

TECHNICAL STATEMENT
K225BV PHOENIX, ARIZONA
MOUNTAIN COMMUNITY TRANSLATORS, LLC
FCC FORM 349
JULY 2016

This Technical Statement is made in support of a minor change application for FM translator station K225BV at Crown Castle, Arizona, facility ID 14218, Construction Permit BNPFT-20130827AFB. K225BV seeks to relocate its current authorization by less than 250 miles and become a fill-in translator for Class B, KNUV(AM) Tolleson, Arizona, facility ID 29019. This proposal which is normally a major change move is in response to the Commissions AM Revitalization Order DA-1491 released 12/23/2015. The following will show that the new proposed operation of K225BV will meet all of the Commissions technical requirements for an FM translator station.

The proposed operation of K225BV specifies an Effective Radiated Power of 0.001 kilowatts. It will operate with a Scala CA-2-CP directional antenna 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 17 meters above the ground, and 662 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 298D with these new proposed facilities. It shows that the new operation of K225BV will not cause any interference to any existing or proposed FM stations on any of the pertinent same channel or adjacent channels to channel 298, with the exception of 2nd adjacent channel stations

KMLE Chandler, Arizona operating on channel 300C, facility ID 59965, and KVVA-FM Apache Junction, Arizona, operating on channel 296C3, facility ID 1331.

The proposed operation of K225BV on 298D is located within the protected 60 dB μ contour of 2nd adjacent KMLE and KVVA-FM.

Figure 2 shows the predicted worse case 100 dB μ interference contour. 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. 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 K225BV until such interference can be eliminated.

The proposed operation of K225BV Phoenix will be considered a “Fill-In” operation for Class B AM station KNUV Tolleson, Arizona, facility ID 29019. KNUV(AM) operates with 5 kilowatts daytime with a directional antenna system on 1190 kHz. Figure 4 shows that the proposed 60 dB μ contour for the proposed K225BV will not extend beyond the daytime 2.0 mV/m contour of KNUV. It will also not extend beyond a 25 miles radius from the KNUV 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.

Figure 3 is a tabulation of the directional antenna pattern.

It was found that the new proposed operation of K225BV Phoenix, Arizona on channel 298D, will satisfy all of the required commission rules and regulations for an FM translator station.

FIGURE 1 - DETAILED CHANNEL INTERFERENCE STUDY

K225BV PHOENIX, AZ, CH. 298D											
CH# 298D - 107.5 MHz, Pwr= 0.001 kW DA, HAAT= 0.0 M, COR= 662 M											
Average Protected F(50-50)= 1.82 km											
Standard Directional											
DISPLAY DATES											
DATA 08-02-16											
SEARCH 08-02-16											
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)	(km)
300C	KMLE	LIC_CY		175.7	28.91	33 20 03.0	100.000	13.1	89.6	14.5	-60.7*
Chandler		AZ		355.7	BLH19881103KA	112 03 43.0	529	898			
298C0	KSED	LIC_CY		19.0	161.50	34 58 07.0	100.000	185.9	82.0	-27.3*	70.7
Sedona		AZ		199.4	BLH19940826KB	111 30 24.0	446	2625	Grenax	Broadcasting	Li, LI
298C	KHYT	LIC_CY		148.6	174.57	32 14 56.0	92.000	195.2	90.6	-22.2*	75.8
Tucson		AZ		329.1	BLH199601116K	111 06 59.0	620	1392	Radio	License	Hol ding Cbc,
298D	K225BV	APP_DC_		0.0	0.00	33 35 39.0	0.001	10.2	2.6	-12.9*	-13.0*
Phoenix		AZ		0.0	BMPFT20160729AOS	112 05 08.0		662	Mountain	Community	Transla
298L1	KPHQ-LP	CP_		199.0	9.87	33 30 35.9	0.100			-10.2*	0.2
Phoenix		AZ		18.9	BNPL20131115ATQ	112 07 12.9	17	369	Fala	Fundacion	Para Las Ar
296C3	KVVA-FM	LIC_CX		110.9	46.11	33 26 44.0	17.000	5.3	49.3	39.2	-3.2*
Apache Junction		AZ		291.2	BLH20130315ABB	111 37 19.0	124	651	Entravi	si on Hol dings,	LI c
298L1	1698405	APP_		115.5	36.49	33 27 10.0	0.100			6.0	20.7
Mesa		AZ		295.7	BNPL20131112AGM	111 43 51.0	30	463	Meza	Communi ty	Radi o
297C2	KAZV	CP_ZCX		298.0	83.27	33 56 36.0	50.000	70.8	45.6	7.8	29.5
Agui la		AZ		117.6	BNPH20070403ACO	112 52 53.0	150	929	Matinee	Medi a	Corporation
297C2	KAZV	APP_CX		292.6	88.80	33 53 49.6	50.000	73.9	48.0	10.6	30.4
Agui la		AZ		112.1	BMPH20151022AFO	112 58 21.6	150	904	Matinee	Medi a	Corporation
295A	KDVA	LIC_CN		251.6	50.33	33 27 01.0	6.000	2.8	30.2	43.6	19.0
Buckeye		AZ		71.3	BLH19980814KB	112 35 58.0	93	472	Entravi	si on Hol di ngs,	LI c

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 either KMLE or KVVA-FM since the predicted 100 dbu contour will not cover any population. See the Technical Statement for more details.

