

CITY OF LICENSE	Austin, TX
CALL LETTERS	KAZI
FACILITY ID	3344
PREPARED FOR	Austin Community Radio
VERSION	1.1
JOB	115015

# **CONSOLIDATED**

## **ENGINEERING EXHIBIT**

FCC Form 340 - Section VII - FM Engineering

**ENGINEERING STATEMENT**  
**PROPOSED MINOR-CHANGE TO KAZI, AUSTIN, TX**  
**Austin Community Radio**

Austin Community Radio (“ACR”) hereby seeks a minor-change to licensed station KAZI, Austin, TX. ACR proposes to increase the ERP, and to replace its aging Phelps-Dodge 4-bay antenna with a new Jampro JLPC-4 model. All other parameters, including antenna height, will remain unchanged.

**BROWN BROADCAST SERVICES**

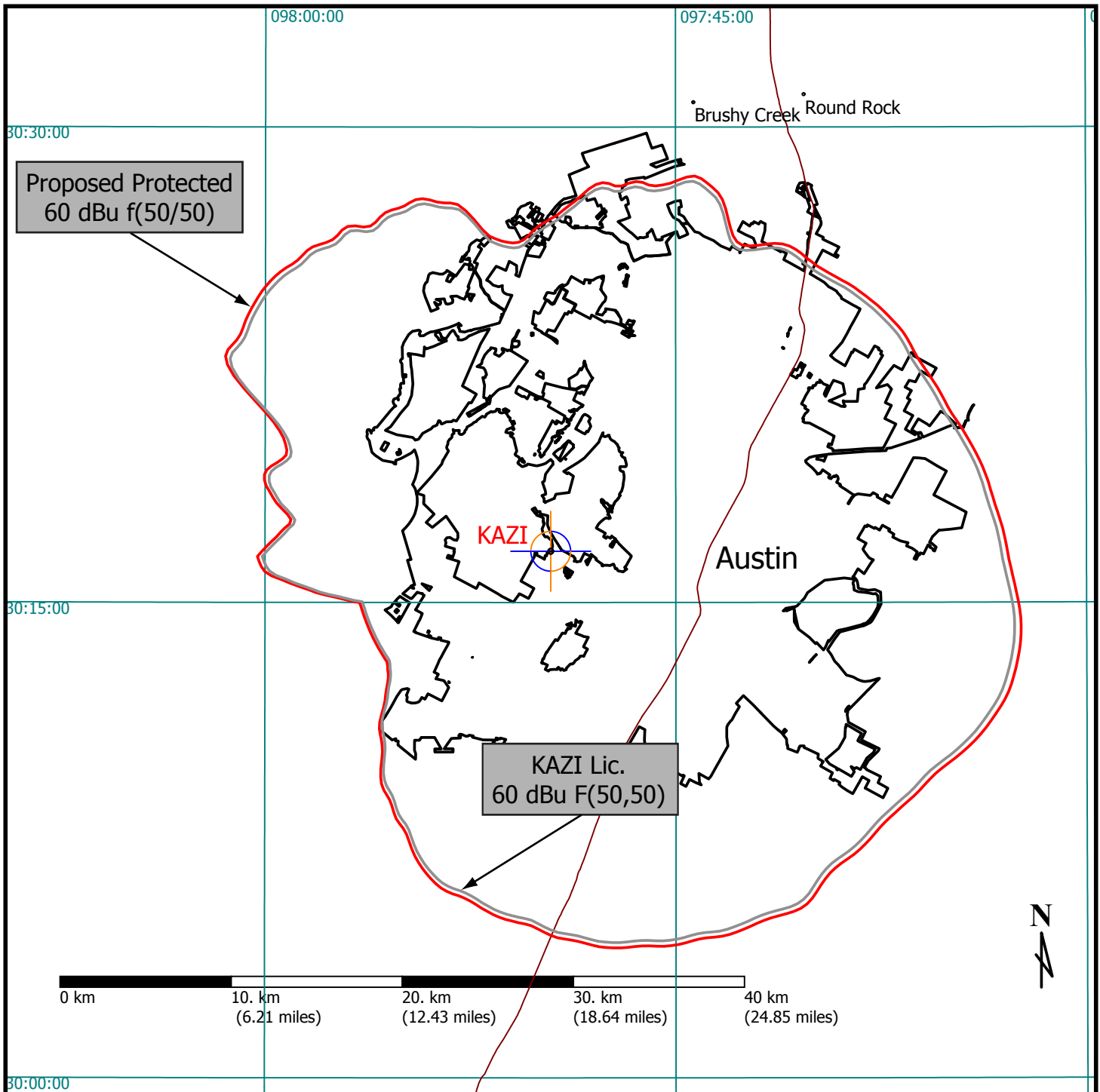
INCORPORATED  
Michael D. Brown      3740 S.W. Comus St.      Portland, Oregon 97219-7418      503-245-6065

## Exhibit 16

### Community of License Coverage

Brown Broadcast Services, Inc.  
Job: KAZI.fmj  
Master Database: 2015\_Mar\_20.fmd  
Lat: N30:16:37 Lon: W097:49:34 NAD-27  
Scale: 1:333333

rfInvestigator Version 3.8.4  
by rfSoftware, Inc.  
Date: 5/8/2015 1:14:46 PM



# EXHIBIT 18

## CONTOUR OVERLAP PROTECTION

### CHANNEL STUDY

The Channel Study below and Exhibits 18a - f show contour protection is provided to all domestic stations.

KAZI Power Increase & Antenna Replacement											
Austin Community Radio											
REFERENCE	CH# 204A - 88.7 MHz, Pwr= 1.7 kW, HAAT= 107.0 M, COR= 328 M								DISPLAY DATES		
30 16 37.0 N.	Average Protected F(50-50)= 22.0 km								DATA 05-06-15		
97 49 34.0 W.	Omni-directional								SEARCH 05-06-15		
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)	
204A KAZI!		LIC	CN	0.0	0.00	30 16 37.0	1.600	63.2	19.1	-82.5	-83.1
Austin			TX	0.0	BLED19820914AG	97 49 34.0	107	328	Austin Community Radio		
201A KNLE-FM		LIC	CN	39.3	24.77	30 26 58.0	3.000	2.1	21.1	0.0	1.4
Round Rock			TX	219.4	BLED19900801KB	97 39 44.0	71	302	Ixoeye Productions, Inc.		
203A KHIB		LIC	DV	95.7	66.19	30 12 57.0	4.000	36.3	24.0	2.3	0.5
Bastrop			TX	276.1	BLED19980508KB	97 08 31.0	94	242	Houston Christian Broadcas		
203A KBMD		LIC	DVX	306.7	51.60	30 33 12.0	6.000	25.3	16.9	3.9	1.1
Marble Falls			TX	126.4	BLED20020211AAR	98 15 30.0	27	318	La Promesa Foundation		
204C1 KKER		LIC	DCX	258.8	121.66	30 03 30.0	52.000	102.8	38.6	2.1	29.5
Kerrville			TX	78.1	BLED20050616AAW	99 03 50.0	174	727	Houston Christian Broadcas		
204C KUHF		LIC	C	108.6	238.31	29 34 27.0	100.000	192.4	88.2	17.8	69.3
Houston			TX	289.7	BLED19990810KA	95 29 37.0	524	544	University Of Houston Syst		
203A VA2918		VAC	N	303.6	97.48	30 45 34.0	6.000	47.3	30.2	28.0	31.3
Llano			TX	123.2		98 40 31.0	100	457			
International Class A with respect to Mexico. A noncommercial educational application for this allotment which meets the spacing requirements of Section 73.207 with respect to Mexican stations and allotments, and which proposes neither an ERP in excess of 3.0 kW nor facilities in excess of 3.0 kW at 100 meters HAAT (or the equivalent), may be granted without obtaining Mexican concurrence prior to grant.											
203C3 KVLTV		LIC	DVX	13.2	80.72	30 59 08.0	5.000	25.5	16.9	32.2	30.1
Temple			TX	193.3	BLED20030425AAW	97 37 56.0	188	418	American Educational Broad		
205C1 KSUR		LIC	DVX	22.9	133.48	31 23 02.0	100.000	78.3	52.7	31.8	45.7
Mart			TX	203.2	BLED20070216AAX	97 16 38.0	190	378	American Family Associatio		
205C VA8692		VAC	N	325.8	194.44	31 43 12.0	100.000	137.7	92.8	34.2	68.4
Brownwood			TX	145.2		98 58 60.0	600	1048			
Applicants for this allotment may specify any station class (A, C3, C2, C1, or C), except Class D											
205A KXMP		LIC	CX	281.6	72.95	30 24 23.0	0.125	15.3	11.3	37.3	36.6
Blowout			TX	101.2	BLED20130315ABF	98 34 12.0	135	572	Sun Radio Foundation		
257C3 KOKE-FM		LIC	NCX	64.8	55.89	30 29 23.3	24.000	0.0	0.0	11.5R	44.4M
Thorndale			TX	245.1	BLH20131030AID	97 17 56.0	100	254	Genuine Austin Radio, Lp		

### BROWN BROADCAST SERVICES

INCORPORATED

Michael D. Brown      3740 S.W. Comus St.      Portland, Oregon 97219-7418      503-245-6065

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
202A Seguin	VA9839	VAC	N TX	189.6 9.5	79.66	29 34 06.0 97 57 50.0	6.000 100	2.8 266	28.1	54.9	49.2

International Class A with respect to Mexico. A noncommercial educational application for this allotment which meets the separation requirements of Section 73.207 with respect to Mexican stations and allotments, and which proposes neither an ERP in excess of 3.0 kW nor facilities in excess of 3.0 kW ERP at 100 meters HAAT (or the equivalent), may be granted without first obtaining Mexican concurrence prior to grant.

-----  
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 shown at closest points. Reference Zone= Zone 2, Co to 3rd adj. All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected. 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.  
Reference station has protected zone issue: Mexico

All contour calculations were made using the methods and procedures described in 47 CFR

§73.313(c). FMOver calculations were done using V-Soft FM Commander software using 51 data points per radial, and the FCC-modified version of the NGDC 30 second terrain database.

