Consulting Engineers
CTJC
CARL T. JONES CORPORATION

STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN AMENDMENT TO A
PETITION TO AMEND THE DIGITAL
TELEVISION TABLE OF ALLOTMENTS
WCYB-TV - BRISTOL, VIRGINIA
DTV - CH. 35 - 1000 kW - 755 m HAAT

Prepared for: SINCLAIR MEDIA LICENSEE, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, No. 7418, and in New York State, No. 63418.

GENERAL

This office has been authorized by SINCLAIR MEDIA LICENSEE, LLC, licensee of WCYB-TV, channel 5, licensed to Bristol, Virginia, to prepare this statement in support of a Petition to Amend the Digital Television (DTV) Post Repack Table of Allotments, §73.622(i) of the FCC Rules. DTV channel 5 is the channel currently specified in the Digital Television Table of Allotments for WCYB-TV. The petitioner requests that §73.622(I) of the Commission's Rules be modified to substitute DTV channel 35 for DTV channel 5.

FCC staff has requested additional information regarding the population predicted to be served by the proposed channel 35 facility versus the population served by WCYB-TV's pre-transition channel 5 facility, BLCDT-20080317AFS. Since all subsequent ERP increases were to address viewer complaints the petitioner is eligible to use this facility. The instant amendment provides the requested information. Additionally the applicant requests an ERP increase, a non-directional antenna and a change to channel 35.

Otherwise there are no substantive changes proposed in the pending application.

PURPOSE OF APPLICATION

The proposed arrangement of allotments is made to enhance potential viewers' ability to more easily receive the broadcast signal of WCYB-TV. The serious propagation problems associated with digital television broadcast (DTV) use of low-VHF television channels (2-6) are very well established both before and especially after the initial digital transition on June 12, 2009. These propagation and reception problems for channels 2-6 are severe enough for the FCC to have granted, in Zone I where the ERP limit is 10 kW, the use of Effective Radiated Powers (ERPs) of more than 3 times the Zone I limit, for several stations, and those station are still struggling with propagation problems and the subsequent viewer complaints. This proposal seeks to remedy this well known systemic problem in this instance and to provide viewers with a significant improvement in reception capability.

HISTORY OF ALLOTMENTS

The initial DTV Table of Allotments is set forth as Appendix B in the **SECOND MEMORANDUM OPINION AND ORDER ON RECONSIDERATION OF THE FIFTH AND SIXTH REPORT AND ORDERS**, Adopted: November 14, 1998 and Released: December 18, 1998. **(FCC 98-315)**. In that Table of Allotments WCYB-TV was allotted a second DTV channel. That initial allotment was for UHF channel 28 with an ERP of 1000 kW at a height above average terrain (HAAT) of 680 meters. Although allotted an ERP of 1000 kW the licensee of WCYB-TV submitted an application for a DTV construction permit, BPCDT-

19990913AAI, seeking on channel 28 an ERP of only 129 kW at a HAAT of 659 meters. That CP was granted and licensed as BLCDT-20000605AOO. In 2002 WCYB-TV submitted an application, BMPCDT-20020808AAK, to increase its channel 28 ERP to 183.5 kW and its HAAT to 757 meters.

In 2005 the licensee of WCYB-TV submitted a Digital Channel Election Form 382, BFRECT-20050209AIL, in which channel 5 was chosen to be WCYB-TV's ultimate DTV channel. In 2008 the initial application for a digital construction permit on channel 5, BPCDT-20080327AFS, was submitted and granted on April 1, 2008. The authorized DTV facility was for an ERP of 7.1 kW at a HAAT of 743 meters. This facility was implemented on June 12, 2009 by a "flash-cut" to channel 5.

RATIONAL FOR REQUEST

The licensee of WCYB-TV has been dealing with severe reception problems since the station was "flash-cut" to channel 5 when the analog shutdown occurred on June 12, 2009 and simultaneously the channel 28 DTV facility was also shut down. When the channel 5 analog signal was removed and replaced on channel 5 with WCYB-TV's initial permitted DTV ERP of only 7.1 kW the station immediately realized that it had just suffered an extreme and severe loss of viewership and began to realize the extent of the extreme reception problems. The licensee quickly applied for, and was granted an STA, BDSTA-20090708AGZ, to increase its ERP to 29.9 kW, an increase of 6.25 dB and subsequently licensed (BLCDT-20100629AUD). The ERP increase helped but has not provided a real long-term solution to the Low-VHF DTV propagation problems that WCYB-TV has suffered

for the last 11 years, with very few options for any effective solutions. It is common knowledge that the use and operation of digital television stations on low-VHF channels is an extremely frustrating endeavor. The attendant reception problems for the most part seem particularly intractable. One significant fundamental problem for low-VHF channels is the difficulty of obtaining, or even locating a source for, receiving antennas that can properly function on these channels. Even if low-VHF antennas were readily available the size is prohibitive. VHF antennas that were formerly commonly available for analog reception exhibited very poor performance on the low-VHF channels. In one instance a stacked Yagi VHF antenna was measured and compared to a reference dipole antenna in the same position at 30 feet above the ground. The antenna's gain measured minus 4 dB on channel 4! That is 8 dB less that the ideal Low-VHF antenna specified in the DTV planning factors which when elevated to 30 feet AGL should provide usable reception from a signal strength of 28 dBu. A search for VHF antennas that are currently available reveals that many manufacturers specify their VHF antennas only for channels 7-13. No useful antennas, no 30 foot masts, no reception. Yet another blow for DTV stations that broadcast on Low-VHF channels.

An additional contributor to reception problems on channels 2-6 is the background noise which exists in that spectrum. Measurements suggest that the "Noise Limited Contour" signal level of 28 dBu, even if suitable receiving antennas were available, is woefully inadequate to support reception on these channels. Even in the Appendix A Technical Data contained in the Sixth Report and Order (FCC 97-115), on page A-3 the

Noise-Limited Services are listed for Low-VHF channels to be 37 dBu, for High-VHF channels to be 44 dBu and for UHF channels to be 50 dBu. Experiences related by technical personnel at low-VHF stations question even 37 dBu as a viable level for successful reception, and leads to serious questions about the future viability of low-VHF channels. WCYB-TV's licensee has heretofore been unable to consider a truly effective solution to its reception problems, until now. WCYB-TV's licensee now seeks an effective solution: change to a UHF channel.

ATSC 3.0 PERMISSIBLE DTV STANDARD

A more immediate concern is the future migration to the ATSC 3.0 permissible standard for over-the-air DTV and the multitude of potential benefits expected to accrue. Probably the most anticipated benefit is the ability to reach portable and mobile devices that have become the essence of the ubiquitous smart-phone culture. However, these devices must be small to fit the culture. Therein lies the intractable problem for VHF DTV stations. Channel 5, for example, has a wavelength of 12.5 feet. A simple half-wave dipole antenna, used as a reference with 0 dB gain, must be 6.25 feet long. The DTV planning factors set forth in the Sixth Report and Order (FCC 97-115) call for an antenna with 4 dB of gain elevated to 30 feet above the ground to just barely receive a signal at a strength of 28 dBu. An antenna for channel 5 with 4 dB of gain would measure 6.25 feet wide and at least 15 to 18 feet long. Channel 6 requires an antenna more than 5 feet wide. Channel 13 requires an antenna more than two feet wide. Obviously the required size of antennas for VHF channels precludes their use in the smart-phone culture. Therefore

WCYB-TV will be precluded from participation in ATSC 3.0 serving the portable and mobile users of these services. WCYB-TV's licensee has heretofore been unable to consider a truly effective solution to its reception problems, and sees absolutely no viable solution to the portable, mobile problem.

WCYB-TV's licensee has determined that the proposed migration to channel 35 will be a favorable arrangement of allotments based on the enhanced signal levels that will be delivered to a majority of the population within the station's "protected service area". The licensee fervently believes that changing WCYB-TV to operate on channel 35 will solve a vast majority of its current reception problems.

