

Engineering Exhibit

Minor Modification of K229DB

Facility ID No. 151323

This exhibit presents the technical details of a change in antenna location to an adjacent tower location. The distance of this relocation is approximately 40 meters along a bearing of 152.8°T from the presently licensed location.

Antenna Location

The proposed antenna for K229DB is to be mounted 30.5 meters above ground on the tower identified by antenna structure registration number 1308803 and will have a directional pattern as depicted in Figure 0.

73.1204 Compliance

We will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. The process commonly called “Living Way”, allows for the use of D/U Analysis, also known as “signal strength ratio methodology” to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second or third adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents in the location of the proposed translator antenna location.

Concerning KDKB(FM) In Figure 2 a map showing the predicted 142 dBu signal contour of the protected facility at the proposed translator antenna location is given. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 182 dBu in a habitable/populated area. Utilizing the line of sight equation shown in Figure 3 it has been determined that a 182 dBu signal developed by 250 watts will have a maximum distance of 0.090 meters, effectively not leaving the transmit antenna which has a physical size greater than 1.34 meters. Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

Fill-in and Minor Change Status

This proposal is to serve as a fill-in translator for station KOY(AM) Facility ID 63914, Phoenix, AZ. The map of **Figure 3** demonstrates that the proposed 60 dBu contour is contained within that of the KOY(AM) facility. It can also be seen that the proposed and permitted facilities have service contour overlap.

RF Fields Statement

Upon completion of construction and during the equipment test period, we will make proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. If necessary, appropriate marking, barriers and or fences will be erected at such distances and in such a manner as to prevent the exposure of humans to RF fields in excess of the FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997).

