETC. VA	221.0	CP	BDCCDTL -20061019ACM
29	WLIV-TV	WINSTON-SALEM NC	103.8	LIC	BLCDT -20050624ABB
29	WCYB-TV	BRISTOL JD VA	184.7	APP	USERRECORD-01

Proposal causes no interference

#####

Analysis of Interference to Affected Station 6

Analysis of current record
Channel Call City/State Application Ref. No.
29 WXIX-TV NEWPORT KY BLCDT -20000908ABI

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
28	WPTO	OXFORD OH	0.0	LIC	BLEDT -20040714AAQ
29	WMAQ-TV	CHICAGO IL	402.5	LIC	BLCDT -20010531ACY
29	WTTK	KOKOMO IN	165.5	LIC	BLCDT -20090930ABD
29	WGTE-TV	TOLEDO OH	297.2	LIC	BLEDT -20031110AKO
30	WRGT-TV	DAYTON OH	71.5	LIC	BLCDT -20050621AAU
29	WCYB-TV	BRISTOL JD VA	366.3	APP	USERRECORD-01

Proposal causes no interference

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 7 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

Analysis of Interference to Affected Station 7

Analysis of current record
Channel Call City/State Application Ref. No.
29 WUNJ-TV WILMINGTON NC BLEDT -20080821AAH

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
28	WRDC	DURHAM NC	153.2	CP MOD	BMPCDT -20080620AJU
28	WRJA-TV	SUMTER SC	194.2	LIC	BLEDT -20040805ABA
29	WXLV-TV	WINSTON-SALEM NC	224.9	LIC	BLCDDT -20050624ABB
29	WVBT	VIRGINIA BEACH VA	318.2	LIC	-20020326ABB
29	WVBT	VIRGINIA BEACH VA	318.2	CP	BPCDDT -20080619AJD
30	WSFX-TV	WILMINGTON NC	21.4	LIC	BLCDDT -20070213AAS
30	WSFX-TV	WILMINGTON NC	21.4	CP	BPCDDT -20080929AGO
29	WCYB-TV	BRISTOL JD VA	423.7	APP	USERRECORD-01

Proposal causes no interference

Analysis of Interference to Affected Station 8

Analysis of current record
Channel Call City/State Application Ref. No.
29 WXLV-TV WINSTON-SALEM NC BLCDDT -20050624ABB

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
28	WRDC	DURHAM NC	118.1	CP MOD	BMPCDT -20080620AJU
28	WRJA-TV	SUMTER SC	224.5	LIC	BLEDT -20040805ABA
29	WUNJ-TV	WILMINGTON NC	224.9	LIC	BLEDT -20080821AAH
29	WVBT	VIRGINIA BEACH VA	314.9	LIC	BLCDDT -20020326ABB
29	WVBT	VIRGINIA BEACH VA	314.9	CP	BPCDDT -20080619AJD
30	WLSL-TV	ROANOKE VA	151.0	CP	BPCDDT -20080619ABS
30	WLSL-TV	ROANOKE VA	151.0	LIC	BLCDDT -20050705AAR
29	WCYB-TV	BRISTOL JD VA	214.9	APP	USERRECORD-01

Total scenarios = 4

Result key: 7
Scenario 1 Affected station 8
Before Analysis

Results for: 29A NC WINSTON-SALEM BLCDDT 20050624ABB LIC
HAAT 576.0 m, ATV ERP 990.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3684350	39763.0
not affected by terrain losses	3656043	38983.7
lost to NTSC IX	0	0.0
lost to additional IX by ATV	257527	1879.9
lost to ATV IX only	257527	1879.9
lost to all IX	257527	1879.9

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 8 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

Potential Interfering Stations Included in above Scenario 1

28A NC DURHAM	BMPCDT	20080620AJU	CP
29A NC WILMINGTON	BLEDT	20080821AAH	LIC
29A VA VIRGINIA BEACH	BLCDDT	20020326ABB	LIC
30A VA ROANOKE	BPCDDT	20080619ABS	CP

After Analysis

Results for: 29A NC WINSTON-SALEM BLCDDT 20050624ABB LIC
HAAT 576.0 m, ATV ERP 990.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3684350	39763.0
not affected by terrain losses	3656043	38983.7
lost to NTSC IX	0	0.0
lost to additional IX by ATV	272025	2088.8
lost to ATV IX only	272025	2088.8
lost to all IX	272025	2088.8

