

# Technical Report Supporting a New NCE-FM Construction Permit Application

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

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*for*  
**Scottsbluff, Nebraska**  
**CH211A (90.1 MHz)**  
**(Facility ID: 762137)**

*as filed by*  
**Bible Broadcasting Network, Inc.**

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*This Application is being filed in response to*  
**PUBLIC NOTICE: DA 21-885**; issued  
*July 23, 2021; “Media Bureau announces NCE-FM*  
*new station filing procedures and requirements for*  
*November 2 - 9, 2021, window”.*

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**EXPLANATION OF PROPOSAL:** This New NCE-FM Construction Permit Application and accompanying Technical Report supports a request for a new noncommercial FM (NCE-FM) station pursuant to ***PUBLIC NOTICE: DA 21-885***; issued July 23, 2021; “Media Bureau announces NCE-FM new station filing procedures and requirements for November 2 - 9, 2021, window”. This FCC Schedule 340-NCE-FM filing requests a new facility for CH211A(90.1 MHz) - Scottsbluff, NE with operating parameters of 0.92 kW ERP (Circular Polarization) utilizing a non-directional antenna.

**FACILITY COMPLIANCE SHOWINGS:** A map of the proposed 60 dBμ service contour has been included in ***Exhibit 1***. This exhibit demonstrates NCE-FM grade service of 1.0 mV/m, or 60 dBμ F(50:50), to the entire community of license.

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 facility will remain located on an existing 58.0 meter tower which does not require Antenna Structure Registration. In support of this filing, a copy of USGS Topographic Aerial Photomapping of the existing tower site has been included in ***Exhibit 3***. A depiction of the tower and antenna configuration has been included in ***Exhibit 4***. Further notification to the FAA or ASR governing authorities is not required as this proposal will not increase the overall tower height. *The applicant certifies it has reasonable assurance in good faith that the above structure will be available to the applicant for the applicant’s intended purpose. As this reasonable assurance is not based on the applicant’s ownership of the structure, the applicant certifies that it has obtained such reasonable assurance by contacting the owner or person possessing control of the site or structure. The name of the person contacted, the person’s telephone number, and status of the contact as the tower owner, agent, or authorized representative is as follows:*

<b>Name:</b>	Rick Derr (Action Communications)
<b>Contact Telephone Number:</b>	(308) 632-7836
<b>Contact Status:</b>	Owner

The applicant would like to note use of the FCC 30 second terrain database for all allocation, contour and HAAT showings contained herein. A copy of the proposed HAAT calculation has been included in ***Exhibit 5***.

**ALLOCATION COMPLIANCE SHOWINGS:** The proposed full service NCE-FM site will meet all contour protection requirements of 47 C.F.R. Section 73.509 toward each allocation protection. A tabulation of the proposed NCE-FM allocation is found in ***Exhibit 6***. There are two (2) allocation concerns deemed close enough to require further study. Therefore, maps and/or tabulations of the relevant protected and interference contours toward these concerns have been supplied in ***Exhibit(s) 7(a-b)***. It is believed sufficient clearance exists precluding the need for further study. However, additional tabulations or maps will be supplied upon request.

The transmitter site is located more than 320 km from the common border of the United States and Canada or Mexico. As a result, full protection will be afforded all international concerns as noted in the **Exhibit 6** allocation study.

The transmitter site is located within the affected radius of multiple TV6 facilities. However, full protection will be afforded all TV6 concerns as noted in **Exhibit 6**.

The remainder of 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.

**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 guidelines for RF radiation protection 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 and feedline are being added to an existing structure. 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 6, 2021

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

*Proposed 60 dBμ F(50:50) Contour*

**CH211A.P**  
Scottsbluff, NE  
Proposed Operation  
Facility ID: 762137  
Latitude: 41-56-25 N  
Longitude: 103-39-22.40 W  
ERP: 0.92 kW  
Channel: 211A (90.1 MHz)  
AMSL Height: 1310.3 m  
Horiz. Pattern: Omni

**60 dBμ F(50:50) Contour**  
Total Population: 33,177  
Total Area: 727.3 sq. km

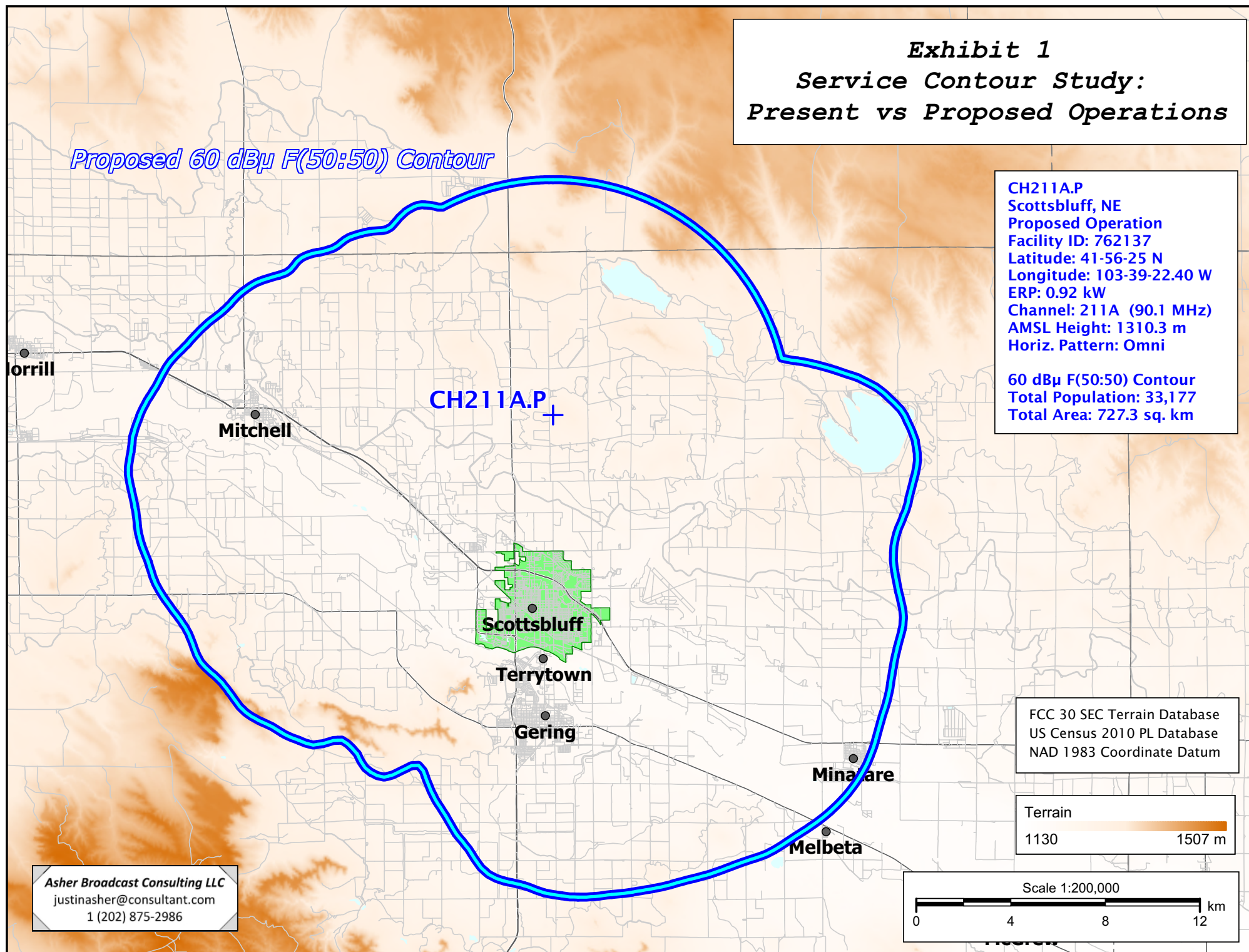
FCC 30 SEC Terrain Database  
US Census 2010 PL Database  
NAD 1983 Coordinate Datum

