

Educational Media Foundation

Exhibit 20

5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765

Balcones Heights, CA

Channel Study

REFERENCE		CH# 279A - 103.7 MHz, Pwr= 2.3 kW, HAAT= 119.3 M, COR= 338 M								DISPLAY DATES	
29 26 29.9 N.		Average Protected F(50-50)= 24.7 km								DATA	04-14-21
98 30 22.8 W.		73.215 Omni-directional								SEARCH	04-14-21
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)	
279A	KXAI!	CP	NCN	298.0	8.81	29 28 43.80	4.300			---	---
Balcones Heights			TX	118.0	BPED20190206AAJ	98 35 12.10	98	348	Educational Media Foundati		
279C1	KXAI!	LIC	CN	146.0	187.61	28 02 08.10	100.000			---	---
Refugio			TX	326.6	BMLED20130417AAP	97 26 12.00	290	302	Educational Media Foundati		
278C1	KBPA	LIC	NCN	35.3	118.37	30 18 36.00	46.000	94.9	64.5	0.2	18.5
Austin			TX	215.6	0000140276	97 47 35.00	326	544	Waterloo Media Group, L.P.		
279A	KAXA«	LIC	NCN	314.2	117.61	30 10 34.70	6.000	92.5	30.7	115.0R	2.6M
Mountain Home			TX	133.7	BLH20120621ACK	99 23 03.20	57	689	Jam Broadcasting, LLC		
279C1	KZLR«	CP	CN	154.7	206.14	27 45 32.90	82.000	164.7	68.5	200.0R	6.1M
Odem			TX	335.1	0000104829	97 36 27.30	280	293	Educational Media Foundati		
225C1	KROM«	LIC	NCN	128.3	29.86	29 16 29.80	45.000	0.0	0.0	22.0R	7.9M
San Antonio			TX	308.4	BLH19970530KA	98 15 53.00	412	570	Tichenor License Corporati		
281C1	KSAH-FM«	LIC	CN	197.3	83.62	28 43 16.90	100.000	10.0	71.9	75.0R	8.6M
Pearsall			TX	17.2	BLH20020712AAC	98 45 44.10	299	430	Alpha Media Licensee LLC		
280C3	KBQQ«	LIC	CN	94.3	108.67	29 21 47.80	25.000	50.5	30.7	89.0R	19.7M
Smiley			TX	274.9	BLH20190222AAM	97 23 24.90	54	141	Rufus Resources, LLC		
276C2	KHHL«	LIC	CN	120.1	94.38	29 00 46.90	34.000	5.9	52.5	55.0R	39.4M
Karnes City			TX	300.6	BLH20100913ABT	97 40 03.00	180	295	Alpha Media Licensee LLC		
276A	KEEP«	LIC	NCN	309.4	72.89	29 51 21.80	3.500	3.0	34.0	31.0R	41.9M
Bandera			TX	129.1	BMLH20000823ACP	99 05 27.10	131	626	Hill Country Broadcasting,		
277A	KSAG«	LIC	CN	233.4	78.79	29 01 04.90	6.000	2.6	26.6	31.0R	47.8M
Pearsall			TX	53.1	BLH20101213AAL	99 09 26.10	100	293	Wendolynn Tellez		
278A	KEWP«	LIC	NCN	258.5	127.66	29 12 21.80	6.000	27.6	18.7	72.0R	55.7M
Uvalde Estates			TX	77.8	BLH20140821AAL	99 47 34.20	39	323	La Nueva FM Uvalde LLC		
277A	KJAK«	CP	ZCN	233.8	93.36	28 56 34.90	6.000	2.9	29.8	31.0R	62.4M
Pearsall			TX	53.4	BNPH20151013AIL	99 16 48.10	100	289	Alpha Media Licensee LLC D		
280C	AL9005«	VAC		267.5	235.26	29 19 33.83	100.000	136.6	92.0	165.0R	70.3M
Ciudad Acuna			CI	86.3		100 55 52.34	600	904			
280A	KBEY«	LIC	CN	7.1	145.14	30 44 26.60	1.800	44.6	29.4	72.0R	73.1M
Burnet			TX	187.2	BMLH20150120AAJ	98 19 05.50	184	540	Victory Publishing Company		

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.