Potential Interfering Stations Included in above Scenario 1

28A NC DURHAM	BMPCDT	20080620AJU	CP
29A NC WILMINGTON	BLEDT	20080821AAH	LIC
29A VA VIRGINIA BEACH	BLCDDT	20020326ABB	LIC
30A VA ROANOKE	BPCDDT	20080619ABS	CP
29A VA BRISTOL JD	USERRECORD01		APP

Percent new IX = 0.4266%

Worst case new IX 0.4266% Scenario 1

Analysis of Interference to Affected Station 9

Analysis of current record
Channel Call City/State Application Ref. No.
29 WTCI CHATTANOOGA TN BLEDT -20060629ACO

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
29	WBIH	SELMA AL	329.6	LIC	BLCDDT -20090619AAV
29	WKNO	MEMPHIS TN	412.6	CP MOD	BMPEDT -20021112ACA
29	WKNO	MEMPHIS TN	412.6	LIC	BLEDT -20060627ABE
30	WVLT-TV	KNOXVILLE TN	148.4	CP	BPCDDT -20080618AAM
30	WVLT-TV	KNOXVILLE TN	148.4	LIC	BLCDDT -20040420AAF
29	WCYB-TV	BRISTOL JD VA	317.5	APP	USERRECORD-01

Total scenarios = 2

Result key: 11
Scenario 1 Affected station 9
Before Analysis

Results for: 29A TN CHATTANOOGA BLEDT 20060629ACO LIC
HAAT 336.0 m, ATV ERP 200.0 kW

	POPULATION	AREA (sq km)
--	------------	--------------

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 9 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

within Noise Limited Contour	1084228	24150.0
not affected by terrain losses	987399	20529.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	11102	260.3
lost to ATV IX only	11102	260.3
lost to all IX	11102	260.3

Potential Interfering Stations Included in above Scenario 1

29A AL SELMA	BLCDDT	20090619AAY	LIC
30A TN KNOXVILLE	BPCDDT	20080618AAM	CP

After Analysis

Results for: 29A TN CHATTANOOGA BLEDDT 20060629ACO LIC
HAAT 336.0 m, ATV ERP 200.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1084228	24150.0
not affected by terrain losses	987399	20529.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	12280	300.4
lost to ATV IX only	12280	300.4
lost to all IX	12280	300.4

Potential Interfering Stations Included in above Scenario 1

29A AL SELMA	BLCDDT	20090619AAY	LIC
30A TN KNOXVILLE	BPCDDT	20080618AAM	CP
29A VA BRISTOL JD	USERRECORD01		APP

Percent new IX = 0.1207%

Worst case new IX 0.1207% Scenario 1

Analysis of Interference to Affected Station 10

Analysis of current record			
Channel	Call	City/State	Application Ref. No.
30	WVLT-TV	KNOXVILLE TN	BPCDDT -20080618AAM

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
29	WTCI	CHATTANOOGA TN	148.4	LIC	BLEDDT -20060629ACO
30	WIAT	BIRMINGHAM AL	381.7	LIC	BLCDDT -20021219AAV
30	WLGA-DR	OPELIKA AL	415.6	APP	BPRM -20090722ACP
30	WLGA	OPELIKA AL	415.6	CP	BPCDDT -20091105ADF
30	WAGT	AUGUSTA GA	347.1	LIC	BLCDDT -20030530AON
30	WKOH	OWENSBORO KY	363.8	LIC	BLEDDT -20020304ALJ
30	WRGT-TV	DAYTON OH	415.3	LIC	BLCDDT -20050621AAU
30	WLSL-TV	ROANOKE VA	365.2	CP	BPCDDT -20080619ABS
30	WLSL-TV	ROANOKE VA	365.2	LIC	BLCDDT -20050705AAR
31	WDKY-DR	DANVILLE KY	212.0	APP	BPRM -20080620AOU
31	WDKY-TV	DANVILLE KY	212.0	CP	BPCDDT -20090323AEA
29	WCYB-TV	BRISTOL JD VA	173.2	APP	USERRECORD-01