Terrain  
1130 1507 m

Scale 1:200,000

0 4 8 12 km

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

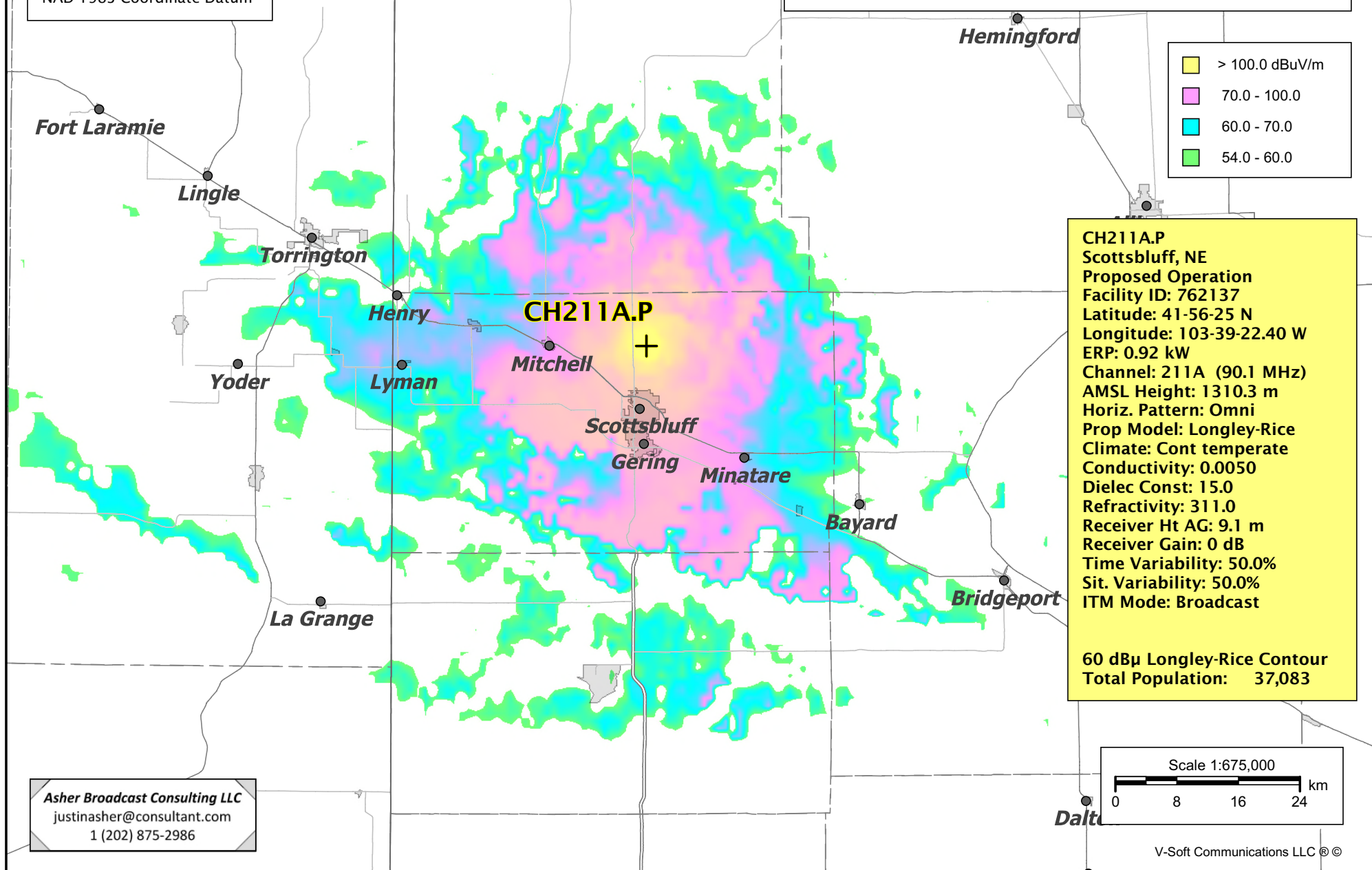


non-FCC-sanctioned coverage map  
for illustrative purposes only

FCC 30 SEC Terrain Database  
US Census 2010 PL Database  
NAD 1983 Coordinate Datum