DEMONSTRATION OF RETENTION OF PREDICTED POPULATION

As required by FCC policy, when existing stations proposed to change facilities in a manner that could affect the population that is located within its protected Noise Limited coverage contour that station's licensee must demonstrate that the proposed change will not result in an unacceptable loss of existing potential viewers.

As discussed above, the salient comparison between the existing operation and the proposed channel 35 facility is the original channel 5 DTV authorization, BPCDT-20080317AFS, which was implemented by "Flash-cut" on Friday, June 12, 2009. The unexpected shocking result, the overwhelming numbers of viewer complaints that day, precipitated an immediate request for STA to increase ERP, BDSTA-20090624ADR then BDSTA-20090708AGZ which ultimately was licensed as BLCDT-20100629AUD. The resulting licensed increase in ERP was clearly, as stated in the requests, a distinct result

of the licensee's fervent quest to recover disaffected viewers and was in no way at all intended to expand the station's Noise Limited protected coverage area. For this reason the license may compare the proposal with the original authorization.

As shown in the associated map exhibit the Noise Limited Contour (28 dBu) for channel 5 extends small distances in some directions. However, WCYB-TV is an affiliate of the NBC network and, as shown in the included map exhibit, there are six other DTV stations that are affiliates of the NBC network that each overlaps some parts of these "loss" areas between WCYB-TV's channel 5 contour and the proposed channel 35 contour. In the aggregate these six NBC affiliates overlap 100% of these "loss" areas.

DETERMINATION OF THE "LARGEST STATION IN THE MARKET"

It appears from an analysis of the stations that are licensed to communities located in the Tri-Cities, Virginia Designated Market Area (DMA) that the largest station in geographic area is the WCYB-TV itself, license file number, BLCDT-20100629AUD, for channel 5, Bristol, Virginia with a predicted 28 dBu noise limited contour coverage area of 66,791 square kilometers. The instant application to change WCYB-TV's channel to 35 with an ERP of 1000 kW results in a predicted 40.77 dBu noise limited contour coverage area of 51,410 square kilometers. The channel 35 facility is intended to replicate WCYB-TV's channel 5 DTV authorization and is therefore entitled, according to Section 73.622(f)(5), to the herein proposed channel 35 ERP of 1000 kW.

TECHNICAL STUDY

An engineering study of all pertinent allotments, assignments, applications, construction permits and DTV licenses reveals that DTV channel 35 can be allotted to Bristol, Virginia in lieu of channel 5, and meet all of the Commission's interference criteria.

The allotment reference coordinates for DTV channel 35 at Bristol, Virginia: 36 26' 58.2" N.L. and 82 06' 28.7" W.L.[1] The Bristol allotment reference site meets the allotment standards in §73.616(b); the requirements set forth in §73.616(f); the requirements set forth in §73.623(e), the requirement set forth in §73.623(f), and the principal community coverage requirements set forth in §73.625(a).

The petitioner proposes to install a new Dielectric model TFU-33ETT/VP-R O6 non-directional antenna for channel 35 at a centerline height above mean sea level (AMSL) of 1400 meters and 755 meters above average terrain. The proposed changes include the new non-directional antenna, an increase in ERP to 1000 kW and a change from channel 5 to channel 35. These changes affect the predicted Radio Frequency Radiation Safety considerations which have been revised. All other station parameters are to remain unchanged.

ALLOCATION CONSIDERATIONS

Post-Transition DTV Considerations

A study was performed, using the FCC's software, *tvstudy v2.2.5*, to determine if the

[1] The channel 35 DTV allotment reference coordinates are the same as the DTV channel 5 allotment reference coordinates (as defined in Section 73.622(i) of the FCC Rules) of the petitioner's licensed WCYB-TV, Bristol, Virginia tower site. BLCDT-20100629AUD (See FCC tower registration number 1225306).

instant petition to amend the post-transition Table is predicted to cause new prohibited interference to DTV stations, construction permits or DTV allotments. Results of the study indicate that the instant petition is predicted to cause no new interference greater than 0.5% to the populations served by any full-power DTV station, construction permit or allotment. See Appendix B. These results comply with the 0.5% limit for new post-repack interference set forth in §73.616(e) of the Commission's Rules.

International DTV Considerations

The WCYB-TV site is located more than 500 kilometers from the nearest point on either the US-Mexican border or the US-Canadian border. Therefore there are no international considerations.

Class A Television Allocation Considerations

As required in Section 73.616(f) of the FCC's Rules, the study results contained in Appendix B showed that there is no Class A station that is predicted to be affected by the proposed re-allotment of WCYB-TV to channel 35.

Land Mobile and FM radio Considerations

The *tvstudy* results found no Land Mobile violations for this site, and the site is deemed OK toward AM radio stations.

RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of WCYB-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WCYB-TV antenna and will reduce power or cease operation, when necessary, to ensure protection to personnel.

As shown in Appendix A the WCYB-TV channel 35 request for Amendment of the Table of Allotments as proposed herein will operate with a maximum ERP of 1000 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 116 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this submission, the vertical plane relative field factor is less than 0.100 at all depression angles greater than 9 degrees. The proposed WCYB-TV channel 35 facility is predicted to produce a worst-case power density at two meters above ground level, at 65.8 meters from the tower base, of 2.409 $\mu W/cm^2$, which is 0.60% of the FCC guideline value of 399.33 $\mu W/cm^2$ for an “uncontrolled” environment, and 0.120% of the FCC’s guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, the proposal’s power density contribution is considered insignificant.

Further, the Applicant will continue to cooperate/coordinate with other site users and reduce power and/or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

SUMMARY

It is submitted that the instant Amendment to the pending Petition to Amend the DTV Table of Allotments to substitute DTV channel 35 for DTV channel 5 in Bristol,

Virginia, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement was prepared by me, or under my direct supervision, and its contents are believed to be true and correct to the best of my knowledge and belief.

