

TECHNICAL STATEMENT
K291CI (K294CW) PHOENIX, ARIZONA
MOUNTAIN COMMUNITY TRANSLATORS, LLC
FCC FORM 349
MAY 2016

This Technical Statement is an amendment to the pending application, BMPFT-20160421AAJ, made in support of a minor modification of Construction Permit (“CP”), BMPFT-20160218ABD, which modified BPFT-20160129AWA, for FM translator station K291CI at Phoenix, Arizona, facility ID 148238 (new call sign will be K294CW). K291CI has recently been granted the CP to relocate its operation from Baker, California to Phoenix, AZ and become a fill-in translator for KASA(AM) Phoenix, Arizona, facility ID 33451. The original CP was granted in response to the Commissions AM Revitalization Order DA-1491 released 12/23/2015 and was relocated less than 250 miles. The Permittee now seeks to modify its CP to specify a different tower site location at the same Communications Site known as “Shaw Butte” which will provide greater fill-in coverage for KASA with greater antenna height and a higher Effective Radiated Power (“ERP”) of 34 watts (0.034 KW). Multiple towers are located on this mountain, and the Permittee was able to secure a better lease term at the new proposed existing tower site. The following will show that the new proposed operation of K291CI will meet all of the Commissions technical requirements for an FM translator station on channel 294D.

The proposed operation of K291CI specifies an Effective Radiated Power of 0.034 kilowatts. It will operate with a directional antenna with an “off the shelf” type antenna, or a Nicom BKG77 with circular polarization. The antenna will be mounted on an existing non-registered tower with an overall height of 24 meters above the ground.

The antenna will be mounted with a Center of Radiation of 20 meters above the ground, and 665 meters Above Mean Sea Level. The coordinates of this tower are located at N 33° 35' 39", W 112° 05' 08", NAD 27.

Figure 1 is a detailed interference study conducted on channel 294D with these new proposed facilities. It shows that the new operation of K291CI will not cause any interference to any existing or proposed FM stations on any of the pertinent same channel or adjacent channels to channel 294, with the exception of 2nd adjacent channel stations KVVA-FM Apache Junction, Arizona operating on channel 296C3, facility ID 1331 and KOMR(FM) Sun City, Arizona operating on channel 292C2, facility ID 55913.

The proposed operation of K291CI on 294D is located within the protected 60 dBμ contour of 2nd adjacent channel stations KVVA-FM and KOMR(FM)

Figure 2 shows the coverage area for the worse case 100 dBμ interference contour F(50-10) and shows that there is no population in the area of interference. The applicant, Mountain Community Translators, LLC, respectfully requests a waiver of C.F.R.

74.1204(d) of the Commission's rules based on the fact that there is no population within the area of predicted interference. There are no homes nearby the proposed existing tower site, which is a privately owned with private access located at a remote mountain tower site known as "Shaw Butte". The transmitter building is uninhabited and does not have indoor plumbing. Should any unforeseen actual interference be caused, the licensee will immediately cease broadcasting with K291CI until such interference can be eliminated.

Figure 3 is the directional antenna data for the proposed Nicom antenna system proposed to be used.

The proposed operation of K291CI Phoenix will be considered a “Fill-In” operation for Class D AM station KASA Phoenix, Arizona. KASA(AM) operates with 10 kilowatts daytime with a directional antenna system on 1540 kHz. Figure 4 shows that the proposed 60 dB μ contour for the proposed K291CI will not extend beyond the daytime 2.0 mV/m contour of KASA. It will also not extend beyond a 25 mile (40 KM) radius from the KASA tower site. Since this is a “Fill-In” translator, the maximum ERP will not exceed the maximum permissible ERP of 250 watts in any azimuth.

It was found that the new proposed operation of K291CI Phoenix, Arizona on channel 294D, will satisfy all of the required commission rules and regulations for an FM translator station.

FIGURE 1 - DETAILED CHANNEL INTERFERENCE STUDY

K291CI PHOENIX, AZ, CH. 294D

REFERENCE
33 35 39.0 N.
112 05 08.0 W.