Total scenarios = 2

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 10 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

Result key: 13
Scenario 1 Affected station 10
Before Analysis

Results for: 30A TN KNOXVILLE BPCDDT 20080618AAM CP
HAAT 551.0 m, ATV ERP 870.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1688051	43708.3
not affected by terrain losses	1478412	36398.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	10023	268.8
lost to ATV IX only	10023	268.8
lost to all IX	10023	268.8

Potential Interfering Stations Included in above Scenario 1

29A TN CHATTANOOGA	BLEDDT	20060629ACO	LIC
30A AL BIRMINGHAM	BLCDDT	20021219AAV	LIC
30A KY OWENSBORO	BLEDDT	20020304ALJ	LIC
30A VA ROANOKE	BPCDDT	20080619ABS	CP

After Analysis

Results for: 30A TN KNOXVILLE BPCDDT 20080618AAM CP
HAAT 551.0 m, ATV ERP 870.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1688051	43708.3
not affected by terrain losses	1478412	36398.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	16010	401.2
lost to ATV IX only	16010	401.2
lost to all IX	16010	401.2

Potential Interfering Stations Included in above Scenario 1

29A TN CHATTANOOGA	BLEDDT	20060629ACO	LIC
30A AL BIRMINGHAM	BLCDDT	20021219AAV	LIC
30A KY OWENSBORO	BLEDDT	20020304ALJ	LIC
30A VA ROANOKE	BPCDDT	20080619ABS	CP
29A VA BRISTOL JD	USERRECORD01		APP

Percent new IX = 0.4077%

Worst case new IX 0.4077% Scenario 1

Analysis of Interference to Affected Station 11

Analysis of current record			
Channel	Call	City/State	Application Ref. No.
30	WVLT-TV	KNOXVILLE TN	BLCDDT -20040420AAF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
29	WTCI	CHATTANOOGA TN	148.4	LIC	BLEDDT -20060629ACO
30	WIAT	BIRMINGHAM AL	381.7	LIC	BLCDDT -20021219AAV
30	WLGA-DR	OPELIKA AL	415.6	APP	BPRM -20090722ACP

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 11 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

30	WLGA	OPELIKA AL	415.6	CP	BPCDT	-20091105ADF
30	WAGT	AUGUSTA GA	347.1	LIC	BLCDDT	-20030530AON
30	WKOH	OWENSBORO KY	363.8	LIC	BLEDDT	-20020304ALJ
30	WRGT-TV	DAYTON OH	415.3	LIC	BLCDDT	-20050621AAU
30	WLSL-TV	ROANOKE VA	365.2	CP	BPCDT	-20080619ABS
30	WLSL-TV	ROANOKE VA	365.2	LIC	BLCDDT	-20050705AAR
31	WDKY-DR	DANVILLE KY	212.0	APP	BPRM	-20080620AOU
31	WDKY-TV	DANVILLE KY	212.0	CP	BPCDT	-20090323AEA
29	WCYB-TV	BRISTOL JD VA	173.2	APP	USERRECORD-01	

Total scenarios = 2

Result key: 15
Scenario 1 Affected station 11
Before Analysis

Results for: 30A TN KNOXVILLE BLCDDT 20040420AAF LIC
HAAT 551.0 m, ATV ERP 398.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1558752	38477.3
not affected by terrain losses	1365998	31789.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	7377	264.8
lost to ATV IX only	7377	264.8
lost to all IX	7377	264.8

Potential Interfering Stations Included in above Scenario 1

29A TN CHATTANOOGA	BLEDDT	20060629ACO	LIC
30A AL BIRMINGHAM	BLCDDT	20021219AAV	LIC
30A KY OWENSBORO	BLEDDT	20020304ALJ	LIC
30A VA ROANOKE	BPCDT	20080619ABS	CP

After Analysis

Results for: 30A TN KNOXVILLE BLCDDT 20040420AAF LIC
HAAT 551.0 m, ATV ERP 398.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1558752	38477.3
not affected by terrain losses	1365998	31789.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	12696	353.0
lost to ATV IX only	12696	353.0
lost to all IX	12696	353.0