FIGURE 2 - PREDICTED 100 DBU INTERFERENCE CONTOUR
K225BV PHOENIX, AZ, CH. 298D

Coverage Study - NGDC 30 SEC
08-02-2016

K225BV CH298 D , 0.001 kW, 0.0M HAAT, 662.0M COR
AMSL Interference Contour = 100 dBu. Population = 0

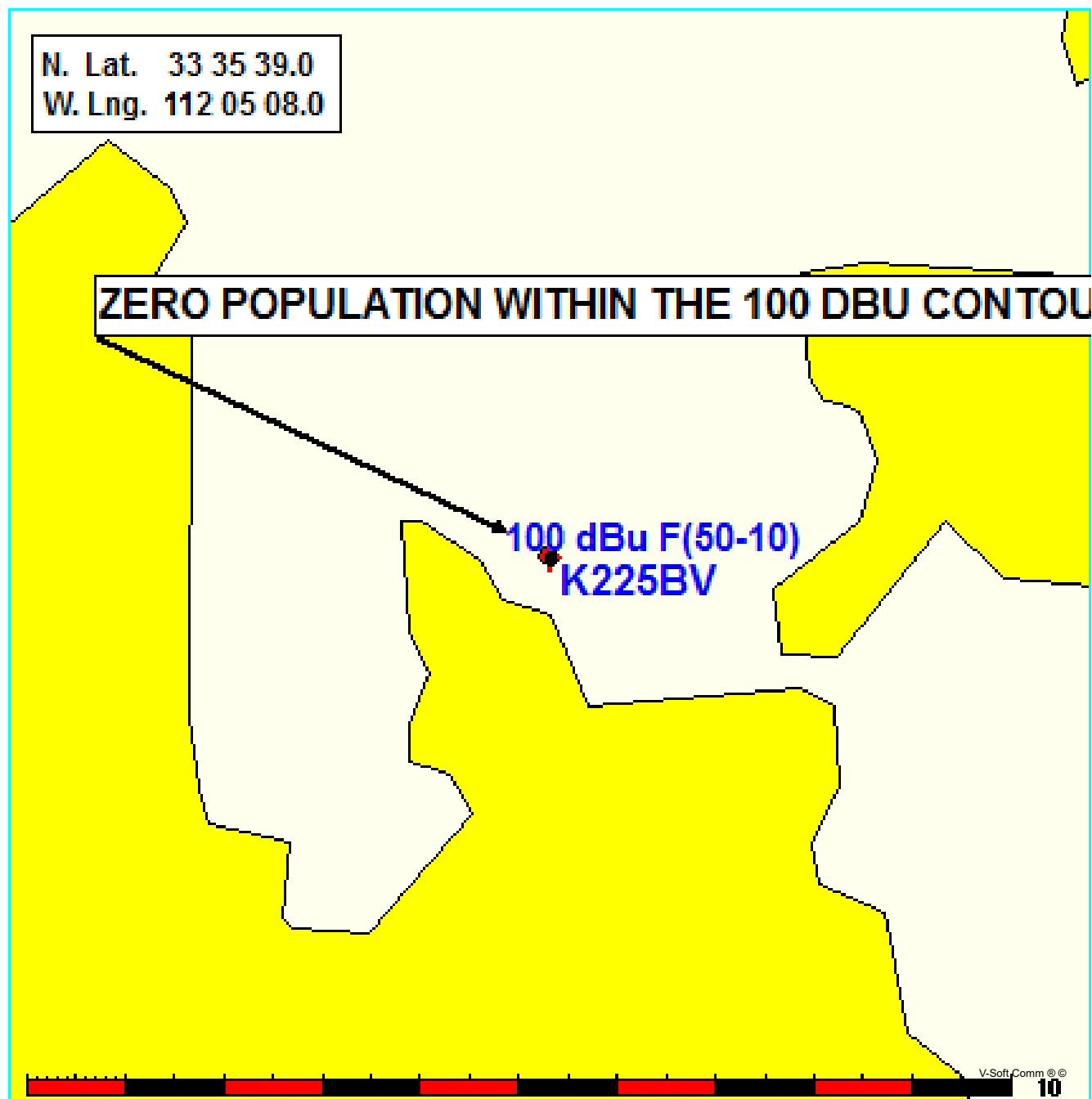


FIGURE 3 - DIRECTIONAL ANTENNA DATA

K225BV. A

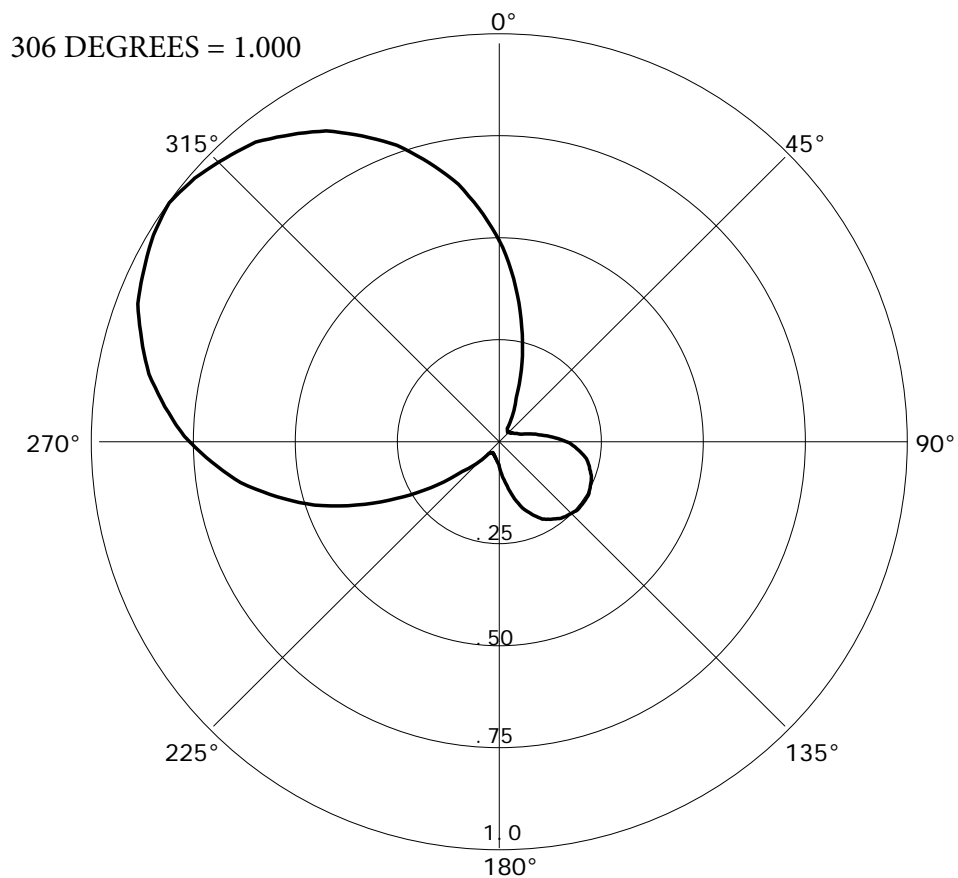
08-02-2016

RMS(V) = .482

SCALA CA-2-CP

Graph is Relative Field

Azi	Field	dBk	kW
000	0.495	-36.108	0.000
010	0.307	-40.257	0.000
020	0.133	-47.523	0.000
030	0.046	-56.745	0.000
040	0.032	-59.897	0.000
050	0.035	-59.119	0.000
060	0.041	-57.744	0.000
070	0.055	-55.193	0.000
080	0.099	-50.087	0.000
090	0.165	-45.650	0.000
100	0.213	-43.432	0.000
110	0.240	-42.396	0.000
120	0.254	-41.903	0.000
130	0.255	-41.869	0.000
140	0.243	-42.288	0.000
150	0.220	-43.152	0.000
160	0.177	-45.041	0.000
170	0.111	-49.094	0.000
180	0.061	-54.293	0.000
190	0.043	-57.331	0.000
200	0.036	-58.874	0.000
210	0.031	-60.173	0.000
220	0.037	-58.636	0.000
230	0.108	-49.332	0.000
240	0.271	-41.341	0.000
250	0.460	-36.745	0.000
260	0.626	-34.069	0.000
270	0.759	-32.395	0.001
280	0.865	-31.260	0.001
290	0.942	-30.519	0.001
300	0.985	-30.131	0.001
310	0.991	-30.079	0.001
320	0.953	-30.418	0.001
330	0.882	-31.091	0.001
340	0.782	-32.136	0.001
350	0.655	-33.675	0.000



K225BV

Latitude: 33-35-39 N
Longitude: 112-05-08 W
ERP: 0.001 kW
Channel: 298
Frequency: 107.5 MHz
AMSL Height: 662.0 m
Elevation: 625.069 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