DATED: February 19, 2021

PREDICTED COVERAGE CONTOURS

WCYB-TV, BRISTOL, VA
DTV CHANNEL 35 - 1000 kW ERP - 755 M HAAT
FEBRUARY, 2021

Predicted Noise Limited 40.77 dBu
F(50,90) Coverage Contour

Predicted Principal Community 48 dBu
F(50,90) Coverage Contour

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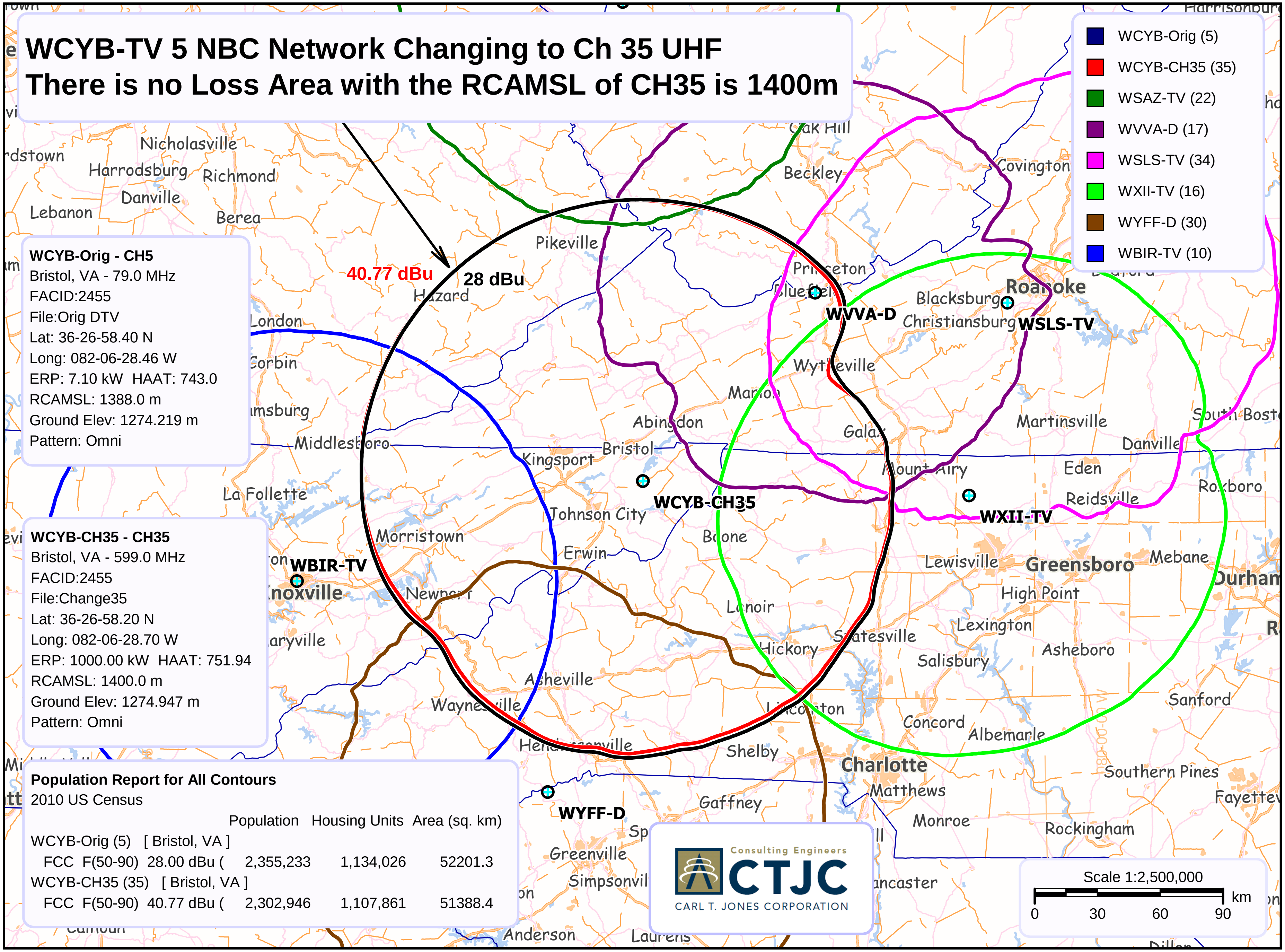
WCYB-TV 5 NBC Network Changing to Ch 35 UHF
There is no Loss Area with the RCAMSL of CH35 is 1400m

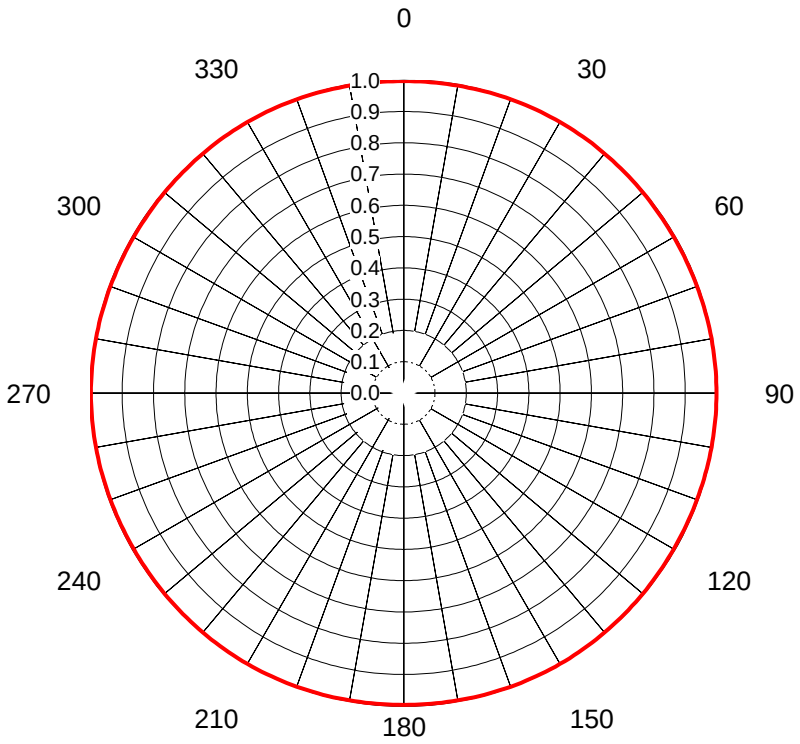


WCYB-Orig - CH5
Bristol, VA - 79.0 MHz
FACID:2455
File:Orig DTV
Lat: 36-26-58.40 N
Long: 082-06-28.46 W
ERP: 7.10 kW HAAT: 743.0
RCAMSL: 1388.0 m
Ground Elev: 1274.219 m
Pattern: Omni

WCYB-CH35 - CH35
Bristol, VA - 599.0 MHz
FACID:2455
File:Change35
Lat: 36-26-58.20 N
Long: 082-06-28.70 W
ERP: 1000.00 kW HAAT: 751.94
RCAMSL: 1400.0 m
Ground Elev: 1274.947 m
Pattern: Omni

Population Report for All Contours
2010 US Census

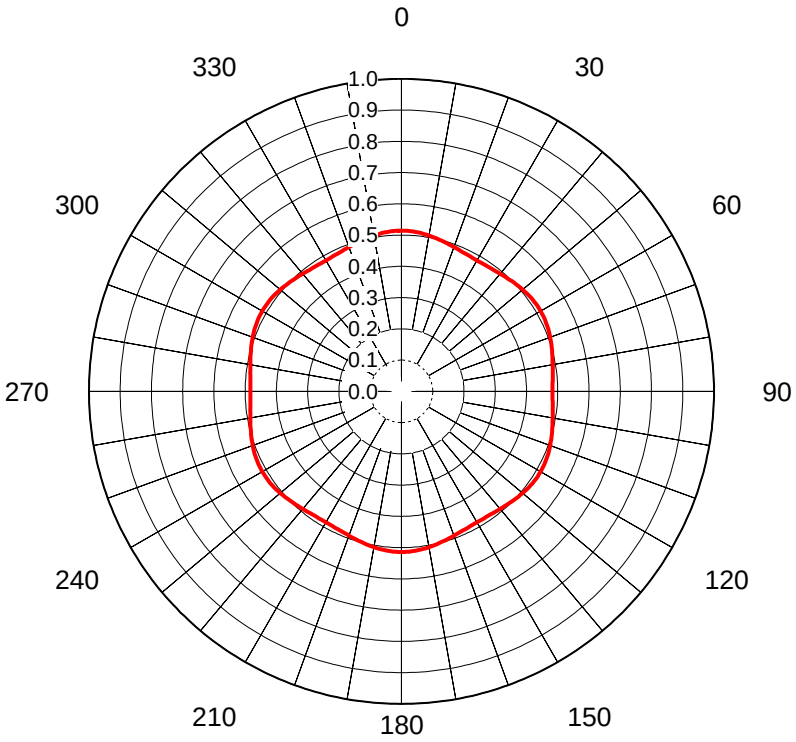
	Population	Housing Units	Area (sq. km)
WCYB-Orig (5) [Bristol, VA]			
FCC F(50-90) 28.00 dBu (	2,355,233	1,134,026	52201.3
WCYB-CH35 (35) [Bristol, VA]			
FCC F(50-90) 40.77 dBu (	2,302,946	1,107,861	51388.4