Figure 0. Antenna Pattern

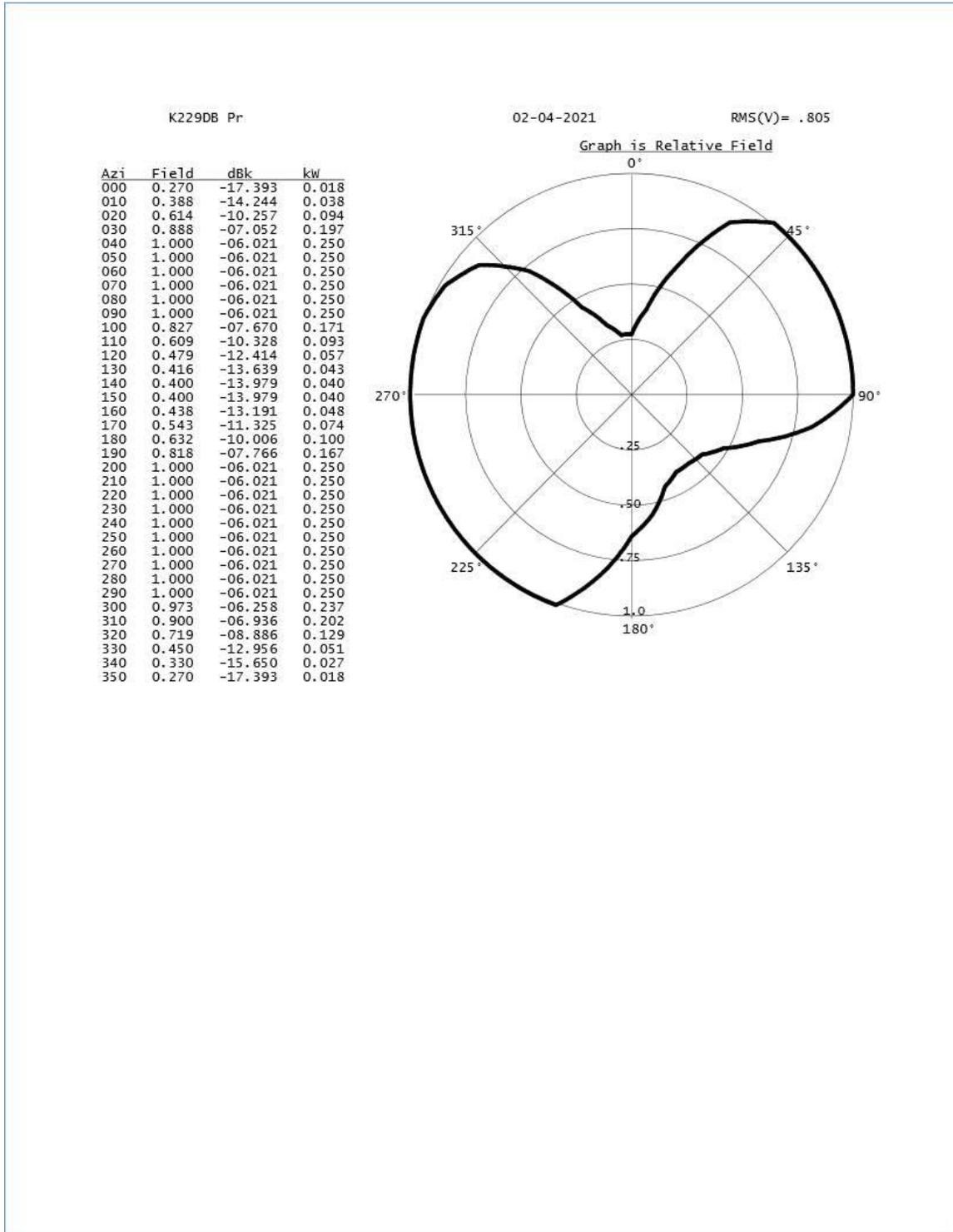


Figure 1. Overlap and Spacing Study

K229DB At new tower, Operrn Pattern by R.M. TGL Mod
Ihm Licenses, LLC

REFERENCE CH# 229D - 93.7 MHz, Pwr= 0.25 kW DA, HAAT= 456.5 M, COR= 826.7 M DISPLAY DATES
33 20 03.70 N, DATA 02-01-21
112 03 41.20 W. Average Protected F(50-50)= 27.54 km SEARCH 02-04-21
Standard Directional

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*
227C	KDKB Mesa	LIC_CN AZ		240.4 60.4	0.16 BLH20101116AIX	33 20 01.00 112 03 46.90	100.000 508	11.9 871	82.0 Phoenix FCC License	-38.6*	-83.0*
229D	K229DB Phoenix	LIC_DCN AZ		332.8 152.8	0.04 BLFT20160928ACP	33 20 05.00 112 03 42.00	0.250 809	60.0 809	18.1 Ihm Licenses, LLC	-78.5*	-79.9*
229C	KRQQ Tucson	LIC_CN AZ		143.5 324.1	149.52 BMLH20130610AAM	32 14 56.80 111 06 59.40	93.000 613	194.3 1378	90.1 Ihm Licenses, LLC	-63.0*	0.1
230L1	KWSS-LP Scottsdale	LIC_CN AZ		355.2 175.2	29.01 BLL20140918AAA	33 35 39.90 112 05 15.00	0.002 251	662	KWSS Radio	2.9	0.4
231C1	KRDE San Carlos	LIC_ZCN AZ		91.9 272.6	113.90 BMLH20110408ABG	33 17 37.20 110 50 11.30	4.700 1039	4.4 2390	72.8 Linda C. Corso	82.4	40.0
230C	KMGN Flagstaff	LIC_CN AZ		15.5 195.8	188.71 BMLH19940818KG	34 58 08.10 111 30 30.50	100.000 460	117.5 2626	80.5 Flagstaff Radio, Inc	45.9	76.4
282C	KAJM Camp Verde	LIC_NCN AZ		345.0 164.8	102.88 BMLH20120321AES	34 13 47.10 112 21 05.50	40.000 807	0.0 2323	0.0 Sierra H Broadcasting, Inc	28.5R	74.4M
231B	AL2733 Sonoita	SO		204.6 24.2	179.84	31 51 41.25 112 51 18.58	50.000 150	5.1 611	65.0	146.8	112.7
231A	R14926 Salome	VAC AZ		290.7 109.9	147.90	33 47 48.10 113 33 30.74	6.000 100	1.9 734	19.2 Southwest Fm Broadcasting	117.6	115.7
228C3	AU9411804 Paulden	VAC AZ		345.4 165.1	176.69 RM11403	34 52 16.08 112 33 02.64	25.000 100	41.5 1529	22.7 Sierra H Broadcasting, Inc	117.6	119.9

