

# Technical Report Supporting a Minor Modification of a License Facility Construction Permit Application

Pursuant to 47 C.F.R. Section 73:

*WYFL(FM).L - Henderson, NC  
(Facility ID: 5100)*

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*"Correction in Antenna COR  
Height in excess of  
47 C.F.R. Section 73.1690(c)(2);  
and minor corrections in site  
and ground elevation"*

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*100 kW at 304 meters HAAT  
285.2 meters AGL  
407.4 meters AMSL  
CH223C0 (92.5 MHz)*

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**EXPLANATION OF PROPOSAL:** This Minor Modification of a License Facility and accompanying Technical Report supports a minor construction permit application for FM station WYFL(FM) - Henderson, NC (Facility ID: 5100). *This Schedule 301 Application is being filed to correct an error in antenna COR height in excess of the +2/-4 meter mounting allowances of 47 C.F.R. Section 73.1690. This error was discovered during an ongoing 47 C.F.R. Section 73.1690(c)(2) process of replacing the directional antenna with an identical directional antenna. The proper documentation, as required under 47 C.F.R. Section 73.1690(c)(2)(i-v), will be submitted upon grant of this corrective filing.* In this instance, a correction of coordinates of less than one second and correction of ground elevation of less than one meter is requested to match a recently conducted site survey. In addition, antenna height corrections from the previously licensed COR 281 meters AGL and 403 meters AMSL values to higher corrected values of 285.2 meters AGL and 407.4 meters AMSL are requested. However, the sum result of all corrections will actually lower the previously licensed 308 meter HAAT value to 304 meters HAAT when utilizing the below noted FCC Globe 1 km terrain database. Continued operation on CH223C0 (92.5 MHz), with a power of 100.0 kW ERP (Circular Polarization) is requested from a corrected antenna height of 407.4 meters AMSL; 285.2 meters AGL; and 304 meters HAAT. WYFL(FM).P will continue to employ a directional antenna. WYFL(FM).P will continue to serve the community of Henderson, NC.

**FACILITY COMPLIANCE SHOWINGS:** A map of the proposed 60 dBμ service contour in relation to the present 60 dBμ service contour has been included in **Exhibit 1**. The minor change proposed service area will overlap a portion of the present service area as noted in the exhibit. In addition, this exhibit demonstrates city grade service of 3.16 mV/m, or 70 dBμ F(50:50), to at least 80% of the community of license<sup>1</sup>. In this instance, 100% coverage of the community will be attained.

A Longley-Rice coverage map of the proposed operation has been plotted in **Exhibit 2**. The applicant acknowledges this map has been provided for illustrative purposes only.

The proposed facility will be located on the tower bearing Antenna Structure Registration Number 1002317. In the process of replacing the current directional antenna, an error in the overall tower height was also discovered. Therefore, a site survey was conducted and FAA filing 2021-ASO-38313-OE submitted to correct the overall tower height and minor coordinate and ground elevation errors. In support of this filing, a copy of pending FAA filing 2021-ASO-38313-OE has been included in **Exhibit 3**. A depiction of the tower and antenna configuration has been included in **Exhibit 4**. Antenna Structure Registration Number 1002317 will be modified once the final FAA Determination of No Hazard has been issued.

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<sup>1</sup> John R. Hughes, 50 Fed. Reg. 5679 (Feb. 11, 1985) and Letter to Southwest Communications, Inc., ref. 8920-HVT (MMB July 16, 1986) (80 percent city-grade signal coverage of community deemed substantial for compliance with 47 C.F.R. Section 73.315)

The applicant would like to note use of the FCC's own Globe 1 km terrain database for the HAAT showing contained herein. A copy of the proposed HAAT calculation has been included in **Exhibit 5**. In addition, the requested Class C0 power of 100.0 kW ERP has been verified accurate for the proposed 304 meter HAAT value as noted in **Exhibit 5**.

As no change in frequency, class or community of license is proposed herein, the existing Special Allotment Reference Point remains valid and unchanged for this WYFL(FM) - Henderson, NC; CH223C0 (92.5 MHz) filing. These coordinates of record (*ALLO-USE Allotment Record Fac ID# 5100; Lat = 36 13 23.54, Lng = 78 12 05.98 - NAD 83*) represent a continued viable site location which meets both the current allocation restrictions and completely encompasses the community of license city limits with a 59.0 km Class C0 city grade reference arc.

**ALLOCATION COMPLIANCE SHOWINGS:** The proposed full-service site will meet all Class C0 spacing requirements of 47 C.F.R. Section 73.207 toward each allocation concern with the exception of WKRR(FM) - Asheboro, NC (CH222C0); WRSV(FM) - Elm City, NC (CH221A); and WXLK(FM) - Roanoke, VA (CH222C). In this instance, a correction of coordinates of less than one second and correction of ground elevation of less than one meter is requested to match a recently conducted site survey. In addition, antenna height corrections from the previously licensed COR 281 meters AGL and 403 meters AMSL values to higher corrected values of 285.2 meters AGL and 407.4 meters AMSL are requested. However, the sum result of all corrections will actually lower the previously licensed 308 meter HAAT value to 304 meters HAAT when utilizing the above noted FCC Globe 1 km terrain database. While no allocation studies are believed required for a *de minimis* corrective filing of this nature, a tabulation of the spacings toward each relevant allocation protection is found in **Exhibit 6**.

Concerning continued protection of WKRR(FM) - Asheboro, NC (CH222C0); WRSV(FM) - Elm City, NC (CH221A); and WXLK(FM) - Roanoke, VA (CH222C), the applicant would like to note WYFL(FM) is presently grandfathered under 47 C.F.R. Section 73.213 toward these three stations. Therefore, continued processing under §73.213(a)(2) is requested toward WKRR(FM) and WXLK(FM); and §73.213(a)(4) toward WRSV(FM). While no §73.213 allocation studies are believed required for a *de minimis* corrective filing of this nature, individual contour protection maps toward WKRR(FM), WRSV(FM) and WXLK(FM) have still been included in **Exhibit(s) 7(a-c)**. Existing contour overlap is and will continue to exist with some of these grandfathered stations; however, given the corrective nature of this filing, and fact the resulting HAAT value will be lowered from 308 meters HAAT to 304 meters HAAT, the proposed changes are *de minimis* in nature.

A copy of the proposed directional antenna pattern has been included in **Exhibit 8**.