## **PROTECTED ZONES REPORT**

Protected zones report for KAZI on channel 204A 05-06-2015  
Lat. 30 16 37.0 Lng. 97 49 34.0, ERP= 1.7 kw, HAAT= 107M

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\*\*\* Station must coordinate with Mexico. Distance to border = 303.8 km.  
Facility is okay with respect to AM station towers.  
Closest AM Facility is KTAE, AUSTIN, TX, L, ND1 at 102.7° at a distance of 11.7 km  
Facility is okay with respect to FCC monitoring stations.  
Closest FCC Monitoring Station is 314.3 km= Kingsville, TX  
Facility is okay toward West Virginia Quiet Zone. Distance to center = 1910.9 km  
Facility is okay toward Table Mountain. Distance to Center = 1285.3 km, Azimuth = 330.5 Degrees True

## **BROWN BROADCAST SERVICES** INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

## Exhibit 18a - Co-Channel Contour Protection

Brown Broadcast Services, Inc.  
Job: KAZI.fmj  
Master Database: 2015\_Mar\_20.fmd  
Lat: N30:16:37 Lon: W097:49:34 NAD-27  
Scale: 1:1500000  
Channel: 204 Class: A

rfInvestigator Version 3.8.4  
by rfSoftware, Inc.  
Date: 5/6/2015 10:23:27 PM

### PROPOSED

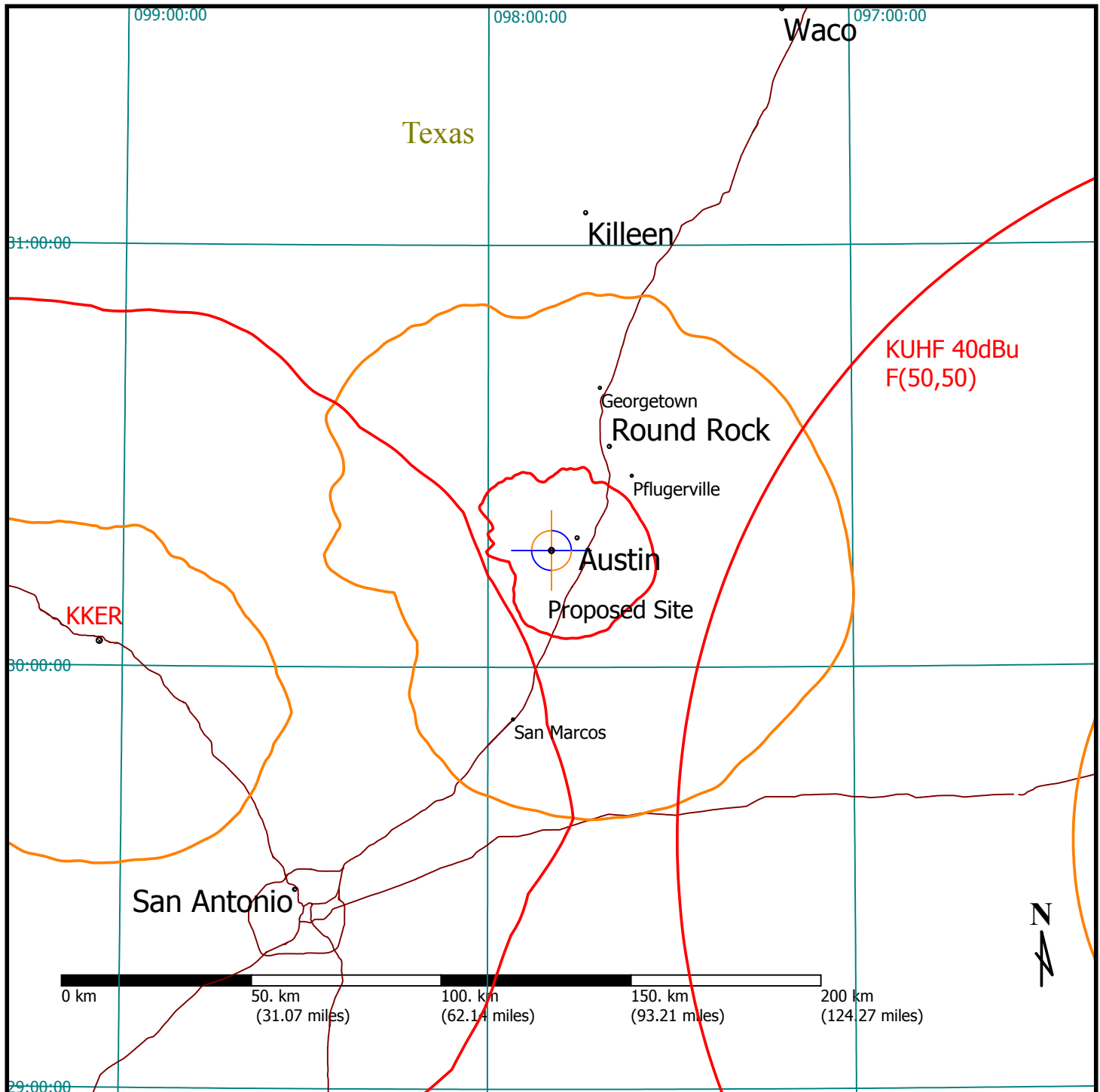
Protected: 60dBu F(50,50)

Interfering: 40dBu F(50,10)

### AFFECTED

Protected: 60dBu F(50,50)

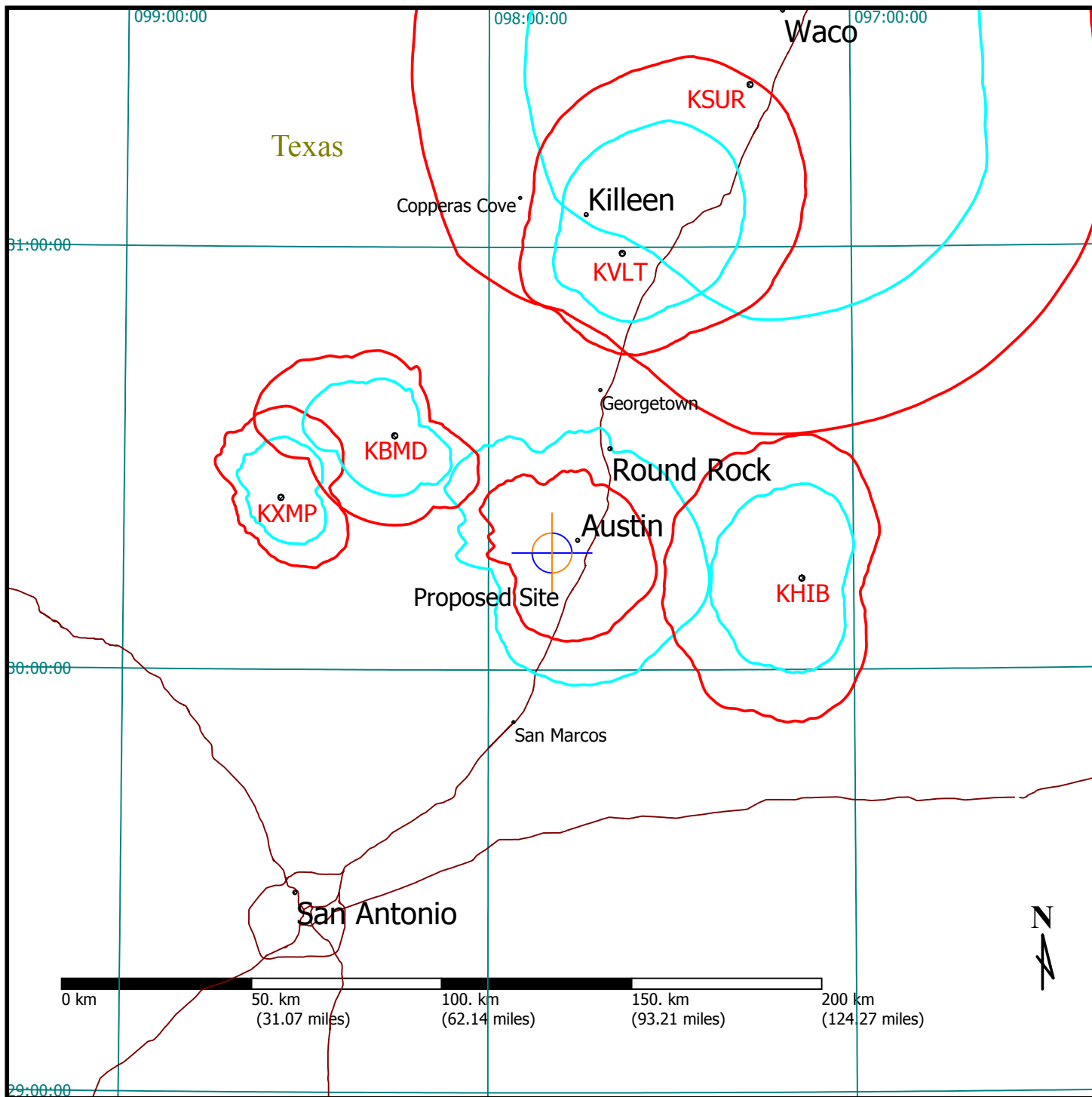
Interfering: 40dBu F(50,10)



Brown Broadcast Services, Inc.  
Job: KAZI.fmj  
Master Database: 2015\_Mar\_20.fmd  
Lat: N30:16:37 Lon: W097:49:34 NAD-27  
Scale: 1:1500000  
Channel: 204 Class: A

rfInvestigator Version 3.8.4  
by rfSoftware, Inc.  
Date: 5/6/2015 10:26:58 PM

Interfering: 54dBu F(50,10)



# EXHIBIT 18c

## FMOver Analysis -

### Prop. KAZI vs. KBMD, Marble Falls, TX

05-06-2015

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

KAZI Proposed

KBMD BLED20020211AAR

Channel = 204A  
Max ERP = 1.7 kW  
RCAMSL = 328 M  
N. Lat. 30 16 37.0  
W. Lng. 97 49 34.0  
Protected  
60 dBu

