

## EXHIBIT 12 – COMPREHENSIVE TECHNICAL EXHIBIT

### Discussion

This amended application is being filed in an effort to resolve a mutually exclusive situation involving Channel 284 at Las Vegas/Enterprise, NV. On July 29, 2016 competing applications were filed by two separate entities, both proposing the use of Channel 284 in the Las Vegas area. Major Market Radio, LLC, filed to move FM Translator K238AK to Las Vegas, NV, File No. BPFT 20160729AHI. Dale Ganske filed to move FM Translator K258CZ to Enterprise, NV, File No. BPFT 2016729AAS. These applications are mutually exclusive. It is believed the modification proposed in the instant application will establish two Singletons, allowing for their subsequent grant.

This application is being filed in the second of the 250 mile Translator Modification Application Filing Windows for AM Stations (DA15-1491). The proposed primary station is Class B, KENT (AM), Enterprise, NV. The purpose of this application is to change the location, of K258CZ (FID # 71816) from Big Pine, Etc., CA, to Las Vegas, NV, a distance of 169.028 miles between the current and proposed transmitter sites. The power is increased from 10 watts (vertical) non-directional to 250 watts (vertical) directional, with a change in frequency to Channel 244. This is a minor change under the terms of FCC DA 15-1491.

This application meets the fill-in requirement concerning translator and AM primary station contours in that the Primary station is a class B AM, and the proposed translator 60 dBu contour is contained within the 2 mV/m contour of primary station KENT and the translator 60 dBu does not extend beyond the 25 mile radius from the KENT transmitter. This is demonstrated on a map in **Figure 5** of this exhibit.

### Contour Overlap Requirements

A study of all relevant co-channel, 1st, 2nd, and 3rd adjacent channels and I.F. relationships (**Figure 1**) reveals the absence of any conflict with the exception of full-service stations KXPT, Las Vegas, NV and KKLZ, Las Vegas, NV for which 2<sup>nd</sup> adjacent waivers are sought (see discussion below). The close relationship with co-channel KYLI, Bunkerville, NV is explored in **Figures 2,3 & 4**, showing the absence of any contour overlap.

AMEND K258CZ 250 MINOR MODIFICATION											
Dale Ganske											
CH# 244D - 96.7 MHz, Pwr= 0.25 kW DA, HAAT= 54.8 M, COR= 864.4 M											
Average Protected F(50-50)= 9.7 km											
Standard Directional											
DISPLAY DATES											
DATA 08-11-16											
SEARCH 08-11-16											
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)	
244C	KYLI	LIC	NHX	62.0	114.86	36 38 07.0	93.000	212.9	99.5	-100.9*	0.4
Bunkerville		NV		242.7	BLH20100623AEP	114 07 18.0	637	1755	Lkcm Rg Licenses, Llc		
246C	KXPT	LIC	CN	226.2	30.28	35 58 02.0	25.000	10.0	95.6	12.6	-66.4*
Las Vegas		NV		46.0	BLH19960913KA	115 30 06.0	1120	2582	Lotus Broadcasting Corp.		
242C	KKLZ	LIC	CX	125.8	28.09	36 00 29.0	100.000	12.1	83.1	5.6	-55.2*
Las Vegas		NV		306.0	BMLH20111201LCE	115 00 20.0	358	1056	Beasley Media Group, Llc		
244D	KYLI-FM1	LIC	C	57.7	34.83	36 19 24.0	0.340	62.0	19.9	-31.1*	0.2
Sunrise Manor		NV		237.9	BLFTB20110404AET	114 55 49.0		826	Lkcm Rg Licenses Llc		
244D	K244EX	CP	DC	109.5	18.87	36 05 58.0	0.005	6.5	2.5	4.5	1.7
Las Vegas		NV		289.6	BNPFT20130826ABC	115 03 39.0	-72	549	windy City Broadcasting, L		
298C	KXTE	LIC	CN	225.9	30.35	35 57 57.0	24.500	0.3	6.5	28.5R	1.9M
Pahrump		NV		45.7	BLH19950817KE	115 30 03.0	1137	2595	Cbs Radio Stations Inc.		
244D	K244CE	LIC	C	275.1	62.64	36 12 14.0	0.170	21.5	6.4	34.3	33.6
Pahrump		NV		94.7	BLFT20031014ACY	115 57 16.0	-100	899	K244ce, Llc		
246D	K246BK	LIC	C	48.5	88.79	36 41 00.0	0.010	0.2	5.3	82.8	82.3
Moapa		NV		228.9	BLFT20070723ABK	114 30 48.0	57	649	Community Education Founda		
244C3	KRCY-FM	LIC	CX	151.3	202.85	34 33 06.0	0.260	102.6	38.3	87.8	123.7
Lake Havasu City		AZ		331.9	BLH20080731ACG	114 11 37.0	825	1451	Rick L. Murphy		
245D	K245AW	CP	DC	155.3	110.52	35 15 08.0	0.250	7.1	4.0	90.9	88.0
Riveria, Etc.		AZ		335.6	BMPFT20150526AAG	114 44 58.0		1530	Steven M. Greeley		
241D	K241AV	LIC	DC	217.0	100.05	35 26 09.0	0.010	0.0	3.1	90.6	95.9
Baker		CA		36.6	BLFT20070604ABA	115 55 26.0	426	1381	Advance Ministries, Inc		
245D	K245AW	LIC	DH	155.1	111.35	35 14 48.0	0.157	1.7	0.9	97.2	91.0
Riveria, Etc.		AZ		335.4	BLFT20080619AIH	114 44 32.0	683	1473	Steven M. Greeley		
242D	K242AS	CP	DV	155.1	111.35	35 14 48.0	0.045	0.0	1.8	98.8	108.9
Bullhead City, Etc.		AZ		335.4	BPFT20151221AYZ	114 44 32.0		1468	Donald F. Hendren		
242D	K242AS	LIC	DH	155.1	111.35	35 14 48.0	0.040	0.0	1.7	98.8	109.0
Bullhead City, Etc.		AZ		335.4	BLFT20060321AEI	114 44 32.0	678	1468	Donald F. Hendren		
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: AM tower											