The remainder of the information in this report is responsive to the Rules of the Commission, and provides the data for the FCC's online master LMS (Licensing and Management System) Form 2100 - Schedule 301-FM.

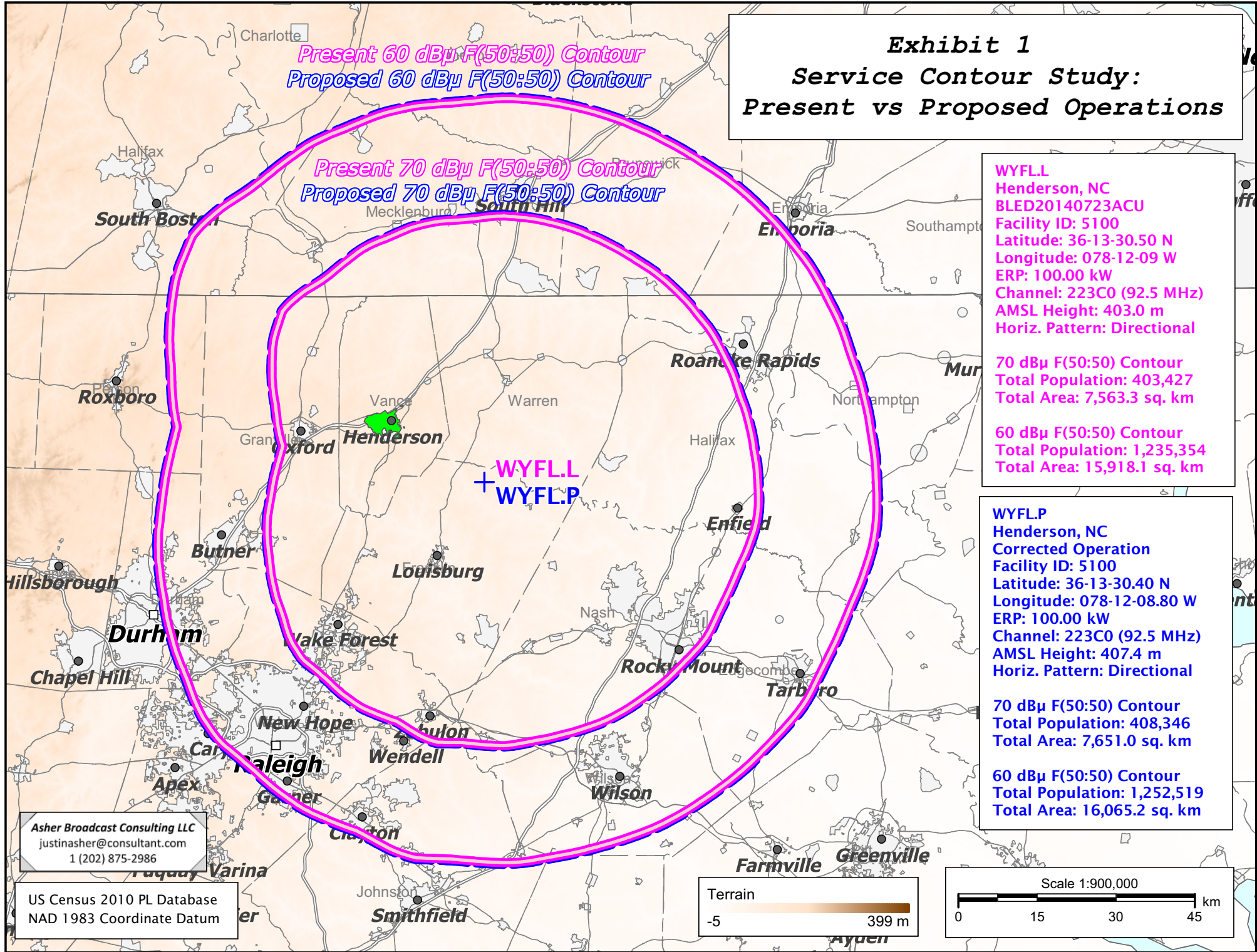
**ENVIRONMENTAL COMPLIANCE SHOWINGS:** The proposed facility complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments as set forth under §1.1310 and/or §1.1307(b)(3) of the Commission's rules and the RF radiation protection guidelines as set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01). Compliance has been demonstrated in the attached ***RF Appendix 1*** of this filing. The facility is, or will be, properly marked with signs. Entry is, or will be, restricted by means of fencing with locked doors or gates. In addition, coordination with other users of the site will be secured to reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.

Regarding compliance with the NEPA, Nationwide Programmatic Agreement and NHPA Section 106 for tower co-location, compliance with the Agreement is not required where no new tower construction is being proposed and the tower is not being substantially altered. Specifically, compliance is not necessary where only an antenna is being replaced on an existing structure, as here. However, should the Commission determine compliance is necessary, upon notification to the applicant, the applicant will file FCC Form 621.

**CERTIFICATION OF TECHNICAL CONSULTANT:** *I declare, under penalty of perjury, that the contents of this report are true and accurate to the best of my knowledge and belief. I further certify I have over twenty-two years of experience as a broadcast technical consultant before the Federal Communications Commission ("the FCC"); and am familiar with the Code of Federal Regulations Title 47 ("the Rules") as pertaining to this report and its contents herein. The underlying data utilized in this report was taken directly from FCC databases or indirectly through third party software vendors securing data directly from FCC databases. This firm cannot be held liable for errors or omissions resulting from the underlying data. The information contained herein is believed accurate to the date reported below.*

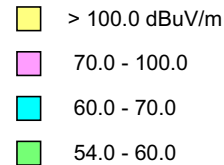
  
Justin W. Asher  
Technical Consultant  
October 1, 2021

# **Exhibit 1** **Service Contour Study:** **Present vs Proposed Operations**





US Census 2010 PL Database  
NAD 1983 Coordinate Datum



## Exhibit 2

### Service Contour Study: Proposed Longley-Rice Method

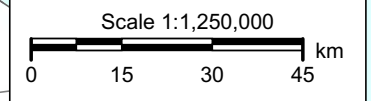
*non-FCC-sanctioned coverage map  
for illustrative purposes only*