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.
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

Figure 2. Contour Map

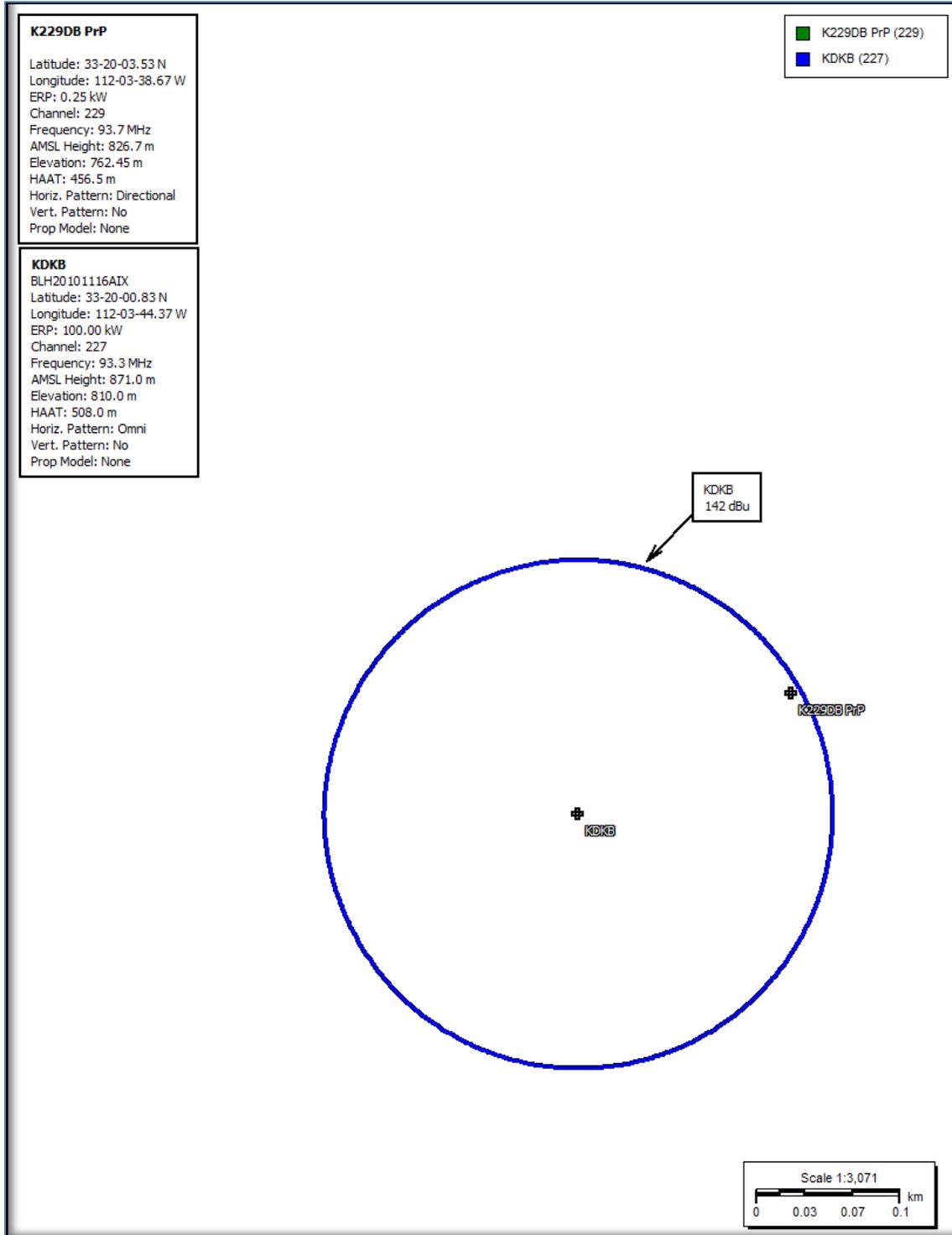


Figure 3. Fill-in and Minor Change Contour Map