CH# 294D - 106.7 MHz, Pwr= 0.034 kW DA, HAAT= 255.1 M, COR= 665 M
Average Protected F(50-50)= 12.59 km
Standard Directional

DISPLAY DATES
DATA 05-25-16
SEARCH 05-25-16

CH CITY	CALL	TYPE STATE	ANT AZ	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
294C3 AL9806 Buckeye		---		230.1 49.9	52.63	33 17 23.0 112 31 12.0	25.000 100	118.4 433	43.1	-78.3*	-33.5 ***
294D K291CI Phoenix		APP DC_	AZ	286.7 106.7	0.10 BMPFT20160421AAJ	33 35 40.0 112 05 12.0	0.049	43.9 690	13.1	-53.3*	-44.5*
294D K291CI Phoenix		CP DC_	AZ	292.7 112.7	0.64 BMPFT20160218ABD	33 35 47.0 112 05 31.0	0.060	38.3 650	11.5	-47.1*	-42.0*
294C2 KPPV Prescott Valley		LIC _CN	AZ	337.6 157.4	107.83 BLH19930204KB	34 29 25.0 112 32 00.0	3.700 493	130.9 2181	52.0	-30.7*	23.4
295A KDVA Buckeye		LIC _CN	AZ	251.6 71.3	50.24 BLH19980814KB	33 27 01.0 112 35 58.0	6.000 93	49.2 472	30.2	-9.9	1.2
294C0 KNKI Pinetop		RSV-A	---	76.6 257.8	217.16	34 01 36.0 109 47 35.0	100.000 450	211.4 2796	100.0	-6.0	78.5
292C2 KOMR Sun City		LIC _CN	AZ	318.2 138.0	54.03 BLH19961025KC	33 57 21.0 112 28 34.0	23.000 221	6.7 1098	58.6	38.4	-4.7**
296C3 KVVA-FM Apache Junction		LIC _CX	AZ	110.9 291.2	46.03 BLH20130315ABB	33 26 44.0 111 37 19.0	17.000 124	5.3 651	49.4	29.3	-3.7**
294D K294CO Morristown		CP DV_	AZ	302.1 121.9	46.70 BNPFT20130829AAG	33 49 01.0 112 30 49.0	0.140 -28	35.6 585	10.1	2.3	5.0
292D K292GY Phoenix		CP DC_	AZ	160.4 340.4	24.19 BMPFT20160129AIO	33 23 21.0 111 59 53.0	0.099	0.1 478	5.1	10.5	18.0
293L1 1625776 Mesa		APP	---	115.5 295.7	36.44 BNPL20131112AHV	33 27 10.0 111 43 51.0	0.100 19	457		13.2	12.7
297C2 KAZV Agui la		CP ZCX	AZ	298.0 117.6	83.16 BNPH20070403ACO	33 56 36.0 112 52 53.0	50.000 150	5.0 929	45.8	68.8	36.5