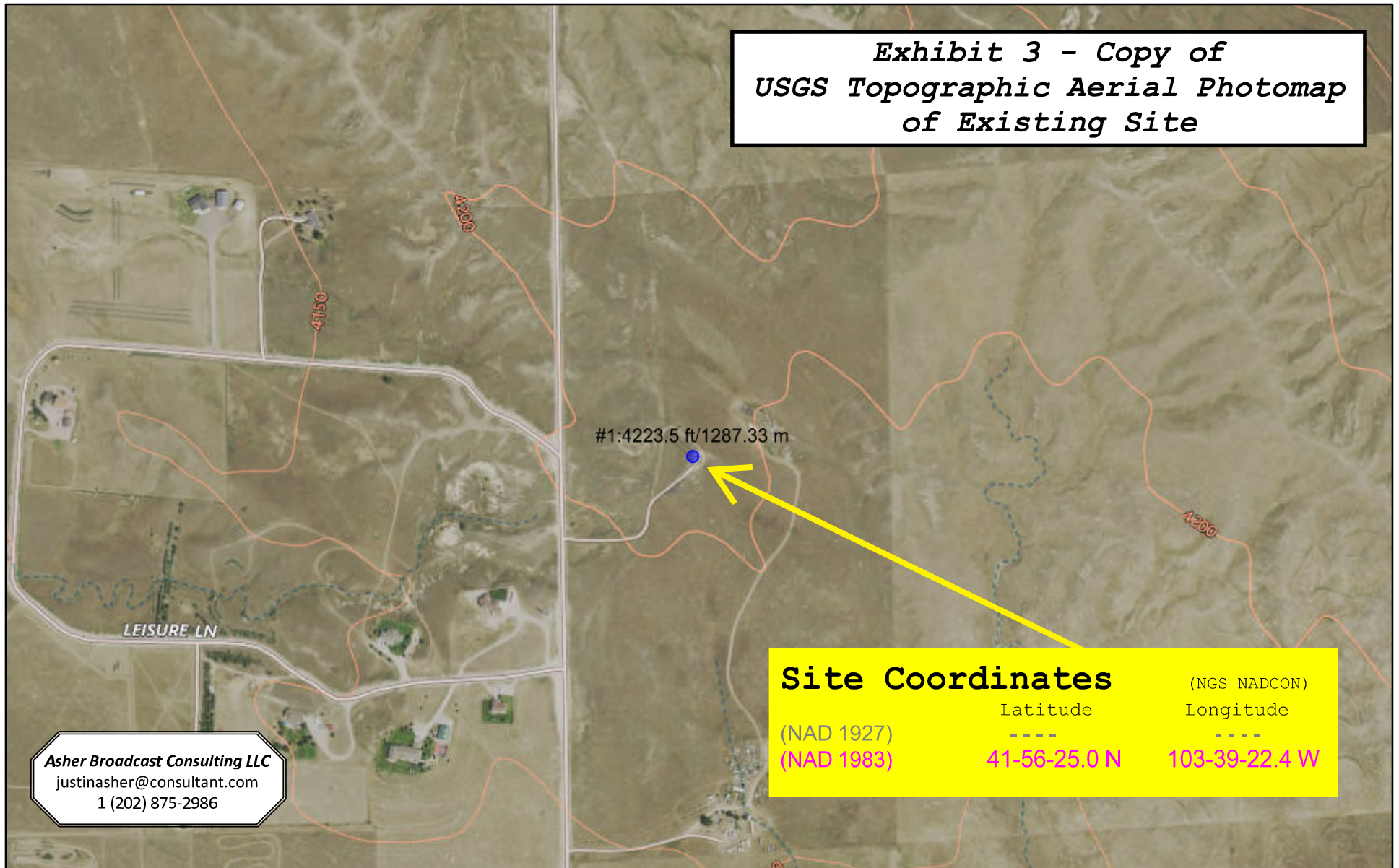
## Exhibit 2

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





# The National Map Advanced Viewer



5/12/2021, 1:42:18 PM

1:9,028

0 0.05 0.1 0.2 mi

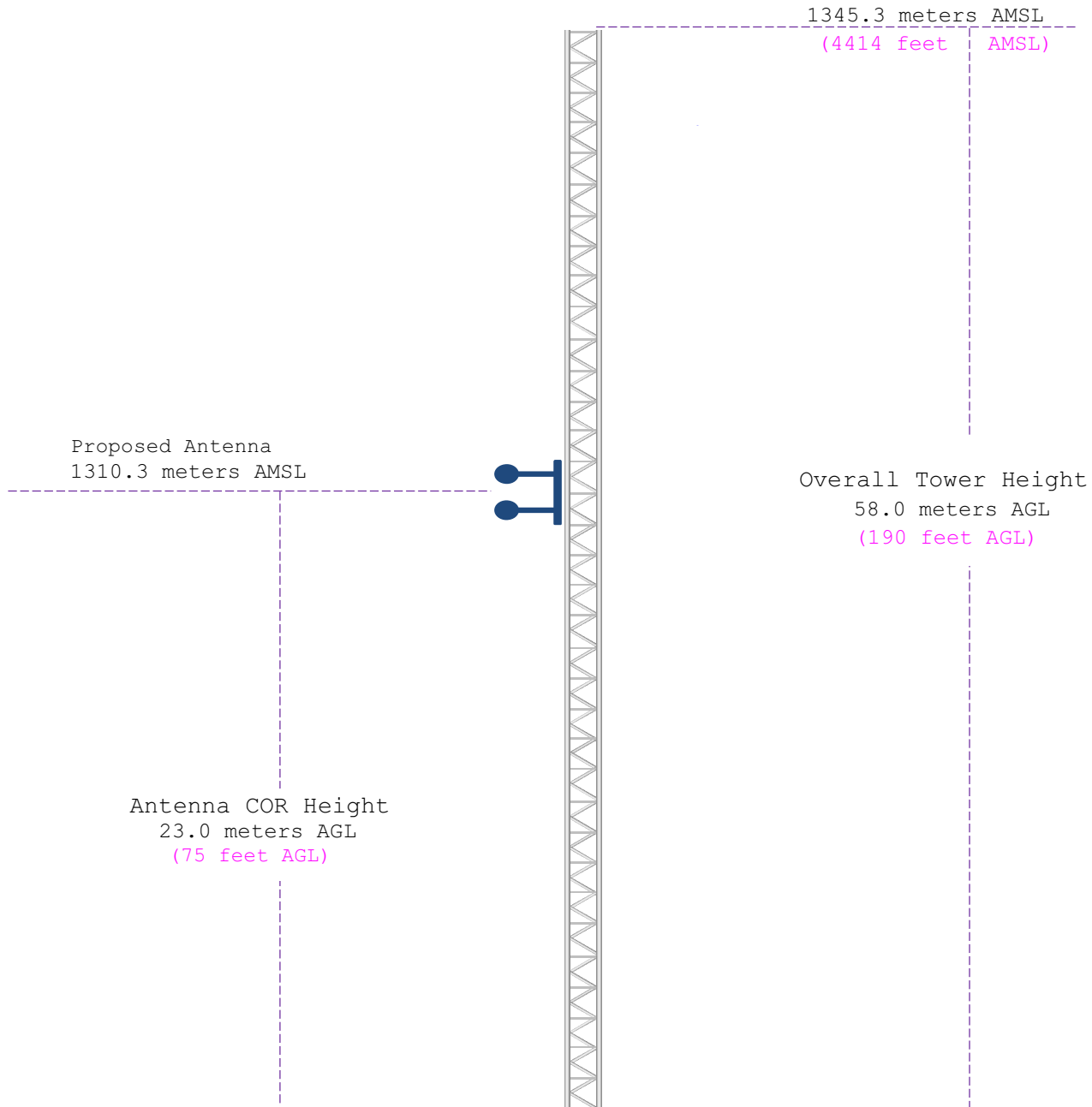
0 0.07 0.15 0.3 km

USGS The National Map: Orthoimagery and US Topo. Data refreshed

USGS  
2021 USGS

# Exhibit 4

## Vertical Plan of Antenna System and Support Tower



Ground Elevation: 1287.3 meters AMSL (4223 feet AMSL)		
Address: 3 km north of Scottsbluff (next to ASRN 1023420)		
City: Scottsbluff	Latitude (D M S) Longitude (D M S)	
County: Scotts Bluff	---- (NAD 1927)	
State: Nebraska	Lat/Long 41-56-25.0 N 103-39-22.4 W (NAD 1983)	
Antenna Structure Registration	Drawing	Asher Broadcast Consulting, LLC
Not Required	Is Not	justinasher@consultant.com
	To Scale	1(202)875-2986



## ***Exhibit 5***

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

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

N. Lat. = 415625.0    W. Lng. = 1033922.4  
 HAAT and Distance to Contour,  
 FCC, FM 2-10 Mi, 51 pts Method - FCC 30 SEC

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	1325.2	-14.9	0.9200	-0.36	1.000	9.95
045	1330.2	-19.9	0.9200	-0.36	1.000	9.95
090	1240.6	69.7	0.9200	-0.36	1.000	14.86
135	1198.4	111.9	0.9200	-0.36	1.000	19.33
180	1186.7	123.6	0.9200	-0.36	1.000	20.26
225	1211.9	98.4	0.9200	-0.36	1.000	18.03
270	1217.3	93.0	0.9200	-0.36	1.000	17.46
315	1273.1	37.2	0.9200	-0.36	1.000	10.97

Ave El= 1247.92 M    HAAT= 62.38 M    AMSL= 1310.3

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

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

<b>Position Type</b>	Lat Lon
<b>Degrees Lat Long</b>	41.9402778°, -103.6562222°
<b>Degrees Minutes</b>	41°56.41667', -103°39.37333'
<b>Degrees Minutes Seconds</b>	41°56'25.0000", -103°39'22.4000"
<b>UTM</b>	13T 611393mE 4644018mN
<b>UTM centimeter</b>	13T 611393.58mE 4644018.51mN
<b>MGRS</b>	13TFG1139344018
<b>Grid North</b>	0.9°
<b>GARS</b>	153LZ22
<b>Maidenhead</b>	DN81EW15GQ00
<b>GEOREF</b>	FJBM20625641

# ***Exhibit 6***

## ***Tabulation of Proposed Allocation***

Blue Text indicates contour protection studies toward select stations as included in ***Exhibit(s) 7(a-b)***.

Bible Broadcasting Network, Inc.											
REFERENCE		CH#	211A - 90.1 MHz, Pwr= 0.92 kW, HAAT= 62.4 M, COR= 1310.3 M							DISPLAY DATES	
41 56 25.00 N.		Average Protected F(50-50)= 14.12 km							DATA 08-09-21		
103 39 22.40 W.		Omni-directional							SEARCH 08-09-21		
CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR (kW)	INT (km)	PRO (km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT (M)	COR (M)	LICENSEE	(Overlap	in km)
210A	KEUW	LIC_CN		289.1	46.74	42 04 34.80	6.000	31.0	15.8	2.5	2.6
Torrington		WY		108.7	BLED20140312AAN	104 11 29.80	4	1299	University Of Wyoming		
211C1	KILI	LIC_CN		37.9	175.77	43 10 47.90	100.000	153.5	57.3	12.4	83.0
Porcupine		SD		218.8	BLED19830510AD	102 19 26.50	155	1179	Lakota Communications Inc.		
212C2	KWYC	LIC_CN		219.6	103.97	41 13 00.90	20.500	64.6	43.4	21.4	34.5
Cheyenne		WY		39.1	BLED20100511ABH	104 26 54.90	130	1848	CSN International		
214C3	KUWV	LIC_CN		316.3	60.69	42 20 02.60	14.000	3.8	37.2	44.4	21.7
Lingle		WY		136.0	BLED20110316AAQ	104 09 58.00	96	1510	University Of Wyoming		
06 --	K06KR-D«	LI D_N		14.3	83.78	42 40 12.80	0.028	6.4	1.6	8.1R	75.7M
Crawford		NE		194.5	BLDTV-20081125ANV	103 24 10.69		1179			
212C	KCSP-FM	LIC_CN		293.1	235.26	42 44 23.90	100.000	136.5	92.0	82.8	122.5
Casper		WY		111.3	BLED20140923ABP	106 18 25.10	593	2554	Western Inspirational Broa		
211C1	KCFR-FM	LIC_CN		209.0	279.08	39 43 58.00	52.000	177.6	80.7	83.3	140.5
Denver		CO		27.9	BLED20180405ABS	105 14 10.00	238	2275	Public Broadcasting Of Col		
211A	KUWL	LIC_CN		245.5	165.11	41 18 35.90	0.110	58.2	18.4	88.7	87.4
Laramie		WY		64.3	BLED20080303AIZ	105 27 18.90	295	2699	University Of Wyoming		
210C3	KTAD	LIC_VN		163.9	162.73	40 31 57.00	5.000	52.3	35.1	90.0	97.5
Sterling		CO		344.3	BLED20100322AAR	103 07 23.80	124	1410	Educational Communications		
06 --	K06JC-D«	LI D_N		28.6	110.73	42 48 47.01	0.066	6.4	4.2	10.6R	100.1M
Chadron		NE		209.0	BLDTV-20081121AKA	103 00 24.01		1153			
213A	KJZC	LIC_CN		28.7	111.83	42 49 13.90	0.865	1.6	9.8	100.3	100.4
Chadron		NE		209.2	BLED20110824ABL	102 59 49.60	13	1084	Board Of Trustees, Ne Stat		
209C0	KXGR	LIC_EN		224.1	202.83	40 37 02.90	80.000	12.7	89.3	172.1	110.8
Loveland		CO		43.0	BLED20081218AEY	105 19 41.90	372	2561	Calvary Chapel Aurora		
264C1	KOLT-FM«	LIC_NCN		226.5	143.00	41 02 54.90	100.000	54.3	14.7	21.5R	121.5M
Cheyenne		WY		45.7	BLH20080625AAB	104 53 29.90	202	2103	Ihm Licenses, LLC		
214A	KSRI	LIC_VN		160.4	156.17	40 36 56.00	1.600	2.4	30.5	133.3	124.0
Sterling		CO		340.8	BLED20051006AAI	103 02 03.70	154	1447	Educational Media Foundati		

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
 In & Out distances between contours are shown at closest points. Reference zone= - Zone 2, Co to 3rd adjacent.  
 All separation margins (if shown) include rounding.  
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
 « = Station meets FCC minimum distance spacing for its class.