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.

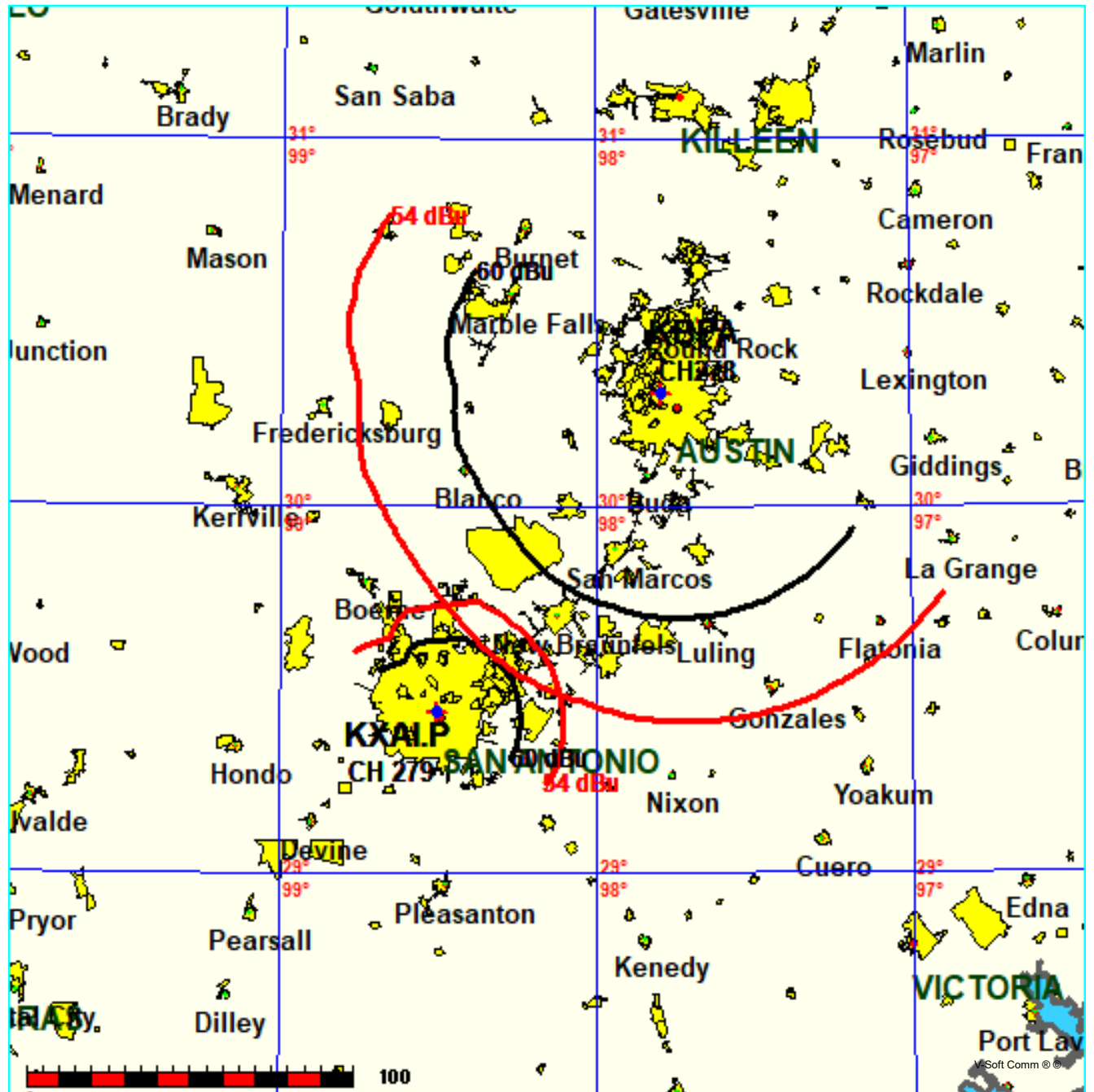
Reference station has protected zone issue: Mexico