**WYFLP**  
Henderson, NC  
Corrected Operation  
Facility ID: 5100  
Latitude: 36-13-30.40 N  
Longitude: 078-12-08.80 W  
ERP: 100.00 kW  
Channel: 223C0 (92.5 MHz)  
AMSL Height: 407.4 m  
Horiz. Pattern: Directional  
Prop Model: Longley-Rice  
Climate: Cont temperate  
Conductivity: 0.0050  
Dielec Const: 15.0  
Refractivity: 311.0  
Receiver Ht AG: 9.1 m  
Receiver Gain: 0 dB  
Time Variability: 50.0%  
Sit. Variability: 50.0%  
ITM Mode: Broadcast

70 dBμ Longley-Rice Contour  
Total Population: 884,338

60 dBμ Longley-Rice Contour  
Total Population: 1,565,359

Asher Broadcast Consulting LLC  
justinasher@consultant.com  
1 (202) 875-2986



V-Soft Communications LLC ©

# Exhibit 3

## Copy of Pending FAA Determination Study

(public record copy)



« OE/AAA

### Notice of Proposed Construction or Alteration - Off Airport

[Add a New Case \(Off Airport\) - Desk Reference Guide V\\_2018.2.1](#)

[Add a New Case \(Off Airport\) for Wind Turbines - Met Towers \(with WT Farm\) - WT-Barge Crane - Desk Reference Guide V\\_2018.2.1](#)

**Project Name:** BIBLE-000658803-21

**Sponsor:** Bible Broadcasting Network, Inc.

#### Details for Case : WYFL(FM) Tower

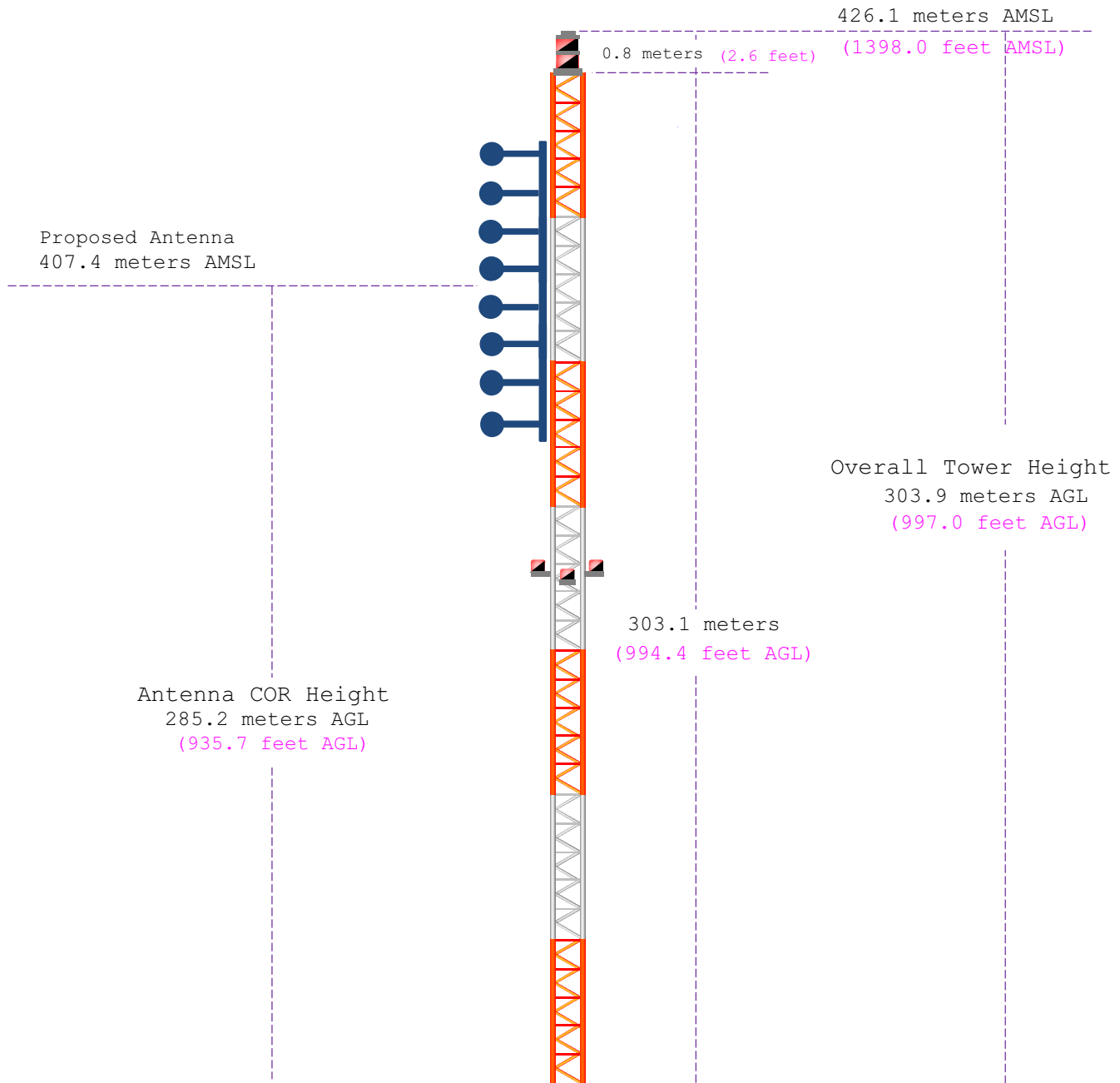
[Show Project Summary](#)