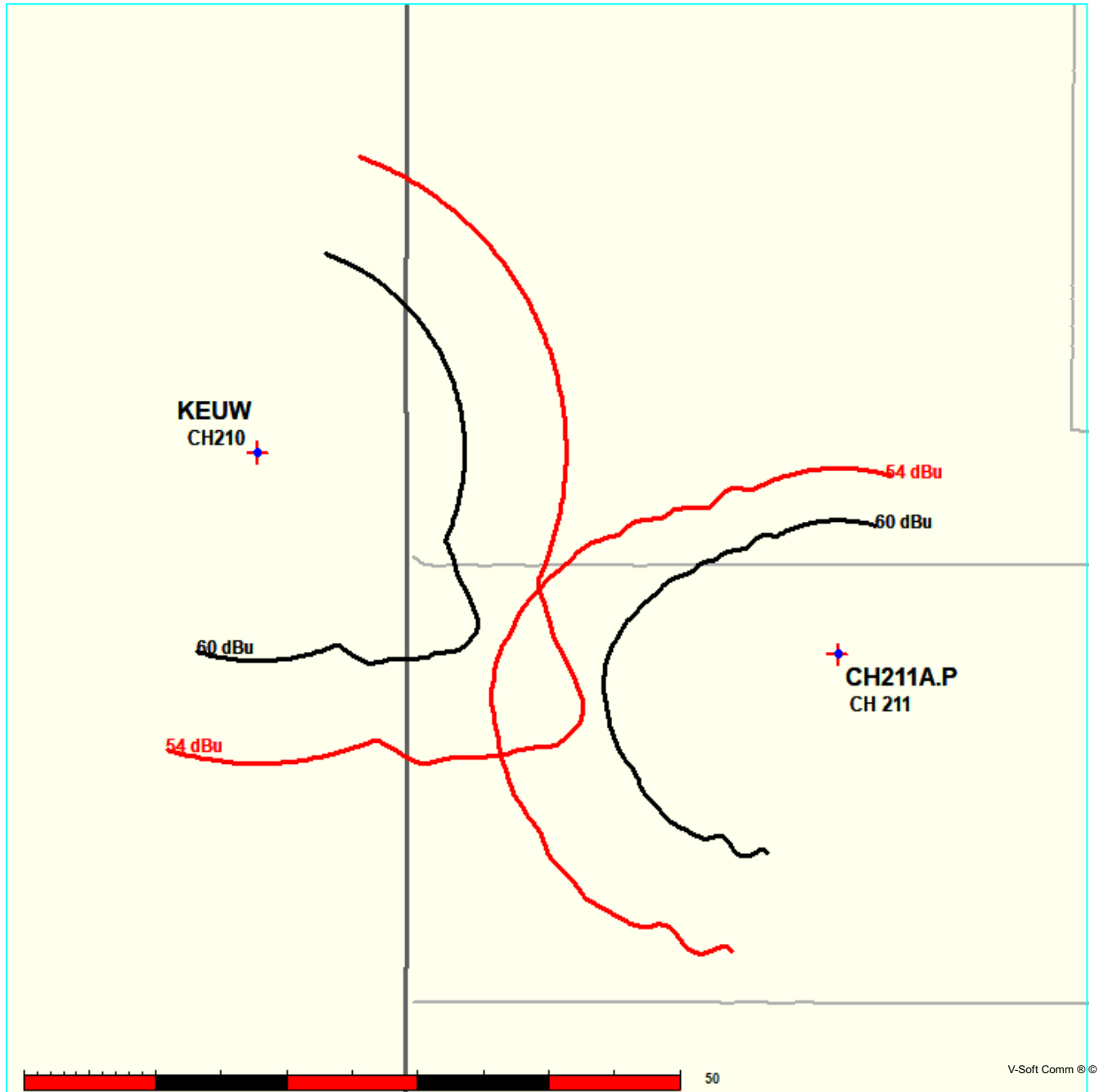
***Exhibit 7a***  
**Contour Protection Studies Toward Select Allocation Concern(s)**

Bible Broadcasting Network, Inc.

FMCommander Single Allocation Study - 08-09-2021 - FCC NGDC 30 Sec  
CH211A.P's Overlaps (In= 2.55 km, Out= 2.55 km)

CH211A.P CH 211 A  
Lat= 41 56 25.00, Lng= 103 39 22.40  
0.92 kW 62.4 m HAAT, 1310.3 m COR  
Prot.= 60 dBu, Intef.= 54 dBu

KEUW CH 210 A BLED20140312AAN  
Lat= 42 04 34.80, Lng= 104 11 29.80  
6.0 kW 3.7 m HAAT, 1299 m COR  
Prot.= 60 dBu, Intef.= 54 dBu



## Exhibit 7a

### Contour Protection Studies Toward Select Allocation Concern(s)

08-09-2021

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

CH211A.P

KEUW BLED20140312AAN

Channel = 211A

Max ERP = 0.92 kW

RCAMSL = 1310.3 m

N. Lat. 41 56 25.00

W. Lng. 103 39 22.40

Protected

60 dBu

Channel = 210A

Max ERP = 6 kW

RCAMSL = 1299 m

N. Lat. 42 04 34.80

W. Lng. 104 11 29.80

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
248.0	000.9200	0100.5	018.2	128.7	006.0000	0054.1	035.1	52.59	
249.0	000.9200	0100.3	018.2	128.4	006.0000	0053.9	034.8	52.66	
250.0	000.9200	0100.1	018.2	128.1	006.0000	0053.6	034.6	52.73	
251.0	000.9200	0100.2	018.2	127.8	006.0000	0053.3	034.3	52.79	
252.0	000.9200	0100.4	018.2	127.5	006.0000	0052.9	034.0	52.84	
253.0	000.9200	0100.5	018.2	127.3	006.0000	0052.4	033.8	52.88	
254.0	000.9200	0100.3	018.2	126.9	006.0000	0051.8	033.5	52.88	
255.0	000.9200	0100.0	018.2	126.5	006.0000	0051.0	033.3	52.85	
256.0	000.9200	0099.5	018.1	126.1	006.0000	0050.1	033.1	52.78	
257.0	000.9200	0099.1	018.1	125.7	006.0000	0049.1	032.8	52.71	
258.0	000.9200	0099.0	018.1	125.3	006.0000	0048.2	032.6	52.64	
259.0	000.9200	0099.1	018.1	125.0	006.0000	0047.2	032.4	52.57	
260.0	000.9200	0099.2	018.1	124.6	006.0000	0046.3	032.1	52.48	
261.0	000.9200	0099.4	018.1	124.2	006.0000	0045.3	031.9	52.40	
262.0	000.9200	0099.4	018.1	123.8	006.0000	0044.2	031.7	52.29	
263.0	000.9200	0099.0	018.1	123.3	006.0000	0043.0	031.5	52.14	
264.0	000.9200	0098.2	018.0	122.8	006.0000	0041.7	031.4	51.93	
265.0	000.9200	0097.3	017.9	122.2	006.0000	0040.4	031.3	51.72	
266.0	000.9200	0096.7	017.8	121.7	006.0000	0039.3	031.1	51.55	
267.0	000.9200	0096.2	017.8	121.2	006.0000	0038.3	031.0	51.41	
268.0	000.9200	0095.2	017.7	120.6	006.0000	0037.3	030.9	51.24	
269.0	000.9200	0094.1	017.6	120.0	006.0000	0036.5	030.8	51.09	
270.0	000.9200	0093.0	017.5	119.4	006.0000	0035.7	030.8	50.95	
271.0	000.9200	0091.8	017.3	118.8	006.0000	0035.0	030.7	50.81	
272.0	000.9200	0090.4	017.2	118.1	006.0000	0034.2	030.7	50.64	
273.0	000.9200	0088.9	017.0	117.5	006.0000	0033.4	030.8	50.45	
274.0	000.9200	0087.4	016.8	116.9	006.0000	0032.6	030.8	50.25	
275.0	000.9200	0086.3	016.7	116.3	006.0000	0031.8	030.8	50.08	
276.0	000.9200	0085.3	016.6	115.7	006.0000	0031.1	030.8	49.91	
277.0	000.9200	0084.2	016.5	115.1	006.0000	0030.5	030.8	49.75	
278.0	000.9200	0082.9	016.3	114.5	006.0000	0029.8	030.9	49.62	
279.0	000.9200	0081.2	016.1	113.9	006.0000	0029.3	031.0	49.57	