AZIMUTH PATTERN
Horizontal Polarization

Proposal No.	**C-71636**
Date	**9-Nov-20**
Call Letters	**WCYB-TV**
Channel	**35**
Frequency	**599 MHz**
Antenna Type	**TFU-33ETT/VP-R O6**
Gain	**1 (0.01dB)** Calculated
Circularity	**+/- 1.0 dB**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.997	36	1.000	72	0.998	108	0.998	144	1.000	180	0.997	216	1.000	252	0.998	288	0.998	324	1.000
1	0.997	37	1.000	73	0.998	109	0.998	145	1.000	181	0.997	217	1.000	253	0.998	289	0.998	325	1.000
2	0.997	38	1.000	74	0.998	110	0.998	146	1.000	182	0.997	218	1.000	254	0.998	290	0.998	326	1.000
3	0.997	39	0.999	75	0.999	111	0.998	147	1.000	183	0.997	219	0.999	255	0.999	291	0.998	327	1.000
4	0.997	40	0.999	76	0.999	112	0.998	148	1.000	184	0.997	220	0.999	256	0.999	292	0.998	328	1.000
5	0.997	41	0.999	77	0.999	113	0.998	149	1.000	185	0.997	221	0.999	257	0.999	293	0.998	329	1.000
6	0.997	42	0.999	78	0.999	114	0.997	150	1.000	186	0.997	222	0.999	258	0.999	294	0.997	330	1.000
7	0.998	43	0.999	79	0.999	115	0.997	151	1.000	187	0.998	223	0.999	259	0.999	295	0.997	331	1.000
8	0.998	44	0.999	80	0.999	116	0.997	152	1.000	188	0.998	224	0.999	260	0.999	296	0.997	332	1.000
9	0.998	45	0.999	81	0.999	117	0.997	153	1.000	189	0.998	225	0.999	261	0.999	297	0.997	333	1.000
10	0.998	46	0.998	82	1.000	118	0.997	154	1.000	190	0.998	226	0.998	262	1.000	298	0.997	334	1.000
11	0.998	47	0.998	83	1.000	119	0.997	155	1.000	191	0.998	227	0.998	263	1.000	299	0.997	335	1.000
12	0.998	48	0.998	84	1.000	120	0.997	156	1.000	192	0.998	228	0.998	264	1.000	300	0.997	336	1.000
13	0.998	49	0.998	85	1.000	121	0.997	157	1.000	193	0.998	229	0.998	265	1.000	301	0.997	337	1.000
14	0.998	50	0.998	86	1.000	122	0.997	158	1.000	194	0.998	230	0.998	266	1.000	302	0.997	338	1.000
15	0.999	51	0.998	87	1.000	123	0.997	159	0.999	195	0.999	231	0.998	267	1.000	303	0.997	339	0.999
16	0.999	52	0.998	88	1.000	124	0.997	160	0.999	196	0.999	232	0.998	268	1.000	304	0.997	340	0.999
17	0.999	53	0.998	89	1.000	125	0.997	161	0.999	197	0.999	233	0.998	269	1.000	305	0.997	341	0.999
18	0.999	54	0.997	90	1.000	126	0.997	162	0.999	198	0.999	234	0.997	270	1.000	306	0.997	342	0.999
19	0.999	55	0.997	91	1.000	127	0.998	163	0.999	199	0.999	235	0.997	271	1.000	307	0.998	343	0.999
20	0.999	56	0.997	92	1.000	128	0.998	164	0.999	200	0.999	236	0.997	272	1.000	308	0.998	344	0.999
21	0.999	57	0.997	93	1.000	129	0.998	165	0.999	201	0.999	237	0.997	273	1.000	309	0.998	345	0.999
22	1.000	58	0.997	94	1.000	130	0.998	166	0.998	202	1.000	238	0.997	274	1.000	310	0.998	346	0.998
23	1.000	59	0.997	95	1.000	131	0.998	167	0.998	203	1.000	239	0.997	275	1.000	311	0.998	347	0.998
24	1.000	60	0.997	96	1.000	132	0.998	168	0.998	204	1.000	240	0.997	276	1.000	312	0.998	348	0.998
25	1.000	61	0.997	97	1.000	133	0.998	169	0.998	205	1.000	241	0.997	277	1.000	313	0.998	349	0.998
26	1.000	62	0.997	98	1.000	134	0.998	170	0.998	206	1.000	242	0.997	278	1.000	314	0.998	350	0.998
27	1.000	63	0.997	99	0.999	135	0.999	171	0.998	207	1.000	243	0.997	279	0.999	315	0.999	351	0.998
28	1.000	64	0.997	100	0.999	136	0.999	172	0.998	208	1.000	244	0.997	280	0.999	316	0.999	352	0.998
29	1.000	65	0.997	101	0.999	137	0.999	173	0.998	209	1.000	245	0.997	281	0.999	317	0.999	353	0.998
30	1.000	66	0.997	102	0.999	138	0.999	174	0.997	210	1.000	246	0.997	282	0.999	318	0.999	354	0.997
31	1.000	67	0.998	103	0.999	139	0.999	175	0.997	211	1.000	247	0.998	283	0.999	319	0.999	355	0.997
32	1.000	68	0.998	104	0.999	140	0.999	176	0.997	212	1.000	248	0.998	284	0.999	320	0.999	356	0.997
33	1.000	69	0.998	105	0.999	141	0.999	177	0.997	213	1.000	249	0.998	285	0.999	321	0.999	357	0.997
34	1.000	70	0.998	106	0.998	142	1.000	178	0.997	214	1.000	250	0.998	286	0.998	322	1.000	358	0.997
35	1.000	71	0.998	107	0.998	143	1.000	179	0.997	215	1.000	251	0.998	287	0.998	323	1.000	359	0.997



AZIMUTH PATTERN
Vertical Polarization

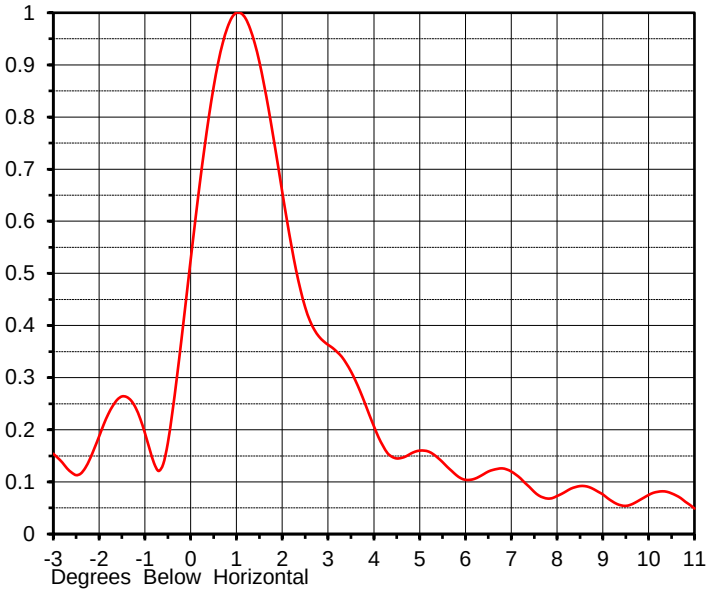
Proposal No.	**C-71636**
Date	**9-Nov-20**
Call Letters	**WCYB-TV**
Channel	**35**
Frequency	**599 MHz**
Antenna Type	**TFU-33ETT/VP-R O6**
Gain	**1.06 (0.26dB)**
	Calculated
Circularity	**+/- 1.0 dB**