| <b>Case Status</b><br><b>ASN:</b> 2021-ASO-38313-OE<br><b>Status:</b> Accepted<br><br><b>Public Comments:</b> None   |           | <b>Date Accepted:</b> 09/29/2021<br><b>Date Determined:</b><br><b>Letters:</b> None<br><b>Documents:</b> 09/28/2021  Survey of WYFL(FM...)<br><br>Project Documents:<br>None  |     |          |           |           |     |          |          |           |           |     |          |      |      |     |     |    |
|--|-----------|---|-----|----------|-----------|-----------|-----|----------|----------|-----------|-----------|-----|----------|------|------|-----|-----|----|
| <b>Construction / Alteration Information</b><br><b>Notice Of:</b> Existing<br><b>Duration:</b> Permanent<br>if Temporary : Months: Days:<br><b>Work Schedule - Start:</b><br><b>Work Schedule - End:</b><br><i>*For temporary cranes-Does the permanent structure require separate notice to the FAA? To find out, use the Notice Criteria Tool. If separate notice is required, please ensure it is filed. If it is not filed, please state the reason in the Description of Proposal.</i><br><b>State Filing:</b> Not filed with State   |           | <b>Structure Summary</b><br><b>Structure Type:</b> Antenna Tower<br><b>Structure Name:</b> WYFL(FM) Tower<br><b>FDC NOTAM:</b><br><b>NOTAM Number:</b><br><b>FCC Number:</b> 1002317<br><a href="#">FCC ASR Registration</a><br><b>Prior ASN:</b> 2017-ASO-11387-OE   |     |          |           |           |     |          |          |           |           |     |          |      |      |     |     |    |
| <b>Structure Details</b><br><b>Latitude:</b> 36° 13' 30.40" N<br><b>Longitude:</b> 78° 12' 8.80" W<br><b>Horizontal Datum:</b> NAD83<br><b>Site Elevation (SE):</b> 401 (nearest foot) <b>PASSED</b><br><b>Structure Height (AGL):</b> 997 (nearest foot)<br><b>Current Height (AGL):</b> 997 (nearest foot)<br><i>* For notice of alteration or existing provide the current AGL height of the existing structure. Include details in the Description of Proposal</i><br><br><b>Minimum Operating Height (AGL):</b> (nearest foot)<br><i>* For aeronautical study of a crane or construction equipment the maximum height should be listed above as the Structure Height (AGL). Additionally, provide the minimum operating height to avoid delays if impacts are identified that require negotiation to a reduced height. If the Structure Height and minimum operating height are the same enter the same value in both fields.</i><br><br><b>Requested Marking/Lighting:</b> Red lights and paint<br><b>Other :</b><br><b>Recommended Marking/ Lighting:</b><br><b>Current Marking/Lighting:</b> Red lights and paint<br><b>Other :</b> <input type="text"/><br><br><b>Nearest City:</b> Alert<br><b>Nearest State:</b> North Carolina<br><b>Description of Location:</b> On State Route 1407; 2.1 kilometers east of Alert, NC.<br>Alert, NC.<br><b>Description of Proposal:</b> No physical construction has taken place. This filing corrects an observed error in overall tower height discovered during a recent antenna replacement. The owner notes the tower has always been 997 ft AGL. This error is believed to date back to the original 1984 construction date. |           | <b>Proposed Frequency Bands</b><br>Select any combination of the applicable frequencies/powers identified in the Colo Void Clause Coalition, Antenna System Co-Location, Voluntary Best Practices, effective 21 Nov 2007, to be evaluated by the FAA with your filing. If not within one of the frequency bands listed below, manually input your proposed frequency(ies) and power using the Add Specific Frequency link.<br><a href="#">Add Specific Frequency</a> <table border="1"> <thead> <tr> <th>Low Freq</th> <th>High Freq</th> <th>Freq Unit</th> <th>ERP</th> <th>ERP Unit</th> </tr> </thead> <tbody> <tr> <td>Low Freq</td> <td>High Freq</td> <td>Freq Unit</td> <td>ERP</td> <td>ERP Unit</td> </tr> <tr> <td>92.5</td> <td>92.5</td> <td>MHz</td> <td>100</td> <td>kW</td> </tr> </tbody> </table> |     | Low Freq | High Freq | Freq Unit | ERP | ERP Unit | Low Freq | High Freq | Freq Unit | ERP | ERP Unit | 92.5 | 92.5 | MHz | 100 | kW |
| Low Freq   | High Freq | Freq Unit   | ERP | ERP Unit |           |           |     |          |          |           |           |     |          |      |      |     |     |    |
| Low Freq   | High Freq | Freq Unit   | ERP | ERP Unit |           |           |     |          |          |           |           |     |          |      |      |     |     |    |
| 92.5   | 92.5      | MHz   | 100 | kW       |           |           |     |          |          |           |           |     |          |      |      |     |     |    |



# Exhibit 4

## Vertical Plan of Antenna System and Support Tower



|   |   |  |
|---|---|--|
| <b>Ground Elevation:</b> 122.2 meters AMSL (401 feet AMSL)              |   |  |
| <b>Address:</b> On State Route 1407; 2.1 kilometers east of Alert, NC.  |   |  |
| <b>City:</b> Alert  | <b>Latitude (D M S)</b>                     | <b>Longitude (D M S)</b>   |
| <b>County:</b> Franklin   | ---   | ---  |
| <b>State:</b> North Carolina  | <b>Lat/Long:</b> 36-13-30.4 N 078-12-08.8 W | (NAD 1983)   |
| <b>Antenna Structure Registration</b><br>1002317 (pending modification) | Drawing<br>Is Not<br>To Scale               | <b>Asher Broadcast Consulting, LLC</b><br>justinasher@consultant.com<br>1(202)875-2986 |

## ***Exhibit 5***

### **HAAT and Miscellaneous Coordinate Information**

#### **HAAT Calculation (NAD 1983):**

##### Antenna Height Above Average Terrain Calculations -- Results

###### Input Data

Latitude 36° 13' 30.4" North  
Longitude 78° 12' 8.8" West (NAD 83)

Height of antenna radiation center above mean sea level: 407.4 meters  
AMSL

Number of Evenly Spaced Radials = 8 0° is referenced to True North

###### Results

Calculated HAAT = ~~304~~ meters

Antenna Height Above Average Terrain calculated  
using 1 km [GLOBE terrain data](#)

###### Individual "Radial HAAT" Values, in meters

|      |         |
|------|---------|
| 0°   | 293.1 m |
| 45°  | 316.9 m |
| 90°  | 323.4 m |
| 135° | 315.8 m |
| 180° | 301.0 m |
| 225° | 311.0 m |
| 270° | 286.4 m |
| 315° | 285.2 m |

[Print Results?](#)

[New Calculation?](#)

#### **NAD 1983 to NAD 1927 Conversion:**

#### **Various Coordinate Conversion Calculations (NAD 1983):**

| Position Type                  | Lat Lon                          |
|--------------------------------|----------------------------------|
| <b>Degrees Lat Long</b>        | 36.2251111°, -078.2024444°       |
| <b>Degrees Minutes</b>         | 36°13.50667', -078°12.14667'     |
| <b>Degrees Minutes Seconds</b> | 36°13'30.4000", -078°12'08.8000" |
| <b>UTM</b>                     | 17S 751448mE 4012546mN           |
| <b>UTM centimeter</b>          | 17S 751448.89mE 4012546.42mN     |
| <b>MGRS</b>                    | 17SQA5144812546                  |
| <b>Grid North</b>              | 1.7°                             |
| <b>GARS</b>                    | 204LN41                          |
| <b>Maidenhead</b>              | FM06VF54QA96                     |
| <b>GEOREF</b>                  | GJMG47851350                     |

# ***Exhibit 6***

## **Tabulation of Proposed Commercial Spacings**

Blue Text Denotes 47 C.F.R. Section 73.213(a)(2) or 73.213(a)(4) Grandfathered Short-Spacings as included in ***Exhibit(s) 7(a-c)***.