## ***Exhibit 7a***

### **Contour Protection Studies Toward Select Allocation Concern(s)**

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
280.0	000.9200	0079.5	015.9	113.3	006.0000	0028.8	031.1	49.52
281.0	000.9200	0077.8	015.7	112.8	006.0000	0028.4	031.2	49.46
282.0	000.9200	0076.5	015.6	112.2	006.0000	0028.0	031.3	49.42
283.0	000.9200	0075.0	015.4	111.7	006.0000	0027.7	031.5	49.37
284.0	000.9200	0073.4	015.3	111.1	006.0000	0027.4	031.6	49.32
285.0	000.9200	0071.8	015.1	110.6	006.0000	0026.9	031.7	49.26
286.0	000.9200	0070.0	014.9	110.1	006.0000	0026.4	031.9	49.19
287.0	000.9200	0068.2	014.7	109.6	006.0000	0025.8	032.1	49.13
288.0	000.9200	0066.6	014.5	109.2	006.0000	0025.3	032.2	49.07
289.0	000.9200	0065.5	014.4	108.7	006.0000	0024.6	032.3	49.02
290.0	000.9200	0064.5	014.3	108.3	006.0000	0023.9	032.4	48.98
291.0	000.9200	0063.3	014.2	107.9	006.0000	0023.3	032.5	48.93
292.0	000.9200	0062.0	014.1	107.4	006.0000	0022.8	032.7	48.88
293.0	000.9200	0060.4	013.9	107.0	006.0000	0022.3	032.9	48.81
294.0	000.9200	0058.7	013.7	106.7	006.0000	0022.0	033.1	48.73
295.0	000.9200	0056.6	013.5	106.3	006.0000	0021.7	033.3	48.63
296.0	000.9200	0054.4	013.3	106.0	006.0000	0021.4	033.6	48.53
297.0	000.9200	0052.3	013.0	105.7	006.0000	0021.2	033.9	48.41
298.0	000.9200	0050.6	012.8	105.4	006.0000	0021.1	034.2	48.32
299.0	000.9200	0049.7	012.7	105.0	006.0000	0021.0	034.3	48.26
300.0	000.9200	0049.4	012.6	104.7	006.0000	0020.9	034.4	48.23
301.0	000.9200	0049.2	012.6	104.4	006.0000	0020.9	034.5	48.20
302.0	000.9200	0048.6	012.5	104.1	006.0000	0021.0	034.6	48.15
303.0	000.9200	0047.6	012.4	103.8	006.0000	0021.0	034.8	48.07
304.0	000.9200	0046.2	012.2	103.5	006.0000	0021.1	035.1	47.99
305.0	000.9200	0044.7	012.0	103.3	006.0000	0021.1	035.3	47.89
306.0	000.9200	0043.3	011.8	103.1	006.0000	0021.2	035.6	47.80
307.0	000.9200	0042.3	011.7	102.9	006.0000	0021.2	035.8	47.72
308.0	000.9200	0041.7	011.6	102.7	006.0000	0021.3	036.0	47.67
309.0	000.9200	0041.3	011.5	102.4	006.0000	0021.3	036.1	47.62
310.0	000.9200	0041.0	011.5	102.2	006.0000	0021.4	036.2	47.57
311.0	000.9200	0040.5	011.4	102.0	006.0000	0021.5	036.4	47.52
312.0	000.9200	0039.8	011.3	101.8	006.0000	0021.6	036.6	47.45
313.0	000.9200	0038.9	011.2	101.6	006.0000	0021.6	036.8	47.38
314.0	000.9200	0038.1	011.1	101.4	006.0000	0021.7	037.0	47.31
315.0	000.9200	0037.2	011.0	101.3	006.0000	0021.7	037.2	47.24
316.0	000.9200	0036.1	010.8	101.2	006.0000	0021.8	037.4	47.16
317.0	000.9200	0035.0	010.7	101.1	006.0000	0021.8	037.7	47.08
318.0	000.9200	0034.1	010.5	101.0	006.0000	0021.8	037.9	47.01
319.0	000.9200	0033.8	010.5	100.8	006.0000	0021.9	038.0	46.96
320.0	000.9200	0033.9	010.5	100.6	006.0000	0021.9	038.1	46.92
321.0	000.9200	0034.2	010.5	100.3	006.0000	0021.9	038.2	46.89
322.0	000.9200	0034.4	010.6	100.1	006.0000	0022.0	038.3	46.86
323.0	000.9200	0034.6	010.6	099.8	006.0000	0022.0	038.4	46.83



# ***Exhibit 7a***

## **Contour Protection Studies Toward Select Allocation Concern(s)**

08-09-2021      Terrain Data: FCC NGDC 30 Sec      FMOver Analysis

KEUW    BLED20140312AAN

CH211A.P

Channel = 210A  
 Max ERP = 6 kW  
 RCAMSL = 1299 m  
 N. Lat. 42 04 34.80  
 W. Lng. 104 11 29.80  
 Protected  
     60 dBu

Channel = 211A  
 Max ERP = 0.92 kW  
 RCAMSL = 1310.3 m  
 N. Lat. 41 56 25.00  
 W. Lng. 103 39 22.40  
 Interfering  
     54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
067.0	006.0000	0000.3	015.8	305.7	000.9200	0043.7	036.5	42.10	
068.0	006.0000	0002.6	015.8	305.5	000.9200	0044.0	036.3	42.25	
069.0	006.0000	0004.7	015.8	305.3	000.9200	0044.3	036.1	42.40	
070.0	006.0000	0006.5	015.8	305.0	000.9200	0044.7	035.8	42.55	
071.0	006.0000	0007.9	015.8	304.8	000.9200	0045.1	035.6	42.71	
072.0	006.0000	0009.3	015.8	304.5	000.9200	0045.5	035.4	42.88	
073.0	006.0000	0010.5	015.8	304.2	000.9200	0045.9	035.2	43.04	
074.0	006.0000	0011.3	015.8	303.9	000.9200	0046.4	035.0	43.20	
075.0	006.0000	0012.1	015.8	303.6	000.9200	0046.8	034.8	43.36	
076.0	006.0000	0013.0	015.8	303.3	000.9200	0047.2	034.6	43.51	
077.0	006.0000	0013.9	015.8	303.0	000.9200	0047.6	034.4	43.67	
078.0	006.0000	0014.7	015.8	302.7	000.9200	0048.0	034.2	43.81	
079.0	006.0000	0015.6	015.8	302.3	000.9200	0048.3	034.0	43.95	
080.0	006.0000	0016.3	015.8	302.0	000.9200	0048.6	033.8	44.08	
081.0	006.0000	0017.2	015.8	301.6	000.9200	0048.9	033.6	44.20	
082.0	006.0000	0017.8	015.8	301.3	000.9200	0049.1	033.4	44.31	
083.0	006.0000	0018.2	015.8	300.9	000.9200	0049.2	033.3	44.41	
084.0	006.0000	0018.1	015.8	300.5	000.9200	0049.3	033.1	44.49	
085.0	006.0000	0017.9	015.8	300.1	000.9200	0049.4	032.9	44.57	
086.0	006.0000	0017.5	015.8	299.7	000.9200	0049.5	032.8	44.65	
087.0	006.0000	0017.2	015.8	299.3	000.9200	0049.6	032.6	44.73	
088.0	006.0000	0017.9	015.8	298.9	000.9200	0049.8	032.5	44.82	
089.0	006.0000	0018.7	015.8	298.5	000.9200	0050.1	032.4	44.93	
090.0	006.0000	0019.4	015.8	298.1	000.9200	0050.5	032.2	45.06	
091.0	006.0000	0020.2	015.8	297.6	000.9200	0051.1	032.1	45.22	
092.0	006.0000	0021.0	015.8	297.2	000.9200	0051.9	032.0	45.40	
093.0	006.0000	0021.7	015.8	296.7	000.9200	0052.8	031.9	45.60	
094.0	006.0000	0022.3	015.8	296.3	000.9200	0053.8	031.8	45.80	
095.0	006.0000	0022.5	015.8	295.8	000.9200	0054.8	031.7	46.01	
096.0	006.0000	0022.5	015.8	295.4	000.9200	0055.9	031.6	46.21	