297C2 KAZV Agui la		APP _CX	AZ	292.6 112.1	88.65 BMPH20151022AFO	33 53 49.6 112 58 21.6	50.000 150	5.5 904	48.3	73.7	36.9
293A KMR Arizona City		LIC _CN	AZ	153.6 333.9	94.18 BLH19970102KC	32 50 04.0 111 38 15.0	6.000 89	42.9 537	27.6	37.9	46.2
294C XHSNFM Nogales		---	SO	156.7 337.3	273.40	31 19 51.0 110 56 45.0	100.000 600	204.3 1874	92.0	56.1	138.2
294D K294AN Payson		LIC DVN	AZ	46.6 227.1	112.87 BLFT19950920TA	34 17 17.0 111 11 32.0	0.012 306	45.9 1952	12.9	56.3	65.1
295C AL6595 Show Low		RSV-A	---	70.5 251.6	209.28 RMNS-155	34 12 20.0 109 56 26.0	100.000 600	141.1 2675	95.3	56.7	97.2
294C1 KNKI Pinetop		LIC _C_	AZ	71.7 253.1	241.98 BLH20100426AAU	34 15 06.0 109 35 06.0	65.000 357	170.7 2600	73.3	59.9	129.6
294D KPPV-FM2 Prescott Valley		CP DV_	AZ	358.6 178.6	121.55 BPFTB20130508AJF	34 41 13.8 112 07 02.4	0.099	34.0 2359	5.1	82.0	76.4
294D KPPV-FM2 Prescott Valley		LIC DV_	AZ	358.6 178.6	123.05 BLFTB20120525AAF	34 42 02.2 112 07 04.4	0.100	32.5 2389	5.1	85.0	78.2
295D K295AL Little Acres		LIC _C_	AZ	105.7 286.4	120.65 BLFT20070323AIE	33 17 37.0 110 50 09.0	0.015 1039	29.5 2378	18.7	79.5	84.7
291A R12465 Miami		ADD	---	99.5 280.2	120.60	33 24 30.0 110 48 14.0	6.000 100	2.5 1361	25.8	106.3	85.9
291D K291AL Prescott		LIC _C_	AZ	337.6 157.4	107.79 BLFT20070402KSB	34 29 24.0 112 31 59.0	0.010 483	0.2 2175	12.5	99.0	94.1
296D K296GN Prescott Valley		LIC DV_	AZ	358.6 178.6	121.59 BLFT20150612AAD	34 41 15.0 112 07 01.0	0.250	0.1 2363	7.0	112.7	100.9
291C2 KFSZ Munds Park		LIC _C_	AZ	19.0 199.3	161.72 BLH20080219BFC	34 58 06.0 111 30 29.0	4.300 468	4.1 2646	51.6	148.0	108.4