Channel = 203A  
Max ERP = 6 kW  
RCAMSL = 318 M  
N. Lat. 30 33 12.0  
W. Lng. 98 15 30.0  
Interfering  
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
262.0	001.7000	0050.3	014.8	140.7	002.6191	0048.1	042.3	45.33	
263.0	001.7000	0053.6	015.3	141.1	002.6728	0047.2	041.8	45.44	
264.0	001.7000	0056.8	015.8	141.5	002.7214	0046.4	041.3	45.55	
265.0	001.7000	0060.7	016.4	141.9	002.7799	0045.3	040.8	45.65	
266.0	001.7000	0063.5	016.8	142.1	002.8101	0044.8	040.3	45.76	
267.0	001.7000	0064.7	016.9	142.1	002.8038	0044.9	040.0	45.88	
268.0	001.7000	0065.4	017.0	142.0	002.7852	0045.2	039.7	46.02	
269.0	001.7000	0065.9	017.1	141.8	002.7630	0045.6	039.4	46.15	
270.0	001.7000	0064.0	016.8	141.2	002.6897	0046.9	039.4	46.29	
271.0	001.7000	0061.9	016.5	140.6	002.6150	0048.2	039.3	46.40	
272.0	001.7000	0059.8	016.3	140.0	002.5412	0049.5	039.3	46.49	
273.0	001.7000	0057.7	016.0	139.4	002.4792	0050.8	039.3	46.60	
274.0	001.7000	0056.0	015.7	138.9	002.4244	0051.9	039.3	46.68	
275.0	001.7000	0054.4	015.4	138.4	002.3711	0052.9	039.3	46.74	
276.0	001.7000	0052.5	015.1	137.8	002.3147	0053.8	039.3	46.75	
277.0	001.7000	0052.4	015.1	137.5	002.2854	0054.2	039.1	46.81	
278.0	001.7000	0054.2	015.4	137.4	002.2824	0054.2	038.8	46.96	
279.0	001.7000	0056.6	015.8	137.5	002.2861	0054.1	038.3	47.13	
280.0	001.7000	0059.3	016.2	137.5	002.2899	0054.1	037.8	47.32	
281.0	001.7000	0061.4	016.5	137.4	002.2818	0054.2	037.4	47.48	
282.0	001.7000	0063.3	016.7	137.3	002.2697	0054.3	037.0	47.62	
283.0	001.7000	0065.2	017.0	137.2	002.2560	0054.5	036.6	47.77	
284.0	001.7000	0066.4	017.1	136.9	002.2318	0054.8	036.4	47.88	
285.0	001.7000	0066.8	017.2	136.6	002.1984	0055.0	036.1	47.94	
286.0	001.7000	0066.2	017.1	136.1	002.1545	0055.4	036.1	47.94	
287.0	001.7000	0064.8	016.9	135.5	002.1022	0055.9	036.1	47.89	
288.0	001.7000	0063.0	016.7	134.9	002.0478	0056.6	036.2	47.85	
289.0	001.7000	0061.5	016.5	134.4	001.9984	0057.5	036.2	47.85	
290.0	001.7000	0060.6	016.4	133.9	001.9543	0058.4	036.2	47.87	
291.0	001.7000	0061.2	016.5	133.5	001.9217	0059.1	036.0	47.97	
292.0	001.7000	0062.9	016.7	133.2	001.8958	0059.6	035.7	48.11	
293.0	001.7000	0064.9	017.0	133.0	001.8710	0060.2	035.3	48.28	
294.0	001.7000	0067.7	017.3	132.7	001.8486	0060.7	034.9	48.48	
295.0	001.7000	0071.9	017.9	132.5	001.8315	0061.1	034.3	48.75	
296.0	001.7000	0077.4	018.6	132.3	001.8174	0061.4	033.5	49.08	
297.0	001.7000	0084.3	019.4	132.2	001.8051	0061.7	032.6	49.48	
298.0	001.7000	0092.2	020.4	132.0	001.7903	0062.1	031.6	49.93	
299.0	001.7000	0099.7	021.2	131.7	001.7660	0062.6	030.7	50.38	
300.0	001.7000	0105.6	021.8	131.3	001.7281	0063.4	030.0	50.74	
301.0	001.7000	0109.0	022.1	130.7	001.6780	0064.4	029.6	50.96	

**BROWN BROADCAST SERVICES**  
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065



Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
302.0	001.7000	0109.6	022.2	130.0	001.6197	0065.5	029.5	51.00	
303.0	001.7000	0108.8	022.1	129.2	001.5725	0066.5	029.5	50.99	
304.0	001.7000	0108.2	022.1	128.4	001.5264	0067.7	029.6	50.99	
305.0	001.7000	0108.5	022.1	127.7	001.4818	0068.9	029.5	51.04	
306.0	001.7000	0109.4	022.2	127.0	001.4377	0070.4	029.4	51.15	
307.0	001.7000	0110.7	022.3	126.2	001.3936	0072.3	029.3	51.30	
308.0	001.7000	0111.6	022.4	125.4	001.3495	0074.0	029.2	51.42	
309.0	001.7000	0112.5	022.5	124.6	001.3056	0075.7	029.2	51.50	
310.0	001.7000	0113.3	022.6	123.9	001.2622	0077.0	029.1	51.53	
311.0	001.7000	0114.0	022.6	123.1	001.2194	0078.3	029.1	51.53	
312.0	001.7000	0114.4	022.7	122.3	001.1775	0079.6	029.1	51.52	
313.0	001.7000	0114.6	022.7	121.5	001.1368	0080.9	029.2	51.49	
314.0	001.7000	0114.9	022.7	120.8	001.0971	0082.2	029.3	51.44	
315.0	001.7000	0114.8	022.7	120.0	001.0590	0083.3	029.4	51.35	
316.0	001.7000	0114.3	022.6	119.3	001.0299	0084.2	029.5	51.24	
317.0	001.7000	0113.7	022.6	118.6	001.0024	0084.9	029.7	51.10	
318.0	001.7000	0113.1	022.5	117.9	000.9759	0085.4	029.9	50.93	
319.0	001.7000	0113.0	022.5	117.2	000.9490	0085.8	030.0	50.77	
320.0	001.7000	0113.3	022.6	116.5	000.9219	0086.0	030.1	50.61	
321.0	001.7000	0113.6	022.6	115.8	000.8955	0086.0	030.3	50.41	
322.0	001.7000	0113.0	022.5	115.2	000.8726	0085.9	030.5	50.16	
323.0	001.7000	0111.7	022.4	114.6	000.8526	0085.8	030.8	49.89	
324.0	001.7000	0110.0	022.2	114.1	000.8349	0085.8	031.1	49.63	
325.0	001.7000	0109.3	022.2	113.6	000.8153	0085.8	031.4	49.40	
326.0	001.7000	0110.0	022.2	112.9	000.7919	0086.0	031.5	49.22	
327.0	001.7000	0111.4	022.4	112.2	000.7671	0086.4	031.6	49.07	
328.0	001.7000	0111.3	022.4	111.6	000.7477	0086.6	031.9	48.87	
329.0	001.7000	0108.8	022.1	111.3	000.7376	0086.8	032.3	48.63	
330.0	001.7000	0105.8	021.8	111.1	000.7304	0086.9	032.8	48.37	
331.0	001.7000	0104.8	021.7	110.7	000.7171	0087.1	033.1	48.17	
332.0	001.7000	0105.7	021.8	110.1	000.6975	0087.5	033.3	48.01	
333.0	001.7000	0107.2	022.0	109.5	000.6782	0088.1	033.4	47.88	
334.0	001.7000	0108.0	022.1	108.9	000.6622	0088.7	033.6	47.74	
335.0	001.7000	0107.8	022.0	108.5	000.6503	0089.2	033.9	47.58	
336.0	001.7000	0107.0	022.0	108.1	000.6407	0089.6	034.2	47.40	
337.0	001.7000	0106.8	021.9	107.7	000.6297	0090.1	034.5	47.24	
338.0	001.7000	0107.5	022.0	107.2	000.6165	0090.5	034.8	47.07	
339.0	001.7000	0107.5	022.0	106.8	000.6059	0090.8	035.1	46.89	
340.0	001.7000	0106.3	021.9	106.6	000.5998	0091.0	035.5	46.69	
341.0	001.7000	0103.9	021.6	106.5	000.5985	0091.0	035.9	46.48	
342.0	001.7000	0101.4	021.4	106.5	000.5985	0091.0	036.4	46.28	
343.0	001.7000	0099.8	021.2	106.4	000.5957	0091.0	036.8	46.09	
344.0	001.7000	0098.8	021.1	106.3	000.5911	0091.1	037.2	45.90	
345.0	001.7000	0097.2	020.9	106.2	000.5891	0091.2	037.6	45.71	
346.0	001.7000	0093.1	020.5	106.5	000.5973	0091.0	038.1	45.52	
347.0	001.7000	0087.6	019.8	107.1	000.6123	0090.7	038.7	45.33	
348.0	001.7000	0081.8	019.1	107.7	000.6297	0090.1	039.4	45.12	
349.0	001.7000	0078.0	018.6	108.1	000.6396	0089.7	039.9	44.93	
350.0	001.7000	0076.4	018.5	108.1	000.6403	0089.6	040.3	44.78	
351.0	001.7000	0075.2	018.3	108.1	000.6399	0089.7	040.6	44.63	

**BROWN BROADCAST SERVICES**  
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

05-06-2015

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

KBMD BLED20020211AAR

KAZI Proposed

Channel = 203A  
 Max ERP = 6 kW  
 RCAMSL = 318 M  
 N. Lat. 30 33 12.0  
 W. Lng. 98 15 30.0  
 Protected  
 60 dBu