***Exhibit 7a***  
**Contour Protection Studies Toward Select Allocation Concern(s)**

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)		Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
097.0	006.0000	0022.5	015.8		294.9	000.9200	0056.9	031.5	46.40
098.0	006.0000	0022.4	015.8		294.4	000.9200	0057.9	031.4	46.58
099.0	006.0000	0022.2	015.8		293.9	000.9200	0058.8	031.3	46.75
100.0	006.0000	0022.0	015.8		293.4	000.9200	0059.6	031.3	46.89
101.0	006.0000	0021.8	015.8		292.9	000.9200	0060.5	031.2	47.03
102.0	006.0000	0021.5	015.8		292.4	000.9200	0061.3	031.2	47.16
103.0	006.0000	0021.2	015.8		291.9	000.9200	0062.1	031.1	47.28
104.0	006.0000	0021.0	015.8		291.4	000.9200	0062.8	031.1	47.38
105.0	006.0000	0021.0	015.8		290.9	000.9200	0063.4	031.0	47.48
106.0	006.0000	0021.4	015.8		290.4	000.9200	0064.0	031.0	47.57
107.0	006.0000	0022.3	015.8		289.9	000.9200	0064.6	031.0	47.65
108.0	006.0000	0023.5	015.8		289.4	000.9200	0065.1	031.0	47.72
109.0	006.0000	0025.0	015.8		288.9	000.9200	0065.6	031.0	47.78
110.0	006.0000	0026.2	015.8		288.4	000.9200	0066.1	031.0	47.84
111.0	006.0000	0027.3	015.8		287.9	000.9200	0066.8	031.0	47.92
112.0	006.0000	0027.9	015.8		287.4	000.9200	0067.6	031.0	48.00
113.0	006.0000	0028.6	015.8		286.9	000.9200	0068.4	031.1	48.09
114.0	006.0000	0029.4	015.8		286.4	000.9200	0069.3	031.1	48.18
115.0	006.0000	0030.3	015.8		285.9	000.9200	0070.3	031.1	48.32
116.0	006.0000	0031.5	016.1		285.2	000.9200	0071.4	030.8	48.57
117.0	006.0000	0032.7	016.4		284.6	000.9200	0072.5	030.6	48.83
118.0	006.0000	0034.1	016.8		283.9	000.9200	0073.6	030.3	49.10
119.0	006.0000	0035.3	017.1		283.2	000.9200	0074.6	030.1	49.34
120.0	006.0000	0036.5	017.4		282.5	000.9200	0075.7	029.9	49.58
121.0	006.0000	0038.0	017.8		281.7	000.9200	0076.9	029.6	49.86
122.0	006.0000	0039.9	018.3		280.8	000.9200	0078.1	029.3	50.19
123.0	006.0000	0042.3	018.8		279.8	000.9200	0079.9	028.9	50.62
124.0	006.0000	0044.8	019.4		278.7	000.9200	0081.8	028.5	51.07
125.0	006.0000	0047.3	020.0		277.5	000.9200	0083.6	028.1	51.50
126.0	006.0000	0049.8	020.5		276.4	000.9200	0084.9	027.8	51.83
127.0	006.0000	0052.0	021.0		275.3	000.9200	0086.1	027.6	52.08
128.0	006.0000	0053.5	021.3		274.3	000.9200	0087.1	027.6	52.23
129.0	006.0000	0054.3	021.5		273.4	000.9200	0088.2	027.6	52.30
130.0	006.0000	0054.6	021.5		272.8	000.9200	0089.2	027.8	52.29
131.0	006.0000	0054.5	021.5		272.2	000.9200	0090.1	028.1	52.23
132.0	006.0000	0054.4	021.5		271.6	000.9200	0091.0	028.3	52.16
133.0	006.0000	0054.3	021.5		271.1	000.9200	0091.7	028.6	52.08
134.0	006.0000	0053.8	021.4		270.7	000.9200	0092.3	028.9	51.94
135.0	006.0000	0052.8	021.2		270.4	000.9200	0092.6	029.3	51.74
136.0	006.0000	0051.5	020.9		270.3	000.9200	0092.7	029.8	51.50
137.0	006.0000	0050.2	020.6		270.2	000.9200	0092.8	030.2	51.26
138.0	006.0000	0049.2	020.4		270.0	000.9200	0093.0	030.6	51.06
139.0	006.0000	0048.5	020.3		269.8	000.9200	0093.2	031.0	50.88
140.0	006.0000	0047.8	020.1		269.6	000.9200	0093.5	031.4	50.72

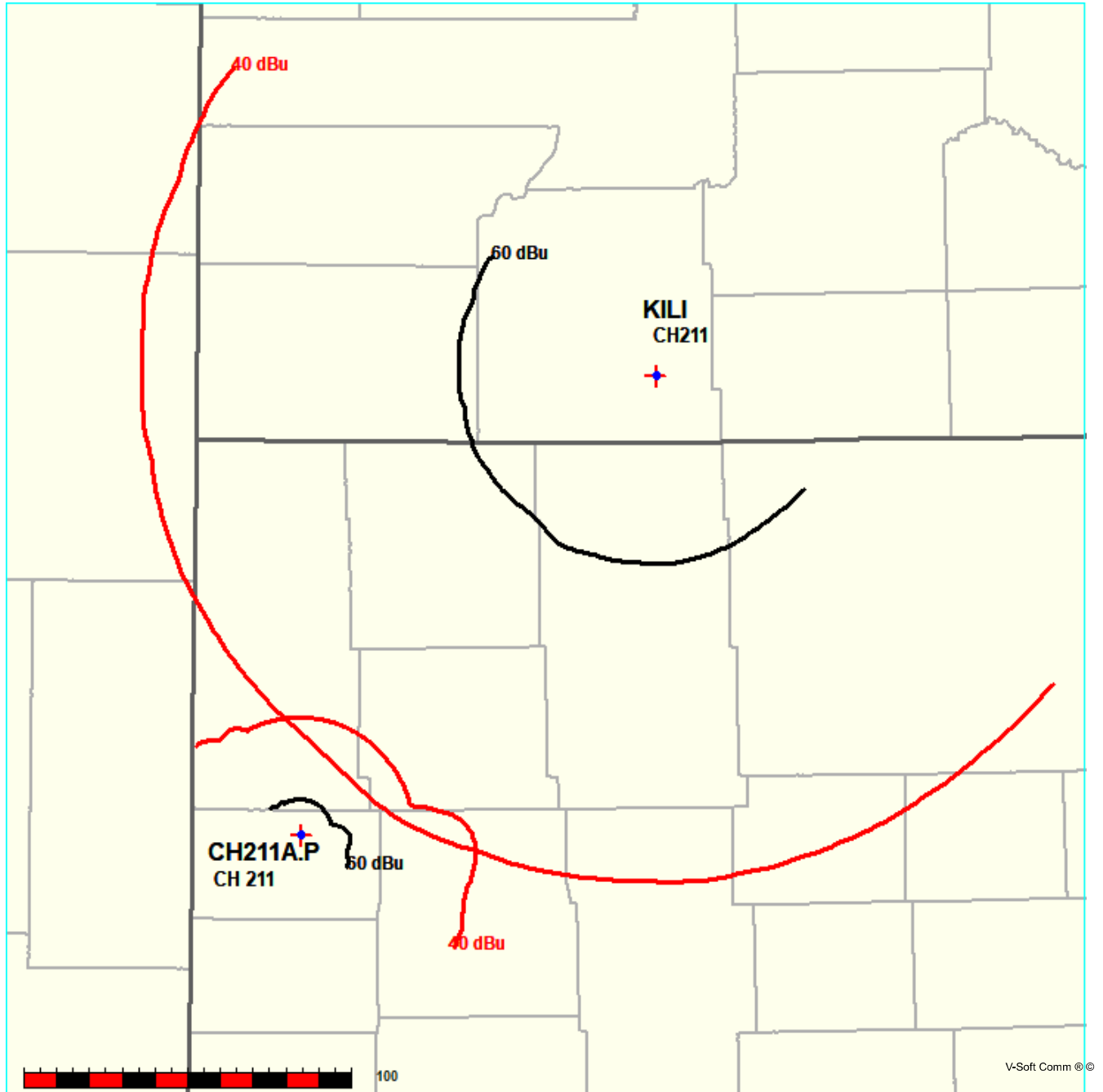
***Exhibit 7b***  
**Contour Protection Studies Toward Select Allocation Concern(s)**

Bible Broadcasting Network, Inc.