Bible Broadcasting Network, Inc.

|                                    |                              |                 |
|------------------------------------|------------------------------|-----------------|
| REFERENCE                          | CLASS = C0                   | DISPLAY DATES   |
| 36 13 30.40 N.                     |                              | DATA 09-29-21   |
| 78 12 08.80 W.                     | Current Spacings to 3rd Adj. | SEARCH 09-29-21 |
| ----- Channel 223 - 92.5 MHz ----- |                              |                 |

| Call       | Channel     | Location                   | Power            | Azi   | Dist   | FCC   | Margin |
|------------|-------------|----------------------------|------------------|-------|--------|-------|--------|
| Lat.       | Lng.        | Ant                        |                  |       | HAAT   |       |        |
| WYFL       | LIC-D 223C0 | Henderson                  | NC               | 302.7 | 0.00   | 269.5 | -269.5 |
| 36 13 30.5 | 78 12 09.0  | DCN                        | 100.000 kW       |       | 308 M  |       |        |
|            |             | Bible Broadcasting Network | BLD20140723ACU   |       |        |       |        |
| WKRR %     | LIC-D 222C0 | Asheboro                   | NC               | 253.9 | 153.32 | 206.5 | -53.2  |
| 35 49 59.5 | 79 50 01.1  | DCN                        | 100.000 kW       |       | 393 M  |       |        |
|            |             | Dick Broadcasting Company, | BMLH19961120KD   |       |        |       |        |
| WRSV %     | LIC-N 221A  | Elm City                   | NC               | 162.7 | 39.92  | 85.5  | -45.6  |
| 35 52 53.9 | 78 04 13.6  | NCN                        | 3.300 kW         |       | 138 M  |       |        |
|            |             | Northstar Broadcasting Cor | BLH20150821ABC   |       |        |       |        |
| WXLK %     | LIC-D 222C  | Roanoke                    | VA               | 302.5 | 204.95 | 219.5 | -14.6  |
| 37 11 51.4 | 80 09 09.1  | DCN                        | 100.000 kW       |       | 605 M  |       |        |
|            |             | Mel Wheeler, Inc.          | BLH20110722ADP   |       |        |       |        |
| WQSL       | CP -N 222C1 | Jacksonville               | NC               | 161.2 | 202.62 | 195.5 | 7.1    |
| 34 29 42.0 | 77 29 18.0  | NCN                        | 100.000 kW       |       | 246 M  |       |        |
|            |             | Dick Broadcasting Company, | 0000145133       |       |        |       |        |
| WLQC       | LIC 276A    | Sharpsburg                 | NC               | 140.4 | 35.63  | 28.5  | 7.1    |
| 35 58 40.6 | 77 56 58.9  | CN                         | 4.400 kW         |       | 117 M  |       |        |
|            |             | Pinestone Media Corporatio | BLH20101022ACF   |       |        |       |        |
| WQSL       | LIC 222C2   | Jacksonville               | NC               | 159.9 | 201.27 | 175.5 | 25.8   |
| 34 31 10.5 | 77 26 50.8  | CN                         | 22.500 kW        |       | 221 M  |       |        |
|            |             | Dick Broadcasting Company, | BLH19950612KD    |       |        |       |        |
| WAIW       | LIC 223B    | Winchester                 | VA               | 2.9   | 303.49 | 271.5 | 32.0   |
| 38 57 21.3 | 78 01 26.9  | CN                         | 22.000 kW        |       | 434 M  |       |        |
|            |             | Educational Media Foundati | 0000126379       |       |        |       |        |
| WVHL       | LIC 225A    | Farmville                  | VA               | 347.7 | 120.47 | 85.5  | 35.0   |
| 37 17 06.5 | 78 29 38.0  | CN                         | 6.000 kW         |       | 100 M  |       |        |
|            |             | North Street Enterprises,  | BLH19970904KA    |       |        |       |        |
| WBNK       | LIC-N 224C2 | Pine Knoll Shores          | NC               | 133.7 | 214.04 | 175.5 | 38.5   |
| 34 53 01.6 | 76 30 20.7  | NCN                        | 11.500 kW        |       | 228 M  |       |        |
|            |             | Educational Media Foundati | BMLED20180405AAC |       |        |       |        |
| WWLB       | LIC 226A    | Ettrick                    | VA               | 25.8  | 129.39 | 85.5  | 43.9   |
| 37 16 21.5 | 77 33 58.0  | CN                         | 5.200 kW         |       | 106 M  |       |        |
|            |             | Vpm Media Corporation      | BMLED20180102AAM |       |        |       |        |

% = Station Fails minimum 73.215 spacings  
All separation margins include rounding