Channel = 204A  
 Max ERP = 1.7 kW  
 RCAMSL = 328 M  
 N. Lat. 30 16 37.0  
 W. Lng. 97 49 34.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
081.0	000.2235	0056.6	009.6	315.4	001.7000	0114.7	045.3	48.94	
082.0	000.2305	0058.4	009.8	315.5	001.7000	0114.6	045.1	49.05	
083.0	000.2376	0059.9	010.0	315.5	001.7000	0114.6	044.8	49.15	
084.0	000.2448	0061.3	010.2	315.6	001.7000	0114.6	044.6	49.25	
085.0	000.2521	0062.3	010.4	315.6	001.7000	0114.6	044.3	49.34	
086.0	000.2596	0063.2	010.5	315.6	001.7000	0114.6	044.1	49.44	
087.0	000.2671	0064.1	010.6	315.5	001.7000	0114.6	043.9	49.53	
088.0	000.2748	0065.0	010.8	315.5	001.7000	0114.6	043.6	49.63	
089.0	000.2825	0067.1	011.0	315.5	001.7000	0114.6	043.4	49.75	
090.0	000.2904	0069.2	011.2	315.6	001.7000	0114.6	043.1	49.87	
091.0	000.3037	0071.3	011.5	315.6	001.7000	0114.5	042.7	50.01	
092.0	000.3174	0072.7	011.7	315.7	001.7000	0114.5	042.4	50.13	
093.0	000.3313	0073.7	011.9	315.6	001.7000	0114.5	042.1	50.25	
094.0	000.3456	0075.1	012.1	315.6	001.7000	0114.5	041.8	50.38	
095.0	000.3602	0076.9	012.4	315.6	001.7000	0114.5	041.5	50.52	
096.0	000.3750	0079.5	012.7	315.7	001.7000	0114.5	041.1	50.68	
097.0	000.3901	0081.9	013.0	315.7	001.7000	0114.5	040.8	50.84	
098.0	000.4056	0084.3	013.3	315.7	001.7000	0114.5	040.4	51.01	
099.0	000.4214	0086.4	013.6	315.7	001.7000	0114.5	040.0	51.17	
100.0	000.4374	0089.1	013.9	315.7	001.7000	0114.5	039.6	51.35	
101.0	000.4604	0091.9	014.3	315.7	001.7000	0114.5	039.1	51.56	
102.0	000.4839	0093.8	014.7	315.7	001.7000	0114.5	038.7	51.75	
103.0	000.5081	0094.0	014.9	315.5	001.7000	0114.6	038.4	51.89	
104.0	000.5328	0093.0	015.0	315.3	001.7000	0114.7	038.2	52.00	
105.0	000.5582	0091.9	015.1	315.0	001.7000	0114.8	037.9	52.10	
106.0	000.5841	0091.3	015.2	314.8	001.7000	0114.8	037.7	52.21	
107.0	000.6106	0090.7	015.3	314.5	001.7000	0114.8	037.5	52.32	
108.0	000.6377	0089.8	015.4	314.2	001.7000	0114.8	037.3	52.41	
109.0	000.6653	0088.6	015.5	313.9	001.7000	0114.8	037.1	52.49	
110.0	000.6936	0087.6	015.6	313.5	001.7000	0114.8	036.9	52.57	
111.0	000.7266	0086.9	015.7	313.2	001.7000	0114.7	036.7	52.67	
112.0	000.7604	0086.5	015.9	312.9	001.7000	0114.6	036.4	52.77	
113.0	000.7950	0085.9	016.0	312.6	001.7000	0114.6	036.2	52.88	
114.0	000.8303	0085.8	016.2	312.2	001.7000	0114.5	036.0	52.99	
115.0	000.8664	0085.8	016.4	311.9	001.7000	0114.4	035.7	53.11	
116.0	000.9033	0086.1	016.6	311.5	001.7000	0114.2	035.4	53.23	
117.0	000.9409	0085.9	016.8	311.2	001.7000	0114.1	035.1	53.34	
118.0	000.9793	0085.3	016.9	310.7	001.7000	0113.8	035.0	53.41	
119.0	001.0185	0084.5	017.0	310.3	001.7000	0113.5	034.8	53.45	
120.0	001.0584	0083.4	017.0	309.8	001.7000	0113.2	034.7	53.48	
121.0	001.1094	0081.8	017.1	309.4	001.7000	0112.8	034.6	53.49	
122.0	001.1616	0080.1	017.1	308.9	001.7000	0112.4	034.6	53.48	
123.0	001.2150	0078.4	017.1	308.4	001.7000	0112.0	034.5	53.47	

# BROWN BROADCAST SERVICES INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
124.0	001.2696	0076.8	017.1	307.9	001.7000	0111.5	034.5	53.45	
125.0	001.3254	0074.9	017.1	307.4	001.7000	0111.1	034.5	53.41	
126.0	001.3824	0072.7	017.0	306.9	001.7000	0110.5	034.6	53.33	
127.0	001.4406	0070.3	016.9	306.4	001.7000	0109.9	034.7	53.23	
128.0	001.5000	0068.4	016.8	305.9	001.7000	0109.3	034.8	53.15	
129.0	001.5606	0066.8	016.8	305.4	001.7000	0108.8	034.8	53.09	
130.0	001.6224	0065.4	016.8	305.0	001.7000	0108.4	034.9	53.05	
131.0	001.7045	0063.9	016.8	304.5	001.7000	0108.2	034.9	53.03	
132.0	001.7887	0062.1	016.8	304.0	001.7000	0108.2	034.9	53.01	
133.0	001.8749	0060.1	016.8	303.5	001.7000	0108.4	035.0	52.97	
134.0	001.9631	0058.2	016.7	303.1	001.7000	0108.7	035.1	52.94	
135.0	002.0533	0056.6	016.6	302.6	001.7000	0109.1	035.2	52.92	
136.0	002.1456	0055.4	016.7	302.2	001.7000	0109.5	035.3	52.93	
137.0	002.2399	0054.7	016.7	301.7	001.7000	0109.6	035.3	52.93	
138.0	002.3363	0053.5	016.7	301.2	001.7000	0109.4	035.4	52.87	
139.0	002.4346	0051.7	016.6	300.9	001.7000	0108.6	035.6	52.71	
140.0	002.5350	0049.6	016.4	300.5	001.7000	0107.7	035.9	52.50	
141.0	002.6613	0047.4	016.1	300.2	001.7000	0106.6	036.2	52.27	
142.0	002.7907	0045.1	015.9	300.0	001.7000	0105.5	036.6	52.02	
143.0	002.9232	0042.6	015.6	299.8	001.7000	0104.5	037.0	51.76	
144.0	003.0588	0040.4	015.3	299.6	001.7000	0103.4	037.3	51.50	
145.0	003.1974	0038.6	015.1	299.3	001.7000	0101.9	037.6	51.25	
146.0	003.3391	0037.4	015.0	299.0	001.7000	0099.9	037.8	51.00	
147.0	003.4839	0036.2	014.9	298.7	001.7000	0097.9	038.0	50.73	
148.0	003.6317	0034.7	014.8	298.5	001.7000	0096.2	038.3	50.47	
149.0	003.7826	0032.9	014.6	298.3	001.7000	0094.9	038.6	50.22	
150.0	003.9366	0031.0	014.3	298.2	001.7000	0093.8	038.9	49.98	
151.0	004.0640	0029.1	014.2	298.0	001.7000	0091.9	039.1	49.71	
152.0	004.1934	0026.8	014.3	297.6	001.7000	0088.8	039.2	49.39	
153.0	004.3248	0023.6	014.5	297.2	001.7000	0085.7	039.2	49.07	
154.0	004.4583	0019.7	014.6	296.8	001.7000	0082.7	039.3	48.74	
155.0	004.5938	0015.3	014.7	296.4	001.7000	0079.9	039.4	48.43	
156.0	004.7313	0010.8	014.8	296.0	001.7000	0077.4	039.5	48.13	
157.0	004.8708	0006.8	014.9	295.6	001.7000	0075.1	039.5	47.85	
158.0	005.0124	0003.8	015.0	295.2	001.7000	0073.0	039.6	47.59	
159.0	005.1560	0001.4	015.1	294.8	001.7000	0071.1	039.7	47.34	
160.0	005.3016	-0000.8	015.2	294.4	001.7000	0069.4	039.8	47.11	
161.0	005.3695	-0003.0	015.3	294.1	001.7000	0068.2	040.0	46.91	
162.0	005.4378	-0005.3	015.3	293.8	001.7000	0067.1	040.2	46.73	
163.0	005.5066	-0007.4	015.4	293.5	001.7000	0066.2	040.3	46.56	
164.0	005.5758	-0009.6	015.4	293.2	001.7000	0065.5	040.5	46.41	
165.0	005.6454	-0011.4	015.5	292.9	001.7000	0064.7	040.7	46.26	
166.0	005.7155	-0012.7	015.5	292.6	001.7000	0064.1	040.9	46.12	
167.0	005.7859	-0013.2	015.6	292.4	001.7000	0063.5	041.1	45.98	
168.0	005.8569	-0013.2	015.6	292.1	001.7000	0063.0	041.3	45.84	
169.0	005.9282	-0012.9	015.7	291.8	001.7000	0062.5	041.5	45.71	
170.0	006.0000	-0012.6	015.8	291.5	001.7000	0062.1	041.7	45.59	

**BROWN BROADCAST SERVICES**  
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

# EXHIBIT 18d

## FMOver Analysis -

### Prop. KAZI vs. KHIB, Bastrop, TX

05-06-2015

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

KAZI Proposed

KHIB BLED19980508KB

Channel = 204A  
Max ERP = 1.7 kW  
RCAMSL = 328 M  
N. Lat. 30 16 37.0  
W. Lng. 97 49 34.0  
Protected  
60 dBu

Channel = 203A  
Max ERP = 4 kW  
RCAMSL = 242 M  
N. Lat. 30 12 57.0  
W. Lng. 97 08 31.0  
Interfering  
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
051.0	001.7000	0126.9	023.7	294.8	004.0000	0088.3	052.0	48.16	
052.0	001.7000	0128.2	023.8	294.7	004.0000	0088.2	051.6	48.31	
053.0	001.7000	0129.5	023.9	294.5	004.0000	0088.2	051.2	48.45	
054.0	001.7000	0130.6	024.0	294.4	004.0000	0088.1	050.8	48.59	
055.0	001.7000	0131.4	024.0	294.2	004.0000	0088.0	050.4	48.73	
056.0	001.7000	0132.3	024.1	294.0	004.0000	0087.9	050.0	48.86	
057.0	001.7000	0133.3	024.2	293.8	004.0000	0087.7	049.6	48.99	
058.0	001.7000	0134.1	024.2	293.6	004.0000	0087.6	049.3	49.12	
059.0	001.7000	0134.4	024.3	293.4	004.0000	0087.4	048.9	49.23	
060.0	001.7000	0134.2	024.2	293.0	004.0000	0087.2	048.6	49.33	
061.0	001.7000	0134.0	024.2	292.7	004.0000	0087.0	048.2	49.43	
062.0	001.7000	0134.0	024.2	292.4	004.0000	0086.7	047.9	49.53	
063.0	001.7000	0134.5	024.3	292.1	004.0000	0086.4	047.6	49.63	
064.0	001.7000	0135.3	024.3	291.8	004.0000	0086.1	047.2	49.73	
065.0	001.7000	0136.2	024.4	291.5	004.0000	0085.8	046.8	49.83	
066.0	001.7000	0137.2	024.5	291.2	004.0000	0085.6	046.5	49.93	
067.0	001.7000	0138.1	024.5	290.9	004.0000	0085.3	046.1	50.04	
068.0	001.7000	0138.8	024.6	290.6	004.0000	0085.0	045.8	50.13	
069.0	001.7000	0139.5	024.6	290.2	004.0000	0084.7	045.5	50.22	
070.0	001.7000	0140.2	024.7	289.8	004.0000	0084.3	045.2	50.31	
071.0	001.7000	0141.3	024.8	289.5	004.0000	0084.0	044.8	50.41	
072.0	001.7000	0142.8	024.9	289.1	004.0000	0083.7	044.5	50.51	
073.0	001.7000	0144.7	025.0	288.8	004.0000	0083.5	044.1	50.64	
074.0	001.7000	0146.2	025.2	288.4	004.0000	0083.3	043.8	50.75	
075.0	001.7000	0147.8	025.3	288.0	004.0000	0083.1	043.4	50.86	
076.0	001.7000	0149.4	025.4	287.6	004.0000	0082.9	043.1	50.97	
077.0	001.7000	0151.2	025.5	287.2	004.0000	0082.7	042.7	51.08	
078.0	001.7000	0152.7	025.7	286.7	004.0000	0082.6	042.4	51.19	
079.0	001.7000	0154.0	025.8	286.2	004.0000	0082.6	042.1	51.31	
080.0	001.7000	0155.2	025.8	285.7	004.0000	0082.7	041.9	51.42	
081.0	001.7000	0156.3	025.9	285.2	004.0000	0082.7	041.6	51.53	
082.0	001.7000	0157.0	026.0	284.7	004.0000	0082.8	041.4	51.63	
083.0	001.7000	0158.0	026.0	284.1	004.0000	0083.1	041.1	51.75	
084.0	001.7000	0159.0	026.1	283.5	004.0000	0083.4	040.9	51.88	
085.0	001.7000	0160.5	026.2	283.0	004.0000	0083.9	040.7	52.02	
086.0	001.7000	0162.0	026.3	282.4	004.0000	0084.3	040.4	52.16	
087.0	001.7000	0163.6	026.5	281.8	004.0000	0084.6	040.2	52.29	
088.0	001.7000	0164.8	026.5	281.2	004.0000	0084.9	040.0	52.39	
089.0	001.7000	0166.0	026.6	280.6	004.0000	0085.1	039.8	52.49	
090.0	001.7000	0167.2	026.7	279.9	004.0000	0085.5	039.6	52.60	