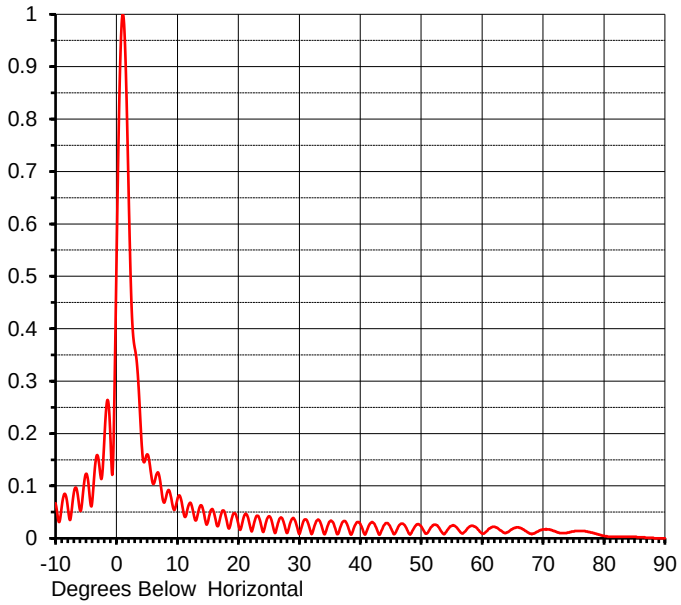
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.514	36	0.486	72	0.503	108	0.503	144	0.486	180	0.514	216	0.486	252	0.503	288	0.503	324	0.486
1	0.514	37	0.487	73	0.502	109	0.505	145	0.486	181	0.514	217	0.487	253	0.502	289	0.505	325	0.486
2	0.514	38	0.489	74	0.500	110	0.506	146	0.485	182	0.514	218	0.489	254	0.500	290	0.506	326	0.485
3	0.513	39	0.490	75	0.499	111	0.508	147	0.484	183	0.513	219	0.490	255	0.499	291	0.508	327	0.484
4	0.513	40	0.491	76	0.497	112	0.509	148	0.484	184	0.513	220	0.491	256	0.497	292	0.509	328	0.484
5	0.512	41	0.493	77	0.496	113	0.510	149	0.484	185	0.512	221	0.493	257	0.496	293	0.510	329	0.484
6	0.511	42	0.494	78	0.494	114	0.511	150	0.484	186	0.511	222	0.494	258	0.494	294	0.511	330	0.484
7	0.510	43	0.496	79	0.493	115	0.512	151	0.484	187	0.510	223	0.496	259	0.493	295	0.512	331	0.484
8	0.509	44	0.497	80	0.491	116	0.513	152	0.484	188	0.509	224	0.497	260	0.491	296	0.513	332	0.484
9	0.508	45	0.499	81	0.490	117	0.513	153	0.484	189	0.508	225	0.499	261	0.490	297	0.513	333	0.484
10	0.506	46	0.500	82	0.489	118	0.514	154	0.485	190	0.506	226	0.500	262	0.489	298	0.514	334	0.485
11	0.505	47	0.502	83	0.487	119	0.514	155	0.486	191	0.505	227	0.502	263	0.487	299	0.514	335	0.486
12	0.503	48	0.503	84	0.486	120	0.514	156	0.486	192	0.503	228	0.503	264	0.486	300	0.514	336	0.486
13	0.502	49	0.505	85	0.486	121	0.514	157	0.487	193	0.502	229	0.505	265	0.486	301	0.514	337	0.487
14	0.500	50	0.506	86	0.485	122	0.514	158	0.489	194	0.500	230	0.506	266	0.485	302	0.514	338	0.489
15	0.499	51	0.508	87	0.484	123	0.513	159	0.490	195	0.499	231	0.508	267	0.484	303	0.513	339	0.490
16	0.497	52	0.509	88	0.484	124	0.513	160	0.491	196	0.497	232	0.509	268	0.484	304	0.513	340	0.491
17	0.496	53	0.510	89	0.484	125	0.512	161	0.493	197	0.496	233	0.510	269	0.484	305	0.512	341	0.493
18	0.494	54	0.511	90	0.484	126	0.511	162	0.494	198	0.494	234	0.511	270	0.484	306	0.511	342	0.494
19	0.493	55	0.512	91	0.484	127	0.510	163	0.496	199	0.493	235	0.512	271	0.484	307	0.510	343	0.496
20	0.491	56	0.513	92	0.484	128	0.509	164	0.497	200	0.491	236	0.513	272	0.484	308	0.509	344	0.497
21	0.490	57	0.513	93	0.484	129	0.508	165	0.499	201	0.490	237	0.513	273	0.484	309	0.508	345	0.499
22	0.489	58	0.514	94	0.485	130	0.506	166	0.500	202	0.489	238	0.514	274	0.485	310	0.506	346	0.500
23	0.487	59	0.514	95	0.486	131	0.505	167	0.502	203	0.487	239	0.514	275	0.486	311	0.505	347	0.502
24	0.486	60	0.514	96	0.486	132	0.503	168	0.503	204	0.486	240	0.514	276	0.486	312	0.503	348	0.503
25	0.486	61	0.514	97	0.487	133	0.502	169	0.505	205	0.486	241	0.514	277	0.487	313	0.502	349	0.505
26	0.485	62	0.514	98	0.489	134	0.500	170	0.506	206	0.485	242	0.514	278	0.489	314	0.500	350	0.506
27	0.484	63	0.513	99	0.490	135	0.499	171	0.508	207	0.484	243	0.513	279	0.490	315	0.499	351	0.508
28	0.484	64	0.513	100	0.491	136	0.497	172	0.509	208	0.484	244	0.513	280	0.491	316	0.497	352	0.509
29	0.484	65	0.512	101	0.493	137	0.496	173	0.510	209	0.484	245	0.512	281	0.493	317	0.496	353	0.510
30	0.484	66	0.511	102	0.494	138	0.494	174	0.511	210	0.484	246	0.511	282	0.494	318	0.494	354	0.511
31	0.484	67	0.510	103	0.496	139	0.493	175	0.512	211	0.484	247	0.510	283	0.496	319	0.493	355	0.512
32	0.484	68	0.509	104	0.497	140	0.491	176	0.513	212	0.484	248	0.509	284	0.497	320	0.491	356	0.513
33	0.484	69	0.508	105	0.499	141	0.490	177	0.513	213	0.484	249	0.508	285	0.499	321	0.490	357	0.513
34	0.485	70	0.506	106	0.500	142	0.489	178	0.514	214	0.485	250	0.506	286	0.500	322	0.489	358	0.514
35	0.486	71	0.505	107	0.502	143	0.487	179	0.514	215	0.486	251	0.505	287	0.502	323	0.487	359	0.514

ELEVATION PATTERN

Proposal No.	**C-71636**
Date	**9-Nov-20**
Call Letters	**WCYB-TV**
Channel	**35**
Frequency	**5599Hz**
Antenna Type	**TFU-33ETT/VP-R O6**

RMS Directivity at Main Lobe	**30.0 (14.77 dB)**	Beam Tilt	**1.05 deg**
RMS Directivity at Horizontal	**8.3 (9.19 dB)**	Pattern Number	**105**
	Calculated		





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.067	10.0	0.075	30.0	0.008	50.0	0.023	70.0	0.017
-9.0	0.059	11.0	0.049	31.0	0.036	51.0	0.010	71.0	0.017
-8.0	0.060	12.0	0.067	32.0	0.008	52.0	0.025	72.0	0.013
-7.0	0.087	13.0	0.034	33.0	0.035	53.0	0.019	73.0	0.010
-6.0	0.054	14.0	0.062	34.0	0.010	54.0	0.011	74.0	0.011
-5.0	0.123	15.0	0.031	35.0	0.032	55.0	0.024	75.0	0.013
-4.0	0.068	16.0	0.049	36.0	0.015	56.0	0.018	76.0	0.014
-3.0	0.154	17.0	0.038	37.0	0.029	57.0	0.011	77.0	0.013
-2.0	0.187	18.0	0.038	38.0	0.022	58.0	0.023	78.0	0.011
-1.0	0.194	19.0	0.041	39.0	0.021	59.0	0.021	79.0	0.008
0.0	0.526	20.0	0.027	40.0	0.028	60.0	0.009	80.0	0.005
1.0	1.000	21.0	0.044	41.0	0.012	61.0	0.017	81.0	0.003
2.0	0.656	22.0	0.019	42.0	0.031	62.0	0.022	82.0	0.003
3.0	0.363	23.0	0.043	43.0	0.009	63.0	0.015	83.0	0.003
4.0	0.207	24.0	0.013	44.0	0.026	64.0	0.011	84.0	0.003
5.0	0.160	25.0	0.042	45.0	0.020	65.0	0.018	85.0	0.003
6.0	0.104	26.0	0.010	46.0	0.016	66.0	0.021	86.0	0.002
7.0	0.120	27.0	0.040	47.0	0.028	67.0	0.015	87.0	0.001
8.0	0.073	28.0	0.010	48.0	0.009	68.0	0.009	88.0	0.001
9.0	0.076	29.0	0.039	49.0	0.023	69.0	0.012	89.0	0.000
								90.0	0.000