## ***Exhibit 7a - 47 C.F.R. Section 73.213(a)(2)***

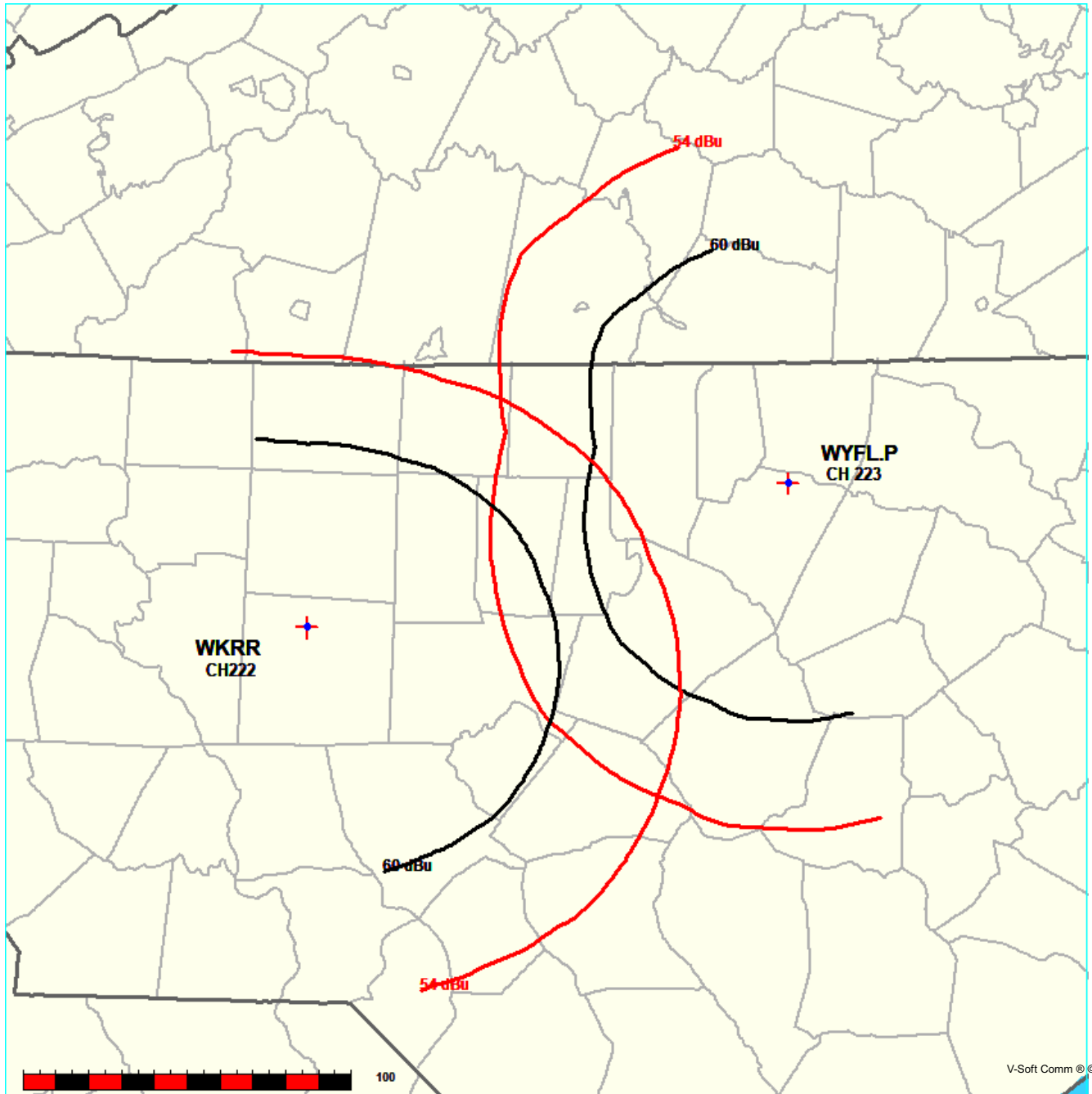
### ***Grandfathered Short Spacing Study Toward WKRR(FM) - Asheboro, NC***

Bible Broadcasting Network, Inc.

FMCommander Single Allocation Study - 09-29-2021 - FCC NGDC 30 Sec  
WYFL.P's Overlaps (In= 0.0 km, Out= 0.0 km)

WYFL.P CH 223 C0 DA  
Lat= 36 13 30.40, Lng= 78 12 08.80  
100.0 kW 304 m HAAT, 407.4 m COR  
Prot.= 60 dBu, Intef.= 54 dBu

WKRR CH 222 C0 DA BMLH19961120KD  
Lat= 35 49 59.50, Lng= 79 50 01.11  
100.0 kW 393 m HAAT, 608 m COR  
Prot.= 60 dBu, Intef.= 54 dBu



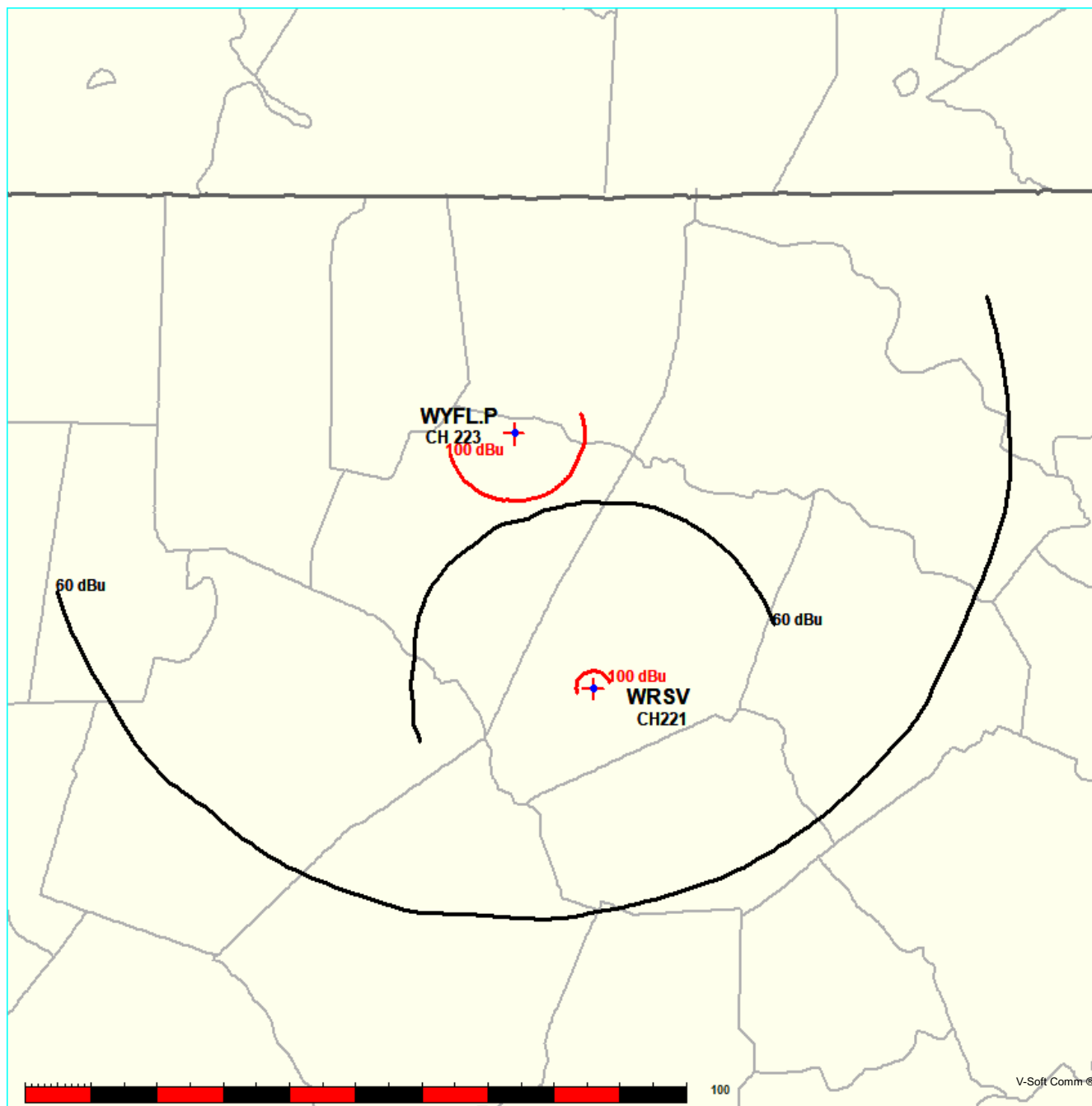
***Exhibit 7b - 47 C.F.R. Section 73.213(a)(4)***  
***Grandfathered Short Spacing Study Toward WRSV(FM) - Elm City, NC***

