

TECHNICAL STATEMENT
K277BX STAR VALLEY, ARIZONA, CH. 277D
FERRELL ENTERPRISES, LLC
MINOR MODIFICATION OF LICENSE
JUNE 2022

This Technical Statement is made in support of a minor modification of FM translator station, K277BX at Star Valley, Arizona, facility ID 144556, license number BLFT-20161013AAO. K277BX seeks to relocate to an existing tower site, FCC registration number 1003527, and remain a “fill-in” translator for KMOG(AM) Payson, Arizona, facility ID 21218.

K277BX seeks to make some minor technical changes to relocate the proposed transmitter site to the formerly utilized Tower # 2 of the KMOG(AM) night directional array. KMOG(AM) was recently granted a Construction Permit (“CP”), BMP-20211201AAI, which basically modified KMOG(AM) to specify a non-directional operation during the daytime and night operation. Thus, eliminating KMOG(AM)’s former directional antenna operation. A license application to cover that CP is now pending with the Commission, BL-20220413AAB. Thus, the former night directional tower #2 which has a separate ASR from the non-directional tower #1 now utilized by KMOG(AM) has been grounded and is proposed to be utilized by K277BX.

A proposed Effective Radiated Power (“ERP”) 0.25 kilowatts (250 watts), with an antenna height at 1593 meters AMSL. The following will show that the new proposed operation of K277BX will meet all the Commissions technical requirements for an FM translator station.

The new proposed operation of K277BX is proposing the use of a Nicom model BKG-88/4L 4 bay, non-directional antenna system with dual polarization and 0.9 wavelength spacing between the bays. The antenna will be mounted on an existing registered tower, # 1003527. The tower has an overall height of 63.4 meters above the ground. The antenna will be mounted with a Center of Radiation of 50.7 meters above the ground, and 1593 meters Above Mean Sea Level. The coordinates of this tower are located at N 34° 15' 59.3", W 111° 18' 54.4", NAD 83.

Figure 1 is a detailed interference study conducted on channel 277D with these new proposed facilities. It shows that the new operation of K277BX will not cause any interference to any existing or proposed FM stations on any of the pertinent same channel or adjacent channels to channel 277.

Figure 2 shows the present and proposed 60 dB μ contours of K277BX. It documents that the two facilities will overlap as required.

The proposed facility complies with the applicable international agreements. K277BX is permitted to operate with an effective radiated power as long as the 60 dB μ contour is at least 116.3 kilometers distant from the border between the United States and Mexico. The azimuth on which the distance to the 60 dB μ service contour is the greatest is on the 257 degree true radial, where the radius is 22.89 kilometers. Compliance with the international agreement can therefore be demonstrated if the K277BX site is at least 139.2 kilometers from the border with Mexico.

The proposed operation of K277BX Star Valley, Arizona will remain a "Fill-In" operation for KMOG(AM) Payson, Arizona. Figure 3 shows that the proposed 60 dB μ contour for the proposed K277BX and the current daytime 2.0 mv/m contour for

KMOG(AM). The proposed 60 dB μ contour will not extend beyond the 2 mv/m daytime contour of KMOG(AM) at any point.

It was determined that the new proposed operation of K277BX Star Valley, Arizona on channel 277D, will satisfy all the required commission rules and regulations for an FM translator station.

FIGURE 1 - DETAILED CHANNEL INTERFERENCE STUDY

K277BX STAR VALLEY, AZ CH. 277D

REFERENCE
34 15 59.30 N.
111 18 54.40 W.

CH# 277D - 103.3 MHz, Pwr= 0.25 kW, HAAT= 86.4 M, COR= 1593 M
Average Protected F(50-50)= 11.99 km
Omni-directional