FMCommander Single Allocation Study - 08-09-2021 - FCC NGDC 30 Sec  
CH211A.P's Overlaps (In= 12.4 km, Out= 82.98 km)

CH211A.P CH 211 A  
Lat= 41 56 25.00, Lng= 103 39 22.40  
0.92 kW 62.4 m HAAT, 1310.3 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

KILI CH 211 C1 BLED19830510AD  
Lat= 43 10 47.90, Lng= 102 19 26.50  
100.0 kW 155 m HAAT, 1179 m COR  
Prot.= 60 dBu, Intef.= 40 dBu



## Exhibit 7b

### Contour Protection Studies Toward Select Allocation Concern(s)

08-09-2021

Terrain Data: FCC NGDC 30 Sec

FMOVer Analysis

CH211A.P

KILI BLED19830510AD

Channel = 211A

Max ERP = 0.92 kW

RCAMSL = 1310.3 m

N. Lat. 41 56 25.00

W. Lng. 103 39 22.40

Protected

60 dBu

Channel = 211C1

Max ERP = 100 kW

RCAMSL = 1179 m

N. Lat. 43 10 47.90

W. Lng. 102 19 26.50

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
357.0	000.9200	-0011.2	010.0	221.0	100.0000	0138.5	168.4	37.33	
358.0	000.9200	-0010.9	010.0	221.0	100.0000	0138.5	168.3	37.35	
359.0	000.9200	-0010.8	010.0	220.9	100.0000	0138.6	168.1	37.37	
000.0	000.9200	-0014.9	010.0	220.9	100.0000	0138.6	168.0	37.40	
001.0	000.9200	-0019.4	010.0	220.9	100.0000	0138.7	167.9	37.42	
002.0	000.9200	-0024.0	010.0	220.8	100.0000	0138.7	167.8	37.44	
003.0	000.9200	-0027.1	010.0	220.8	100.0000	0138.8	167.7	37.46	
004.0	000.9200	-0028.8	010.0	220.7	100.0000	0138.9	167.6	37.48	
005.0	000.9200	-0030.2	010.0	220.7	100.0000	0138.9	167.5	37.50	
006.0	000.9200	-0031.4	010.0	220.6	100.0000	0139.0	167.4	37.52	
007.0	000.9200	-0032.4	010.0	220.6	100.0000	0139.0	167.3	37.54	
008.0	000.9200	-0032.0	010.0	220.5	100.0000	0139.1	167.2	37.55	
009.0	000.9200	-0030.6	010.0	220.5	100.0000	0139.1	167.1	37.57	
010.0	000.9200	-0028.5	010.0	220.4	100.0000	0139.2	167.0	37.59	
011.0	000.9200	-0026.3	010.0	220.4	100.0000	0139.3	167.0	37.61	
012.0	000.9200	-0024.4	010.0	220.3	100.0000	0139.4	166.9	37.62	
013.0	000.9200	-0022.7	010.0	220.3	100.0000	0139.4	166.8	37.64	
014.0	000.9200	-0020.4	010.0	220.2	100.0000	0139.5	166.7	37.66	
015.0	000.9200	-0017.7	010.0	220.1	100.0000	0139.6	166.7	37.67	
016.0	000.9200	-0015.3	010.0	220.1	100.0000	0139.6	166.6	37.69	
017.0	000.9200	-0014.0	010.0	220.0	100.0000	0139.7	166.5	37.70	
018.0	000.9200	-0013.2	010.0	220.0	100.0000	0139.8	166.5	37.71	
019.0	000.9200	-0013.0	010.0	219.9	100.0000	0139.9	166.4	37.73	
020.0	000.9200	-0013.1	010.0	219.9	100.0000	0139.9	166.3	37.74	
021.0	000.9200	-0013.1	010.0	219.8	100.0000	0140.0	166.3	37.75	
022.0	000.9200	-0013.3	010.0	219.8	100.0000	0140.1	166.2	37.76	
023.0	000.9200	-0014.1	010.0	219.7	100.0000	0140.2	166.2	37.77	
024.0	000.9200	-0016.0	010.0	219.6	100.0000	0140.3	166.1	37.78	
025.0	000.9200	-0018.4	010.0	219.6	100.0000	0140.3	166.1	37.79	
026.0	000.9200	-0021.0	010.0	219.5	100.0000	0140.4	166.0	37.80	
027.0	000.9200	-0024.1	010.0	219.5	100.0000	0140.5	166.0	37.81	
028.0	000.9200	-0027.6	010.0	219.4	100.0000	0140.6	166.0	37.82	

# ***Exhibit 7b***

## ***Contour Protection Studies Toward Select Allocation Concern(s)***

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
029.0	000.9200	-0031.1	010.0	219.3	100.0000	0140.7	166.0	37.83
030.0	000.9200	-0033.8	010.0	219.3	100.0000	0140.7	165.9	37.83
031.0	000.9200	-0035.8	010.0	219.2	100.0000	0140.8	165.9	37.84
032.0	000.9200	-0037.1	010.0	219.2	100.0000	0140.9	165.9	37.85
033.0	000.9200	-0037.9	010.0	219.1	100.0000	0141.0	165.9	37.85
034.0	000.9200	-0038.3	010.0	219.0	100.0000	0141.0	165.8	37.86
035.0	000.9200	-0038.0	010.0	219.0	100.0000	0141.1	165.8	37.86
036.0	000.9200	-0037.1	010.0	218.9	100.0000	0141.2	165.8	37.86
037.0	000.9200	-0035.9	010.0	218.9	100.0000	0141.2	165.8	37.87
038.0	000.9200	-0034.1	010.0	218.8	100.0000	0141.3	165.8	37.87
039.0	000.9200	-0031.9	010.0	218.7	100.0000	0141.4	165.8	37.87
040.0	000.9200	-0030.0	010.0	218.7	100.0000	0141.4	165.8	37.87
041.0	000.9200	-0028.5	010.0	218.6	100.0000	0141.5	165.8	37.87
042.0	000.9200	-0027.3	010.0	218.6	100.0000	0141.6	165.8	37.87
043.0	000.9200	-0025.4	010.0	218.5	100.0000	0141.7	165.9	37.87
044.0	000.9200	-0022.8	010.0	218.5	100.0000	0141.7	165.9	37.87
045.0	000.9200	-0019.9	010.0	218.4	100.0000	0141.8	165.9	37.87
046.0	000.9200	-0017.2	010.0	218.3	100.0000	0141.9	165.9	37.87
047.0	000.9200	-0014.6	010.0	218.3	100.0000	0142.0	166.0	37.86
048.0	000.9200	-0012.0	010.0	218.2	100.0000	0142.0	166.0	37.86
049.0	000.9200	-0009.1	010.0	218.2	100.0000	0142.1	166.0	37.86
050.0	000.9200	-0006.3	010.0	218.1	100.0000	0142.2	166.1	37.85
051.0	000.9200	-0004.1	010.0	218.0	100.0000	0142.2	166.1	37.85
052.0	000.9200	-0002.5	010.0	218.0	100.0000	0142.3	166.1	37.84
053.0	000.9200	-0000.7	010.0	217.9	100.0000	0142.4	166.2	37.83
054.0	000.9200	0001.9	010.0	217.9	100.0000	0142.4	166.2	37.83
055.0	000.9200	0004.9	010.0	217.8	100.0000	0142.5	166.3	37.82
056.0	000.9200	0007.6	010.0	217.8	100.0000	0142.6	166.3	37.81
057.0	000.9200	0009.5	010.0	217.7	100.0000	0142.6	166.4	37.80
058.0	000.9200	0010.7	010.0	217.6	100.0000	0142.7	166.5	37.79
059.0	000.9200	0011.9	010.0	217.6	100.0000	0142.8	166.5	37.78
060.0	000.9200	0013.4	010.0	217.5	100.0000	0142.9	166.6	37.77
061.0	000.9200	0015.1	010.0	217.5	100.0000	0142.9	166.7	37.76
062.0	000.9200	0016.7	010.0	217.4	100.0000	0143.0	166.7	37.75
063.0	000.9200	0017.8	010.0	217.4	100.0000	0143.1	166.8	37.74
064.0	000.9200	0018.3	010.0	217.3	100.0000	0143.1	166.9	37.73
065.0	000.9200	0018.7	010.0	217.3	100.0000	0143.2	167.0	37.71
066.0	000.9200	0019.5	010.0	217.2	100.0000	0143.3	167.1	37.70
067.0	000.9200	0020.9	010.0	217.2	100.0000	0143.4	167.1	37.69
068.0	000.9200	0022.9	010.0	217.1	100.0000	0143.5	167.2	37.67
069.0	000.9200	0024.6	010.0	217.1	100.0000	0143.5	167.3	37.66
070.0	000.9200	0025.2	010.0	217.0	100.0000	0143.6	167.4	37.64
071.0	000.9200	0025.0	010.0	217.0	100.0000	0143.7	167.5	37.63
072.0	000.9200	0024.7	010.0	216.9	100.0000	0143.8	167.6	37.61