WCYB-TV
Channel 35 - Bristol, Virginia
ERP = 1000000.00 WATTS

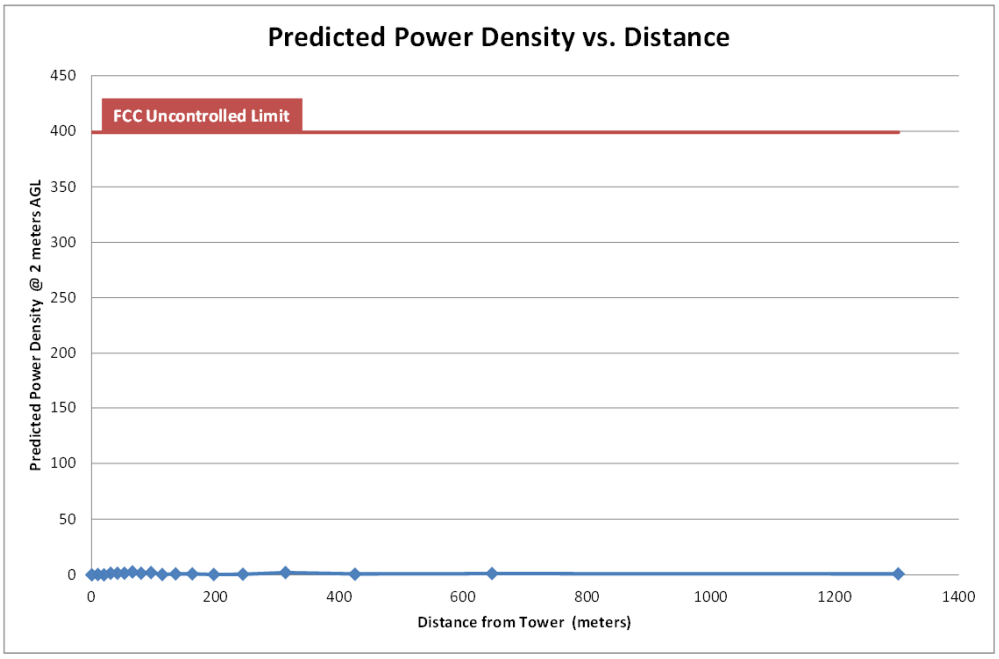
APPENDIX A

Maximum ERP 1000 kW

Polarization ----------	2	Circular		
Antenna Height Above Ground --	116	meters	380.6	feet
FCC Uncontrolled RFR Limit ----	399.33	µW/cm²		

Maximum Computed Power Density *2.409* µW/cm²
0.60% of limit

Angle Below Horizontal (degrees)	<Point X> Horiz Distance from tower to 2 m AGL (meters)	Slant Distance from antenna to Point X (meters)	Vertical Pattern (REL. FIELD)	WCYB-TV ERP (kW)	WCYB-TV Calculated Power Density µW/cm²	Percent Limit	Limit Exceeded?
0			1.000	1000.0000			
5	1303.0	1308.0	0.148	21.9040	0.855	0.21%	No
10	646.5	656.5	0.083	6.8890	1.068	0.27%	No
15	425.5	440.5	0.043	1.8490	0.637	0.16%	No
20	313.2	333.3	0.055	3.0250	1.819	0.46%	No
25	244.5	269.7	0.024	0.5760	0.529	0.13%	No
30	197.5	228.0	0.013	0.1690	0.217	0.05%	No
35	162.8	198.8	0.022	0.4840	0.818	0.20%	No
40	135.9	177.4	0.018	0.3240	0.688	0.17%	No
45	114.0	161.2	0.009	0.0810	0.208	0.05%	No
50	95.7	148.8	0.026	0.6760	2.039	0.51%	No
55	79.8	139.2	0.020	0.4000	1.380	0.35%	No
60	65.8	131.6	0.025	0.6250	2.409	0.60%	No
65	53.2	125.8	0.019	0.3610	1.524	0.38%	No
70	41.5	121.3	0.018	0.3240	1.471	0.37%	No
75	30.5	118.0	0.017	0.2890	1.386	0.35%	No
80	20.1	115.8	0.004	0.0160	0.080	0.02%	No
85	10.0	114.4	0.004	0.0160	0.082	0.02%	No
90	0.0	114.0	0.000	0.0000	0.000	0.00%	No



Consulting Engineers
CTJC
CARL T. JONES CORPORATION

WCYB-TV - BRISTOL, VIRGINIA
FEBRUARY 2021
APPENDIX B
Longley-Rice Interference Analysis

```
tvstudy v2.2.5 (4uoc83)
Database: localhost,  Study: WCYB 35 1MW OMNI 1400C,  Model: Longley-Rice
Start: 2021.02.05 15:37:55

Study created: 2021.02.05 15:37:55

Study build station data: LMS TV 2021-02-05

    Proposal: WCYB-TV D35 DT APP BRISTOL, VA
 File number: WCYB 35 1MW OMNI 1400C
 Facility ID: 2455
Station data: User record
   Record ID: 357
     Country: U.S.

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State              File Number            Distance
No   WNSC-TV   D34        DT  LIC     ROCK HILL, SC            BLANK0000105822        204.2 km
Yes  WVLT-TV   D34        DT  LIC     KNOXVILLE, TN            BLANK0000081956        173.3
Yes  WSLS-TV   D34        DT  LIC     ROANOKE, VA              BLANK0000081215        193.3
Yes  WKLE      D35        DT  LIC     LEXINGTON, KY            BLANK0000087400        252.7
Yes  WFMY-TV   D35        DT  LIC     GREENSBORO, NC           BLANK0000113927        213.5
No   WPTD      D35        DT  LIC     DAYTON, OH               BLANK0000087301        409.0
Yes  WMYA-TV   D35        DT  LIC     ANDERSON, SC             BLANK0000120378        200.8
Yes  WTCI      D35        DT  CP      CHATTANOOGA, TN          BLANK0000034751        317.5
No   WVIR-CD   D35        DC  LIC     CHARLOTTESVILLE, VA      BLANK0000091348        363.5
Yes  WTAP-TV   D35        DT  LIC     PARKERSBURG, WV          BLANK0000105709        325.9
No   WKAS      D36        DT  LIC     ASHLAND, KY              BLANK0000087441        228.2
Yes  WUNE-TV   D36        DT  LIC     LINVILLE, NC             BLANK0000111606         49.0
Yes  WVLR      D36        DT  LIC     TAZEWELL, TN             BLANK0000097858        137.8
No   WFXR      D36        DT  LIC     ROANOKE, VA              BLANK0000080996        192.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D35
   Latitude:  36 26 58.40 N (NAD83)
  Longitude:  82  6 28.46 W
Height AMSL: 1400.0 m
       HAAT: 0.0 m
   Peak ERP: 1000 kW
    Antenna: Omnidirectional
Elev Pattrn: Generic
  Elec Tilt: 0.75

40.8 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   1000 kW   874.7 m  133.3 km
```

45.0	1000	753.0	128.8
90.0	1000	558.1	118.7
135.0	1000	635.8	123.1
180.0	1000	754.3	128.9
225.0	1000	672.5	125.1
270.0	1000	874.9	133.3
315.0	1000	904.1	134.5