Potential Interfering Stations Included in above Scenario 1

29A TN CHATTANOOGA	BLEDDT	20060629ACO	LIC
30A AL BIRMINGHAM	BLCDDT	20021219AAV	LIC
30A KY OWENSBORO	BLEDDT	20020304ALJ	LIC
30A VA ROANOKE	BPCDT	20080619ABS	CP
29A VA BRISTOL JD	USERRECORD01		APP

Percent new IX = 0.3915%

Worst case new IX 0.3915% Scenario 1

Analysis of Interference to Affected Station 12

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 12 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
30	WLSL-TV	ROANOKE VA	BPCDT	-20080619ABS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist (km)	Status	Application	Ref. No.
29	WXLV-TV	WINSTON-SALEM NC	151.0	LIC	BLCDDT	-20050624ABB
30	WSFX-TV	WILMINGTON NC	384.3	LIC	BLCDDT	-20070213AAS
30	WSFX-TV	WILMINGTON NC	384.3	CP	BPCDT	-20080929AGO
30	WVLT-TV	KNOXVILLE TN	365.2	CP	BPCDT	-20080618AAM
30	WVLT-TV	KNOXVILLE TN	365.2	LIC	BLCDDT	-20040420AAF
30	WTVT	GOLDVEIN VA	285.7	LIC	BLEDDT	-20031230AAR
31	WXII-TV	WINSTON-SALEM NC	93.9	LIC	BLCDDT	-20050627AAU
29	WCYB-TV	BRISTOL JD VA	193.3	APP	USERRECORD-01	

Proposal causes no interference

Analysis of Interference to Affected Station 13

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
30	WLSL-TV	ROANOKE VA	BLCDDT	-20050705AAR

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist (km)	Status	Application	Ref. No.
29	WXLV-TV	WINSTON-SALEM NC	151.0	LIC	BLCDDT	-20050624ABB
30	WSFX-TV	WILMINGTON NC	384.3	LIC	BLCDDT	-20070213AAS
30	WSFX-TV	WILMINGTON NC	384.3	CP	BPCDT	-20080929AGO
30	WVLT-TV	KNOXVILLE TN	365.2	CP	BPCDT	-20080618AAM
30	WVLT-TV	KNOXVILLE TN	365.2	LIC	BLCDDT	-20040420AAF
30	WTVT	GOLDVEIN VA	285.7	LIC	BLEDDT	-20031230AAR
31	WXII-TV	WINSTON-SALEM NC	93.9	LIC	BLCDDT	-20050627AAU
29	WCYB-TV	BRISTOL JD VA	193.3	APP	USERRECORD-01	

Proposal causes no interference

Analysis of Interference to Affected Station 14

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
31	WAPW-CA	ABINGDON VA	BLTTA	-20030618AAZ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist (km)	Status	Application	Ref. No.
24	WKPI-TV	PIKEVILLE KY	65.1	LIC	BLEDDT	-20020313ABL
27	WKPT-TV	KINGSFORD TN	43.6	CP MOD	BMPDDT	-20050303AAJ
31	WRDW-DR	AUGUSTA GA	379.7	APP	BPRM	-20110503AER
31	WFXG	AUGUSTA GA	379.0	CP	BPCDT	-20090303ABA
31	WFXG-DR	AUGUSTA GA	379.0	APP	BPRM	-20080620AON
31	WDKY-DR	DANVILLE KY	230.6	APP	BPRM	-20080620AOU
31	WDKY-TV	DANVILLE KY	230.6	CP	BPCDT	-20090323AEA

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 13 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

31	W31AZ	HENDERSONVILLE NC	178.3	LIC	BLTTL	-19940525JJ
31	WUNU	LUMBERTON NC	354.0	LIC	BLEDT	-20091113ABG
31	W31DI-D	SPRUCE PINE NC	104.6	LIC	BLDTT	-20090506ABZ
31	WXII-TV	WINSTON-SALEM NC	159.9	LIC	BLCDD	-20050627AAU
32	WSBN-TV	NORTON VA	49.2	LIC	BLEDT	-20030428ABR
38	WEMT	GREENEVILLE TN	41.4	CP	BPCDD	-20090521ADA
38	WEMT	GREENEVILLE TN	105.4	LIC	BLCDD	-20050606AHR
46	WVVA	BLUEFIELD WV	93.1	LIC	BLCDD	-20060929AEJ
29	WCYB-TV	BRISTOL JD VA	41.4	APP	USERRECORD-01	