**BROWN BROADCAST SERVICES**  
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
091.0	001.7000	0168.5	026.8	279.3	004.0000	0085.8	039.5	52.69	
092.0	001.7000	0170.2	026.9	278.6	004.0000	0086.1	039.3	52.79	
093.0	001.7000	0172.0	027.1	278.0	004.0000	0086.4	039.1	52.90	
094.0	001.7000	0174.0	027.2	277.3	004.0000	0086.5	039.0	52.97	
095.0	001.7000	0176.2	027.3	276.6	004.0000	0086.0	038.8	53.00	
096.0	001.7000	0178.4	027.5	275.9	004.0000	0085.4	038.6	53.00	
097.0	001.7000	0180.5	027.6	275.2	004.0000	0084.8	038.5	53.00	
098.0	001.7000	0182.4	027.8	274.4	004.0000	0084.4	038.4	53.00	
099.0	001.7000	0183.7	027.9	273.7	004.0000	0084.1	038.4	52.99	
100.0	001.7000	0184.7	027.9	273.0	004.0000	0084.1	038.4	53.00	
101.0	001.7000	0185.5	028.0	272.2	004.0000	0084.1	038.4	52.99	
102.0	001.7000	0186.0	028.0	271.5	004.0000	0084.2	038.4	52.97	
103.0	001.7000	0186.2	028.0	270.8	004.0000	0084.3	038.5	52.95	
104.0	001.7000	0186.3	028.0	270.1	004.0000	0084.5	038.6	52.92	
105.0	001.7000	0186.3	028.0	269.4	004.0000	0084.8	038.8	52.90	
106.0	001.7000	0186.2	028.0	268.7	004.0000	0085.1	038.9	52.86	
107.0	001.7000	0185.8	028.0	268.0	004.0000	0085.3	039.1	52.81	
108.0	001.7000	0184.8	027.9	267.4	004.0000	0085.6	039.3	52.74	
109.0	001.7000	0183.2	027.8	266.8	004.0000	0085.7	039.6	52.64	
110.0	001.7000	0181.4	027.7	266.2	004.0000	0085.5	039.9	52.50	
111.0	001.7000	0179.6	027.6	265.6	004.0000	0085.5	040.2	52.37	
112.0	001.7000	0177.7	027.4	265.1	004.0000	0085.8	040.5	52.26	
113.0	001.7000	0175.4	027.3	264.6	004.0000	0086.0	040.9	52.14	
114.0	001.7000	0172.9	027.1	264.2	004.0000	0086.2	041.3	52.00	
115.0	001.7000	0170.3	026.9	263.7	004.0000	0086.4	041.7	51.85	
116.0	001.7000	0167.6	026.7	263.3	004.0000	0086.6	042.1	51.71	
117.0	001.7000	0164.8	026.5	263.0	004.0000	0087.0	042.5	51.58	
118.0	001.7000	0161.8	026.3	262.6	004.0000	0087.4	043.0	51.44	
119.0	001.7000	0159.0	026.1	262.3	004.0000	0087.8	043.4	51.31	
120.0	001.7000	0156.8	026.0	261.9	004.0000	0088.3	043.8	51.20	
121.0	001.7000	0155.3	025.8	261.6	004.0000	0088.8	044.2	51.10	
122.0	001.7000	0154.3	025.8	261.2	004.0000	0089.2	044.5	51.00	
123.0	001.7000	0153.3	025.7	260.8	004.0000	0089.4	044.9	50.89	
124.0	001.7000	0152.0	025.6	260.5	004.0000	0089.7	045.3	50.76	
125.0	001.7000	0150.5	025.5	260.2	004.0000	0089.8	045.7	50.63	
126.0	001.7000	0149.2	025.4	259.9	004.0000	0089.9	046.0	50.49	
127.0	001.7000	0148.1	025.3	259.6	004.0000	0090.0	046.4	50.35	
128.0	001.7000	0147.1	025.2	259.3	004.0000	0089.9	046.8	50.21	
129.0	001.7000	0146.4	025.2	259.0	004.0000	0089.9	047.2	50.07	
130.0	001.7000	0146.0	025.1	258.7	004.0000	0089.8	047.5	49.93	
131.0	001.7000	0146.1	025.2	258.4	004.0000	0089.8	047.9	49.80	
132.0	001.7000	0146.1	025.2	258.1	004.0000	0089.8	048.2	49.67	
133.0	001.7000	0145.9	025.1	257.8	004.0000	0089.8	048.6	49.54	
134.0	001.7000	0145.4	025.1	257.5	004.0000	0089.7	049.0	49.40	
135.0	001.7000	0144.7	025.0	257.3	004.0000	0089.8	049.4	49.26	
136.0	001.7000	0143.8	025.0	257.1	004.0000	0089.8	049.8	49.11	
137.0	001.7000	0143.0	024.9	256.9	004.0000	0089.8	050.2	48.96	
138.0	001.7000	0142.6	024.9	256.7	004.0000	0089.8	050.6	48.81	
139.0	001.7000	0142.9	024.9	256.5	004.0000	0089.8	051.0	48.68	
140.0	001.7000	0143.9	025.0	256.2	004.0000	0089.9	051.3	48.56	

**BROWN BROADCAST SERVICES**  
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

05-06-2015

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

KHIB BLED19980508KB

KAZI Proposed

Channel = 203A  
 Max ERP = 4 kW  
 RCAMSL = 242 M  
 N. Lat. 30 12 57.0  
 W. Lng. 97 08 31.0  
 Protected  
 60 dBu

Channel = 204A  
 Max ERP = 1.7 kW  
 RCAMSL = 328 M  
 N. Lat. 30 16 37.0  
 W. Lng. 97 49 34.0  
 Interfering  
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
231.0	004.0000	0086.8	024.2	115.0	001.7000	0170.4	052.0	49.29	
232.0	004.0000	0086.2	024.1	114.7	001.7000	0171.1	051.6	49.46	
233.0	004.0000	0085.5	024.0	114.4	001.7000	0171.9	051.3	49.62	
234.0	004.0000	0085.0	023.9	114.1	001.7000	0172.7	051.0	49.79	
235.0	004.0000	0084.9	023.9	113.8	001.7000	0173.3	050.6	49.96	
236.0	004.0000	0085.4	024.0	113.6	001.7000	0173.8	050.2	50.13	
237.0	004.0000	0085.9	024.0	113.5	001.7000	0174.3	049.8	50.30	
238.0	004.0000	0086.2	024.1	113.2	001.7000	0174.9	049.5	50.47	
239.0	004.0000	0086.4	024.1	113.0	001.7000	0175.5	049.1	50.64	
240.0	004.0000	0087.1	024.2	112.8	001.7000	0176.0	048.7	50.82	
241.0	004.0000	0088.0	024.3	112.6	001.7000	0176.4	048.3	51.00	
242.0	004.0000	0088.8	024.4	112.4	001.7000	0176.9	047.9	51.18	
243.0	004.0000	0089.1	024.5	112.1	001.7000	0177.5	047.5	51.34	
244.0	004.0000	0089.0	024.4	111.7	001.7000	0178.3	047.2	51.50	
245.0	004.0000	0088.7	024.4	111.3	001.7000	0179.1	047.0	51.65	
246.0	004.0000	0088.3	024.4	110.9	001.7000	0179.8	046.7	51.79	
247.0	004.0000	0087.7	024.3	110.5	001.7000	0180.6	046.4	51.93	
248.0	004.0000	0087.2	024.2	110.0	001.7000	0181.4	046.2	52.06	
249.0	004.0000	0086.9	024.2	109.6	001.7000	0182.2	045.9	52.20	
250.0	004.0000	0087.2	024.2	109.2	001.7000	0182.8	045.6	52.36	
251.0	004.0000	0088.1	024.3	108.9	001.7000	0183.4	045.3	52.54	
252.0	004.0000	0089.4	024.5	108.6	001.7000	0183.9	044.9	52.72	
253.0	004.0000	0090.2	024.6	108.3	001.7000	0184.4	044.6	52.89	
254.0	004.0000	0090.5	024.7	107.8	001.7000	0185.0	044.3	53.04	
255.0	004.0000	0090.4	024.6	107.4	001.7000	0185.5	044.0	53.16	
256.0	004.0000	0090.0	024.6	106.8	001.7000	0185.9	043.9	53.25	
257.0	004.0000	0089.8	024.5	106.3	001.7000	0186.1	043.7	53.35	
258.0	004.0000	0089.8	024.5	105.8	001.7000	0186.2	043.5	53.44	
259.0	004.0000	0089.9	024.6	105.3	001.7000	0186.3	043.3	53.54	
260.0	004.0000	0089.9	024.6	104.8	001.7000	0186.3	043.1	53.62	
261.0	004.0000	0089.3	024.5	104.3	001.7000	0186.3	043.0	53.67	
262.0	004.0000	0088.2	024.3	103.7	001.7000	0186.3	042.9	53.69	
263.0	004.0000	0086.9	024.2	103.1	001.7000	0186.2	042.9	53.68	
264.0	004.0000	0086.3	024.1	102.5	001.7000	0186.2	042.9	53.70	
265.0	004.0000	0085.8	024.0	101.9	001.7000	0186.0	042.8	53.73	
266.0	004.0000	0085.5	024.0	101.4	001.7000	0185.7	042.7	53.75	
267.0	004.0000	0085.7	024.0	100.8	001.7000	0185.4	042.6	53.79	
268.0	004.0000	0085.3	024.0	100.3	001.7000	0185.0	042.6	53.79	
269.0	004.0000	0084.9	023.9	99.7	001.7000	0184.5	042.5	53.78	
270.0	004.0000	0084.5	023.9	99.1	001.7000	0183.9	042.5	53.77	
271.0	004.0000	0084.2	023.8	98.6	001.7000	0183.2	042.5	53.75	
272.0	004.0000	0084.1	023.8	98.0	001.7000	0182.4	042.4	53.73	
273.0	004.0000	0084.1	023.8	97.5	001.7000	0181.5	042.4	53.70	