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 753 m

ERP exceeds maximum
ERP: 1000 kW ERP maximum: 220 kW

Distance to Canadian border: 581.5 km

Distance to Mexican border: 1823.3 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 220.3 degrees Distance: 373.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 288.5 degrees Distance: 2051.6 km

APPLICANT REQUESTS PROCESSING USING THESE PARAMETERS:
Study cell size: 2.00 km
Profile point spacing: 0.10 km

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

Interference to BLANK0000081956 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	173.3 km
	WPDP-CD	D33-	DC	LIC	CLEVELAND, TN	BLANK0000081661	113.1
	WATC-DT	D34	DT	LIC	ATLANTA, GA	BLANK0000107129	219.2
	WKMJ-TV	D34	DT	LIC	LOUISVILLE, KY	BLANK0000087448	311.5
	WNSC-TV	D34	DT	LIC	ROCK HILL, SC	BLANK0000105822	295.5
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	365.3
	WTCI	D35	DT	CP	CHATTANOOGA, TN	BLANK0000034751	148.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
44092.1	1,888,607	38259.3	1,684,125	37718.1	1,664,263	37606.1	1,660,188	0.30	0.24

Undesired		Total IX	Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	120.0	5,477			112.0	4,075
WPDP-CD D33- DC LIC	164.0	7,933	112.2	4,798	112.2	4,798
WATC-DT D34 DT LIC	144.3	2,880	96.2	1,448	96.2	1,448
WKMJ-TV D34 DT LIC	59.7	1,205	39.9	899	39.9	899
WNSC-TV D34 DT LIC	19.9	128	19.9	128	19.9	128
WSLS-TV D34 DT LIC	35.9	3,111	35.9	3,111	27.9	1,709
WTCI D35 DT CP	197.1	8,210	157.3	5,873	157.3	5,873

Interference to BLANK0000081215 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	193.3 km

WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK0000121301	93.9
WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	330.7
WITN-TV	D34	DT	LIC	WASHINGTON, NC	BLANK0000091433	320.2
WNSC-TV	D34	DT	LIC	ROCK HILL, SC	BLANK0000105822	273.8
WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	279.3
WFMY-TV	D35	DT	LIC	GREENSBORO, NC	BLANK0000113927	150.4
WVIR-CD	D35	DC	LIC	CHARLOTTESVILLE, VA	BLANK0000091348	170.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
39531.5	1,447,286	34966.2	1,330,885	34153.2	1,297,328	34149.2	1,297,328	0.01	0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	4.0	0				4.0	0
WUNL-TV D33 DT LIC	458.7	22,131		299.1	11,732	299.1	11,732
WRC-TV D34 DT LIC	83.5	3,603		63.6	2,167	63.6	2,167
WITN-TV D34 DT LIC	187.2	7,799		99.6	1,600	99.6	1,600
WNSC-TV D34 DT LIC	175.4	9,703		43.9	489	43.9	489
WNPB-TV D34 DT LIC	27.8	504		27.8	504	27.8	504
WFMY-TV D35 DT LIC	175.4	10,132		43.9	1,861	43.9	1,861
WVIR-CD D35 DC LIC	15.9	576		11.9	553	11.9	553

Interference to BLANK0000087400 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WKLE	D35	DT	LIC	LEXINGTON, KY	BLANK0000087400	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	252.7 km
	WPTD	D35	DT	LIC	DAYTON, OH	BLANK0000087301	204.8
	WTCI	D35	DT	CP	CHATTANOOGA, TN	BLANK0000034751	309.0
	WTAP-TV	D35	DT	LIC	PARKERSBURG, WV	BLANK0000105709	290.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
15510.6	856,237	15252.3	849,553	15108.9	846,854	15053.1	846,140	0.37	0.08

Undesired		Total IX		Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	127.4	2,227				55.7	714
WPTD D35 DT LIC	135.5	2,394		127.6	2,175	59.8	897
WTCI D35 DT CP	8.0	193		4.0	70	4.0	70
WTAP-TV D35 DT LIC	7.9	331		4.0	235	0.0	0

Interference to BLANK0000113927 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WFMY-TV	D35	DT	LIC	GREENSBORO, NC	BLANK0000113927	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	213.5 km
	WYBE-CD	D34	DC	LIC	PINEHURST, NC	BLANK0000080833	87.0
	WNSC-TV	D34	DT	LIC	ROCK HILL, SC	BLANK0000105822	156.6
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	150.4
	WMYA-TV	D35	DT	LIC	ANDERSON, SC	BLANK0000120378	259.1
	WVIR-CD	D35	DC	LIC	CHARLOTTESVILLE, VA	BLANK0000091348	264.1
	WUNE-TV	D36	DT	LIC	LINVILLE, NC	BLANK0000111606	181.4
	WBFT-CD	D36	DC	LIC	SANFORD, NC	BLANK0000124673	77.4
	WFXB	D36	DT	LIC	MYRTLE BEACH, SC	BLANK0000081825	196.2
	WFXR	D36	DT	LIC	ROANOKE, VA	BLANK0000080996	150.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
42561.3	4,772,783	41755.3	4,739,847	40913.4	4,567,349	40837.3	4,555,295	0.19	0.26

Undesired		Total IX		Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	140.0	22,197				76.1	12,054
WYBE-CD D34 DC LIC	4.0	848		4.0	848	4.0	848
WNSC-TV D34 DT LIC	63.7	76,144		19.9	22,173	19.9	22,173
WSLS-TV D34 DT LIC	43.8	2,078		12.0	238	12.0	238
WMYA-TV D35 DT LIC	164.0	112,451		108.3	58,285	84.4	50,527

WVIR-CD D35 DC LIC	4.0	74	4.0	74	4.0	74
WUNE-TV D36 DT LIC	180.7	12,419	180.7	12,419	160.6	10,832
WBFT-CD D36 DC LIC	270.8	17,139	270.8	17,139	270.8	17,139
WFXB D36 DT LIC	142.7	3,993	130.8	3,798	118.9	3,583
WFXR D36 DT LIC	55.7	3,358	23.9	1,518	23.9	1,518

Interference to BLANK0000120378 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WMYA-TV	D35	DT	LIC	ANDERSON, SC	BLANK0000120378	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	200.8 km
	WNSC-TV	D34	DT	LIC	ROCK HILL, SC	BLANK0000105822	116.3
	WSCG	D35	DT	LIC	BAXLEY, GA	BLCDT20071120AJC	301.7
	WFMY-TV	D35	DT	LIC	GREENSBORO, NC	BLANK0000113927	259.1
	WFXG	D36	DT	LIC	AUGUSTA, GA	BLANK0000081277	142.5
	WUNE-TV	D36	DT	LIC	LINVILLE, NC	BLANK0000111606	162.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
25242.7	1,650,798	24615.4	1,582,579	24351.5	1,569,588	24307.4	1,568,440	0.18	0.07

Undesired	Total IX	Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	64.1	1,346		44.1	1,148
WNSC-TV D34 DT LIC	55.6	2,212	51.6	2,209	51.6	2,209
WSCG D35 DT LIC	60.1	248	28.0	162	24.0	127
WFMY-TV D35 DT LIC	103.8	8,549	83.8	8,384	79.8	8,238
WFXG D36 DT LIC	48.2	124	16.1	38	16.1	38
WUNE-TV D36 DT LIC	48.3	2,109	40.3	1,961	40.3	1,961

Interference to BLANK0000034751 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTCI	D35	DT	CP	CHATTANOOGA, TN	BLANK0000034751	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	317.5 km
	WATC-DT	D34	DT	LIC	ATLANTA, GA	BLANK0000107129	147.6
	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	148.4
	WEAC-CD	D35	DC	LIC	JACKSONVILLE, AL	BLANK0000112954	184.3
	WLTZ	D35	DT	LIC	COLUMBUS, GA	BLCDT20060627ABT	307.7
	WBBJ-TV	D35	DT	LIC	JACKSON, TN	BLANK0000116047	312.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
24350.6	1,216,209	20800.4	1,104,247	20508.3	1,091,766	20451.9	1,088,328	0.27	0.31