# ***Exhibit 7b***

## **Contour Protection Studies Toward Select Allocation Concern(s)**

08-09-2021

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

KILI BLED19830510AD

CH211A.P

Channel = 211C1  
 Max ERP = 100 kW  
 RCAMSL = 1179 m  
 N. Lat. 43 10 47.90  
 W. Lng. 102 19 26.50  
 Protected  
 60 dBu

Channel = 211A  
 Max ERP = 0.92 kW  
 RCAMSL = 1310.3 m  
 N. Lat. 41 56 25.00  
 W. Lng. 103 39 22.40  
 Interfering  
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
174.0	100.0000	0137.5	056.7	054.4	000.9200	0003.0	141.3	17.66	
175.0	100.0000	0138.2	056.8	054.2	000.9200	0002.5	140.4	17.83	
176.0	100.0000	0138.3	056.9	054.0	000.9200	0001.9	139.5	17.99	
177.0	100.0000	0138.0	056.8	053.8	000.9200	0001.2	138.7	18.14	
178.0	100.0000	0137.7	056.8	053.5	000.9200	0000.5	137.9	18.29	
179.0	100.0000	0137.3	056.7	053.3	000.9200	-0000.1	137.1	18.44	
180.0	100.0000	0136.9	056.7	053.0	000.9200	-0000.6	136.3	18.58	
181.0	100.0000	0136.6	056.6	052.8	000.9200	-0001.2	135.6	18.72	
182.0	100.0000	0136.4	056.6	052.5	000.9200	-0001.7	134.8	18.87	
183.0	100.0000	0136.4	056.6	052.2	000.9200	-0002.1	134.0	19.01	
184.0	100.0000	0136.7	056.6	052.0	000.9200	-0002.6	133.3	19.16	
185.0	100.0000	0137.1	056.7	051.7	000.9200	-0003.0	132.5	19.30	
186.0	100.0000	0137.6	056.8	051.4	000.9200	-0003.4	131.7	19.45	
187.0	100.0000	0138.0	056.8	051.1	000.9200	-0003.9	131.0	19.59	
188.0	100.0000	0138.6	056.9	050.9	000.9200	-0004.4	130.2	19.73	
189.0	100.0000	0139.1	057.0	050.6	000.9200	-0005.0	129.5	19.87	
190.0	100.0000	0139.5	057.0	050.2	000.9200	-0005.7	128.8	20.00	
191.0	100.0000	0139.8	057.1	049.9	000.9200	-0006.5	128.1	20.13	
192.0	100.0000	0140.3	057.2	049.6	000.9200	-0007.4	127.4	20.26	
193.0	100.0000	0140.8	057.2	049.3	000.9200	-0008.3	126.7	20.39	
194.0	100.0000	0141.3	057.3	048.9	000.9200	-0009.4	126.1	20.51	
195.0	100.0000	0141.9	057.4	048.6	000.9200	-0010.4	125.4	20.64	
196.0	100.0000	0142.4	057.4	048.2	000.9200	-0011.5	124.8	20.75	
197.0	100.0000	0143.0	057.5	047.8	000.9200	-0012.5	124.2	20.87	
198.0	100.0000	0143.3	057.6	047.4	000.9200	-0013.5	123.7	20.98	
199.0	100.0000	0143.2	057.6	047.0	000.9200	-0014.5	123.2	21.07	
200.0	100.0000	0142.8	057.5	046.6	000.9200	-0015.6	122.8	21.15	
201.0	100.0000	0142.5	057.5	046.2	000.9200	-0016.7	122.3	21.23	
202.0	100.0000	0143.3	057.6	045.8	000.9200	-0017.7	121.8	21.33	
203.0	100.0000	0145.0	057.8	045.4	000.9200	-0018.8	121.2	21.45	
204.0	100.0000	0146.9	058.1	045.0	000.9200	-0019.9	120.6	21.57	
205.0	100.0000	0148.5	058.3	044.6	000.9200	-0021.1	120.0	21.68	
206.0	100.0000	0149.8	058.4	044.1	000.9200	-0022.4	119.5	21.78	

***Exhibit 7b***  
**Contour Protection Studies Toward Select Allocation Concern(s)**

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
207.0	100.0000	0150.9	058.6	043.7	000.9200	-0023.6	119.0	21.87
208.0	100.0000	0151.6	058.7	043.2	000.9200	-0024.8	118.7	21.94
209.0	100.0000	0152.1	058.7	042.8	000.9200	-0025.9	118.3	22.01
210.0	100.0000	0152.3	058.8	042.3	000.9200	-0026.8	118.0	22.06
211.0	100.0000	0152.4	058.8	041.8	000.9200	-0027.5	117.8	22.11
212.0	100.0000	0151.9	058.7	041.3	000.9200	-0028.1	117.7	22.13
213.0	100.0000	0151.0	058.6	040.8	000.9200	-0028.8	117.6	22.14
214.0	100.0000	0149.4	058.4	040.3	000.9200	-0029.5	117.7	22.13
215.0	100.0000	0147.4	058.1	039.8	000.9200	-0030.4	117.9	22.10
216.0	100.0000	0145.3	057.8	039.3	000.9200	-0031.3	118.0	22.06
217.0	100.0000	0143.6	057.6	038.8	000.9200	-0032.3	118.2	22.03
218.0	100.0000	0142.3	057.4	038.3	000.9200	-0033.5	118.4	22.00
219.0	100.0000	0141.1	057.3	037.8	000.9200	-0034.5	118.5	21.97
220.0	100.0000	0139.8	057.1	037.3	000.9200	-0035.4	118.7	21.93
221.0	100.0000	0138.5	056.9	036.9	000.9200	-0036.0	118.9	21.89
222.0	100.0000	0137.8	056.8	036.4	000.9200	-0036.7	119.1	21.86
223.0	100.0000	0137.7	056.8	035.9	000.9200	-0037.2	119.2	21.84
224.0	100.0000	0138.2	056.9	035.4	000.9200	-0037.7	119.3	21.83
225.0	100.0000	0139.1	057.0	035.0	000.9200	-0038.0	119.3	21.82
226.0	100.0000	0140.3	057.2	034.5	000.9200	-0038.2	119.3	21.82
227.0	100.0000	0141.8	057.4	034.0	000.9200	-0038.3	119.3	21.82
228.0	100.0000	0143.2	057.6	033.5	000.9200	-0038.1	119.3	21.82
229.0	100.0000	0144.5	057.7	033.0	000.9200	-0037.9	119.4	21.80
230.0	100.0000	0145.7	057.9	032.5	000.9200	-0037.6	119.5	21.78
231.0	100.0000	0146.8	058.0	032.0	000.9200	-0037.2	119.7	21.75
232.0	100.0000	0147.6	058.1	031.6	000.9200	-0036.6	119.9	21.70
233.0	100.0000	0148.7	058.3	031.1	000.9200	-0035.9	120.1	21.66
234.0	100.0000	0150.0	058.5	030.6	000.9200	-0035.1	120.3	21.62
235.0	100.0000	0151.5	058.7	030.1	000.9200	-0034.1	120.6	21.58
236.0	100.0000	0152.6	058.8	029.6	000.9200	-0032.9	120.8	21.52
237.0	100.0000	0153.0	058.9	029.2	000.9200	-0031.7	121.3	21.44
238.0	100.0000	0153.1	058.9	028.8	000.9200	-0030.3	121.7	21.35
239.0	100.0000	0153.4	058.9	028.3	000.9200	-0028.9	122.2	21.26
240.0	100.0000	0154.1	059.0	027.9	000.9200	-0027.3	122.6	21.17
241.0	100.0000	0155.0	059.1	027.5	000.9200	-0025.7	123.1	21.09
242.0	100.0000	0156.0	059.2	027.0	000.9200	-0024.2	123.5	21.00
243.0	100.0000	0157.0	059.4	026.6	000.9200	-0022.8	124.0	20.91
244.0	100.0000	0158.3	059.5	026.2	000.9200	-0021.5	124.5	20.81
245.0	100.0000	0159.7	059.7	025.7	000.9200	-0020.4	125.0	20.72
246.0	100.0000	0161.0	059.9	025.3	000.9200	-0019.3	125.5	20.62
247.0	100.0000	0162.0	060.0	024.9	000.9200	-0018.3	126.1	20.50
248.0	100.0000	0162.6	060.0	024.6	000.9200	-0017.3	126.8	20.38
249.0	100.0000	0162.9	060.1	024.2	000.9200	-0016.5	127.5	20.25