DISPLAY DATES
DATA 06-15-22
SEARCH 06-16-22

CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
277D Star Valley	K277BX	LIC _CN AZ	166.9 346.9	1.46 BLFT20161013AAO	34 15 13.10 111 18 41.40	0.250	1614	---Reference---		Farrell Enterprises LLC
278C Glendale	KLNZ	LIC _CN AZ	237.7 57.0	138.88 BMLH19980406KB	33 35 33.10 112 34 51.60	62.000 740	133.8 1269	90.9	-16.8	16.0 Entravision Holdings, LLC
276C1 Florence	KCDX	LIC NCN AZ	157.7 338.0	115.95 BLH19990702KE	33 17 55.20 110 50 30.30	2.700 932	96.2 2280	64.0	2.7	25.4 Desert West Air Ranchers C
275C Sedona	KQST	LIC _CN AZ	347.3 167.1	79.83 BLH20060307BHN	34 58 05.10 111 30 31.50	100.000 451	10.9 2629	75.9	61.2	2.9 Yavapai Broadcasting Corpo
276C Florence	KCDX	CP DCN AZ	168.8 348.9	168.18 0000113065	32 46 44.20 110 57 48.30	42.000 614	124.1 1712	84.4	26.1	59.8 Desert West Air Ranchers C
277D Cottonwood	K277AR	LIC DCN AZ	302.7 122.2	87.20 BLFT20070402KSG	34 41 12.10 112 07 02.60	0.010 791	39.1 2367	7.0	36.9	38.9 Arizona Board Of Regents F
280C1 Gilbert	KZON	LIC ZCN AZ	190.0 9.9	114.79 BLH20040831ACE	33 14 50.20 111 31 51.50	100.000 189	7.9 665	62.1	87.8	51.7 Desert Valley Media Group,
277C3 Seligman	KZKE	LIC NCN AZ	312.0 131.2	177.15 BLH20111116ANB	35 19 28.00 112 45 54.60	7.700 138	106.2 1881	42.1	55.9	105.8 Route 66 Broadcasting, LLC
278D Prescott	K278CN	LIC DCN AZ	286.9 106.3	106.80 BLFT20170926ADR	34 32 27.10 112 25 42.60	0.250	28.0 1935	20.2	59.6	67.1 Prescott Broadcasting, LLC
278C3 Taylor	KVBX	LIC _CN AZ	92.7 273.4	126.60 BLH20120319ABH	34 12 22.20 109 56 34.40	1.400 248	49.7 2324	33.2	62.5	78.0 New Star Broadcasting LLC
279C3 Flagstaff	KZGL	LIC _CN AZ	346.6 166.5	111.10 BLH20070806AAV	35 14 25.00 111 35 55.60	0.560 597	1.6 2831	43.6	101.5	66.4 Murphy Air, LLC
275D Phoenix	K275CP	LIC DCN AZ	223.8 43.4	103.17 BLFT20170719AAV	33 35 39.10 112 05 10.50	0.150	0.8 661	15.8	81.8	86.3 Relevant Radio, Inc.
276L1 Sun City West	KSCW-LP	LIC _CN AZ	235.4 54.8	117.21 BLL20170117ABY	33 39 50.20 112 21 25.20	0.100 -1	395	87.5		82.3 Recreation Centers Of Sun
280D Prescott	K280GH	LIC DVN AZ	282.9 102.2	114.82 BLFT20161208AAZ	34 29 25.10 112 32 02.60	0.250	0.1 2175	4.9	95.2	96.5 LPFM Broadcasting, LLC
223A Chino Valley	KFLX	LIC NCN AZ	294.5 113.8	121.87 BLH20100706IZD	34 42 53.10 112 31 35.60	1.500 174	90.7 1696	67.5	9.5R	112.4M Stone Canyon Of Flagstaff,
223C1 Eagar	KTHQ	LIC _CN AZ	90.1 271.1	159.30 BLH20100426AAW	34 15 06.10 109 35 08.30	65.000 359	90.7 2602	67.5	21.5R	137.8M wsk Family Credit Shelter
276B1 Parker Strip	KDMM	LIC _CN AZ	271.9 90.3	262.87 BMLH20190906AAL	34 18 39.10 114 10 10.80	2.800 200	55.5 537	41.8	186.7	179.9 River Rat Radio, LLC
279C0 Church Rock	KYVA-FM	LIC _CN NM	57.3 238.8	282.05 BLH20090708AJG	35 36 22.10 108 41 28.30	100.000 420	11.9 2480	82.2	261.6	198.6 Millennium Media, Inc.
276C Hildale	KURR	LIC _CN UT	326.2 144.9	347.73 BLH20140731AKO	36 50 48.90 113 29 30.80	100.000 595	134.4 1960	90.4	201.3	246.8 Media Advisors, LLC
280A Peach Springs	DKEKI	VAC ____ AZ	308.9 127.8	230.98	35 33 17.97 113 18 01.74	6.000 100	1.6 1697	15.8	213.6	211.4 From CDBS
278B Nogales	XHRZFM	USE ____ SO	173.9 354.1	328.88	31 19 28.36 110 56 49.31	50.000 150	94.7 1421	65.0	216.8	227.9 From CDBS
278B Nogales	XHRZFM	ALO ____ SO	173.9 354.1	328.88	31 19 28.40 110 56 49.30	50.000 150	94.7 1421	65.0	216.8	227.9
275A Ajo	DKXML	VAC ____ AZ	215.2 34.3	253.97	32 23 16.21 112 52 29.56	6.000 100	3.2 600	34.1	229.8	217.9 From CDBS
278C1 Navajo Mountain	KPGX	LIC _HN UT	7.3 187.6	309.70 0000186902	37 02 03.00 110 52 12.00	0.600 1499	83.0 3161	55.6	219.6	243.9 Desert Explorer Communicat
278B Nogales	XHRZFM	LIC DHN SO	173.9 354.1	328.88	31 19 28.40 110 56 49.30	3.020 -83	27.8 1188	65.0	283.7	227.9

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	Page # 2	
										IN (Overlap	*OUT* in km)
277D Star Valley	K277BX	LIC _01 AZ		9.0 0.0	0.00	34 15 59.30 111 18 54.40	50.000 150		---Reference--- 06-15-22		06-16-22
223A Willcox	KWQR	LIC _HN AZ		147.8 328.6	261.18 BLED20170310AAR	32 16 01.30 109 50 02.20	3.000 6	90.7 1322	67.5 Versailles	9.5R Community	251.7M Broad
224B1 Parker	AL4270	RSV-A ____ AZ		270.8 89.2	265.76 RM10862	34 16 00.05 114 12 02.81	25.000 100	90.7 409	67.5 From CDBS	11.5R	254.3M
275C1 Bayard	KNFT-FM	LIC _CN NM		117.9 299.6	325.06 BLH20060925ABK	32 51 49.20 108 14 29.10	5.100 481	4.5 2507	62.2 Skywest	302.3 Licenses	261.4 New Mexic
274B Nogales	XHQTFM	ALO ____ SO		174.1 354.3	329.30	31 19 10.40 110 57 38.30	50.000 150	8.4 1427	65.0	303.5	262.5
274B Nogales	XHQTFM	LIC DHN SO		174.1 354.3	329.30	31 19 10.40 110 57 38.30	9.650 -29	3.4 1248	65.0	308.5	262.5
274B Nogales	XHQTFM	USE ____ SO		174.1 354.3	329.30	31 19 10.36 110 57 38.31	50.000 150	8.4 1427	65.0 From CDBS	303.5	262.5
276B Cananea	AL04699	ALO ____ SO		165.1 345.7	377.24	30 58 57.40 110 18 03.30	50.000 150	67.7 1722	65.0	292.2	275.5
276B Cananea	AL4231	VAC ____ SO		165.1 345.7	377.24	30 58 57.40 110 18 03.26	50.000 150	67.7 1722	65.0 From CDBS	292.2	275.5
280A San Francisquito	AL9100	VAC ____ SO		197.9 17.3	311.96	31 35 30.30 112 19 32.47	3.000 100	2.5 690	24.0 From CDBS	291.1	286.9
280AA San Francisquito	AL07451	ALO ____ SO		197.9 17.3	311.96	31 35 30.30 112 19 32.50	3.000 100	2.5 690	24.0	291.1	286.9
280A Fort Mohave	KIDD	CP _CN AZ		287.0 105.1	312.24 0000179699	35 02 24.60 114 35 23.90	1.000 -114	1.6 220	10.2 Itm, LLC	291.4	301.0
279C1 Animas	AL0557	VAC ____ NM		133.5 315.1	369.04 RM11357	31 56 50.33 108 28 47.16	100.000 299	10.9 1699	76.1 From CDBS	339.2	291.7
280B Cananea	AL07443	ALO ____ SO		165.1 345.7	377.24	30 58 57.40 110 18 03.30	50.000 150	4.5 1722	65.0	355.0	310.4
280B Cananea	AL9087	VAC ____ SO		165.1 345.7	377.24	30 58 57.40 110 18 03.26	50.000 150	4.5 1722	65.0 From CDBS	355.0	310.4
223A Nogales	R17274	VAC ____ SO		173.9 354.1	328.71	31 19 07.36 110 56 47.30	3.000 100	90.7 1378	67.5 From CDBS	8.0R	320.7M
223AA Santa Cruz	AL01035	ALO ____ SO		168.6 349.0	342.98	31 13 58.40 110 36 07.30	3.000 100	90.7 1594	67.5	8.0R	335.0M
223A Santa Cruz	AL9817	VAC ____ SO		168.6 349.0	342.98	31 13 58.38 110 36 07.28	3.000 100	90.7 1594	67.5 From CDBS	8.0R	335.0M
274A Agua Prieta	R17547	VAC ____ SO		152.7 333.7	366.19	31 19 33.38 109 32 58.24	3.000 100	2.6 1379	24.0 From CDBS	345.3	341.1
224C3 Grants	KDSK-FM	LIC _CN NM		71.0 253.2	357.60 BLH20150424ABL	35 15 11.10 107 35 48.10	0.265 818	90.7 3349	67.5 Kd Radio, Inc.	11.5R	346.1M
275A Mina La Herradura	R17886	VAC ____ SO		202.9 22.1	375.09	31 09 00.32 112 51 05.51	3.000 100	1.8 250	24.0 From CDBS	354.7	350.0
224A Agua Prieta	R16891	VAC ____ SO		152.7 333.7	365.63	31 19 33.38 109 32 58.24	3.000 100	90.7 1379	67.5 From CDBS	8.0R	357.6M

Terrain database is GLOBE 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= west Zone, 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)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
« = Station meets FCC minimum distance spacing for its class.
Reference station has protected zone issue: Mexico- AM tower

FIGURE 2 - PRESENT AND PROPOSED 60 DBU CONTOURS
K277BX STAR VALLEY, AZ CH. 277D

Coverage Study - GLOBE 30 Sec
06-16-2022

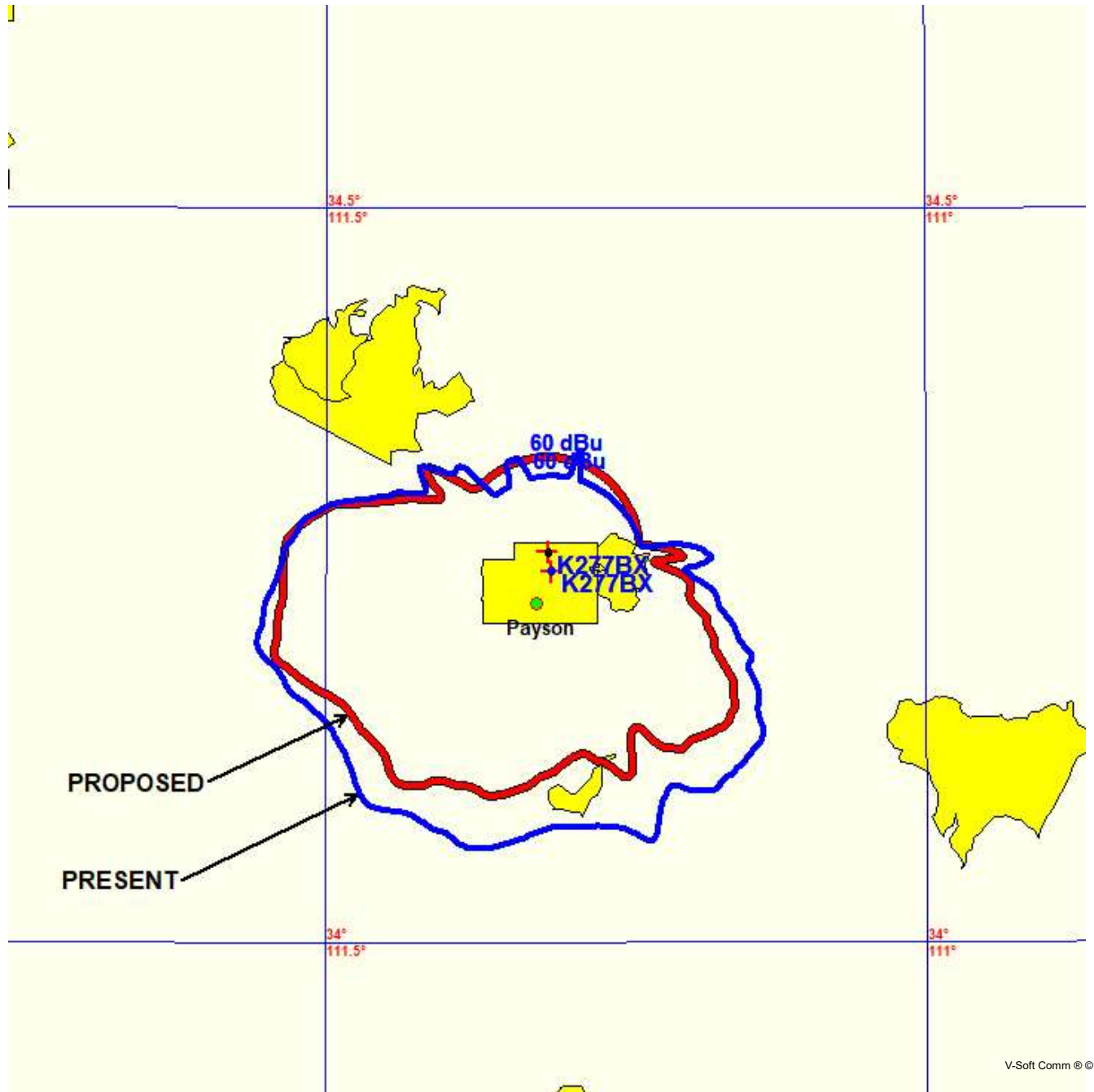


FIGURE 3 - FILL-IN MAP WITH KMOG(AM)
K277BX STAR VALLEY, AZ CH. 277D

Coverage Study - GLOBE 30 Sec
06-16-2022

K277BX CH277 D , 0.25 kW, 86.4m HAAT, 1593.0m COR AMSL
Service Contour = 60 dBu.