CH CITY	CALL	TYPE STATE	ANT ---	AZI ---	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	Page # 2 *IN* (Overlap	*OUT* in km)
295L1 Marana	KVAV-LP	CP AZ	---	151.4 331.9	145.16 BNPL20131021AI Z	32 26 42.3 111 20 46.2	0.100 -18			122.5 Voice Of Avra Valley	118.9

Terrain database is 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= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with strikeout 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)
""affixed to 'IN' or 'OUT' values = site inside restricted contour.
Reference station has protected zone issue: Mexico

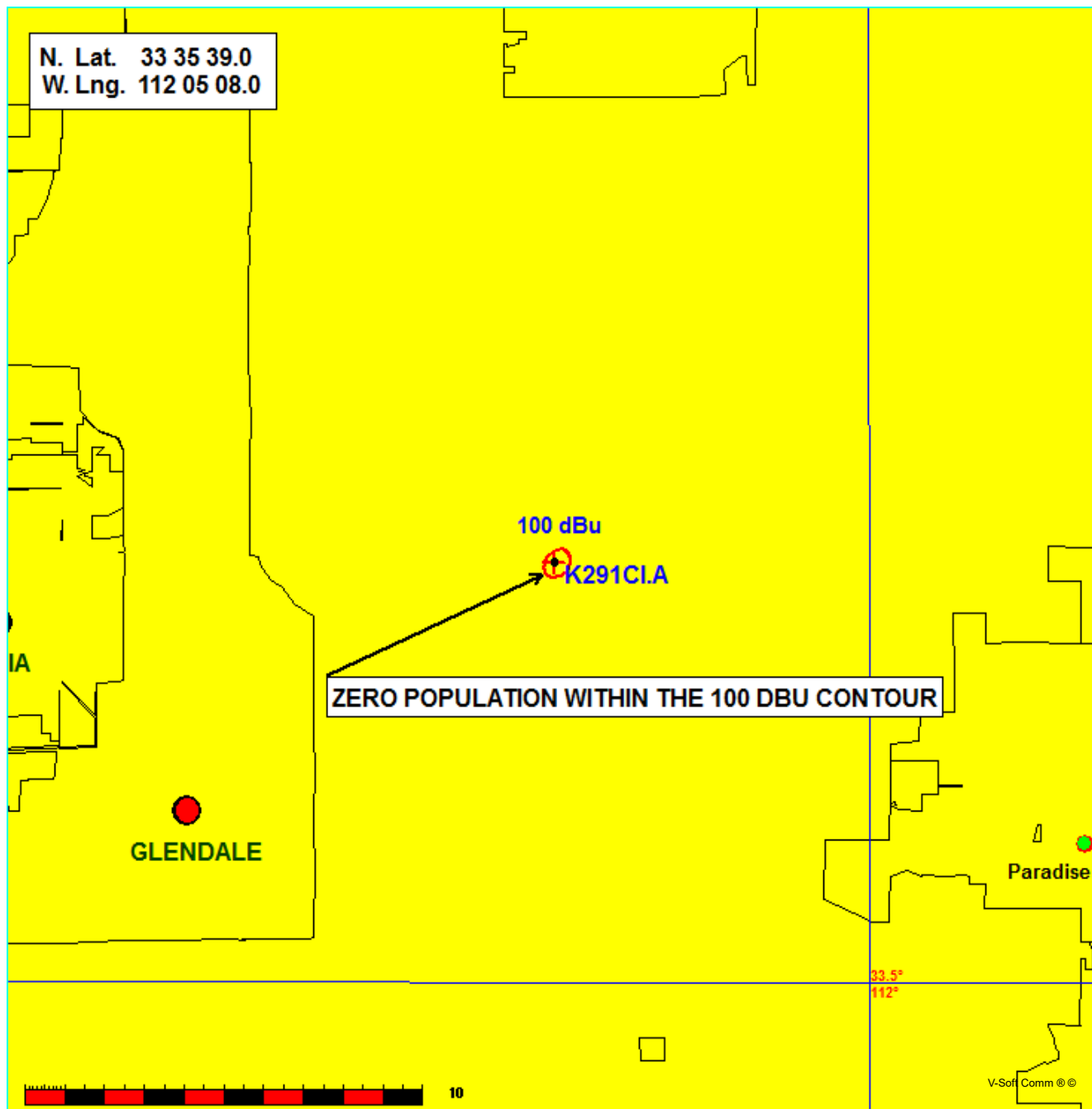
** NO ACTUAL INTERFERENCE WILL BE CAUSED TO SECOND ADJACENT CHANNEL STATIONS KOMR(FM) SUN CITY OR KVVA-FM APACHE JUNCTION SINCE THE WORSE CASE 100 DBU INTERFERENCE CONTOURS WILL NOT COVER ANY POPULATION. SEE THE TECHNICAL STATEMENT FOR MORE DETAILS.

*** THE ALLOCATION RECORD OF CHANNEL 293C3 AT BUCKEYE, ARIZONA IS FOR MEXICAN PROTECTION USE ONLY. IT DOES NOT REQUIRE PROTECTION BY U.S. FM STATIONS.

FIGURE 2 - PREDICTED 100 DBU CONTOUR
K291CI PHOENIX, AZ, CH. 294D

Coverage Study - NGDC 30 SEC
05-25-2016

K291CI CH294 D , 0.034 kW, 255.1m HAAT, 665.0m COR AMSL
Interference Contour = 100 dBu. Population = 0



K291CI .A

05-25-2016

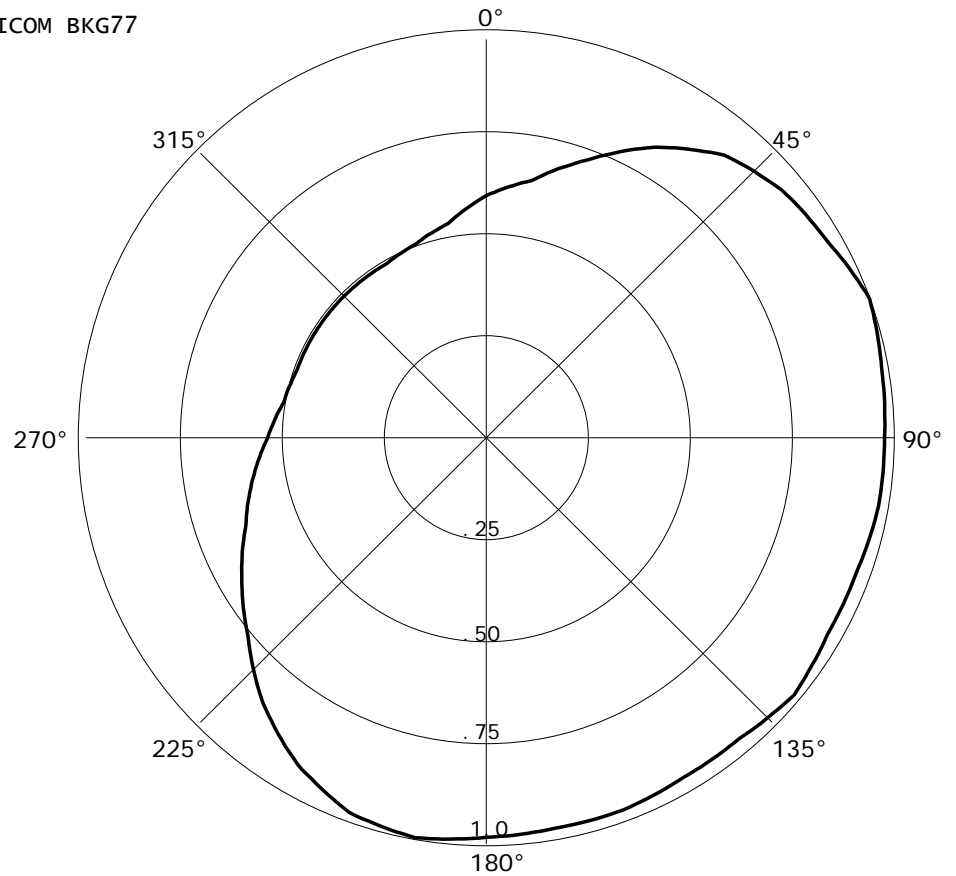
RMS(V) = .812

FIGURE 3 DIRECTIONAL ANTENNA DATA

Graph is Relative Field

Azi	Field	dBk	kW
000	0.596	-19.180	0.012
010	0.643	-18.521	0.014
020	0.728	-17.443	0.018
030	0.826	-16.346	0.023
040	0.908	-15.523	0.028
050	0.947	-15.158	0.030
060	0.966	-14.986	0.032
070	1.000	-14.685	0.034
080	0.984	-14.825	0.033
090	0.976	-14.896	0.032
100	0.976	-14.896	0.032
110	0.966	-14.986	0.032
120	0.966	-14.986	0.032
130	0.985	-14.816	0.033
140	0.966	-14.986	0.032
150	0.966	-14.986	0.032
160	0.976	-14.896	0.032
170	0.976	-14.896	0.032
180	0.984	-14.825	0.033
190	1.000	-14.685	0.034
200	0.982	-14.843	0.033
210	0.927	-15.344	0.029
220	0.852	-16.076	0.025
230	0.762	-17.046	0.020
240	0.692	-17.883	0.016
250	0.627	-18.740	0.013
260	0.581	-19.402	0.011
270	0.536	-20.102	0.010
280	0.504	-20.637	0.009
290	0.493	-20.828	0.008
300	0.493	-20.828	0.008
310	0.493	-20.828	0.008
320	0.493	-20.828	0.008
330	0.493	-20.828	0.008
340	0.507	-20.585	0.009
350	0.536	-20.102	0.010

NICOM BKG77



K291CI.A

BMPFT20160421AAJ

Latitude: 33-35-39 N

Longitude: 112-05-08 W

ERP: 0.034 kW

Channel: 294

Frequency: 106.7 MHz

AMSL Height: 665.0 m

Elevation: 625.069 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model: None

**FIGURE 4 - FILL IN MAP - K291CI WITH
KASA(AM) PHOENIX, AZ 1540 KHZ**