# BROWN BROADCAST SERVICES INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
274.0	004.0000	0084.2	023.8	096.9	001.7000	0180.3	042.4	53.66	
275.0	004.0000	0084.7	023.9	096.3	001.7000	0179.2	042.3	53.65	
276.0	004.0000	0085.5	024.0	095.8	001.7000	0177.9	042.2	53.64	
277.0	004.0000	0086.3	024.1	095.2	001.7000	0176.7	042.1	53.63	
278.0	004.0000	0086.4	024.1	094.6	001.7000	0175.4	042.1	53.56	
279.0	004.0000	0085.9	024.0	094.1	001.7000	0174.1	042.2	53.46	
280.0	004.0000	0085.4	024.0	093.5	001.7000	0173.0	042.3	53.36	
281.0	004.0000	0084.9	023.9	092.9	001.7000	0171.9	042.4	53.26	
282.0	004.0000	0084.6	023.9	092.4	001.7000	0170.9	042.5	53.16	
283.0	004.0000	0083.9	023.8	091.9	001.7000	0170.0	042.7	53.04	
284.0	004.0000	0083.1	023.7	091.4	001.7000	0169.1	042.8	52.91	
285.0	004.0000	0082.8	023.6	090.8	001.7000	0168.2	043.0	52.81	
286.0	004.0000	0082.6	023.6	090.3	001.7000	0167.6	043.1	52.72	
287.0	004.0000	0082.7	023.6	089.8	001.7000	0167.0	043.2	52.64	
288.0	004.0000	0083.1	023.7	089.2	001.7000	0166.3	043.3	52.58	
289.0	004.0000	0083.7	023.7	088.7	001.7000	0165.6	043.3	52.52	
290.0	004.0000	0084.5	023.8	088.1	001.7000	0164.9	043.4	52.46	
291.0	004.0000	0085.4	024.0	087.5	001.7000	0164.2	043.4	52.41	
292.0	004.0000	0086.3	024.1	087.0	001.7000	0163.6	043.5	52.35	
293.0	004.0000	0087.2	024.2	086.4	001.7000	0162.7	043.6	52.28	
294.0	004.0000	0087.8	024.3	085.9	001.7000	0161.8	043.7	52.18	
295.0	004.0000	0088.3	024.4	085.3	001.7000	0160.9	043.8	52.07	
296.0	004.0000	0088.4	024.4	084.8	001.7000	0160.2	044.0	51.95	
297.0	004.0000	0088.3	024.4	084.4	001.7000	0159.6	044.3	51.82	
298.0	004.0000	0087.8	024.3	084.0	001.7000	0159.0	044.5	51.66	
299.0	004.0000	0087.2	024.2	083.6	001.7000	0158.5	044.9	51.51	
300.0	004.0000	0086.4	024.1	083.2	001.7000	0158.2	045.2	51.35	
301.0	004.0000	0085.7	024.0	082.9	001.7000	0157.8	045.5	51.19	
302.0	004.0000	0085.2	023.9	082.5	001.7000	0157.4	045.8	51.05	
303.0	004.0000	0084.8	023.9	082.1	001.7000	0157.1	046.1	50.90	
304.0	004.0000	0084.3	023.8	081.8	001.7000	0156.9	046.5	50.76	
305.0	004.0000	0083.7	023.7	081.5	001.7000	0156.6	046.8	50.61	
306.0	004.0000	0083.2	023.7	081.2	001.7000	0156.4	047.1	50.46	
307.0	004.0000	0082.8	023.6	080.9	001.7000	0156.2	047.5	50.32	
308.0	004.0000	0082.6	023.6	080.6	001.7000	0155.9	047.8	50.18	
309.0	004.0000	0082.7	023.6	080.2	001.7000	0155.5	048.1	50.04	
310.0	004.0000	0083.1	023.7	079.9	001.7000	0155.0	048.4	49.91	
311.0	004.0000	0083.8	023.8	079.5	001.7000	0154.6	048.6	49.79	
312.0	004.0000	0084.6	023.9	079.0	001.7000	0154.1	048.9	49.67	
313.0	004.0000	0085.4	024.0	078.7	001.7000	0153.6	049.2	49.54	
314.0	004.0000	0086.1	024.1	078.3	001.7000	0153.1	049.4	49.40	
315.0	004.0000	0087.0	024.2	077.9	001.7000	0152.6	049.7	49.26	
316.0	004.0000	0087.7	024.3	077.5	001.7000	0152.1	050.0	49.12	
317.0	004.0000	0088.3	024.4	077.2	001.7000	0151.6	050.4	48.97	
318.0	004.0000	0088.5	024.4	077.0	001.7000	0151.1	050.7	48.81	
319.0	004.0000	0088.5	024.4	076.7	001.7000	0150.7	051.1	48.64	
320.0	004.0000	0088.5	024.4	076.5	001.7000	0150.3	051.5	48.47	

**BROWN BROADCAST SERVICES**  
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

## Exhibit 18e - 2nd & 3rd-Adjacent-Channel Contour Protection

Brown Broadcast Services, Inc.

Job: KAZI.fmj

Master Database: 2015\_Mar\_20.fmd

Lat: N30:16:37 Lon: W097:49:34 NAD-27

Scale: 1:500000

Channel: 204 Class: A

### PROPOSED

Protected: 60dBu F(50,50)

Interfering: 100dBu F(50,10)

### AFFECTED

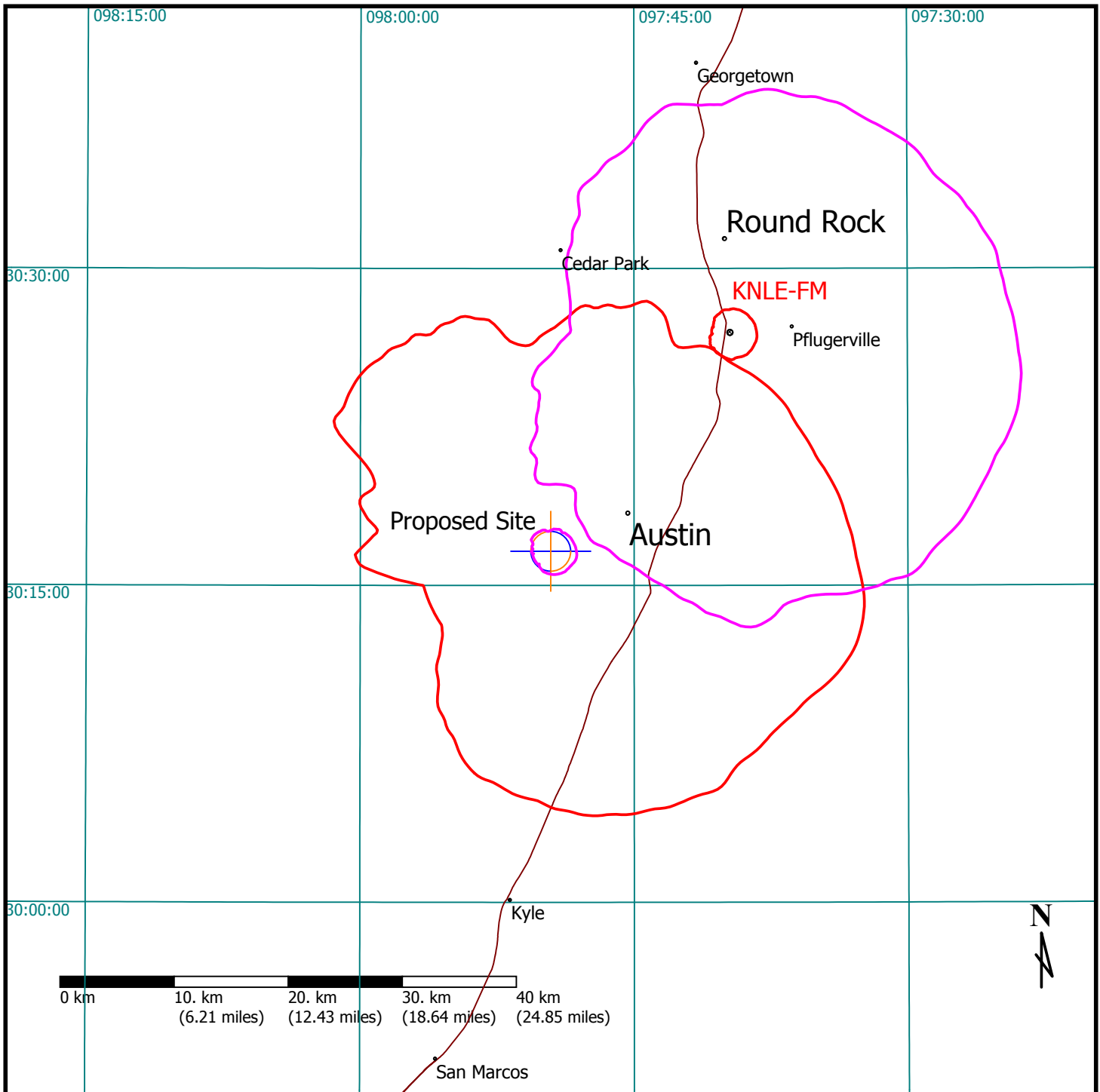
Protected: 60dBu F(50,50)

Interfering: 100dBu F(50,10)

rfInvestigator Version 3.8.4

by rfSoftware, Inc.