Exhibit 20-A

FMCommander Single Allocation Study - 04-14-2021 - FCC NGDC 30 Sec
KXAI.P's Overlaps (In= 0.22 km, Out= 18.46 km)

KXAI.P CH 279 A 73.215 N
Lat= 29 26 29.90, Lng= 98 30 22.80
2.3 kW 119.3 m HAAT, 338 m COR
Prot.= 60 dBu, Intef.= 54 dBu

KBPA CH 278 C1 73.215 N 0000140276
Lat= 30 18 36.00, Lng= 97 47 35.00
46.0 kW 326 m HAAT, 544 m COR
Prot.= 60 dBu, Intef.= 54 dBu



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Exhibit 20-A1

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Balcones Heights, TX

KBPA vs. KXAI.P

04-14-2021 Terrain Data: FCC NGDC 30 Sec FMOver Analysis

KXAI.P

KBPA 0000140276

Channel = 279A
Max ERP = 2.3 kW
RCAMSL = 338 m
N. Lat. 29 26 29.90
W. Lng. 98 30 22.80
Protected
60 dBu

Channel = 278C1
Max ERP = 46 kW
RCAMSL = 544 m
N. Lat. 30 18 36.00
W. Lng. 97 47 35.00
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
015.0	002.3000	0098.8	022.7	220.3	046.0000	0286.3	097.5	52.55	
016.0	002.3000	0100.0	022.8	220.1	046.0000	0286.7	097.2	52.66	
017.0	002.3000	0101.6	023.0	219.9	046.0000	0287.2	096.9	52.77	
018.0	002.3000	0103.3	023.2	219.7	046.0000	0287.6	096.6	52.88	
019.0	002.3000	0104.8	023.3	219.5	046.0000	0288.2	096.3	53.00	
020.0	002.3000	0106.2	023.5	219.3	046.0000	0288.7	096.0	53.10	
021.0	002.3000	0107.2	023.6	219.1	046.0000	0289.4	095.8	53.19	
022.0	002.3000	0107.6	023.6	218.9	046.0000	0290.0	095.6	53.26	
023.0	002.3000	0107.5	023.6	218.6	046.0000	0290.7	095.5	53.31	
024.0	002.3000	0106.9	023.5	218.4	046.0000	0291.5	095.5	53.35	
025.0	002.3000	0106.1	023.5	218.2	046.0000	0292.2	095.4	53.38	
026.0	002.3000	0105.4	023.4	217.9	046.0000	0292.9	095.4	53.41	
027.0	002.3000	0104.8	023.3	217.7	046.0000	0293.6	095.4	53.44	
028.0	002.3000	0104.4	023.3	217.4	046.0000	0294.3	095.4	53.46	
029.0	002.3000	0104.4	023.3	217.2	046.0000	0295.0	095.3	53.51	
030.0	002.3000	0105.0	023.3	216.9	046.0000	0295.6	095.2	53.56	
031.0	002.3000	0105.9	023.4	216.7	046.0000	0296.2	095.1	53.62	
032.0	002.3000	0106.8	023.5	216.5	046.0000	0296.9	094.9	53.68	
033.0	002.3000	0107.5	023.6	216.2	046.0000	0297.6	094.8	53.74	
034.0	002.3000	0107.8	023.6	216.0	046.0000	0298.3	094.8	53.77	
035.0	002.3000	0107.6	023.6	215.7	046.0000	0298.9	094.8	53.79	
036.0	002.3000	0107.0	023.5	215.5	046.0000	0299.6	094.9	53.79	
037.0	002.3000	0106.4	023.5	215.2	046.0000	0300.3	094.9	53.79	
038.0	002.3000	0105.9	023.4	215.0	046.0000	0301.0	095.0	53.79	
039.0	002.3000	0105.3	023.4	214.7	046.0000	0301.7	095.1	53.79	
040.0	002.3000	0104.9	023.3	214.5	046.0000	0302.3	095.2	53.78	
041.0	002.3000	0104.9	023.3	214.2	046.0000	0303.0	095.2	53.79	
042.0	002.3000	0105.3	023.4	214.0	046.0000	0303.6	095.2	53.81	
043.0	002.3000	0106.2	023.5	213.7	046.0000	0304.2	095.2	53.83	
044.0	002.3000	0107.4	023.6	213.5	046.0000	0304.8	095.1	53.87	
045.0	002.3000	0108.6	023.7	213.2	046.0000	0305.4	095.1	53.90	
046.0	002.3000	0109.7	023.8	213.0	046.0000	0305.9	095.1	53.92	
047.0	002.3000	0110.5	023.9	212.7	046.0000	0306.4	095.1	53.93	
048.0	002.3000	0111.0	023.9	212.5	046.0000	0306.9	095.2	53.93	
049.0	002.3000	0111.0	023.9	212.2	046.0000	0307.4	095.3	53.91	
050.0	002.3000	0110.9	023.9	212.0	046.0000	0307.9	095.4	53.88	
051.0	002.3000	0110.7	023.9	211.8	046.0000	0308.3	095.6	53.84	
052.0	002.3000	0110.6	023.9	211.5	046.0000	0308.8	095.7	53.81	
053.0	002.3000	0110.6	023.9	211.3	046.0000	0309.2	095.9	53.78	
054.0	002.3000	0110.5	023.9	211.1	046.0000	0309.7	096.0	53.74	
055.0	002.3000	0110.1	023.9	210.8	046.0000	0310.1	096.2	53.69	
056.0	002.3000	0109.9	023.8	210.6	046.0000	0310.6	096.4	53.65	