Undesired	Total IX	Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	88.6	4,687		56.4	3,438
WATC-DT D34 DT LIC	15.9	426	11.9	171	11.9	171
WVLT-TV D34 DT LIC	92.8	5,260	92.8	5,260	68.6	4,672
WEAC-CD D35 DC LIC	171.3	6,502	155.4	6,077	147.4	5,416
WLTZ D35 DT LIC	15.9	181	4.0	11	4.0	11
WBBJ-TV D35 DT LIC	12.1	537	12.1	537	12.1	537

Interference to BLANK0000105709 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTAP-TV	D35	DT	LIC	PARKERSBURG, WV	BLANK0000105709	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	325.9 km
	WVIZ	D35	DT	LIC	Cleveland, OH	BLANK0000082429	226.6
	WPTD	D35	DT	LIC	DAYTON, OH	BLANK0000087301	233.8
	WLMB	D35	DT	APP	TOLEDO, OH	BLANK0000127485	337.3
	WWLM-CD	D36	DC	CP	WASHINGTON, PA	BLANK0000127552	147.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	

18896.9	512,358	18580.3	493,577	18512.2	489,851	18504.2	489,740	0.04	0.02

Undesired		Total IX	Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	12.0	160			8.0	111
WVIZ D35 DT LIC	28.2	2,900	20.1	966	16.1	917
WPTD D35 DT LIC	44.0	2,680	39.9	826	39.9	826
WLMB D35 DT APP	4.0	80	0.0	0	0.0	0

Interference to BLANK0000111606 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WUNE-TV	D36	DT	LIC	LINVILLE, NC	BLANK0000111606	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	49.0 km
	WFMY-TV	D35	DT	LIC	GREENSBORO, NC	BLANK0000113927	181.4
	WMYA-TV	D35	DT	LIC	ANDERSON, SC	BLANK0000120378	162.1
	WUPA	D36	DT	LIC	ATLANTA, GA	BLANK0000084466	338.6
	WFXG	D36	DT	LIC	AUGUSTA, GA	BLANK0000081277	294.2
	WFXB	D36	DT	LIC	MYRTLE BEACH, SC	BLANK0000081825	319.1
	WVLR	D36	DT	LIC	TAZEWELL, TN	BLANK0000097858	161.7
	WFXR	D36	DT	LIC	ROANOKE, VA	BLANK0000080996	196.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
36982.7	3,146,865	33052.0	2,739,019	32351.2	2,689,008	32275.4	2,678,715	0.23	0.38

Undesired		Total IX	Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	139.7	16,008			75.8	10,293
WFMY-TV D35 DT LIC	112.3	12,588	72.2	9,834	72.2	9,834
WMYA-TV D35 DT LIC	11.9	2,894	7.9	2,857	7.9	2,857
WUPA D36 DT LIC	28.1	2,079	8.1	118	8.1	118
WFXG D36 DT LIC	163.8	7,579	56.0	1,731	56.0	1,731
WFXB D36 DT LIC	123.4	5,485	47.8	2,177	47.8	2,177
WVLR D36 DT LIC	71.9	4,514	51.8	4,040	19.9	1,011
WFXR D36 DT LIC	377.5	25,791	284.9	19,913	257.0	17,227

Interference to BLANK0000097858 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WVLR	D36	DT	LIC	TAZEWELL, TN	BLANK0000097858	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	137.8 km
	WAVE	D36	DT	LIC	LOUISVILLE, KY	BLANK0000089043	304.8
	WUNE-TV	D36	DT	LIC	LINVILLE, NC	BLANK0000111606	161.7
	WTVF	D36	DT	LIC	NASHVILLE, TN	BLANK0000090378	283.1
	WFXR	D36	DT	LIC	ROANOKE, VA	BLANK0000080996	326.6

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
27295.1	1,412,728	24652.6	1,325,177	24572.5	1,324,177	24452.5	1,318,782	0.49	0.41

Undesired		Total IX	Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	120.0	5,395			120.0	5,395
WAVE D36 DT LIC	23.9	134	11.9	102	11.9	102
WUNE-TV D36 DT LIC	8.0	0	4.0	0	4.0	0
WTVF D36 DT LIC	52.1	429	44.2	397	44.2	397
WFXR D36 DT LIC	8.0	469	8.0	469	8.0	469

Interference to BLANK0000097858 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WVLR	D36	DT	LIC	TAZEWELL, TN	BLANK0000097858	
Undesireds:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	137.8 km
	WAVE	D36	DT	LIC	LOUISVILLE, KY	BLANK0000089043	304.8
	WUNE-TV	D36	DT	LIC	LINVILLE, NC	BLANK0000111606	161.7

	WTVF	D36	DT	LIC	NASHVILLE, TN	BLANK0000115766	283.1
	WFXR	D36	DT	LIC	ROANOKE, VA	BLANK0000080996	326.6

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
27295.1	1,412,728	24652.6	1,325,177	24572.5	1,324,177	24452.5	1,318,782	0.49	0.41

Undesired		Total IX	Unique IX, before		Unique IX, after	
WCYB-TV D35 DT APP	120.0	5,395			120.0	5,395
WAVE D36 DT LIC	23.9	134	11.9	102	11.9	102
WUNE-TV D36 DT LIC	8.0	0	4.0	0	4.0	0
WTVF D36 DT LIC	52.1	429	44.2	397	44.2	397
WFXR D36 DT LIC	8.0	469	8.0	469	8.0	469

Interference to proposal scenario 1 **APPLICANT AGREES TO ACCEPT PREDICTED RECEIVED INTERFERENCE**
4.33% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCYB-TV	D35	DT	APP	BRISTOL, VA	WCYB 35 1MW OMNI 1400C	
Undesireds:	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	173.3 km
	WKLE	D35	DT	LIC	LEXINGTON, KY	BLANK0000087400	252.7
	WFMY-TV	D35	DT	LIC	GREENSBORO, NC	BLANK0000113927	213.5
	WPTD	D35	DT	LIC	DAYTON, OH	BLANK0000087301	409.0
	WMYA-TV	D35	DT	LIC	ANDERSON, SC	BLANK0000120378	200.8
	WTCI	D35	DT	CP	CHATTANOOGA, TN	BLANK0000034751	317.5
	WTAP-TV	D35	DT	LIC	PARKERSBURG, WV	BLANK0000105709	325.9
	WUNE-TV	D36	DT	LIC	LINVILLE, NC	BLANK0000111606	49.0
	WVLR	D36	DT	LIC	TAZEWELL, TN	BLANK0000097858	137.8
	WFXR	D36	DT	LIC	ROANOKE, VA	BLANK0000080996	192.6

Service area		Terrain-limited		IX-free		Percent IX	
51815.3	2,297,205	42115.8	1,657,678	41258.5	1,585,870	2.04	4.33

Undesired		Total IX		Unique IX		Prcnt Unique IX	
WVLT-TV D34 DT LIC	120.2	7,233		44.1	1,380	0.10	0.08
WKLE D35 DT LIC	44.0	931		32.0	435	0.08	0.03
WFMY-TV D35 DT LIC	300.7	36,411		115.8	2,834	0.27	0.17
WPTD D35 DT LIC	8.0	285		4.0	0	0.01	0.00
WMYA-TV D35 DT LIC	193.0	37,689		16.1	308	0.04	0.02
WTCI D35 DT CP	16.0	245		16.0	245	0.04	0.01
WTAP-TV D35 DT LIC	43.9	916		31.9	420	0.08	0.03
WUNE-TV D36 DT LIC	357.6	47,999		124.4	4,386	0.30	0.26
WVLR D36 DT LIC	219.9	17,601		143.9	11,748	0.34	0.71
WFXR D36 DT LIC	8.0	90		0.0	0	0.00	0.00