Proposed station is beyond the site to nearest cell evaluation distance

Analysis of Interference to Affected Station 15

Analysis of current record

Channel	Call	City/State	Application Ref. No.
36	WAPK-CA	KINGSPORT TN	BLTTA -20030618AAX

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
32	WSBN-TV	NORTON VA	67.5	LIC	BLEDT -20030428ABR
35	W35CO-D	BURNSVILLE NC	56.7	LIC	BLDTT -20090615AAS
36	WKYT-TV	LEXINGTON KY	268.6	CP	BPCDD -20091201AFD
36	WKYT-DR	LEXINGTON KY	268.6	APP	BPRM -20090821AEA
36	WFPX-TV	FAYETTEVILLE NC	325.7	LIC	BLCDD -20021025AAD
36	WUNP-TV	ROANOKE RAPIDS NC	385.3	LIC	BLEDT -20100315ABH
36	WYFF	GREENEVILLE SC	152.7	LIC	BLCDD -20090901ACV
36	WPXR-TV	ROANOKE VA	195.5	LIC	BLCDD -20020510AAB
38	WEMT	GREENEVILLE TN	3.3	CP	BPCDD -20090521ADA
38	WEMT	GREENEVILLE TN	68.9	LIC	BLCDD -20050606AHR
40	WHKY-TV	HICKORY NC	106.2	LIC	BLCDD -20060630ABW
40	WHKY-TV	HICKORY NC	108.2	CP	BPCDD -20080619AAH
40	WHKY-TV	HICKORY NC	108.2	CP MOD	BMPCCD -20090310ADE
40	WLFV	BLUEFIELD WV	117.2	LIC	BLCDD -20090622ADS
51	WAGV	HARLAN KY	117.9	LIC	BLCDD -20061012AAS
29	WAPV-LP	HONAKER VA	69.6	LIC	BLTT -19810601IN
29	WCYB-TV	BRISTOL JD VA	3.3	APP	USERRECORD-01
40	WHKY-TV	HICKORY NC		CP MOD	BMPCCD -20090310ADE

Proposal causes no interference

Analysis of Interference to Affected Station 16

Analysis of current record

Channel	Call	City/State	Application Ref. No.
29	WCYB-TV	BRISTOL JD VA	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
29	WXIX-TV	NEWPORT KY	366.3	LIC	BLCDD -20000908ABI
29	WUNJ-TV	WILMINGTON NC	423.7	LIC	BLEDT -20080821AAH
29	WXLV-TV	WINSTON-SALEM NC	214.9	LIC	BLCDD -20050624ABB

Table 1 WCYB-TV OET Bulletin 69 Interference Study
(worst-case scenarios shown page 14 of 14)

Cell Size = 2 km
Profile Step Size = 0.2 km

29	WTCI	CHATTANOOGA TN	317.5	LIC	BLEDT	-20060629ACO
30	WVLT-TV	KNOXVILLE TN	173.2	CP	BPCDD	-20080618AAM
30	WVLT-TV	KNOXVILLE TN	173.2	LIC	BLCDD	-20040420AAF
30	WSLS-TV	ROANOKE VA	193.3	CP	BPCDD	-20080619ABS
30	WSLS-TV	ROANOKE VA	193.3	LIC	BLCDD	-20050705AAR

Total scenarios = 4

Results for: 29A VA BRISTOL JD USERRECORD01 APP

HAAT 759.0 m, ATV ERP 1000.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	2240168	53203.7
not affected by terrain losses	1547687	40925.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	84702	1065.5
lost to ATV IX only	84702	1065.5
lost to all IX	84702	1065.5

Potential Interfering Stations Included in above Scenario 4

29A KY NEWPORT	BLCDD	20000908ABI	LIC
29A NC WINSTON-SALEM	BLCDD	20050624ABB	LIC
29A TN CHATTANOOGA	BLEDT	20060629ACO	LIC
30A TN KNOXVILLE	BLCDD	20040420AAF	LIC
30A VA ROANOKE	BLCDD	20050705AAR	LIC

FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED