

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

In the Matter of)	
)	
Amendment of Section 73.622,)	MB Docket No. _____
Digital Television Table of Allotments)	
For WMC-TV, Memphis, Tennessee)	Rulemaking No. _____
(Facility 19184))	

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

PETITION FOR RULEMAKING

Gray Television Licensee, LLC (“Gray”), licensee of Station WMC-TV (“WMC”), Memphis, Tennessee, hereby requests that the Commission institute a rulemaking proceeding for the purpose of amending the DTV Table of Allotments (the “DTV Table”) contained in Section 73.622(i) of the Commission’s rules.¹ Gray requests that the Commission amend the DTV Table to substitute UHF Channel 30 for VHF Channel 5 with the technical parameters as set forth in the attached Engineering Statement. As set forth herein, grant of this Petition will create a preferential arrangement of allotments by expanding the availability of free over-the-air television service in this market.

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

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

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

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

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

73.622(B), Table of Allotments, Digital Television Broadcast Stations (Albany, New York), 19 FCC Rcd. 4309, 4331 (2004); *see also In the Matter of Advanced Television Systems & Their Impact Upon the Existing Television Broadcast Service*, 12 FCC Rcd. 14588 ¶ 76 (1997).

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

⁴ *See Mesa NPRM* ¶ 6 (recognizing effect of “VHF propagation challenges”); *In Re Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations, Missoula, Mt.*, Notice of Proposed Rulemaking, 16 FCC Rcd. 2230 (2001) (finding that proposal to substitute channels to improve signal coverage and eliminate interference “warrants consideration”).

⁵ *See, e.g., Parks Associates, TV Antenna Usage in US Broadband Households Jumped to 25% in 2019 and Is Expected to Grow More as COVID-19 Keeps Consumers at Home* (Mar. 26, 2020), <http://www.parksassociates.com/blog/article/pr-03062020> (finding that OTA viewing increased from 15% in 2018 to 25% in 2019); Phil Kurz, *New Research Reveals Resurgence in OTA Antenna Viewing*, TVTechnology (Apr. 29, 2019), available at <https://www.tvtechnology.com/news/new-research-reveals-resurgence-in-ota-antenna-viewing> (finding that viewers consume 19% of viewing time over the air); *The Evolving Over-the-Air Home*, Nielsen Local Watch Report (Jan. 14, 2019), available at <https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/q2-2018-local-watch-report.pdf> (finding that more than 14% of TV households lack cable or satellite service).

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 ... relative to UHF channels.”⁶ And an IEEE Transactions report concluded that there is a “shortfall of at least . . . 10 dB in the low VHF range.”⁷

WMC’s real world experience confirms these observations. Almost immediately after completing its transition to digital on low VHF channel 5, WMC experienced a substantial drop off in its OTA reception. WMC has been actively seeking a solution to improve its OTA reception ever since. WMC filed a Petition for Rulemaking in 2011 seeking to substitute Channel 17 for Channel 5. And despite the Media Bureau indicating that it would “continue its processing of rulemaking petitions that are already on file” and the flexibility provided in Section 6403(g)(1)(b)(ii) of the Spectrum Act, which authorized the Commission to act on a pending petition to substitute a UHF channel for a VHF channel, the Commission left the WMC Petition for Rulemaking pending until 2019, when it was dismissed. Meanwhile, Gray continues to receive numerous complaints from viewers who unable to receive a reliable OTA signal from WMC despite receiving reliable OTA signals from the other stations in the Memphis market.⁸

Although WMC’s struggle to reach its OTA viewers with Channel 5 is not new, the effect of WMC’s poor OTA signal has intensified in recent years as OTA viewership

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

⁷ Oded Bendov, Yiyang Wu, Charles W. Rhodes, and John F.X. Browne, *Planning Factors for Fixed and Portable DTTV Reception*, IEEE Transactions of Broadcasting, Vol. 50, No. 3 (Sept. 2004).

⁸ See Exhibit 1 (Viewer Complaints).

in the Memphis market has increased exponentially. Since 2009, the percentage of OTA viewers in the Memphis DMA has grown from 12.2 percent to over 27 percent, with the majority of that increase occurring over the past four years.⁹ Compared to the national average of 14.8 percent OTA viewers, viewers in Memphis are twice as likely to receive local stations OTA. And among low-income households, over 37 percent rely on OTA signals.¹⁰ This shift to OTA viewing significantly impacts WMC's ability to reach OTA viewers as shown in the attached Nielsen Power Point charts. WMC is competitive with the other stations in the market for viewers that watch via cable or satellite. However, when the demographic is narrowed to OTA-only viewers, WMC's share drops dramatically, with viewers predominately tuning in the high VHF and UHF channels.¹¹ By moving from VHF Channel 5 to UHF Channel 30, WMC will be able to deliver a more reliable OTA signal to viewers throughout its coverage area.

Attached is an Engineering Statement of Chesapeake RF Consultants, LLC,¹² which sets forth in detail the proposed WMC's Channel 30 DTV Table specifications. This proposal is in compliance with all relevant technical requirements for amendment of the post-transition DTV Table, including the interference protection requirements of 47 C.F.R. §73.616 and the 0.5% de minimis interference standard with respect to all allotments and assignments, existing and proposed. As further reflected in the Engineering Statement, the proposed Channel 30 facility will provide full principal community coverage to Memphis, Tennessee.

⁹ See Exhibit 2 ("Nielsen Power Point"), pages 2-3.

¹⁰ *Id.* p 26.

¹¹ *Id.* pp 4-25. Note: WREG-TV operates on RF Channel 28, it brands as Channel 3.

¹² See Exhibit 3 ("Engineering Statement").

Although the proposed Channel 30 facility will result in a slight theoretical reduction in WMC's predicted coverage and population served in order to protect KLRT-TV from impermissible interference, as demonstrated by the attached Engineering statement, when compared to WMC's original Channel 52 DTV allotment, the proposed Channel 30 facilities will not create any new white or gray areas.¹³ Although there is a small loss area covering 1,568 persons, all of them would have five or more other services.¹⁴ Even when compared to WMC's currently licensed Channel 5 facilities, the terrain-limited loss population is 85,441 persons, just 32,004 of which (1.57% of the total terrain-limited population) would have less than five other services. These predictions almost certainly overstate the actual loss area given the specific VHF propagation challenges WMC faces. In practice, Gray expects that few if any persons who are currently able to receive WMC's OTA signal on Channel 5 would no longer be able to receive WMC's OTA signal as a result of the transition to Channel 30.

¹³ Given that the Commission previously determined that the service loss associated with operating at Channel 52 was acceptable when assigning WMC to that channel in the DTV transition, the Channel 52 contour should serve as an appropriate benchmark to analyze service loss here. *See Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, Sixth Report and Order, 12 FCC Rcd. 14588, 14606 ¶ 30 (1997) (recognizing that service replication may “prove[] difficult for existing VHF stations operating on UHF channels with 1000 kW”).

¹⁴ *See Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Notice of Proposed Rulemaking, 22 FCC Rcd. 9478, 9493, ¶ 38 (2007) (“The Commission is generally most concerned where there is a loss of an area's only network or NCE TV service, or where the loss area results in an area becoming less than well-served, i.e., served by fewer than five full-power over-the-air signals.”) (footnotes and citations omitted); *In Re Amendment of Sections 73.606(b) & 73.622(b)*, Report and Order, 18 FCC Rcd. 15577, 15580 (2003) (explaining that areas that receive at least five other existing full power services are considered well-served).

For the foregoing reasons, Gray respectfully requests that the Commission grant this Petition and immediately commence a rulemaking proceeding to change the digital allotment for WMC from Channel 5 to Channel 30 as proposed herein.

Respectfully submitted,

GRAY TELEVISION LICENSEE, LLC

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Dated: November 27, 2020

Exhibit 1

Subject: Antenna Reception

Date: Wednesday, November 25, 2020 at 9:25:07 AM Central Standard Time

From: Lee [REDACTED]

To: Jonathan Mitchell

I switched to antenna reception and Sling TV. I can no longer receive WMC-TV/NBC. I would appreciate it if you could tell me what I need to do to receive WMC. My name is Lee [REDACTED] and I live in West Memphis, AR. Please reply to [REDACTED] Your help is appreciated.

Sincerely,

Lee [REDACTED]

Subject: Tv on Mud Island

Date: Saturday, October 31, 2020 at 12:32:30 PM Central Daylight Time

From: [REDACTED] Susan

To: Jonathan Mitchell

Sorry to bother you, not sure who to send email to from the list on the website. We have recently moved to Mud Island and are relying on an antenna to receive the main network channels. NBC is out pretty preferred channel and unfortunately it is the hardest to get. The signal is deemed low and I can sometimes 'catch' it but today it has proved very elusive and I really wanted to watch something. Is this a regular phenomenon on Mud Island, do you have anything to suggest so I can tune into Ron and Lester?

Sue E [REDACTED]

Email Disclaimer: [https://linkprotect.cudasvc.com/url?](https://linkprotect.cudasvc.com/url?a=https%3a%2f%2f%2f%2fwww.stjude.org%2femaildisclaimer&c=E,1,XqUtSO82P1Q7jIb1WXRjYI09B-Rhztk4_lh989oCpsVjSS8qLQmyrhGfnj2CImR4cU0uDkku5qN1sqMmoK_85kbYn1eL_wxq96-HDij_XTZffy5dTvPAT0XQ,,&typo=1)

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Subject: Channel 5 reception

Date: Thursday, October 22, 2020 at 1:15:00 PM Central Daylight Time

From: Mark [REDACTED]

To: Jonathan Mitchell

I live across the street from Bolton High School. I have purchased different kinds of antenna's including HD multi-directional antenna and still can't receive channel 5. Any suggestions?

Subject: Your viewing area.....

Date: Wednesday, October 14, 2020 at 3:57:03 PM Central Daylight Time

From: Antoinette [REDACTED]

To: Jonathan Mitchell

I moved to Memphis almost a year ago. I can't get WMC over the air. It is my preferred channel for local news. What is the solution? Neighbors tell me this has been an issue for years!!!!!!!!!!!!

How, can a TV station in a city the size of Memphis operate like this?

I would like to know what kind of antenna are you recommending so that I **might** be able to view your station?

Please reply so I can share your response with my neighbors.

Thank you,
Antoinette A [REDACTED]

Subject: Reception

Date: Thursday, October 8, 2020 at 10:36:41 PM Central Daylight Time

From: barbara I [REDACTED]

To: Jonathan Mitchell

Over-the-Air antenna. Why does Channel 5 not raise their frequency higher for OTA to be received? Barbara [REDACTED]

Sent from my iPhone

Subject: Reception

Date: Thursday, October 8, 2020 at 10:36:38 PM Central Daylight Time

From: barbara l [REDACTED]

To: Jonathan Mitchell

2nd email. Audio dropouts and/or pixilation, stuttering. Barbara L [REDACTED]

Sent from my iPhone

Subject: Can't get your station

Date: Wednesday, September 9, 2020 at 9:25:17 PM Central Daylight Time

From: Eric H [REDACTED]

To: Jonathan Mitchell

Mr Mitchell,

I am a senior citizen without cable. Are you still broadcasting over the air? I have purchase two different antennas and can get every station but yours. What can I do to receive your signal. I am a life time viewer of channel 5.

Thanks,

Eric H [REDACTED]

2044 Alton Ave. 38106

Sent from my iPhone

Subject: Poor coverage for people with antennas

Date: Thursday, August 27, 2020 at 6:31:28 PM Central Daylight Time

From: Jackie M [REDACTED]

To: Jonathan Mitchell

I have an antenna and channel 5 is not coming in without interference. I just moved here from olive branch two months ago. Had same problem in olive branch. My sister lives in Memphis,zip code 38119, she has same problem.

We don't understand why we pickup all Other Memphis channels with no problems. Can you explain why this is happening.

Thank you.

Sent from my iPad

Subject: Signal strength

Date: Monday, July 27, 2020 at 4:20:17 PM Central Daylight Time

From: Jim W [REDACTED]

To: Jonathan Mitchell

Mr Mitchell

I have been using the same antenna in the same place in our attic with the same cables and connectors for 20 years. We came through the "great transition" to digital with no problems. (In fact it was a huge improvement, glad to have the HD signal and do not want to go back to analog!) I loved the spring time programming you folks did with the Stanley Cup playoff games! Never a problem.

However, in the past three or four months the signal from Channel 5 has become extremely pixelated and there is no audio. I have tried reprogramming the channel on the TV, put an LTE filter in line, and finally purchased an inline distribution signal amplifier.

All had no affect, signal is unwatchable.

I have done everything on my end to troubleshoot and improve the signal. Is there something going on at your broadcast antenna? Have you moved it? Can you offer some advice on how to resolve this?

Thank you

Jim W [REDACTED]

Collierville TN

--

Jim W [REDACTED]

Prayer is essential!

Romans 8:26-28

Subject: Signal strength / transmitter power

Date: Friday, July 17, 2020 at 8:38:30 PM Central Daylight Time

From: [REDACTED]

To: Jonathan Mitchell

Hi Mr. Mitchell,

Please increase your signal strength. I am only about 5 miles away (and have tried 5-6 antennas) yet am unable to receive any of your OTA stations. But I am able to receive most other stations with towers in the same direction - even those 3 times farther away.

I'd watch online or via my phone, but the only app is for News... How about adding something for general content?

I expect that I am not the only one with this issue, and hope that you want to offer options to maintain your viewer numbers as more of us move away from cable and satellite...

Thanks!

Onika

Subject: Station signal strength

Date: Wednesday, June 10, 2020 at 12:47:36 PM Central Daylight Time

From: Margaret S [REDACTED]

To: Jonathan Mitchell, Mike Sanders

Mr. Mitchell,

We live in a rural community in Gibson County, between Humboldt and Trenton. We access WMC with an antenna and have for the past 20 years. Recently, we have noticed that we lose the signal nightly sound 8:15 or 8:30. Of course, right in the middle of some of our favorite programming! Could you please advise why this happens and if there is anything we can do to not lose signal? It is not our antenna, since we do not lose any other stations.

Have a blessed day,

Mike & Margaret S [REDACTED]

Subject: channel signal

Date: Wednesday, June 3, 2020 at 5:47:05 AM Central Daylight Time

From: Tim A [REDACTED]

To: Jonathan Mitchell

I live in Dyersburg, Tn. and I receive your station over the air. The issue I am having is that in the evenings usually after sundown your station fades in and out. I have tried adjusting my antenna using the rotor but to no avail. What is the problem do you reduce output in the evenings or is there another issue. I receive all the other Memphis area stations with no difficulty so it would appear that the issue is not with my equipment but other issues between my antenna and your transmitter. can you help? thanks

Subject: Weak broadcast signal

Date: Wednesday, May 27, 2020 at 4:02:30 PM Central Daylight Time

From: Martin A [REDACTED]

To: Jonathan Mitchell

Why is the broadcast signal for WMCTV 5 so weak? I can pick up all other channels in the area except the WMC stations and on the FCC site, it shows you only broadcast at 34kW.

Is this going to improve someday soon?

Subject: Channel 5 Reception

Date: Friday, May 8, 2020 at 9:01:43 PM Central Daylight Time

From: Vickie C [REDACTED]

To: Jonathan Mitchell

I'm so aggravated with the poor reception from Channel 5. I'm to the point of not watching this station any more. It's unreliable. What good is it to claim to be the No 1 station but have the poorest reception of all the stations. You have to know this so don't understand why something isn't done about it.
Sent from my iPhone

Subject: Re: Poor to No Signal from WMC-TV to our Residence
Date: Saturday, May 2, 2020 at 9:09:21 AM Central Daylight Time
From: Michael Z [REDACTED]
To: Jonathan Mitchell

Was watching Meet the Press today. By about 9:30 am the audio and video were degrading. By 9:50 am video was broken up and audio sounded like segments of a lion roar but garbages.

Sent from my iPhone

On Jan 8, 2020, at 10:10 PM, Jonathan Mitchell <jonathanmitchell@wmctv.com> wrote:

Darn it. Ok, I'll have Derick reach out tomorrow and see if we can get it fixed.

Best,
J

From: Michael Z [REDACTED]
Sent: Wednesday, January 8, 2020 5:48 PM
To: Jonathan Mitchell <jonathanmitchell@wmctv.com>
Subject: Re: Poor to No Signal from WMC-TV to our Residence

Hate to be the bearer of bad news but no long after my last e-mail, we could only receive a bad image and later no images. Many years ago we had this problem. It took some time but the signal was restored.

Please feel free to call me to see if we have a signal as part of your efforts to prove a faster turnaround on results for your team.

Mike Z [REDACTED]
[REDACTED]

Sent from my iPhone

On Dec 29, 2019, at 5:53 PM, Jonathan Mitchell <jonathanmitchell@wmctv.com> wrote:

I'll have our Chief Engineer, Derick call you tomorrow if that's ok?

Best,
Jonathan

From: Michael Z [REDACTED]
Sent: Sunday, December 29, 2019 5:52 PM
To: Jonathan Mitchell <jonathanmitchell@wmctv.com>
Subject: Re: Poor to No Signal from WMC-TV to our Residence

Good evening.

There were no issues until Meet the Press aired today. I took 10 seconds of video if

that might be of value to your Engineers.

You are welcomed to call me at [REDACTED]

Mike Z [REDACTED]

Sent from my iPhone

On Dec 24, 2019, at 10:17 AM, Jonathan Mitchell <jonathanmitchell@wmctv.com> wrote:

Yes, that's great. I'll get this to our Director of Technology.

Sent from my iPhone

On Dec 24, 2019, at 9:33 AM, Michael Z [REDACTED] wrote:

May I offer them to call me as that may resolve questions with less "lag time"?

[REDACTED]

We all have an interest in quality broadcasting.

Sent from [Mail](#) for Windows 10

From: [Jonathan Mitchell](#)

Sent: Tuesday, December 24, 2019 9:31 AM

To: [Michael Z](#) [REDACTED]

Subject: Re: Poor to No Signal from WMC-TV to our Residence

Excellent. I will get our engineers on this, and they will be reaching out.

Best,
Jonathan

Sent from my iPhone

On Dec 24, 2019, at 9:06 AM, Michael Z [REDACTED] wrote:

Thank you for your quick response.

Over the air using an indoor antenna positioned above a window in the Northeast side of the back of the house. The other television is on the first floor in the Northwest side of the back of the house.

Mike

From: Jonathan Mitchell
[mailto:jonathanmitchell@wmctv.com]
Sent: Tuesday, December 24, 2019 9:04 AM
To: Michael Z [REDACTED]
Subject: Re: Poor to No Signal from WMC-TV to our Residence

Mr. Z [REDACTED]

Thank you for reaching out. Do you receive our signal over the air via antenna or do you receive it through satellite, (i.e., Direct TV or Dish)?

This info will help us get started on the fix.

Best,
Jonathan

Sent from my iPhone

On Dec 24, 2019, at 8:54 AM,
Michael Z [REDACTED]

wrote:

My Residence is immediately
South of Farmington
Elementary School in
Germantown
located on Cordes Road
approximately at the mid
point of the street. The
property is
the fourth lot West of Cordes.
We have been here for just
over 32 years.

Over the past few years we
have had challenges watching
your broadcasts:

1. Several
years
ago,
for
many
months, your
signal
was
"broke
n up".
We
were
advise
d it
was
deter
mined
to
have

been a
problem
at the
antenna
which
was
eventually
resolved.

2. We went through another cycle of a "broken up" signal a few years after that. We were informed it was again an antenna problem which was resolved.

3. For the past few months we have had no signal. This is, as above, on all our sets. Last night we had a clear clean signal. As of this morning the signal is "broken up" unacceptable.

We enjoy the content from your Station, know some of your personnel there. But poor quality is still poor quality and trying to guess what a person was communicating in a news broadcast or a program

is very challenging at best.

Wanted to raise this to your attention as I surely can't be the only person impacted.

Michael (Mike) Z [REDACTED]

Sent from [Mail](#) for Windows 10

Subject: Off Air Signal Quality
Date: Sunday, February 23, 2020 at 10:21:17 AM Central Standard Time
From: Wayne C [REDACTED]
To: Jonathan Mitchell
Attachments: IMG_1196.JPG

Mr. Mitchell,

I'm sending you this email in hopes that I might have the right person for this or at least, make you aware of the situation. I would love to "cut the cord" and get rid of my cable package with DirecTV but I can't at this time, unless I don't want to watch any programming on your digital over-the-air tv channels because the signal quality is extremely terrible. I can pickup all of the other local tv stations without any issues what so ever but not WMC Channel 5. I only get digital signal loss noise as in the attached image of my TV trying to receive your signal. This isn't a new issue at all. It's been going on for years now. Several years actually. I've been patient about it and I've been talking with your news staff thru Twitter who've been hearing from other just like myself wishing to "cut the cord". There are several programs on NBC that myself and my family watch but without being able to get rid of my cable service and watch over-the-air, I'm stuck paying very expensive cable services until then. Please look at the attached image and have your engineering department solve this issue. We'd all like to say money where we can. Thank you for your time.

--

Thanks,

Wayne C [REDACTED]
[REDACTED]
[REDACTED]

Subject: Access to WMC

Date: Monday, January 27, 2020 at 10:42:37 AM Central Standard Time

From: Barbara C [REDACTED]

To: Jonathan Mitchell

Since moving to mid-town 10 years ago I have not been able to access your channel on my TV. This is very frustrating.

Will this ever change? I live at 150 Bishop Morton Way.

Barbara C [REDACTED]
[REDACTED]

Subject: Intermittent sound interruptions

Date: Wednesday, January 8, 2020 at 7:40:44 PM Central Standard Time

From: [REDACTED]

To: Jonathan Mitchell

Why are there intermittent sound interruptions only on channel 5 no other tv stations?

Sent from my iPhone

Subject: Reception if your channel

Date: Monday, October 28, 2019 at 10:50:00 AM Central Daylight Time

From: Diane B [REDACTED]

To: Mitchell, Jonathan

Why can I not get channel 5 without cable or dish? I've tried antennas costing anywhere from \$4.00 to \$120.00. still can not watch your channel. When everything went digital I contacted this channel and was told that they would out a special antenna so I could watch your channel but never got it. I would really like to watch "Bluff City". Maybe it would rate better if people without cable could watch. I get all the other local channels but not this.

Subject: Poor Channel Reception

Date: Monday, August 5, 2019 at 5:43:01 AM Central Daylight Time

From: Felicia

To: Mitchell, Jonathan

I watch several NBC shows on channel 5. I would like to continue watching them. However, given the weak signal WMC station transmitter emits, the channel reception is a coin flip at best. I understand there's a low frequency issue but something needs to be done to strengthen your signal. I live in Cordova (zip code 38016) and reception is difficult at best. I am only 14 miles from the transmitter (1960 Union) you'd think, given the lousy reception, it was more like 40 miles away! I spent the last three days with no reception at all. After spending literally a good 20 to 25 minutes moving and repositioning my antenna into every conceivable angle and location and doing everything short of standing on my head, I FINALLY managed to get a good picture. If I weren't a very determined person, I would have given up. I don't know how long it will last -- maybe days, maybe weeks (if I'm lucky). Even though I recently purchased a stronger, expensive indoor antenna, with a signal booster no less, I still have to frequently readjust my antenna (sometimes daily) in order to retain WMC reception. WMC has the weakest signal of ANY local station bar none! I don't have an issue with any other local station. My sister, who lives 10 minutes (zip code 38018) from me, has given up altogether trying to get WMC reception. I have patiently waited for WMC to strengthen its signal since contacting WMC a year or so ago and being told it was being worked on. It seems to me, reception has gotten, if anything, even worse, certainly not any better. Cloudy day, ANY rain whosoever, hell, even on a clear day, reception can just deteriorate or disappear all together for no apparent reason. Is it possible that WMC has lowered its power signal even more?! I tell you what, I've just about had it. If this persists, I'll just stop watching NBC shows altogether, major network or not. It's just too much damn trouble to keep reception. PLEASE do something to up your signal strength. And, please, don't suggest that I climb up on my roof and install an outdoor antenna as I am physically incapable of doing that and shouldn't have to anyway. This is ridiculous. I am sure I am not the only viewer experiencing these issues. I would think a carrier of a major network would want to keep its audience, not drive it away.

Thank you,

Felicia A [REDACTED]

Get [BlueMail for Android](#)

Subject: Re: Channel 5 on antenna
Date: Wednesday, July 17, 2019 at 5:19:09 PM Central Daylight Time
From: dm726
To: Mitchell, Jonathan
Attachments: 20190714_162636.jpg, 20190716_173101.jpg

I wanted to send you picks of what I was talking about with the signal. The clear picture was over the weekend when we were able to watch channel 5. The other picture is from Tuesday afternoon when we tried to watch the 6:00 news.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: "Mitchell, Jonathan" <jonathanmitchell@wmctv.com>
Date: 7/13/19 3:38 PM (GMT-06:00)
To: dm726 [REDACTED]
Subject: Re: Channel 5 on antenna

Oh gosh, I'm so sorry. I'm traveling on the west coast and didn't realize our technology team did not reach out. I'll shoot them a message right away and make sure someone reaches out. Again, I apologize.

Sent from my iPhone

On Jul 13, 2019, at 6:20 AM, dm726 <dm726@bellsouth.net> wrote:

I did not hear from anyone this week & it is still the same way.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: "Mitchell, Jonathan" <jonathanmitchell@wmctv.com>
Date: 7/9/19 8:35 AM (GMT-06:00)
To: dm726 [REDACTED]
Subject: RE: Channel 5 on antenna

Mr. M [REDACTED]

Thanks for reaching out. I'll have one of our engineers reach out to you this week and see if we can figure out what's going on.

Thanks,

Jonathan

Jonathan Mitchell | Vice President and General Manager | WMC Action News 5

1960 Union Avenue | Memphis, TN 38104 | (o) 901-726-0500 | jonathanmitchell@wmctv.com



WMC does not discriminate in advertising contracts on the basis of race, ethnicity, or gender and further requires that in the performance of all WMC advertising agreements, WMC requires that each party not discriminate on the basis of race or ethnicity.

From: dm726 [REDACTED]
Sent: Monday, July 8, 2019 6:01 PM
To: Mitchell, Jonathan <jonathanmitchell@wmctv.com>
Subject: Channel 5 on antenna

I started watching local channels using an outdoor antenna approx 3 months ago. For about the 1st month to month and a half I was able to watch all local channels (3, 5, 13 & 24). Then all of a sudden channel 5 started not coming in clear all the time. I could watch channel 5 during the day almost anytime. But then around 5 PM the signal isn't as good for the rest of the evening when most people want to watch it. It seems like the signal is not as good.

What can be done to fix this issue? We don't have this problem with any other local channel.

Thanks

Dan M [REDACTED]

Sent from my Verizon, Samsung Galaxy smartphone

Subject: Actions News 5 Access

Date: Saturday, July 13, 2019 at 10:01:44 AM Central Daylight Time

From: kymberly k [REDACTED]

To: Mitchell, Jonathan

Greetings,

I do hope this message finds you in grand spirits and doing well. I'm reaching out to determine how I may regain access to channel 5. I live at Hwy 64 and Houston Levee in the 38016 zip code. Although I have an antenna (but not a cable tv subscription), I'm unable to access channel 5 even after a rescan. Any other trouble shooting ideas. Please advise. Thank you for your time and assistance.

Regards,

Kymberly

Sent from my iPhone

Subject: RE: Channel 5 on antenna

Date: Tuesday, July 9, 2019 at 10:47:21 AM Central Daylight Time

From: dm726

To: Mitchell, Jonathan

Ok thank you & I look forward to talking with them.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: "Mitchell, Jonathan" <jonathanmitchell@wmctv.com>

Date: 7/9/19 8:35 AM (GMT-06:00)

To: dm726 [REDACTED]

Subject: RE: Channel 5 on antenna

Mr. Martin-

Thanks for reaching out. I'll have one of our engineers reach out to you this week and see if we can figure out what's going on.

Thanks,

Jonathan

Jonathan Mitchell | Vice President and General Manager | WMC Action News 5

1960 Union Avenue | Memphis, TN 38104 | (o) 901-726-0500 | jonathanmitchell@wmctv.com



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From: dm726 [REDACTED]

Sent: Monday, July 8, 2019 6:01 PM

To: Mitchell, Jonathan <jonathanmitchell@wmctv.com>

Subject: Channel 5 on antenna

I started watching local channels using an outdoor antenna approx 3 months ago. For about the 1st month to month and a half I was able to watch all local channels (3, 5, 13 & 24). Then all of a sudden channel 5 started not coming in clear all the time. I could watch channel 5 during the day almost anytime. But then around 5 PM the signal isn't as good for the rest of the evening when most people want to watch it. It seems like the signal is not as good.

What can be done to fix this issue? We don't have this problem with any other local channel.

Thanks

Dan M. 

Sent from my Verizon, Samsung Galaxy smartphone

Subject: Bad Signal

Date: Tuesday, July 9, 2019 at 6:26:17 AM Central Daylight Time

From: jerryj [REDACTED]

To: Mitchell, Jonathan

Good morning , I have,a complaint, about the signal that I receive . Everyday between the hours of 4pm & 8pm the signal has the people talking but you can't hear them it only last for a few section. This is not one day a week its,everyday. My cable is through Spectrum.

This makes the second time I have brought this to Action News 5 attention.

Thank you

Jerry J [REDACTED]

Subject: Channel 5 using antenna

Date: Monday, July 8, 2019 at 6:58:00 PM Central Daylight Time

From: becky l [REDACTED]

To: Mitchell, Jonathan

Sent from my iPhone I discontinued cable and got an antenna. I can get all the local channels but 5. Is there anything different about the broadcasting. Most of my favorite shows are on channel 5. We have placed the inside antenna every spot in the room. Any help would be appreciated. Thank you, Becky

Subject: Station transmission

Date: Friday, June 7, 2019 at 5:19:15 AM Central Daylight Time

From: RICHARD H. [REDACTED]

To: Mitchell, Jonathan

Can you check your transmission. All other local channels are up and transmitting properly. Your channel is like it's transmission is in a heavy rain storm This happens about once a month and I send emails. I want to watch channel 5 but can't because it is breaking up so bad
Sent from my iPhone

Subject: sporadic TV reception

Date: Sunday, May 26, 2019 at 7:43:22 AM Central Daylight Time

From: Kathleen W [REDACTED]

To: Mitchell, Jonathan

Hello Mr. Mitchell,

We live in NE Shelby county in the Fisherville area. We use an antenna for local channels and have for many years received all channels beautifully, including Channel 5 when you changed frequencies a couple of years ago.

However, Channel 5 has been breaking up for the last month or so. This event is sporadic, seems independent of weather, and occurs when all other channels are broadcasting clearly.

Has your transmission system again made changes that would explain this recurring event? This morning transmission was fine until about 7:20 AM when it started to break. This continues as I write.

We miss channel 5 programming. Please offer any explanations that might give us hope that this problem will be fixed!

Thank you.

Kathleen W [REDACTED]
[REDACTED]

Subject: HDTV Antenna

Date: Sunday, May 19, 2019 at 6:57:15 PM Central Daylight Time

From: Gregory F [REDACTED]

To: Mitchell, Jonathan

Hi, I live in Germantown and I installed an HDTV antenna I got off of Amazon. Except I cannot find channel 5 anywhere. I have 5.2, 5.3 and 5.4, but those channels are all blank. Do you have any idea how I can get your signal on a HDTV antenna? Where is your transmitter? The other stations 3 and 24 come in AOK.

Thanks, Greg in Germantown

Subject: Reception

Date: Saturday, May 18, 2019 at 10:21:18 AM Central Daylight Time

From: Charles M [REDACTED]

To: Mitchell, Jonathan

Good morning Mr Mitchell. I am trying to find an antenna that I can receive channel 5 NBC station or stations. So far I can get all the local channels except for you'll's. It is very irritating. One would think you'd want it easy to access NBC's channels. Since this is your bread and butter. I'm trying to get rid of the high priced cable co. Bill's. Channel 5 is my favorite channel. I don't understand why it's so DIFFICULT to pick up your channel. Can you please assist me or advise me what to do. Oh and yes I'm in Memphis 38109 area code. please help me

Subject: Reception of WMCTV over Outdoor Antenna

Date: Wednesday, May 8, 2019 at 3:38:36 PM Central Daylight Time

From: [REDACTED]

To: Mitchell, Jonathan

Sir,

I reside in Horn lake, MS. I have a [TV Antenna - Mesqool Amplified Outdoor Digital HDTV Antenna 150 Mile Range, UHF/VHF 4K 1080P Channels Reception](#).

I am able to get channels like Ch. 3, 10 and 13. But I never have had luck getting cha. 5 which I really watch all the time. Is it the signal that you are broadcasting is weak? I would appreciate if you please send me any technical details that would help me to receive channel 5 with my digital antenna.

Thanks in advance

Abhi B. [REDACTED]
[REDACTED]

Subject: Help please....

Date: Friday, May 3, 2019 at 3:46:33 PM Central Daylight Time

From: Verna H [REDACTED]

To: Mitchell, Jonathan

Dear Sir/Ms,

My husband and I are retired and have finally CUT the cable cord. We live in Olive Branch, MS. I have never considered Olive Branch long distance but we cannot get channel 5 on our TV's. I have tried 4 different antennas. I get 30 stations around the region. But no Channel 5. 5 is our favorite news channel, weather channel, Monday Night, Tuesday Night and Wednesday night line ups. We have watched The Wheel of Fortune 6 nights a week since we married in 2000.

Tonight our precious Guidance Counselor from Chickasaw Elementary School is going to be on The Wheel and I will miss it.

Note, my brother also lives in Olive Branch on Antenna Tv, and he doesn't get Channel 5.

Any hints, directions, or suggestions of a specific antenna we have not tried. I don't miss cable at all because we have Amazon TV. But the Wheel on Amazon TV is over 5 years old.

HELP!

Your faithful Channel Five Friends from Olive Branch,

Verna and Don H [REDACTED]
[REDACTED]

Subject: Antenna tv

Date: Friday, April 5, 2019 at 9:48:04 PM Central Daylight Time

From: Suzy Y [REDACTED]

To: Mitchell, Jonathan

Just got an antenna for my TV for local channels does channel 5 not work on it
Thanks

Sent from my iPhone

Subject: Reception from HDTV Antenna

Date: Saturday, March 23, 2019 at 12:16:43 PM Central Daylight Time

From: dennis v [REDACTED]

To: Mitchell, Jonathan

Mr. Mitchell,

Can you tell me why I can't receive WMCTV 5

on a HDTV antenna? I can receive all local channels but Channel 5. This is totally unacceptable! That being said, WMCTV was my fav station when I had Direct TV, but no longer since I have an antenna.

Thank you,

Dennis V [REDACTED]

[Sent from Yahoo Mail on Android](#)

Subject: Channel 5 Reception

Date: Friday, March 8, 2019 at 11:46:27 AM Central Standard Time

From: George S M [REDACTED]

To: Mitchell, Jonathan

Here is a message I sent to y'all Monday. Have not received a response. Help, please.

"I want to cut the cable. Live in Germantown. Have plugin antennas. One with windows facing west will pick up 5. Others facing east & south can't. Other people tell me they have the same problem. However, I can pick up CW, Fox & ABC at all directions. What's the problem?"

Channel 5 is our favorite Memphis area TV station. Thanks for your help.

GM



Subject: WMC Over the Air TV Transmission Issues in Zip Code 38018 and Lost Revenue

Date: Friday, March 1, 2019 at 12:02:54 PM Central Standard Time

From: [REDACTED]

To: Mitchell, Jonathan, Dant, Kern

I am not sure if you are aware that WMC Channel 5 is having Over the Air TV Transmission Issues to the East Memphis 38018 zip code viewing area. I am one the growing number of consumers that have canceled their Cable TV and choose to use an Antenna to pick up local TV Stations free of charge.

Over the past 5 years I have lived at both ends of Zip code 38018 (Houston Levy and Germantown Pkwy). During this time it has been literally Impossible to view WMC channel 5 using a local antenna. All other local TV channel reception is at HD 1080p quality with no issues. I have spoken to other people in this area and they all confirm the same issues with WMC.

With the growing number of households dumping cable, WMC is ignoring 1000's of potential viewers and therefore losing \$1000's in Advertising Revenue. I believe WMC has a major Transmission issue in the Zip Code 38018 and potentially others in Shelby County. Hopefully this can be corrected. Until then I will continue to watch other local Channels (3, 10, 13, 24 and 30). I am sure I am not the only one having this issue with WMC.

Mark H [REDACTED]

Subject: Re: OTA Signal scrambled

Date: Wednesday, January 23, 2019 at 7:42:38 PM Central Standard Time

From: Bruce W [REDACTED]

To: Mitchell, Jonathan

This usually starts around 7pm

On Wed, Jan 23, 2019, 7:41 PM Bruce W [REDACTED] wrote:

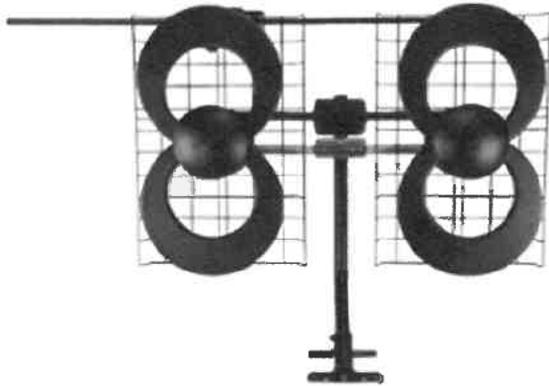
Why is it that almost every Wednesday the WMC Channel 5 OTA signal gets scrambled?

Bruce W [REDACTED]

Subject: Over The Air Signal
Date: Monday, January 14, 2019 at 10:51:17 AM Central Standard Time
From: Scott B [REDACTED]
To: Mitchell, Jonathan
Attachments: image.png

Good morning,

Do you have any suggestions on how I can get NBC on my OTA antenna? I live in Tibbs (Brownsville) TN and really miss not being able to get NBC any more. I have the below Indoor/Outdoor antenna mounted in my attic (to eliminate weather interference). Why is NBC the only station I can not get? Any suggestions would be greatly appreciated.



Thanks for your time,
Scott

Subject: over the air digital signal

Date: Sunday, January 6, 2019 at 6:14:19 PM Central Standard Time

From: Charles B [REDACTED]

To: Mitchell, Jonathan

Hello, I currently use Sling TV for cable streaming and I purchased an antenna to receive local channels. I get everything except WMC which I miss. I talked to other people and everyone has the same problem with reception of your station. Is there anything that can be done thank you

Sent from [Mail](#) for Windows 10

Subject: (none)

Date: Wednesday, January 2, 2019 at 9:34:20 PM Central Standard Time

From: Malcolm R [REDACTED]

To: Mitchell, Jonathan

Hello

I get my TV from an antenna and lately the signal for your station has been breaking up very bad. It is so bad we have to change stations at times. Then it gets better when NBC shows are on. Have you done any thing to your signal to cause this. We watch your news in the morning, noon and night and NBC in the daytime. I need to know if there is anything I can do to make it better. We live in the 38119 zip code.

Subject: reception

Date: Monday, December 31, 2018 at 11:22:21 AM Central Standard Time

From: [REDACTED]

To: Mitchell, Jonathan

Ever since tv's went digital, we cannot pick up your station unless it is raining. We are disappointed about this, because we love your digital 5-3 station. What is wrong with your station to cause this? We are not the only ones with this problem. My mom lives 20 miles closer to Memphis than we do, and she cannot get your station either. There are other people in our town who have the same problem. Do you need to boost your station output or are we just stuck with this problem? Thanks for your help. (We live in Ashland, MS, approx. 50 miles from Memphis)

Gloria F [REDACTED]
[REDACTED]

Bless the LORD, o my soul, and all that is within me, bless His Holy Name.
Psalms 103:1

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Subject: WMC TV5 extremely weak signal
Date: Monday, October 29, 2018 at 8:08:45 PM Central Daylight Time
From: [REDACTED]
To: Mitchell, Jonathan

Hello Jonathan Mitchell,
Second request.
Please forward this to the appropriate person in your technical operations department.

From: [REDACTED]
Sent: Monday, October 15, 2018 9:10 AM
To: 'jonathanmitchell@wmctv.com' <jonathanmitchell@wmctv.com>
Subject: WMC TV5 extremely weak signal

Hello Jonathan Mitchell,
Please forward this to the appropriate person in your technical operations department.

I live in Olive Branch, almost due south of your broadcast antenna.
For about a year, I have been using a Tablo Over-the-air DVR to receive broadcast channels and distribute the signal to my TVs over my home network.
I use a small metro antenna in the attic.
The quality of all channels has been good, including WMC.
This antenna was not a directional VHF antenna.
Nevertheless, WMC came in just fine.

Almost a month ago, around 09/20 thru 09/25/2018, WMC no longer picked up through the Tablo.
The first thing I did was to plug the cable from the antenna directly into the tuner of my TV.
Channel 5-1, 5-2 and 5-3 all showed "Weak TV Signal" from my TV tuner.
The picture had extreme breakup.
At this point, I knew the problem was the TV signal and not my Tablo OTA DVR.

After some research, I found out that WMC still broadcasts using the VHF signal.
So, I just spent \$225.00 to purchase a very strong, directional VHF/UHF Channel Master antenna.
The longest arms are about 8 feet wide and the antenna is about 6 feet in length.
I also purchased a Channel Master 17DB / 30 DB signal amplifier.

I took the Channel Master into the attic and hooked it up to my coax cable.
Then, I connected the coax cable directly to the tuner in my TV again.
Reception was NOT better. WMC 5-1, 5-2 and 5-3 all showed "Weak TV Signal" through the TV tuner.
The signal was no better with the antenna by itself or with the lower or higher boost from the amplifier.

I re-scanned for TV channels on the TV, hoping that WMC was now broadcasting on a UHF channel.
The re-scan would have picked WMC up from the UHF band (like Channel 3).
The re-scan found WMC on the VHF band, with extremely weak signal.

Conclusions:
The problem is NOT my metro antenna.
The problem is NOT my Tablo OTA DVR.

The problem is NOT the tuner in my TV.

The problem is NOT the high strength, high-gain, directional VHF/UHF \$225.00 antenna with the powerful amplifier.

Therefore, the problem must be in the broadcast signal strength from WMC.

What have you people done to your broadcast signal on or about 09/20/2018 through 09/25/2018?

When are you going to fix it?

Regards,

James O. & Betty S. A 



Exhibit 2

Memphis, TN

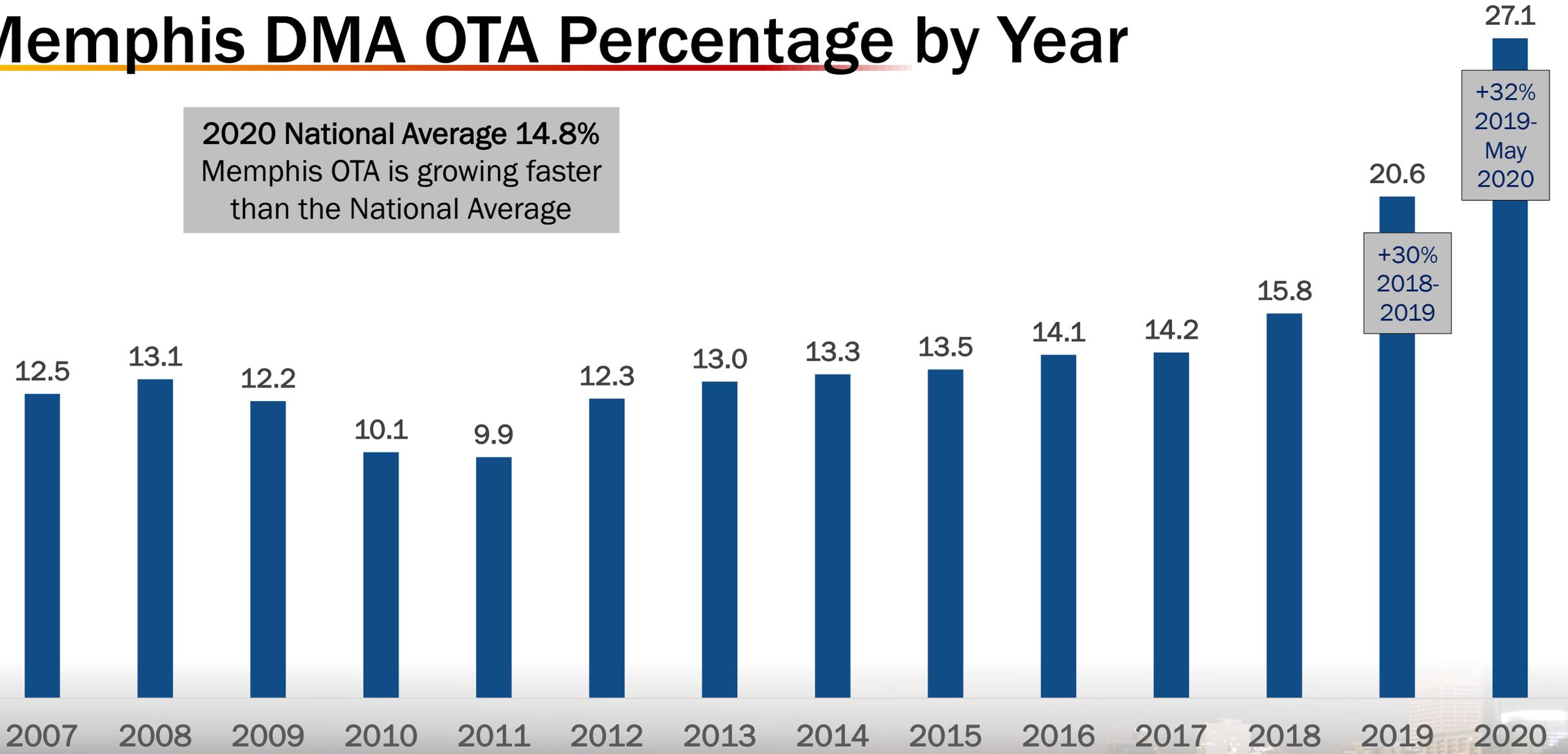
Nielsen Data for Tower Filing

June 2020



Memphis DMA OTA Percentage by Year

2020 National Average 14.8%
Memphis OTA is growing faster
than the National Average



Material Submitted Separately Subject to a Request for Confidentiality

Can we serve the entire community?

26.8% of Memphians live in poverty (US Census/2018 American Community Survey)

Poorest Zip Codes (zipdatamaps.com)

	Zip	Area	AGI	Median Income
1.	38126	Downtown	\$18,320	\$12,241
2.	38106	South Memphis	\$22,920	\$24,097
3.	38108	between I40 and Zoo	\$23,000	\$26,235
4.	38114	Orange Mound	\$24,620	\$27,098
5.	38127	Frayser	\$24,980	\$33,215
6.	38109	River to MS, to edge of Whitehaven	\$26,460	\$35,870
7.	38105	Uptown (St. Jude area)	\$26,660	\$13,541
8.	38118	Airport	\$26,930	\$42,705
9.	38115	between I240/US78, E of Pkwy Village	\$27,830	\$48,243
10.	38128	Raleigh	\$28,980	\$45,404

WMC receives multiple calls & emails about reception from the zip codes below, with the least coming from the Raleigh area due to the location near the existing tower. As with many cities, nearby buildings impact the antenna results... so even though it looks good on a map, the structures in the city cannot receive our signal.

In the May book, 37.7% of the P25-54 OTA usage in Memphis has household income of \$25K or less.



OTA Penetration: Over Indexing our peers

DMA Rank	DMA Name	TV HHs	HHs	%
46	Albuquerque-Santa Fe	648,350	203,220	31.3
47	Harrisburg-Lncstr-Leb-York	641,660	56,460	8.8
48	Louisville	636,150	129,480	20.4
49	Greensboro-H.Point-W.Salem	635,580	134,890	21.2
50	New Orleans	615,480	102,820	16.7
51	Memphis	580,600	157,060	27.1
52	Buffalo	576,710	86,740	15.0
53	Ft. Myers-Naples	564,250	77,650	13.8
54	Richmond-Petersburg	555,630	88,320	15.9
55	Fresno-Visalia	550,860	133,190	24.2
56	Providence-New Bedford	543,430	67,920	12.5

Memphis has a much higher OTA percent than all but one DMA within the +/- five range -- the 33rd highest TV market overall - 12th among the top 75 DMA's.

Memphis OTA is greater than other nearby top 100 markets:

Nashville (28)	15.1%
Little Rock (62)	17.2%
Jackson, MS (95)	17.2%
Paducah-Cape Girardeau (84)	16.9%
St. Louis (23)	23.5%



Takeaways

- ❑ WMC is at a disadvantage in the market with limited OTA signal
- ❑ Competitive stations have gained share due to increased OTA viewing
- ❑ Memphis is above the national average for OTA homes (27.1% Mem | 14.8% Natl)
- ❑ Memphis continues to see year to year double digit increases in OTA viewing
- ❑ WMC is not able to provide a free OTA signal to the entire DMA due to the VHF channel allocation from the FCC
- ❑ Granting a waiver will enable us to move to UHF, giving us the power to reach a greater percentage of the DMA with free, OTA, broadcast television
- ❑ Local radar location – continued storm coverage when others may be down...



Exhibit 3

Engineering Statement

prepared for

Gray Television Licensee, LLC

WMC-TV Memphis, TN

Facility ID 19184

Ch. 30 515 kW 308 m

This engineering statement has been prepared on behalf of *Gray Television Licensee, LLC* (“Gray”), licensee of WMC-TV (Facility ID 19184, Memphis TN) in support of a *Petition for Rulemaking* to amend §73.622(i)¹ by changing WMC-TV’s digital television channel assignment. WMC-TV is licensed to operate on Channel 5 (BLCDT-20090622ABL). As described herein, *Gray* requests substitution of Channel 30 in lieu of Channel 5 for WMC-TV.

The WMC-TV Channel 5 facility is in the Low-Band portion of the VHF spectrum and has proven to be ineffective for satisfactory viewer reception as discussed herein and elsewhere in the petition. The use of Channel 30 would place WMC-TV in the UHF spectrum which is known to provide robust signal levels for home reception.

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

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

No change in transmitting location is proposed. The WMC-TV tower structure corresponds to FCC Antenna Structure Registration (“ASR”) number 1048813. *Gray* proposes to implement the Channel 30 substitution with a top-mounted transmitting antenna on the existing tower structure which would replace the existing top-mounted Channel 5 antenna.

The licensed Channel 5 facility operates with 34.5 kW effective radiated power (“ERP”) nondirectional at 308 meters antenna height above average terrain. *Gray* proposes herein to utilize 515 kW ERP nondirectional on Channel 30 while maintaining the antenna HAAT at 308 meters.

A summary of the licensed Channel 5 and proposed Channel 30 technical parameters is provided in the following.

Licensed Channel 5 Parameters (file# BLCDT-20090622ABL)

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
19184	WMC-TV	5	MEMPHIS	TN	351009	895310	394	308	34.5	ND

Proposed Channel 30 Parameters

FacID	Call	Ch	City	St	Lat ²	Lon	RCAMSL	HAAT	ERP	DA
19184	WMC-TV	30	MEMPHIS	TN	351009	895310	394	308	515	ND

A map is supplied as Figure 1, which depicts the standard predicted coverage contours. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire community of Memphis will be encompassed by the 48 dB μ contour.

²The WMC-TV tower’s Antenna Structure Registration number 1048813 specifies the geographic coordinates 35° 10’ 09” N-Lat, 89° 53’ 10” W-Lon for the tower structure, the same as that specified herein for WMC-TV. The coordinates are incorrectly pre-filled by LMS from the ASR in the accompanying LMS submission as 35° 10’ 07” N-Lat, 89° 53’ 06” W-Lon and cannot be adjusted by the applicant. The latter coordinates correspond to the center of an AM radio station tower array (WMC AM, 790 kHz, Fac ID 19185, Memphis TN), of which the WMC-TV tower is part. Both sets of coordinates are supplied and defined on ASR# 1048813, and 35° 10’ 09” N-Lat, 89° 53’ 10” W-Lon correspond to the WMC-TV tower’s specific location.

Interference study per FCC OET Bulletin 69³ shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby full service and Class A television stations and reassignments as required by §73.616. The interference study output report is provided as Table 1.

Figure 2 provides a coverage contour comparison and shows that the proposed Channel 30 noise limited service contour (“NLSC”) will fall short of matching that of the licensed Channel 5 facility. On Channel 30, the best available UHF channel at Memphis, the ERP is limited to 515 kW in order to avoid causing impermissible interference to KLRT-TV (Ch. 30, Fac ID 11951, Little Rock AR, 241 km distant). The gap between the proposed Channel 30 NLSC and the licensed Channel 5 NLSC is approximately 28 kilometers.

At the digital transition in 2009, WMC-TV’s 34.5 kW ERP on Channel 5 achieved an expansion well beyond the 7.26 kW ERP in the 2008 post-transition table of allotments which was assigned for replication of the WMC-TV analog Channel 5 Grade B contour. The practical result of the digital Channel 5 power increase to 34.5 kW ERP was that the coverage area was not actually expanded, but rather it was found to provide a modicum of relief to viewer loss complaints within WMC-TV’s principal community and other areas in the immediate vicinity of Memphis. WMC-TV’s former analog Grade B contour (BMLCT-19870507KF) is also depicted on Figure 2, which extends about 12 km beyond the proposed Channel 30 NLSC.

Notably, WMC-TV’s original digital television allotment for the transition was for Channel 52 at 1000 kW ERP and 308 meters HAAT (FCC 98-315 in MM Docket 87-268, December 18, 1998). As with most stations on Low-Band VHF channels that were assigned a UHF channel for digital television, even the maximum UHF digital ERP of 1000 kW could not provide replication of the analog coverage area. The NLSC of WMC-TV’s original digital allotment Channel 52 reference facility is also provided on Figure 2. The proposed Channel 30

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

NLSC is only about 2 km short of matching the WMC-TV’s original digital Channel 52 reference NLSC.

Figure 3 depicts the proposed WMC-TV Channel 30 resulting NLSC loss areas along with the NLSC of alternative licensed television services that overlap a portion of loss area. The stations⁴ providing the alternative services are listed in Table 2. The areas on Figure 3 that are tinted yellow represent locations where there are less than 5 other services remaining in the loss area. A summary of the number of alternative services for the loss areas is provided on the map and in the following table.

Loss Area Analysis – Standard FCC Contours

WMC-TV Population Within NLSC (2010 census)	Compared to Licensed Digital Ch. 5	Compared to Former Analog Ch. 5	Compared to DTV Allotment Ch. 52 Reference
Comparison Target Total:	2,046,176	1,731,490	1,587,839
Proposed Ch. 30 Total:	1,556,701	1,556,701	1,556,701
Number of Other Services	<u>Loss Pop</u>	<u>Loss Pop</u>	<u>Loss Pop</u>
0	3,312	102	0
1	5,621	2,965	20
2	25,312	10,813	22
3	107,682	13,985	637
4	41,148	20,921	589
5 or more	306,400	126,003	29,870
Total Loss	489,475	174,789	31,138
Total less than 5 services	183,075	48,786	1,268
Total less than 5 (percentage)	8.95%	2.82%	0.08%

Compared to the WMC-TV licensed digital Channel 5 facility, the NLSC loss population is 489,475 persons, of which 183,075 persons would have less than five other services representing 8.95 percent of the total population within the licensed WMC-TV Channel 5 NLSC. When compared to the legacy analog Channel 5 Grade B contour area, 48,786 persons (2.82 percent) would have less than five other services. Regarding the original digital paired allotment facility for WMC-TV, the proposed Channel 30 facility would result in a loss of only 1,268 persons that

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

have less than five other services, which is 0.08 percent of the total population within the allotment facility's NLSC.

The results of additional loss area analysis is provided in Figure 4, now to consider terrain-limited coverage predictions of the licensed Channel 5 facility and the proposed Channel 30 operation. Here, the FCC's TVStudy computer program was used to determine terrain-limited coverage predictions at locations beyond the proposed Channel 30 NLSC. The study area was set using the "fixed geography" option. Default cell size and profile step settings were employed. The analysis considered each cell that is located beyond the Channel 30 NLSC and beyond the NLSC of at least five other stations (the same, yellow-tinted area as Figure 3) as bounded by the target facility's contour. Cells in this region were counted as lost service if they are predicted to have terrain-limited service from the licensed Channel 5 facility and not from the proposed Channel 30. The results regarding the number of alternative services for the loss areas is provided on Figure 4 and in the following table.

Loss Area Analysis – Terrain-Limited

WMC-TV Terrain-Limited Population (2010 census) TVStudy at Fixed Geography Area	Compared to Licensed Digital Ch. 5	Compared to Former Analog Ch. 5	Compared to DTV Allotment Ch. 52 Reference
Comparison Target Total:	2,043,125	1,732,345	1,586,592
Proposed Ch. 30 Total:	1,957,684	1,721,865	1,585,024
Number of Other Services	<u>Loss Pop</u>	<u>Loss Pop</u>	<u>Loss Pop</u>
0	0	0	0
1	2,605	0	0
2	6,226	17	0
3	16,890	681	0
4	6,283	0	0
5 or more	53,437	9,782	1,568
Total Loss	85,441	10,480	1,568
Total less than 5 services	32,004	698	0
Total less than 5 (percentage)	1.57%	0.04%	0.00%

This analysis shows that the terrain-limited loss population is 85,441 persons of the WMC-TV licensed digital Channel 5 facility, where 32,004 persons would have less than five other services representing 1.57 percent of the total terrain-limited population within the licensed WMC-TV Channel 5 NLSC. When compared to the legacy analog Channel 5 Grade B contour

area, 698 persons (0.04 percent) would have less than five other services. Within the NLSC of the original digital paired allotment facility for WMC-TV, all of the proposed Channel 30 facility's loss population (1,568 persons) would have five or more other services.

Conclusion

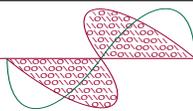
The proposed channel substitution complies with the FCC's principal community coverage requirements of §73.625 and the interference protection requirements of §73.616.

List of Attachments

Figure 1	Proposed Coverage Contours
Figure 2	Coverage Contour Comparison
Figure 3	Loss Area Analysis – Standard FCC Contours
Figure 4	Loss Area Analysis – Terrain-Limited Method
Table 1	TVStudy Analysis of Proposal
Table 2	Alternate Television Services in Loss Areas

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	November 16, 2020	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

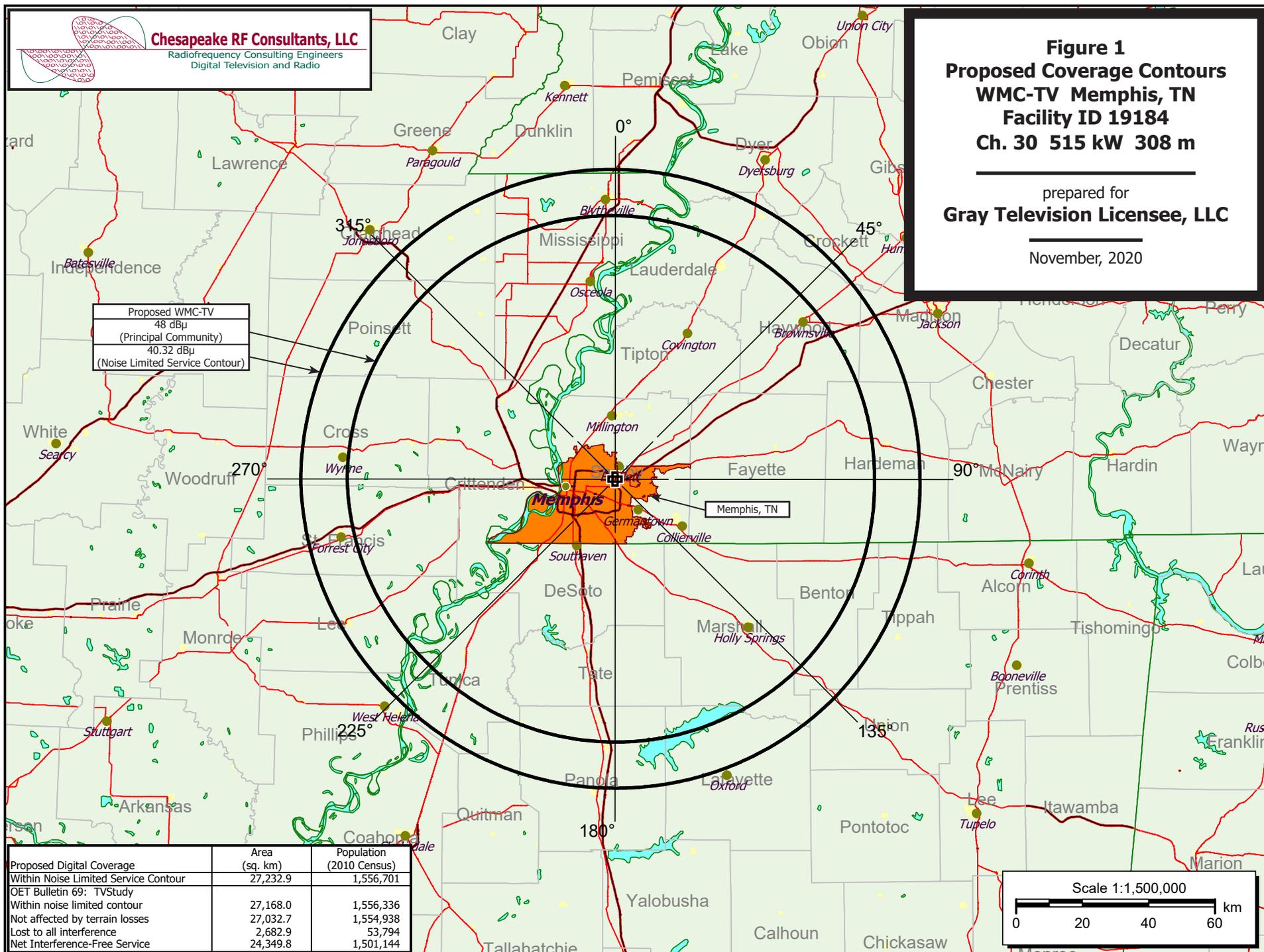


Chesapeake RF Consultants, LLC
 Radiofrequency Consulting Engineers
 Digital Television and Radio

Figure 1
Proposed Coverage Contours
WMC-TV Memphis, TN
Facility ID 19184
Ch. 30 515 kW 308 m

prepared for
Gray Television Licensee, LLC

November, 2020



Proposed WMC-TV
 48 dBμ
 (Principal Community)
 40.32 dBμ
 (Noise Limited Service Contour)

Proposed Digital Coverage	Area (sq. km)	Population (2010 Census)
Within Noise Limited Service Contour	27,232.9	1,556,701
OET Bulletin 69: TVStudy		
Within noise limited contour	27,168.0	1,556,336
Not affected by terrain losses	27,032.7	1,554,938
Lost to all interference	2,682.9	53,794
Net Interference-Free Service	24,349.8	1,501,144

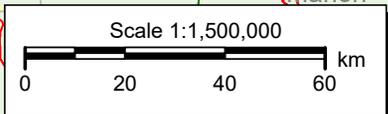


Figure 2
Coverage Contour Comparison
WMC-TV Memphis, TN
Facility ID 19184
Ch. 30 515 kW 308 m

prepared for
Gray Television Licensee, LLC

November, 2020

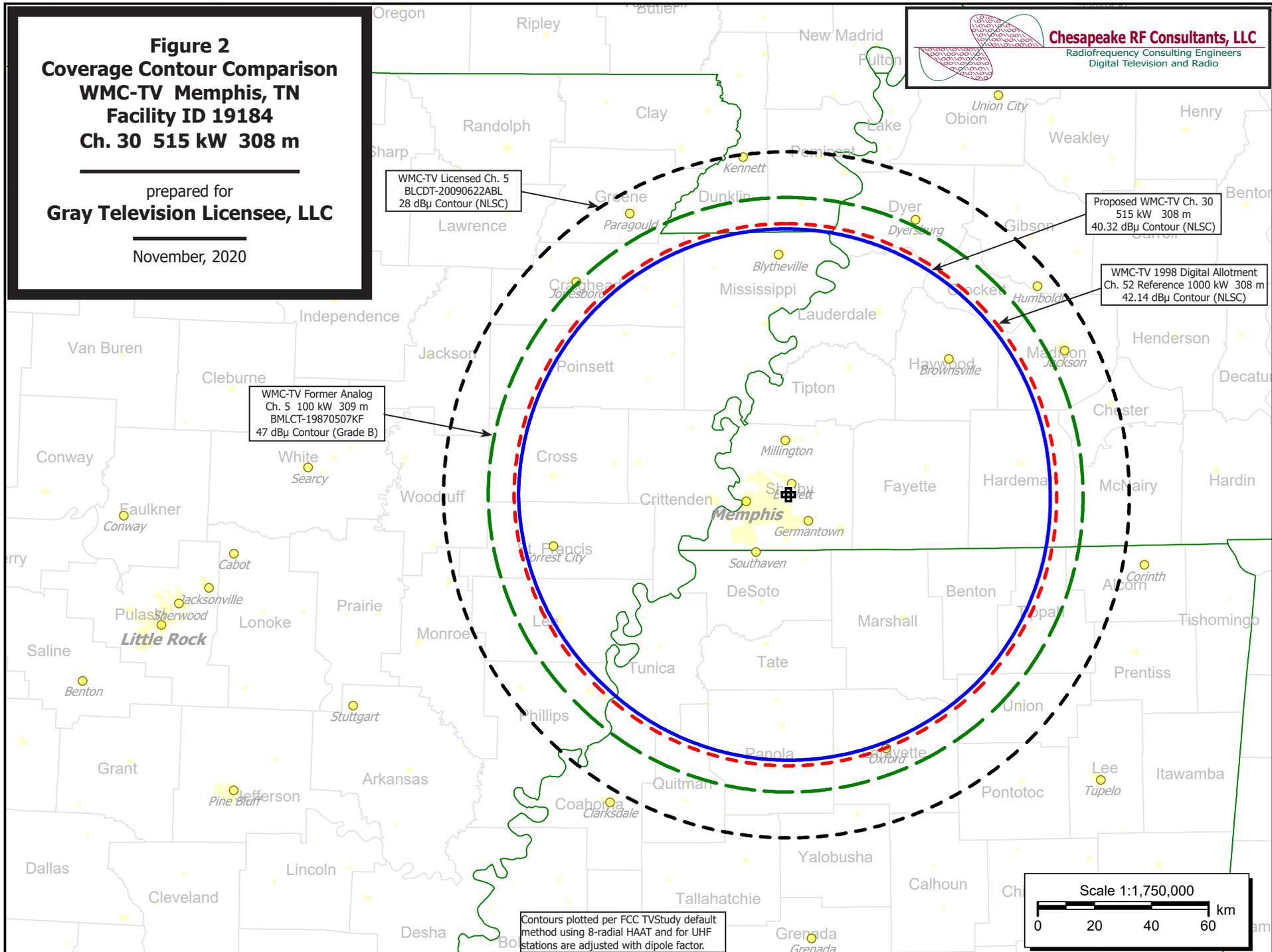
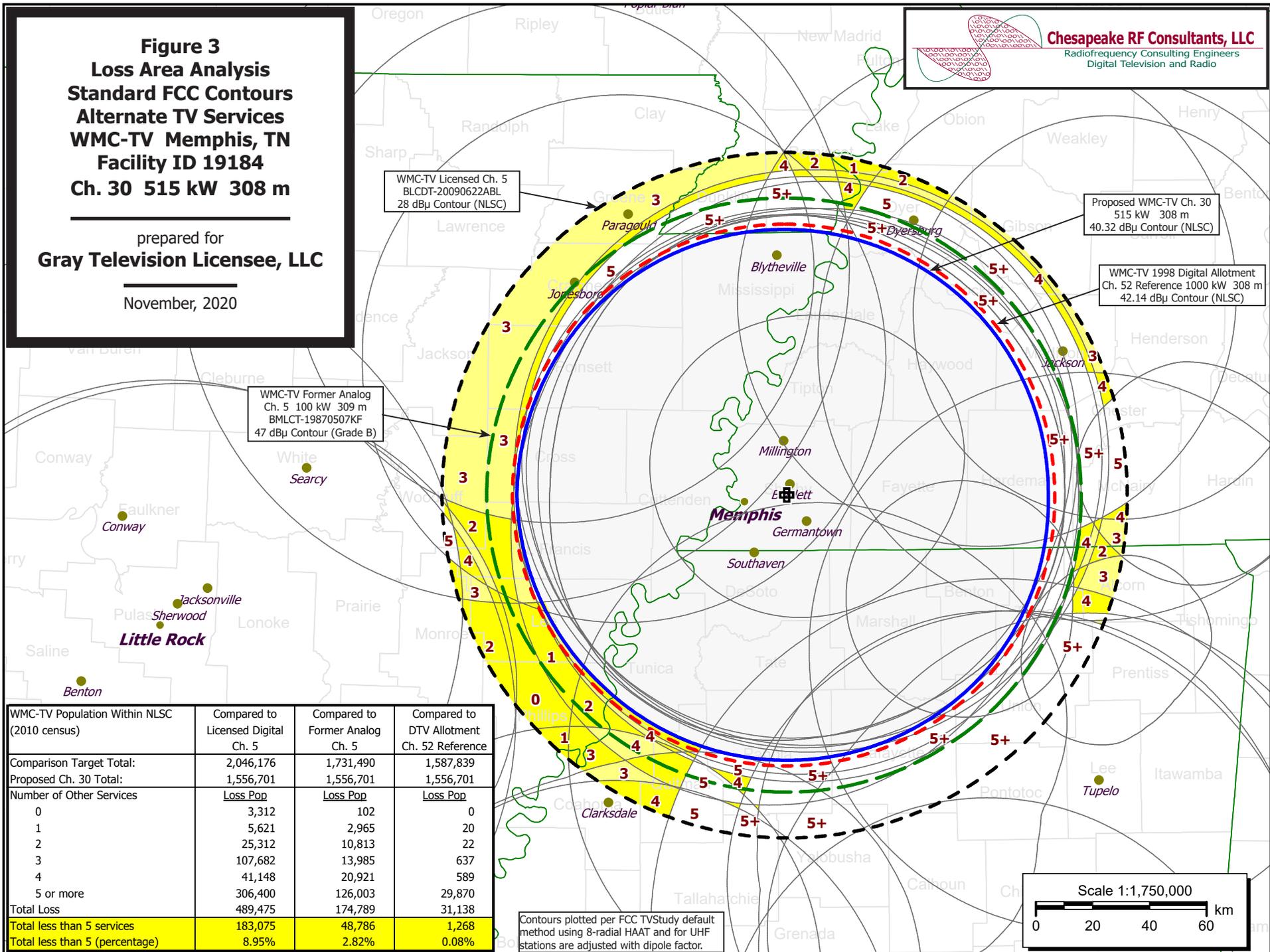


Figure 3
Loss Area Analysis
Standard FCC Contours
Alternate TV Services
WMC-TV Memphis, TN
Facility ID 19184
Ch. 30 515 kW 308 m

prepared for
Gray Television Licensee, LLC

November, 2020



WMC-TV Population Within NLSC (2010 census)	Compared to Licensed Digital Ch. 5	Compared to Former Analog Ch. 5	Compared to DTV Allotment Ch. 52 Reference
Comparison Target Total:	2,046,176	1,731,490	1,587,839
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5 or more	306,400	126,003	29,870
Total Loss	489,475	174,789	31,138
Total less than 5 services	183,075	48,786	1,268
Total less than 5 (percentage)	8.95%	2.82%	0.08%

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

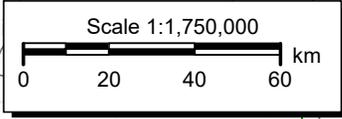


Figure 4
Loss Area Analysis
Terrain-Limited Method
WMC-TV Memphis, TN
Facility ID 19184
Ch. 30 515 kW 308 m

prepared for
Gray Television Licensee, LLC

November, 2020

WMC-TV Licensed Ch. 5
BLCDT-20090622ABL
28 dBu Contour (NLSC)

Proposed WMC-TV Ch. 30
515 kW 308 m
40.32 dBu Contour (NLSC)

WMC-TV 1998 Digital Allotment
Ch. 52 1000 kW 308 m
42.14 dBu Contour (NLSC)

WMC-TV Former Analog
Ch. 5 100 kW 309 m
BMLCT-19870507KF
47 dBu Contour (Grade B)

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

- No Loss Cells Having Terrain-Limited Service From Licensed Ch. 5
Terrain-Limited Service Is Provided for Proposed Ch. 30
- Loss Cells Having Terrain-Limited Service From Licensed Ch. 5
Terrain-Limited Service Is Lost for Proposed Ch. 30

WMC-TV Terrain-Limited Population (2010 census) TVStudy at Fixed Geography Area	Compared to Licensed Digital Ch. 5	Compared to Former Analog Ch. 5	Compared to DTV Allotment Ch. 52 Reference
Comparison Target Total:	2,043,125	1,732,345	1,586,592
Proposed Ch. 30 Total:	1,957,684	1,721,865	1,585,024
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0	0	0	0
1	2,605	0	0
2	6,226	17	0
3	16,890	681	0
4	6,283	0	0
5 or more	53,437	9,782	1,568
Total Loss	85,441	10,480	1,568
Total less than 5 services	32,004	698	0
Total less than 5 (percentage)	1.57%	0.04%	0.00%