Bible Broadcasting Network, Inc.

FMCommander Single Allocation Study - 09-29-2021 - FCC NGDC 30 Sec  
WYFL.P's Overlaps (In= 0.0 km, Out= 0.0 km)

WYFL.P CH 223 C0 DA  
Lat= 36 13 30.40, Lng= 78 12 08.80  
100.0 kW 304 m HAAT, 407.4 m COR  
Prot.= 60 dBu, Intef.= 100 dBu

WRSV CH 221 A 73.215 N BLH20150821ABC  
Lat= 35 52 53.90, Lng= 78 04 13.59  
3.3 kW 138 m HAAT, 197.5 m COR  
Prot.= 60 dBu, Intef.= 100 dBu





## ***Exhibit 7c - 47 C.F.R. Section 73.213(a)(2)***

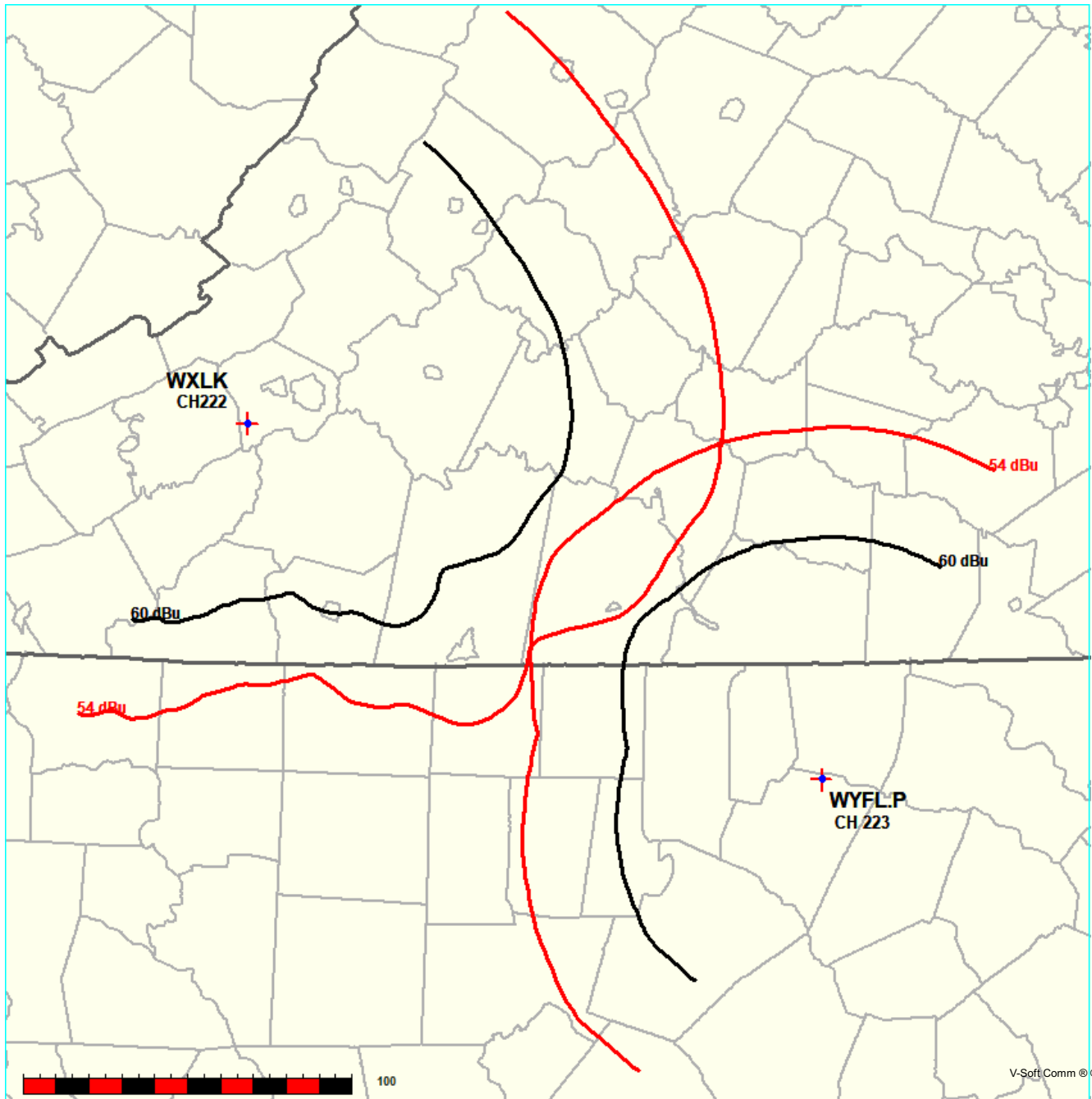
### ***Grandfathered Short Spacing Study Toward WXLK(FM) - Roanoke, VA***

Bible Broadcasting Network, Inc.