Date: 5/6/2015 10:30:55 PM





# EXHIBIT 18f

## FMOver Analysis -

### Prop. KAZI vs. KNLE-FM, Round Rock, TX

05-06-2015      Terrain Data: FCC NGDC 30 Sec      FMOver Analysis

KAZI Proposed

KNLE-FM BLED19900801KB

Channel = 204A  
 Max ERP = 1.7 kW  
 RCAMSL = 328 M  
 N. Lat. 30 16 37.0  
 W. Lng. 97 49 34.0  
 Protected  
 60 dBu

Channel = 201A  
 Max ERP = 3 kW  
 RCAMSL = 302 M  
 N. Lat. 30 26 58.0  
 W. Lng. 97 39 44.0  
 Interfering  
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
354.0	001.7000	0073.5	018.1	266.1	003.0000	0039.3	017.7	57.79	
355.0	001.7000	0074.3	018.2	266.5	003.0000	0038.8	017.4	57.95	
356.0	001.7000	0076.3	018.4	267.4	003.0000	0037.6	017.0	57.93	
357.0	001.7000	0078.9	018.8	268.5	003.0000	0036.0	016.7	57.82	
358.0	001.7000	0080.8	019.0	269.4	003.0000	0034.8	016.4	57.80	
359.0	001.7000	0082.3	019.2	270.1	003.0000	0033.8	016.1	57.84	
000.0	001.7000	0083.8	019.4	270.7	003.0000	0033.5	015.7	58.04	
001.0	001.7000	0085.6	019.6	271.6	003.0000	0033.7	015.4	58.39	
002.0	001.7000	0088.3	019.9	272.8	003.0000	0034.0	015.1	58.77	
003.0	001.7000	0091.2	020.2	274.1	003.0000	0034.3	014.7	59.16	
004.0	001.7000	0093.8	020.5	275.3	003.0000	0034.3	014.4	59.57	
005.0	001.7000	0096.9	020.9	276.8	003.0000	0034.2	014.0	59.98	
006.0	001.7000	0100.3	021.3	278.3	003.0000	0034.5	013.7	60.50	
007.0	001.7000	0103.3	021.6	279.7	003.0000	0034.7	013.3	61.05	
008.0	001.7000	0105.0	021.8	280.6	003.0000	0035.0	012.9	61.62	
009.0	001.7000	0105.3	021.8	280.8	003.0000	0035.1	012.5	62.19	
010.0	001.7000	0104.5	021.7	280.4	003.0000	0034.9	012.2	62.72	
011.0	001.7000	0105.1	021.8	280.8	003.0000	0035.1	011.8	63.33	
012.0	001.7000	0107.4	022.0	281.9	003.0000	0035.6	011.4	64.07	
013.0	001.7000	0109.0	022.1	282.6	003.0000	0036.1	011.0	64.81	
014.0	001.7000	0109.2	022.2	282.7	003.0000	0036.1	010.6	65.46	
015.0	001.7000	0108.5	022.1	282.3	003.0000	0035.8	010.2	66.05	
016.0	001.7000	0109.0	022.1	282.4	003.0000	0035.9	009.8	66.75	
017.0	001.7000	0110.7	022.3	283.2	003.0000	0036.5	009.4	67.59	
018.0	001.7000	0113.1	022.5	284.4	003.0000	0037.0	009.0	68.46	
019.0	001.7000	0116.5	022.8	286.3	003.0000	0037.8	008.6	69.41	
020.0	001.7000	0120.4	023.2	288.4	003.0000	0039.2	008.2	70.52	
021.0	001.7000	0123.1	023.4	289.8	003.0000	0040.2	007.8	71.55	
022.0	001.7000	0123.5	023.4	290.0	003.0000	0040.3	007.4	72.46	
023.0	001.7000	0122.6	023.3	289.3	003.0000	0039.8	007.0	73.32	
024.0	001.7000	0121.2	023.2	288.0	003.0000	0039.0	006.6	74.15	
025.0	001.7000	0119.5	023.1	286.4	003.0000	0037.9	006.2	74.94	
026.0	001.7000	0116.8	022.9	283.5	003.0000	0036.6	005.9	75.71	
027.0	001.7000	0112.6	022.5	278.8	003.0000	0034.6	005.6	76.09	
028.0	001.7000	0107.9	022.0	273.0	003.0000	0034.1	005.4	76.61	
029.0	001.7000	0103.7	021.6	267.0	003.0000	0038.2	005.2	78.03	
030.0	001.7000	0100.4	021.3	261.5	003.0000	0046.0	005.1	80.13	
031.0	001.7000	0098.4	021.1	256.9	003.0000	0052.5	005.0	81.87	
032.0	001.7000	0098.3	021.0	253.7	003.0000	0052.1	004.8	82.65	
033.0	001.7000	0099.8	021.2	251.5	003.0000	0051.6	004.4	83.91	

**BROWN BROADCAST SERVICES**  
 INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
034.0	001.7000	0102.5	021.5	249.7	003.0000	0053.1	003.9	86.05	
035.0	001.7000	0105.8	021.8	247.8	003.0000	0054.8	003.4	88.67	
036.0	001.7000	0109.2	022.2	245.0	003.0000	0058.6	003.0	91.82	
037.0	001.7000	0111.9	022.4	240.0	003.0000	0069.5	002.6	95.65	
038.0	001.7000	0113.8	022.6	232.5	003.0000	0077.9	002.3	98.47	
039.0	001.7000	0114.7	022.7	222.6	003.0000	0068.7	002.1	98.87	
040.0	001.7000	0115.0	022.7	211.9	003.0000	0081.8	002.1	99.95	
041.0	001.7000	0115.2	022.7	201.5	003.0000	0084.8	002.2	99.58	
042.0	001.7000	0115.4	022.7	192.2	003.0000	0093.3	002.3	99.11	
043.0	001.7000	0115.9	022.8	184.0	003.0000	0105.2	002.5	98.60	
044.0	001.7000	0116.7	022.9	176.6	003.0000	0116.4	002.7	97.88	
045.0	001.7000	0117.9	023.0	170.0	003.0000	0104.6	003.0	95.88	
046.0	001.7000	0119.2	023.1	164.5	003.0000	0099.4	003.3	94.11	
047.0	001.7000	0120.9	023.2	159.5	003.0000	0102.8	003.6	92.99	
048.0	001.7000	0122.8	023.4	155.3	003.0000	0108.6	003.9	92.00	
049.0	001.7000	0124.4	023.5	152.2	003.0000	0111.5	004.3	90.80	
050.0	001.7000	0125.7	023.6	149.8	003.0000	0114.5	004.7	89.65	
051.0	001.7000	0126.9	023.7	148.0	003.0000	0115.1	005.1	88.43	
052.0	001.7000	0128.2	023.8	146.5	003.0000	0116.5	005.5	87.27	
053.0	001.7000	0129.5	023.9	145.2	003.0000	0119.3	005.9	86.23	
054.0	001.7000	0130.6	024.0	144.4	003.0000	0121.2	006.3	85.15	
055.0	001.7000	0131.4	024.0	143.8	003.0000	0122.0	006.7	84.05	
056.0	001.7000	0132.3	024.1	143.4	003.0000	0122.5	007.1	82.97	
057.0	001.7000	0133.3	024.2	143.0	003.0000	0122.8	007.6	81.94	
058.0	001.7000	0134.1	024.2	142.8	003.0000	0122.8	008.0	80.98	
059.0	001.7000	0134.4	024.3	142.9	003.0000	0122.8	008.4	80.11	
060.0	001.7000	0134.2	024.2	143.3	003.0000	0122.5	008.8	79.26	
061.0	001.7000	0134.0	024.2	143.8	003.0000	0122.1	009.2	78.42	
062.0	001.7000	0134.0	024.2	144.1	003.0000	0121.7	009.7	77.61	
063.0	001.7000	0134.5	024.3	144.2	003.0000	0121.5	010.1	76.83	
064.0	001.7000	0135.3	024.3	144.2	003.0000	0121.4	010.5	76.08	
065.0	001.7000	0136.2	024.4	144.3	003.0000	0121.4	010.9	75.35	
066.0	001.7000	0137.2	024.5	144.4	003.0000	0121.2	011.4	74.64	
067.0	001.7000	0138.1	024.5	144.5	003.0000	0121.0	011.8	73.96	
068.0	001.7000	0138.8	024.6	144.6	003.0000	0120.7	012.2	73.29	
069.0	001.7000	0139.5	024.6	144.9	003.0000	0120.1	012.7	72.64	
070.0	001.7000	0140.2	024.7	145.1	003.0000	0119.5	013.1	72.01	
071.0	001.7000	0141.3	024.8	145.3	003.0000	0119.2	013.5	71.41	
072.0	001.7000	0142.8	024.9	145.3	003.0000	0119.1	014.0	70.84	
073.0	001.7000	0144.7	025.0	145.3	003.0000	0119.1	014.4	70.31	
074.0	001.7000	0146.2	025.2	145.4	003.0000	0118.9	014.9	69.78	
075.0	001.7000	0147.8	025.3	145.5	003.0000	0118.6	015.3	69.48	
076.0	001.7000	0149.4	025.4	145.6	003.0000	0118.3	015.8	69.08	
077.0	001.7000	0151.2	025.5	145.8	003.0000	0118.0	016.3	68.67	
078.0	001.7000	0152.7	025.7	146.0	003.0000	0117.5	016.7	68.26	
079.0	001.7000	0154.0	025.8	146.2	003.0000	0116.9	017.2	67.84	
080.0	001.7000	0155.2	025.8	146.6	003.0000	0116.3	017.6	67.43	
081.0	001.7000	0156.3	025.9	146.9	003.0000	0115.9	018.1	67.03	
082.0	001.7000	0157.0	026.0	147.3	003.0000	0115.4	018.5	66.64	
083.0	001.7000	0158.0	026.0	147.7	003.0000	0115.2	018.9	66.27	

**BROWN BROADCAST SERVICES**  
INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

503-245-6065

05-06-2015

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

KNLE-FM BLED19900801KB

KAZI Proposed

Channel = 201A  
 Max ERP = 3 kW  
 RCAMSL = 302 M  
 N. Lat. 30 26 58.0  
 W. Lng. 97 39 44.0  
 Protected  
 60 dBu