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

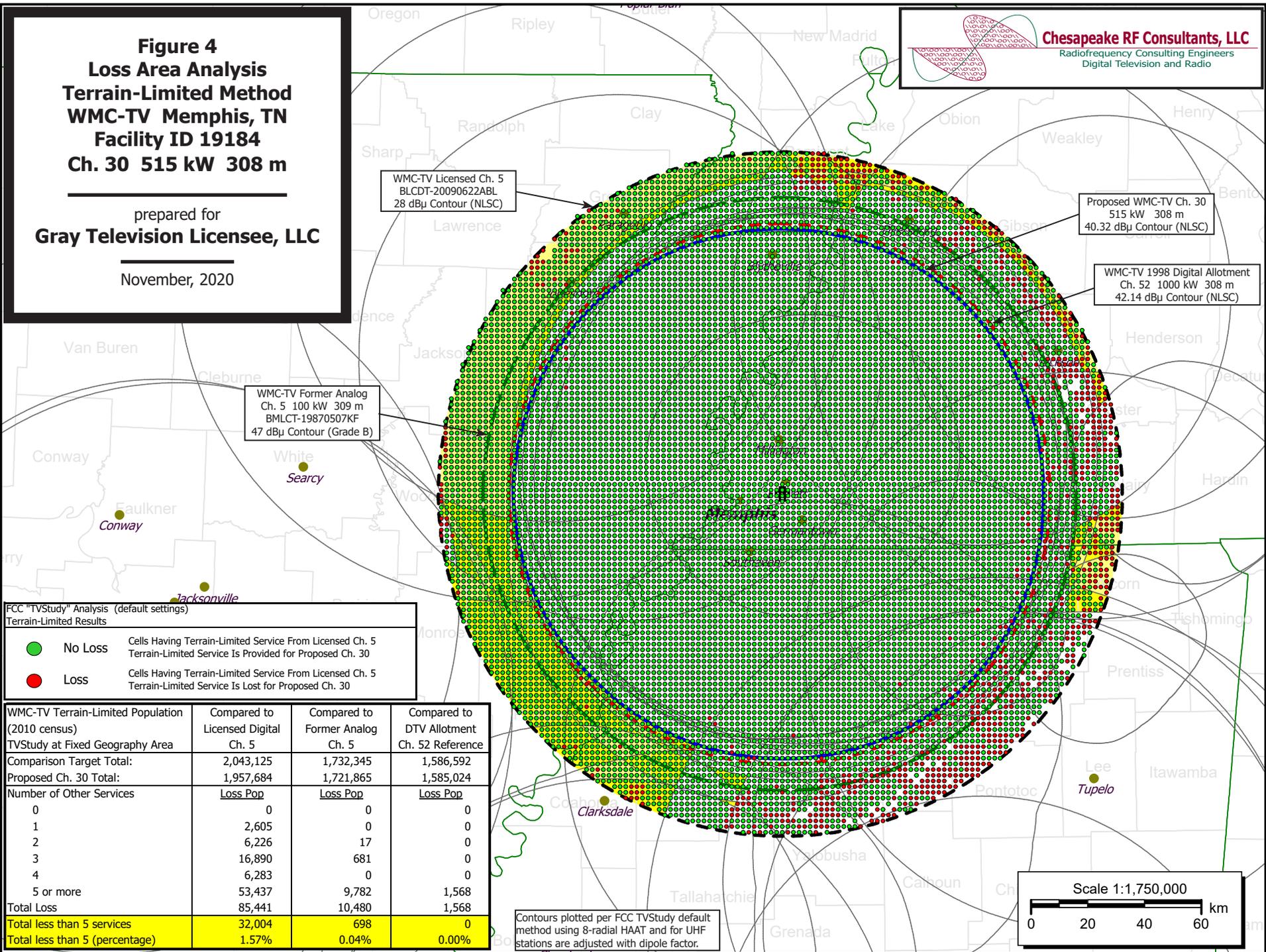
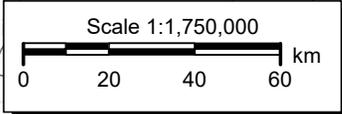


Table 1 WMC-TV TVStudy Analysis of Proposal
(page 1 of 6)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WMC-TV Ch-30 prop, Model: Longley-Rice
Start: 2020.11.16 11:38:16

Study created: 2020.11.16 11:38:16

Study build station data: LMS TV 2020-11-15

Proposal: WMC-TV D30 DT APP MEMPHIS, TN
File number: WMC-TV Ch-30 prop
Facility ID: 19184
Station data: User record
Record ID: 3314
Country: U.S.
Zone: II

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	WKNO	D29	DT	LIC	MEMPHIS, TN	BLEDT20060627ABE	6.0 km
Yes	WIAT	D30	DT	LIC	BIRMINGHAM, AL	BLCDT20021219AAV	339.0
Yes	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLCDT20020507AAK	240.8
Yes	WTCT	D30	DT	LIC	MARION, IL	BLANK0000096223	276.4
Yes	WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	331.7
Yes	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	304.4
Yes	WLMT	D31	DT	LIC	MEMPHIS, TN	BLCDT20050427ABN	15.4

No non-directional AM stations found within 0.8 km

Directional AM stations within 3.2 km:
WMC 790 L DAN D MEMPHIS, TN BL20001024ACH
WMC 790 L DAN N MEMPHIS, TN BL20001024ACH

Record parameters as studied:

Channel: D30
Latitude: 35 10 9.00 N (NAD83)
Longitude: 89 53 10.00 W
Height AMSL: 394.0 m
HAAT: 307.7 m
Peak ERP: 515 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 0.75

40.3 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	515 kW	308.1 m	93.1 km
45.0	515	302.1	92.4
90.0	515	296.1	91.6
135.0	515	307.8	93.1
180.0	515	305.5	92.8
225.0	515	306.2	92.9
270.0	515	321.3	94.6
315.0	515	314.3	93.9

Distance to Canadian border: 950.7 km

Distance to Mexican border: 1217.8 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 105.6 degrees Distance: 494.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 296.7 degrees Distance: 1455.3 km

Study cell size: 2.00 km

Table 1 WMC-TV TVStudy Analysis of Proposal
(page 2 of 6)



Profile point spacing: 1.00 km

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

Interference to BLEDT20060627ABE LIC scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired: WKNO	D29	DT	LIC	MEMPHIS, TN	BLEDT20060627ABE				
Undesireds: WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	6.0 km			
WREG-TV	D28	DT	LIC	MEMPHIS, TN	BLCDT20050513AAE	3.1			
WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	333.6			
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX					
30772.6	1,645,867	30624.7	1,642,092	30405.5	1,636,232	30397.6	1,636,045	0.03	0.01
Undesired	Total IX	Unique IX, before	Unique IX, after						
WMC-TV D30 DT APP	540		8.0	187					
WREG-TV D28 DT LIC	32.1	28.0	16.0	51					
WBRC D29 DT LIC	191.2	5,467	183.2	5,424					

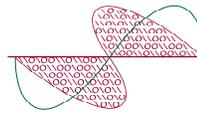
Interference to BLCDT20021219AAV LIC scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired: WIAT	D30	DT	LIC	BIRMINGHAM, AL	BLCDT20021219AAV				
Undesireds: WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	339.0 km			
WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	0.8			
WGIQ	D30	DT	LIC	LOUISVILLE, AL	BLANK0000067031	234.7			
WEIQ	D30	DT	LIC	MOBILE, AL	BLANK0000111746	330.2			
WDGA-CD	D30	DC	LIC	DALTON, GA	BLANK0000098047	215.4			
WMGT-TV	D30	DT	LIC	MACON, GA	BLANK0000075816	312.7			
WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	362.5			
WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	308.9			
WNCF	D31	DT	LIC	MONTGOMERY, AL	BLANK0000001319	148.4			
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX					
32651.6	1,837,072	31395.4	1,802,810	30018.4	1,777,645	30002.3	1,777,479	0.05	0.01
Undesired	Total IX	Unique IX, before	Unique IX, after						
WMC-TV D30 DT APP	55.9	1,080	16.1	166					
WBRC D29 DT LIC	435.8	8,086	423.8	8,067					
WGIQ D30 DT LIC	248.1	3,214	224.0	3,017					
WEIQ D30 DT LIC	44.1	882	20.1	117					
WDGA-CD D30 DC LIC	8.0	408	8.0	408					
WMGT-TV D30 DT LIC	8.0	446	8.0	446					
WLBT D30 DT LIC	12.0	583	0.0	0					
WNAB D30 DT LIC	255.3	9,243	215.5	8,329					
WNCF D31 DT LIC	417.8	3,115	385.7	3,055					

Interference to BLCDT20021219AAV LIC scenario 2

Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired: WIAT	D30	DT	LIC	BIRMINGHAM, AL	BLCDT20021219AAV				
Undesireds: WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	339.0 km			
WBRC	D29	DT	LIC	BIRMINGHAM, AL	BLANK0000081282	0.8			
WGIQ	D30	DT	APP	LOUISVILLE, AL	BLANK0000118055	234.7			
WEIQ	D30	DT	LIC	MOBILE, AL	BLANK0000111746	330.2			
WDGA-CD	D30	DC	LIC	DALTON, GA	BLANK0000098047	215.4			
WMGT-TV	D30	DT	LIC	MACON, GA	BLANK0000075816	312.7			
WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	362.5			
WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	308.9			
WNCF	D31	DT	LIC	MONTGOMERY, AL	BLANK0000001319	148.4			
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX					
32651.6	1,837,072	31395.4	1,802,810	30018.4	1,777,645	30002.3	1,777,479	0.05	0.01

Table 1 WMC-TV TVStudy Analysis of Proposal
(page 3 of 6)



Undesired		Total IX	Unique IX, before		Unique IX, after	
WMC-TV D30 DT APP	55.9	1,080			16.1	166
WBRC D29 DT LIC	435.8	8,086	423.8	8,067	423.8	8,067
WGIQ D30 DT APP	248.1	3,214	224.0	3,017	224.0	3,017
WEIQ D30 DT LIC	44.1	882	20.1	117	20.1	117
WDGA-CD D30 DC LIC	8.0	408	8.0	408	8.0	408
WMGT-TV D30 DT LIC	8.0	446	8.0	446	8.0	446
WLBT D30 DT LIC	12.0	583	0.0	0	0.0	0
WNAB D30 DT LIC	255.3	9,243	255.3	9,243	215.5	8,329
WNCF D31 DT LIC	417.8	3,115	385.7	3,055	385.7	3,055

Interference to BLCDT20020507AAK LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLCDT20020507AAK	
Undesireds:	WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	240.8 km
	WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	347.5
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	33266.3	1,171,678	32193.4	1,152,541	32189.4	1,146,798	0.69 0.50

Undesired		Total IX	Unique IX, before		Unique IX, after	
WMC-TV D30 DT APP	221.0	5,736			221.0	5,736
WLBT D30 DT LIC	4.0	7	4.0	7	4.0	7

Interference to BLANK0000096223 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTCT	D30	DT	LIC	MARION, IL	BLANK0000096223	
Undesireds:	WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	276.4 km
	W29CI-D	D29	DC	LIC	SALEM, IL	BLDTA20120913AAP	111.8
	WEIU-TV	D30	DT	LIC	CHARLESTON, IL	BLANK0000093935	232.3
	WKPC-TV	D30	DT	LIC	LOUISVILLE, KY	BLANK0000087420	293.8
	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	244.8
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	24409.8	608,457	24290.2	607,620	24182.0	606,601	0.20 0.02

Undesired		Total IX	Unique IX, before		Unique IX, after	
WMC-TV D30 DT APP	75.9	251			48.0	138
W29CI-D D29 DC LIC	48.3	620	48.3	620	48.3	620
WEIU-TV D30 DT LIC	11.9	44	4.0	14	4.0	14
WKPC-TV D30 DT LIC	4.0	0	0.0	0	0.0	0
WNAB D30 DT LIC	55.9	247	47.9	217	24.0	134

Interference to BLCDT20100119AEE LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	
Undesireds:	WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	331.7 km
	WIAT	D30	DT	LIC	BIRMINGHAM, AL	BLCDT20021219AAV	362.5
	WEIQ	D30	DT	LIC	MOBILE, AL	BLANK0000111746	292.6
	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLCDT20020507AAK	347.5
	WLFT-CD	D30	DC	LIC	BATON ROUGE, LA	BLDTA20110912ACB	213.5
	WGBC	D31	DT	CP	MERIDIAN, MS	BLANK0000035926	159.4
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	43121.5	948,671	43013.6	947,857	42685.3	941,665	0.05 0.00