FMCommander Single Allocation Study - 09-29-2021 - FCC NGDC 30 Sec  
WYFL.P's Overlaps (In= 0.0 km, Out= 0.0 km)

WYFL.P CH 223 C0 DA  
Lat= 36 13 30.40, Lng= 78 12 08.80  
100.0 kW 304 m HAAT, 407.4 m COR  
Prot.= 60 dBu, Intef.= 54 dBu

WXLK CH 222 C DA BLH20110722ADP  
Lat= 37 11 51.41, Lng= 80 09 09.10  
100.0 kW 605 m HAAT, 1191 m COR  
Prot.= 60 dBu, Intef.= 54 dBu



# ***Exhibit 8***

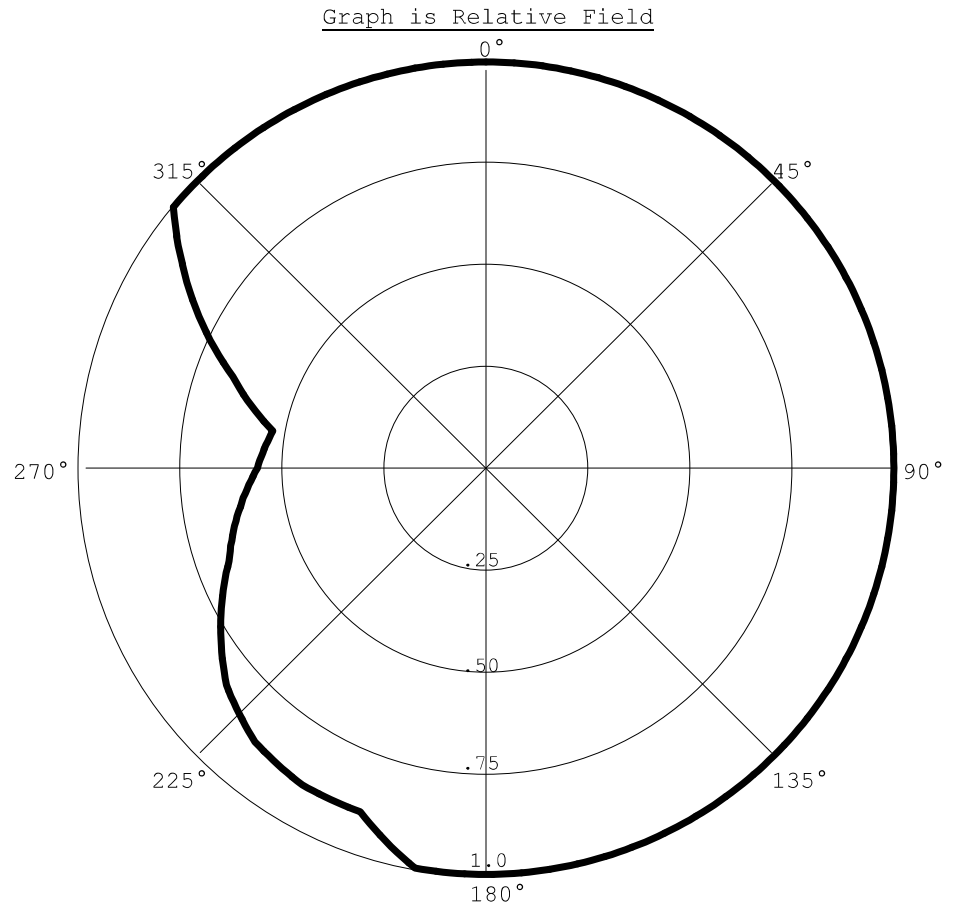
## ***Tabulation of Proposed Directional Antenna Pattern***

WYFL.P

09-30-2021

RMS (V) = .931

| Azi | Field | dBk    | kW      |
|-----|-------|--------|---------|
| 000 | 1.000 | 20.000 | 100.000 |
| 010 | 1.000 | 20.000 | 100.000 |
| 020 | 1.000 | 20.000 | 100.000 |
| 030 | 1.000 | 20.000 | 100.000 |
| 040 | 1.000 | 20.000 | 100.000 |
| 050 | 1.000 | 20.000 | 100.000 |
| 060 | 1.000 | 20.000 | 100.000 |
| 070 | 1.000 | 20.000 | 100.000 |
| 080 | 1.000 | 20.000 | 100.000 |
| 090 | 1.000 | 20.000 | 100.000 |
| 100 | 1.000 | 20.000 | 100.000 |
| 110 | 1.000 | 20.000 | 100.000 |
| 120 | 1.000 | 20.000 | 100.000 |
| 130 | 1.000 | 20.000 | 100.000 |
| 140 | 1.000 | 20.000 | 100.000 |
| 150 | 1.000 | 20.000 | 100.000 |
| 160 | 1.000 | 20.000 | 100.000 |
| 170 | 1.000 | 20.000 | 100.000 |
| 180 | 1.000 | 20.000 | 100.000 |
| 190 | 1.000 | 20.000 | 100.000 |
| 200 | 0.900 | 19.085 | 81.000  |
| 210 | 0.900 | 19.085 | 81.000  |
| 220 | 0.880 | 18.890 | 77.440  |
| 230 | 0.830 | 18.382 | 68.890  |
| 240 | 0.750 | 17.501 | 56.250  |
| 250 | 0.670 | 16.521 | 44.890  |
| 260 | 0.615 | 15.778 | 37.823  |
| 270 | 0.560 | 14.964 | 31.360  |
| 280 | 0.530 | 14.486 | 28.090  |
| 290 | 0.660 | 16.391 | 43.560  |
| 300 | 0.830 | 18.382 | 68.890  |
| 310 | 1.000 | 20.000 | 100.000 |
| 320 | 1.000 | 20.000 | 100.000 |
| 330 | 1.000 | 20.000 | 100.000 |
| 340 | 1.000 | 20.000 | 100.000 |
| 350 | 1.000 | 20.000 | 100.000 |



The antenna proposed in this application will be mounted in accordance with specific instructions provided by the antenna manufacturer. The antenna will be tested by the manufacturer using the type of mounting which will be employed in the field.

No other antennas of any type are or will be mounted on the same tower level as the directional antenna nor in will any antenna be mounted within any vertical or horizontal distance specified by the antenna manufacturer as being necessary for proper operation of the directional antenna. The antenna will be assembled under the supervision of a qualified engineer, who will provide the required certification. This statement will certify that the antenna has been installed pursuant to the manufacturer's instructions. Also upon completion of antenna construction, a statement from a licensed surveyor will be submitted with the application for license certifying the antenna has been installed in the proper orientation.

The antenna pattern will be measured by the manufacturer on the test range, and the measurement results will be supplied to the Commission at the time Form 302-FM is filed covering the construction.