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057.0	002.3000	0110.2	023.9	210.4	046.0000	0311.1	096.6	53.62
058.0	002.3000	0111.2	024.0	210.2	046.0000	0311.6	096.7	53.60
059.0	002.3000	0112.5	024.1	209.9	046.0000	0312.2	096.8	53.59
060.0	002.3000	0113.8	024.2	209.6	046.0000	0312.8	096.9	53.58
061.0	002.3000	0114.9	024.3	209.4	046.0000	0313.3	097.0	53.55
062.0	002.3000	0115.8	024.4	209.2	046.0000	0313.7	097.2	53.52
063.0	002.3000	0116.4	024.5	208.9	046.0000	0314.2	097.4	53.47
064.0	002.3000	0117.1	024.5	208.7	046.0000	0314.6	097.6	53.42
065.0	002.3000	0117.7	024.6	208.5	046.0000	0314.9	097.8	53.37
066.0	002.3000	0118.5	024.6	208.3	046.0000	0315.3	098.0	53.32
067.0	002.3000	0119.6	024.7	208.0	046.0000	0315.6	098.2	53.27
068.0	002.3000	0120.6	024.8	207.8	046.0000	0315.9	098.4	53.21
069.0	002.3000	0121.5	024.9	207.6	046.0000	0316.1	098.6	53.15
070.0	002.3000	0122.0	024.9	207.4	046.0000	0316.3	098.9	53.07
071.0	002.3000	0122.3	025.0	207.2	046.0000	0316.5	099.1	52.99
072.0	002.3000	0122.4	025.0	207.0	046.0000	0316.7	099.4	52.90
073.0	002.3000	0122.5	025.0	206.8	046.0000	0316.9	099.8	52.81
074.0	002.3000	0122.5	025.0	206.7	046.0000	0317.0	100.1	52.72
075.0	002.3000	0122.5	025.0	206.5	046.0000	0317.2	100.4	52.62