Undesired		Total IX	Unique IX, before		Unique IX, after	
WMC-TV D30 DT APP	32.0	62			20.0	23
WIAT D30 DT LIC	20.2	308	0.0	0	0.0	0
WEIQ D30 DT LIC	207.9	2,414	171.6	1,959	171.6	1,959
KLRT-TV D30 DT LIC	12.0	4	12.0	4	4.0	2
WLFT-CD D30 DC LIC	31.8	148	31.8	148	31.8	148
WGBC D31 DT CP	104.9	3,773	76.6	3,603	76.6	3,603

Table 1 WMC-TV TVStudy Analysis of Proposal
(page 4 of 6)



Interference to BLCDT20100119AEE LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	
Undesireds:	WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	331.7 km
	WIAT	D30	DT	LIC	BIRMINGHAM, AL	BLCDT20021219AAV	362.5
	WEIQ	D30	DT	LIC	MOBILE, AL	BLANK0000111746	292.6
	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLCDT20020507AAK	347.5
	WLFT-CD	D30	DC	LIC	BATON ROUGE, LA	BLDTA20110912ACB	213.5
	WGBC	D31	DT	LIC	MERIDIAN, MS	BLCDT20071024AAK	159.4
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	43121.5	948,671	43013.6	947,857	42693.4	942,582	42673.4 942,559 0.05 0.00
Undesired			Total IX		Unique IX, before	Unique IX, after	
WMC-TV D30 DT APP		32.0	62		20.0	23	
WIAT D30 DT LIC		20.2	308	0.0	0	0	
WEIQ D30 DT LIC		207.9	2,414	171.6	1,959	171.6	1,959
KLRT-TV D30 DT LIC		12.0	4	12.0	4	4.0	2
WLFT-CD D30 DC LIC		31.8	148	31.8	148	31.8	148
WGBC D31 DT LIC		96.8	2,879	68.6	2,709	68.6	2,709

Interference to BLANK0000115868 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	
Undesireds:	WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	304.4 km
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	92.9
	WIAT	D30	DT	LIC	BIRMINGHAM, AL	BLCDT20021219AAV	308.9
	WTCT	D30	DT	LIC	MARION, IL	BLANK0000096223	244.8
	WKPC-TV	D30	DT	LIC	LOUISVILLE, KY	BLANK0000087420	248.8
	WKMA-TV	D31	DT	LIC	MADISONVILLE, KY	BLANK0000087442	121.2
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	28835.1	2,176,984	28184.5	2,166,809	27358.2	2,139,081	27326.1 2,138,940 0.12 0.01
Undesired			Total IX		Unique IX, before	Unique IX, after	
WMC-TV D30 DT APP		132.5	1,261		32.1	141	
WKGB-TV D29 DT LIC		164.4	11,372	116.3	9,207	116.3	9,207
WIAT D30 DT LIC		262.0	9,691	241.9	9,585	221.7	9,368
WTCT D30 DT LIC		460.1	8,737	371.9	6,277	307.8	5,449
WKPC-TV D30 DT LIC		28.0	2,079	8.0	199	8.0	199
WKMA-TV D31 DT LIC		12.0	64	0.0	0	0.0	0

Interference to BLCDT20050427ABN LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WLMT	D31	DT	LIC	MEMPHIS, TN	BLCDT20050427ABN	
Undesireds:	WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	15.4 km
	KWBM	D31	DT	CP	HARRISON, AR	BLANK0000036086	335.4
	WKMA-TV	D31	DT	LIC	MADISONVILLE, KY	BLANK0000087442	293.9
	KDNL-TV	D31	DT	LIC	ST. LOUIS, MO	BLCDT20021216AAE	370.6
	WGBC	D31	DT	CP	MERIDIAN, MS	BLANK0000035926	342.7
	W32EV-D	D32	DC	LIC	ADAMSVILLE, TN	BLANK0000121663	128.7
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	31790.6	1,736,552	31590.7	1,733,496	31410.5	1,730,350	31350.8 1,729,858 0.19 0.03
Undesired			Total IX		Unique IX, before	Unique IX, after	
WMC-TV D30 DT APP		59.7	492		59.7	492	
KWBM D31 DT CP		52.2	1,162	52.2	1,162	1,162	
WKMA-TV D31 DT LIC		12.1	376	4.0	345	4.0	345
KDNL-TV D31 DT LIC		4.0	0	0.0	0	0.0	0
WGBC D31 DT CP		75.6	1,162	75.6	1,162	75.6	1,162
W32EV-D D32 DC LIC		44.3	477	40.3	446	40.3	446

Table 1 WMC-TV TVStudy Analysis of Proposal
(page 5 of 6)



Interference to BLCDT20050427ABN LIC scenario 2

Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired: WLMT	D31	DT	LIC	MEMPHIS, TN	BLCDT20050427ABN				
Undesireds: WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	15.4 km			
KWBM	D31	DT	CP	HARRISON, AR	BLANK0000036086	335.4			
WKMA-TV	D31	DT	LIC	MADISONVILLE, KY	BLANK0000087442	293.9			
KDNL-TV	D31	DT	LIC	ST. LOUIS, MO	BLCDT20021216AAE	370.6			
WGBC	D31	DT	LIC	MERIDIAN, MS	BLCDT20071024AAK	342.7			
W32EV-D	D32	DC	LIC	ADAMSVILLE, TN	BLANK0000121663	128.7			
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX					
31790.6	1,736,552	31590.7	1,733,496	31426.4	1,730,378	31366.8	1,729,886	0.19	0.03
Undesired	Total IX	Unique IX, before	Unique IX, after						
WMC-TV D30 DT APP	59.7	492	59.7	492					
KWBM D31 DT CP	52.2	1,162	52.2	1,162					
WKMA-TV D31 DT LIC	12.1	376	4.0	345					
KDNL-TV D31 DT LIC	4.0	0	0.0	0					
WGBC D31 DT LIC	59.7	1,134	59.7	1,134					
W32EV-D D32 DC LIC	44.3	477	40.3	446					

Interference to BLCDT20050427ABN LIC scenario 3

Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired: WLMT	D31	DT	LIC	MEMPHIS, TN	BLCDT20050427ABN				
Undesireds: WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	15.4 km			
WKMA-TV	D31	DT	LIC	MADISONVILLE, KY	BLANK0000087442	293.9			
KDNL-TV	D31	DT	LIC	ST. LOUIS, MO	BLCDT20021216AAE	370.6			
WGBC	D31	DT	CP	MERIDIAN, MS	BLANK0000035926	342.7			
W32EV-D	D32	DC	LIC	ADAMSVILLE, TN	BLANK0000121663	128.7			
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX					
31790.6	1,736,552	31590.7	1,733,496	31462.7	1,731,512	31403.1	1,731,020	0.19	0.03
Undesired	Total IX	Unique IX, before	Unique IX, after						
WMC-TV D30 DT APP	59.7	492	59.7	492					
WKMA-TV D31 DT LIC	12.1	376	4.0	345					
KDNL-TV D31 DT LIC	4.0	0	0.0	0					
WGBC D31 DT CP	75.6	1,162	75.6	1,162					
W32EV-D D32 DC LIC	44.3	477	40.3	446					

Interference to BLCDT20050427ABN LIC scenario 4

Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired: WLMT	D31	DT	LIC	MEMPHIS, TN	BLCDT20050427ABN				
Undesireds: WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	15.4 km			
WKMA-TV	D31	DT	LIC	MADISONVILLE, KY	BLANK0000087442	293.9			
KDNL-TV	D31	DT	LIC	ST. LOUIS, MO	BLCDT20021216AAE	370.6			
WGBC	D31	DT	LIC	MERIDIAN, MS	BLCDT20071024AAK	342.7			
W32EV-D	D32	DC	LIC	ADAMSVILLE, TN	BLANK0000121663	128.7			
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX					
31790.6	1,736,552	31590.7	1,733,496	31478.7	1,731,540	31419.0	1,731,048	0.19	0.03
Undesired	Total IX	Unique IX, before	Unique IX, after						
WMC-TV D30 DT APP	59.7	492	59.7	492					
WKMA-TV D31 DT LIC	12.1	376	4.0	345					
KDNL-TV D31 DT LIC	4.0	0	0.0	0					
WGBC D31 DT LIC	59.7	1,134	59.7	1,134					
W32EV-D D32 DC LIC	44.3	477	40.3	446					

Interference to proposal scenario 1
3.46% interference received

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: WMC-TV	D30	DT	APP	MEMPHIS, TN	WMC-TV Ch-30 prop	

Table 1 WMC-TV TVStudy Analysis of Proposal
 (page 6 of 6)



Undesireds:	Call Sign	Channel	Type	License	City, State	File No.	Distance (km)
	WKNO	D29	DT	LIC	MEMPHIS, TN	BLEDT20060627ABE	6.0
	WIAT	D30	DT	LIC	BIRMINGHAM, AL	BLCDT20021219AAV	339.0
	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLCDT20020507AAK	240.8
	WTCT	D30	DT	LIC	MARION, IL	BLANK0000096223	276.4
	WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	331.7
	WNAB	D30	DT	LIC	NASHVILLE, TN	BLANK0000115868	304.4
	WLMT	D31	DT	LIC	MEMPHIS, TN	BLCDT20050427ABN	15.4

Service area	Terrain-limited	IX-free	Percent IX
27168.0 1,556,336	27032.7 1,554,938	24349.8 1,501,144	9.92 3.46

Undesired	Total IX	Unique IX	Prcnt Unique IX
WKNO D29 DT LIC	147.8 2,250	63.8 904	0.24 0.06
WIAT D30 DT LIC	83.3 1,938	15.9 22	0.06 0.00
KLRT-TV D30 DT LIC	1075.7 25,940	1003.9 24,819	3.71 1.60
WTCT D30 DT LIC	180.4 4,239	112.5 3,646	0.42 0.23
WLBT D30 DT LIC	55.8 980	4.0 42	0.01 0.00
WNAB D30 DT LIC	79.3 1,863	15.8 717	0.06 0.05
WLMT D31 DT LIC	1351.6 21,793	1239.6 20,337	4.59 1.31

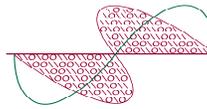


Table 2

Alternate Television Services in Loss Areas

prepared for

Gray Television Licensee, LLC

WMC-TV Memphis, TN

Call Sign	Ch.	Facility ID	File Number	Community
KETS	7	2770	BLEDT-20090615ABT	Little Rock, AR
KAIT	8	13988	BLCDT-20090803ABV	Jonesboro, AR
WMAE-TV	9	43170	0000117125	Booneville, MS
WMAB-TV	10	43192	BLEDT-20090612AAH	Mississippi State, MS
WTVB	11	74148	0000117299	Tupelo, MS
KTHV	12	2787	BLCDT-20041029AIX	Little Rock, AR
WHBQ-TV	13	12521	BLCDT-20100917AAC	Memphis, TN
WFXW	15	25236	BLCDT-20090612ACI	Greenville, MS
W15EA-D	15	168014	0000093191	Memphis, TN
WLOV-TV	16	37732	BLCDT-20070405ABC	West Point, MS
WEPH	17	83946	0000062855	Tupelo, MS
KVTJ-DT	18	2784	0000064048	Jonesboro, AR
KTEJ	20	2769	BLEDT-20110818AAQ	Jonesboro, AR
WBII-CD	20	41883	BLDTA-20090513AFM	Holly Springs, MS
WJKT	21	68519	0000114687	Jackson, TN
WWTW	23	84214	0000048875	Senatobia, MS
WTWV	23	81692	0000048888	Memphis, TN
WMAO-TV	25	43176	BLEDT-20090612AAI	Greenwood, MS
WATN-TV	25	11907	BLCDT-20050628AAP	Memphis, TN
WBUY-TV	26	60830	0000063641	Holly Springs, MS
WCBI-TV	27	12477	0000059851	Columbus, MS
WLJT-DT	27	71645	0000058637	Lexington, TN
WREG-TV	28	66174	BLCDT-20050513AAE	Memphis, TN
WKNO	29	42061	BLEDT-20060627ABE	Memphis, TN
WLMT	31	68518	BLCDT-20050427ABN	Memphis, TN
WABG-TV	32	43203	BLCDT-20051024ABR	Greenwood, MS
W32EV-D	32	68911	0000121663	Adamsville, TN
WPXX-TV	33	21726	0000063435	Memphis, TN
KASN	34	41212	0000073008	Pine Bluff, AR
W34DV-D	34	68905	0000001528	Booneville, MS
WBBJ-TV	35	65204	0000116047	Jackson, TN
WMAV-TV	36	43193	BLEDT-20090612AAK	Oxford, MS