Channel = 204A  
 Max ERP = 1.7 kW  
 RCAMSL = 328 M  
 N. Lat. 30 16 37.0  
 W. Lng. 97 49 34.0  
 Interfering  
 100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
174.0	003.0000	0114.8	025.8	109.3	001.7000	0182.7	019.6	67.44	
175.0	003.0000	0116.3	025.9	110.3	001.7000	0181.0	019.2	67.64	
176.0	003.0000	0116.7	026.0	110.9	001.7000	0179.8	018.8	67.90	
177.0	003.0000	0116.2	025.9	111.4	001.7000	0178.9	018.4	68.21	
178.0	003.0000	0115.2	025.8	111.7	001.7000	0178.3	017.9	68.55	
179.0	003.0000	0113.1	025.6	111.7	001.7000	0178.3	017.5	68.96	
180.0	003.0000	0111.3	025.4	111.7	001.7000	0178.4	017.0	69.36	
181.0	003.0000	0109.4	025.3	111.6	001.7000	0178.5	016.5	69.77	
182.0	003.0000	0107.4	025.0	111.4	001.7000	0178.8	016.0	70.19	
183.0	003.0000	0106.2	024.9	111.5	001.7000	0178.7	015.5	70.57	
184.0	003.0000	0105.1	024.8	111.6	001.7000	0178.5	015.1	70.94	
185.0	003.0000	0104.0	024.7	111.7	001.7000	0178.4	014.6	71.24	
186.0	003.0000	0101.7	024.4	111.1	001.7000	0179.4	014.2	71.87	
187.0	003.0000	0099.6	024.2	110.6	001.7000	0180.4	013.7	72.51	
188.0	003.0000	0098.0	024.0	110.2	001.7000	0181.1	013.2	73.14	
189.0	003.0000	0097.1	023.9	110.2	001.7000	0181.1	012.8	73.74	
190.0	003.0000	0096.4	023.8	110.2	001.7000	0181.2	012.4	74.35	
191.0	003.0000	0095.3	023.7	109.8	001.7000	0181.7	012.0	75.02	
192.0	003.0000	0093.6	023.5	109.2	001.7000	0183.0	011.5	75.75	
193.0	003.0000	0091.9	023.3	108.3	001.7000	0184.3	011.1	76.49	
194.0	003.0000	0090.6	023.1	107.6	001.7000	0185.2	010.7	77.22	
195.0	003.0000	0089.6	023.0	107.1	001.7000	0185.7	010.3	77.94	
196.0	003.0000	0089.0	022.9	106.7	001.7000	0186.0	009.9	78.65	
197.0	003.0000	0088.4	022.8	106.3	001.7000	0186.1	009.5	79.38	
198.0	003.0000	0087.7	022.7	105.6	001.7000	0186.3	009.1	80.11	
199.0	003.0000	0086.8	022.6	104.8	001.7000	0186.3	008.7	80.84	
200.0	003.0000	0086.0	022.5	103.8	001.7000	0186.3	008.3	81.58	
201.0	003.0000	0085.2	022.4	102.7	001.7000	0186.2	007.9	82.31	
202.0	003.0000	0084.5	022.3	101.6	001.7000	0185.9	007.5	83.07	
203.0	003.0000	0084.0	022.3	100.5	001.7000	0185.1	007.2	83.88	
204.0	003.0000	0083.7	022.2	099.5	001.7000	0184.3	006.8	84.73	
205.0	003.0000	0083.7	022.2	098.5	001.7000	0183.2	006.4	85.62	
206.0	003.0000	0083.5	022.2	097.3	001.7000	0181.1	006.1	86.51	
207.0	003.0000	0083.0	022.1	095.4	001.7000	0177.0	005.7	87.28	
208.0	003.0000	0082.1	022.0	092.7	001.7000	0171.5	005.4	87.94	
209.0	003.0000	0081.4	021.9	089.9	001.7000	0167.1	005.1	88.63	
210.0	003.0000	0081.1	021.9	087.3	001.7000	0163.9	004.8	89.42	
211.0	003.0000	0081.3	021.9	084.9	001.7000	0160.3	004.5	90.31	
212.0	003.0000	0081.8	022.0	082.5	001.7000	0157.4	004.1	91.35	
213.0	003.0000	0082.1	022.0	079.2	001.7000	0154.2	003.8	92.34	
214.0	003.0000	0081.6	021.9	074.2	001.7000	0146.5	003.6	92.84	
215.0	003.0000	0080.4	021.8	067.8	001.7000	0138.7	003.5	92.88	
216.0	003.0000	0078.8	021.6	060.6	001.7000	0134.0	003.5	92.64	

# BROWN BROADCAST SERVICES INCORPORATED

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Portland, Oregon 97219-7418

503-245-6065

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
217.0	003.0000	0077.4	021.4	053.8	001.7000	0130.4	003.6	92.27	
218.0	003.0000	0076.3	021.2	047.5	001.7000	0121.9	003.6	91.63	
219.0	003.0000	0075.6	021.1	041.5	001.7000	0115.3	003.7	91.04	
220.0	003.0000	0074.7	021.0	035.9	001.7000	0108.8	003.8	90.13	
221.0	003.0000	0073.0	020.8	031.0	001.7000	0098.5	004.0	88.25	
222.0	003.0000	0070.5	020.5	027.2	001.7000	0111.5	004.5	87.70	
223.0	003.0000	0067.5	020.0	024.6	001.7000	0120.3	005.0	86.61	
224.0	003.0000	0064.8	019.7	022.4	001.7000	0123.3	005.4	85.33	
225.0	003.0000	0063.5	019.5	019.9	001.7000	0120.1	005.7	84.22	
226.0	003.0000	0063.9	019.5	016.6	001.7000	0110.1	005.8	83.22	
227.0	003.0000	0065.5	019.8	012.6	001.7000	0108.6	005.8	83.14	
228.0	003.0000	0067.5	020.0	008.2	001.7000	0105.1	005.8	82.89	
229.0	003.0000	0070.1	020.4	003.3	001.7000	0092.0	005.8	81.74	
230.0	003.0000	0073.2	020.8	357.8	001.7000	0080.5	005.8	80.52	
231.0	003.0000	0076.2	021.2	352.4	001.7000	0074.0	005.8	79.54	
232.0	003.0000	0077.7	021.4	349.1	001.7000	0077.8	006.1	79.29	
233.0	003.0000	0077.6	021.4	347.6	001.7000	0084.0	006.4	79.02	
234.0	003.0000	0076.6	021.3	347.4	001.7000	0085.6	006.8	78.12	
235.0	003.0000	0074.7	021.0	348.1	001.7000	0081.4	007.2	76.52	
236.0	003.0000	0071.9	020.6	349.7	001.7000	0076.8	007.7	74.86	
237.0	003.0000	0069.8	020.4	350.5	001.7000	0075.7	008.2	73.86	
238.0	003.0000	0069.4	020.3	349.9	001.7000	0076.5	008.5	73.28	
239.0	003.0000	0070.2	020.4	348.4	001.7000	0079.8	008.8	73.09	
240.0	003.0000	0069.5	020.3	348.3	001.7000	0080.5	009.2	72.49	
241.0	003.0000	0067.0	020.0	349.6	001.7000	0077.0	009.6	71.31	
242.0	003.0000	0063.5	019.5	351.6	001.7000	0074.7	010.1	70.20	
243.0	003.0000	0060.6	019.1	353.1	001.7000	0073.5	010.6	69.29	
244.0	003.0000	0059.1	018.8	353.6	001.7000	0073.4	010.9	68.63	
245.0	003.0000	0058.6	018.8	353.5	001.7000	0073.4	011.3	68.08	
246.0	003.0000	0057.4	018.6	353.9	001.7000	0073.4	011.6	67.49	
247.0	003.0000	0056.0	018.3	354.5	001.7000	0073.6	012.0	66.93	
248.0	003.0000	0054.5	018.1	355.2	001.7000	0074.6	012.4	66.47	
249.0	003.0000	0053.4	017.9	355.6	001.7000	0075.4	012.8	66.04	
250.0	003.0000	0052.8	017.8	355.7	001.7000	0075.6	013.1	65.59	
251.0	003.0000	0051.9	017.6	356.1	001.7000	0076.5	013.4	65.22	
252.0	003.0000	0051.2	017.5	356.3	001.7000	0077.0	013.8	64.85	
253.0	003.0000	0051.3	017.5	356.0	001.7000	0076.2	014.1	64.38	
254.0	003.0000	0052.5	017.7	354.7	001.7000	0073.9	014.3	63.82	
255.0	003.0000	0053.4	017.9	353.9	001.7000	0073.4	014.6	63.43	
256.0	003.0000	0053.2	017.8	353.8	001.7000	0073.4	014.9	63.06	
257.0	003.0000	0052.5	017.7	354.2	001.7000	0073.5	015.2	62.97	
258.0	003.0000	0051.4	017.5	354.9	001.7000	0074.1	015.5	62.74	
259.0	003.0000	0050.3	017.3	355.5	001.7000	0075.1	015.9	62.57	
260.0	003.0000	0049.0	017.0	356.3	001.7000	0077.1	016.2	62.51	
261.0	003.0000	0047.0	016.6	357.6	001.7000	0080.2	016.5	62.56	
262.0	003.0000	0044.9	016.2	359.0	001.7000	0082.3	016.9	62.50	
263.0	003.0000	0043.2	015.8	000.1	001.7000	0084.0	017.2	62.40	

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## **EXHIBIT 23**

### **INTERNATIONAL BORDERS**

This proposal is within the 320km Mexican border zone. There are no affected foreign stations within range.

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## **EXHIBIT 24**

### **ENVIRONMENTAL PROTECTION ACT / NIER ANALYSIS**

The applicant proposes mounting a new Jampro JLPC-4 full-wave spaced antenna on an existing 58 meter tower. The proposed center of radiation is 47m AGL. Calculations were made using FM Model for Windows, version 2.10, with the Jampro “Double V” setting. FM Model predicted a peak exposure of  $7.5\mu\text{W}/\text{cm}^2$ , at 17.5 meters from the tower. This represents 3.75% of the Maximum Permissible Exposure (MPE) of  $200\mu\text{W}/\text{cm}^2$  for uncontrolled environments. 47 CFR §1.1307(b)(3) exempts applicants from preparing an Environmental Assessment when the predicted exposure levels would be less than 5% of the FCC limits.

Public access to the tower is restricted by fencing. The site is posted with appropriate RF exposure warning signs. If tower climbing by authorized personnel becomes necessary, transmitter power will be reduced or operation will cease, as necessary, so as to not exceed the RF exposure limits.

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