2<sup>nd</sup> adjacent waivers sought

Figure 1

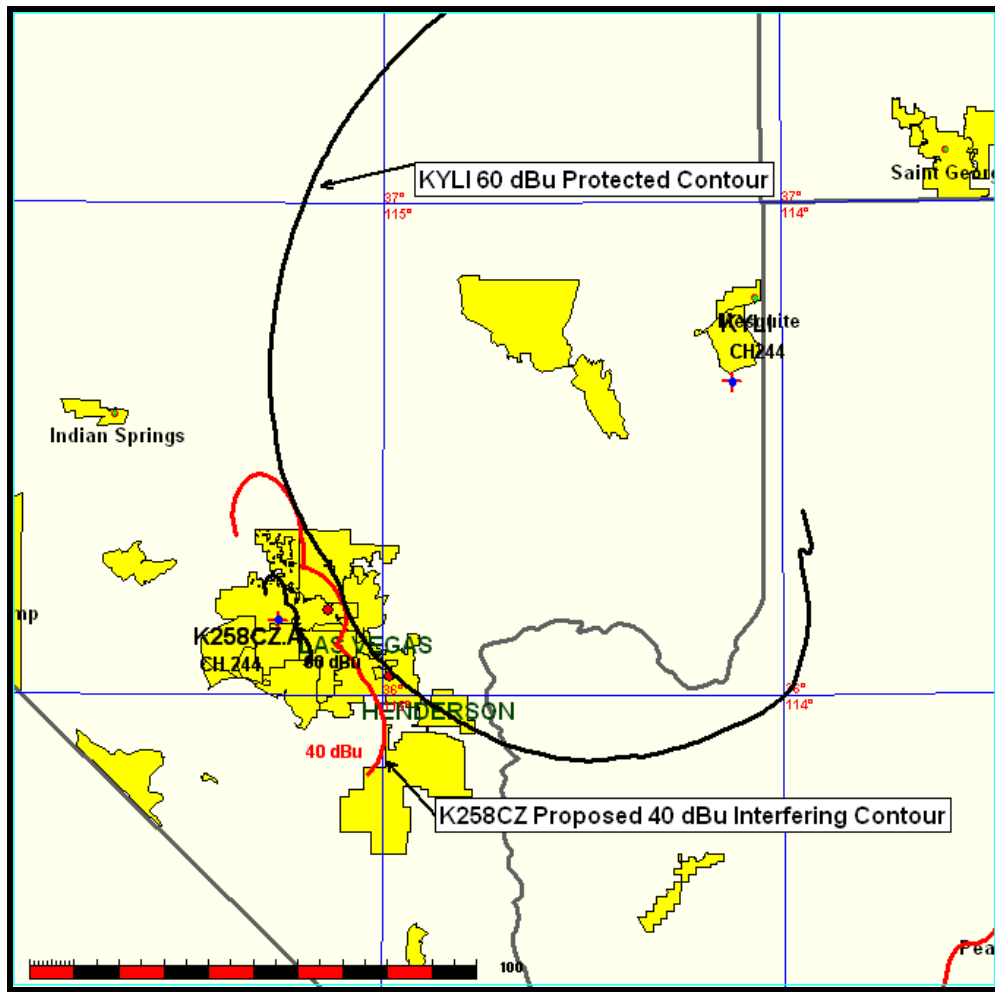


Figure 2

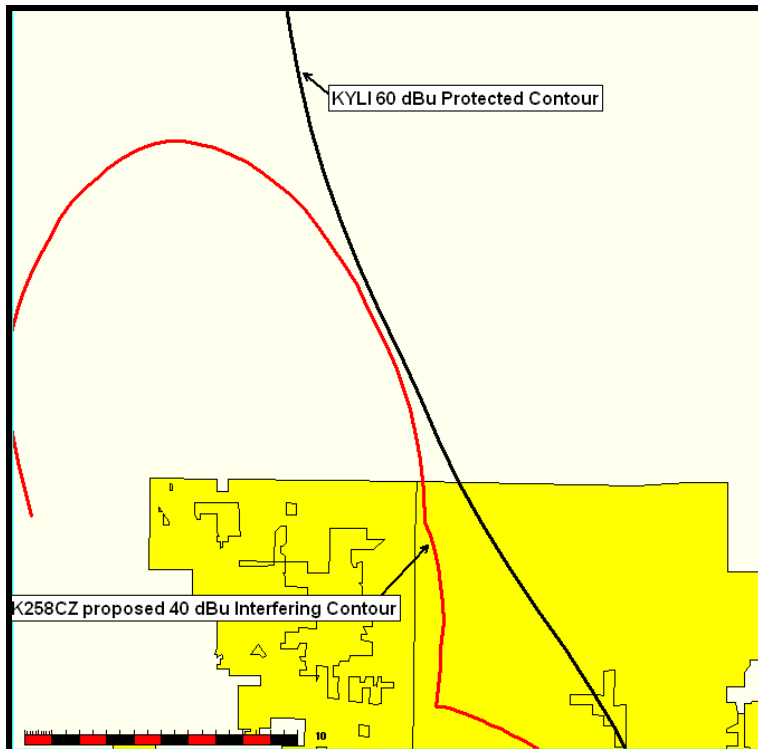


Figure 3

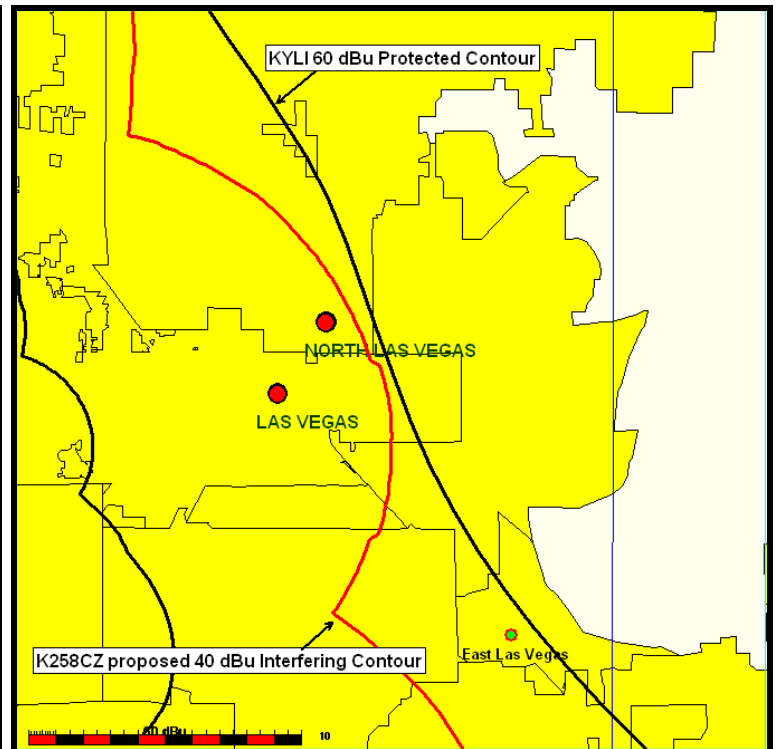


Figure 4

## **Waiver Request of Section 74.1204 and Showing of Compliance**

The proposed FM translator is located within the protected 60 dBu F(50,50) contour of 2<sup>nd</sup> adjacent channel KXPT, Las Vegas, **(see Figure 1)**.

The predicted F(50,50) field strength of KXPT at the proposed translator location is 88.2 dBu (free space equation). Using the Undesired-to-Desired method for calculating proposed interference, the proposed interfering contour with respect to KXPT is 128.2 dBu (88.2 + 40) (free space method employed). This interfering signal would, in the worst case, extend 43.4 meters from the proposed antenna and, with the proposed antenna CORAGL of 96 meters, would not reach the ground.

The proposed FM translator is located with the protected 60 dBu F(50,50) contour of 2<sup>nd</sup> adjacent channel KKLZ, Las Vegas, **(see Figure 1)**.

The predicted F(50,50) field strength of KKLZ at the proposed translator location is 85.4 dBu (free space equation). Using the Undesired-to-Desired method for calculating proposed interference, the proposed interfering contour with respect to KKLZ is 125.4 dBu (85.4 + 40) (free space method employed). This interfering signal would, in the worst case, extend 59.2 meters from the proposed antenna and, with the proposed antenna CORAGL of 96 meters, would not reach the ground.

Since no population inhabits the interference area, the applicant respectfully requests waiver of the FM translator contour overlap requirements with respect to 2<sup>nd</sup> adjacent stations KXPT and KKLZ, as permitted in CFR Section 74.1204.

## "FILL-IN" QUALIFICATION

K258CZ as "fill-in" FM Translator for KENT(AM)

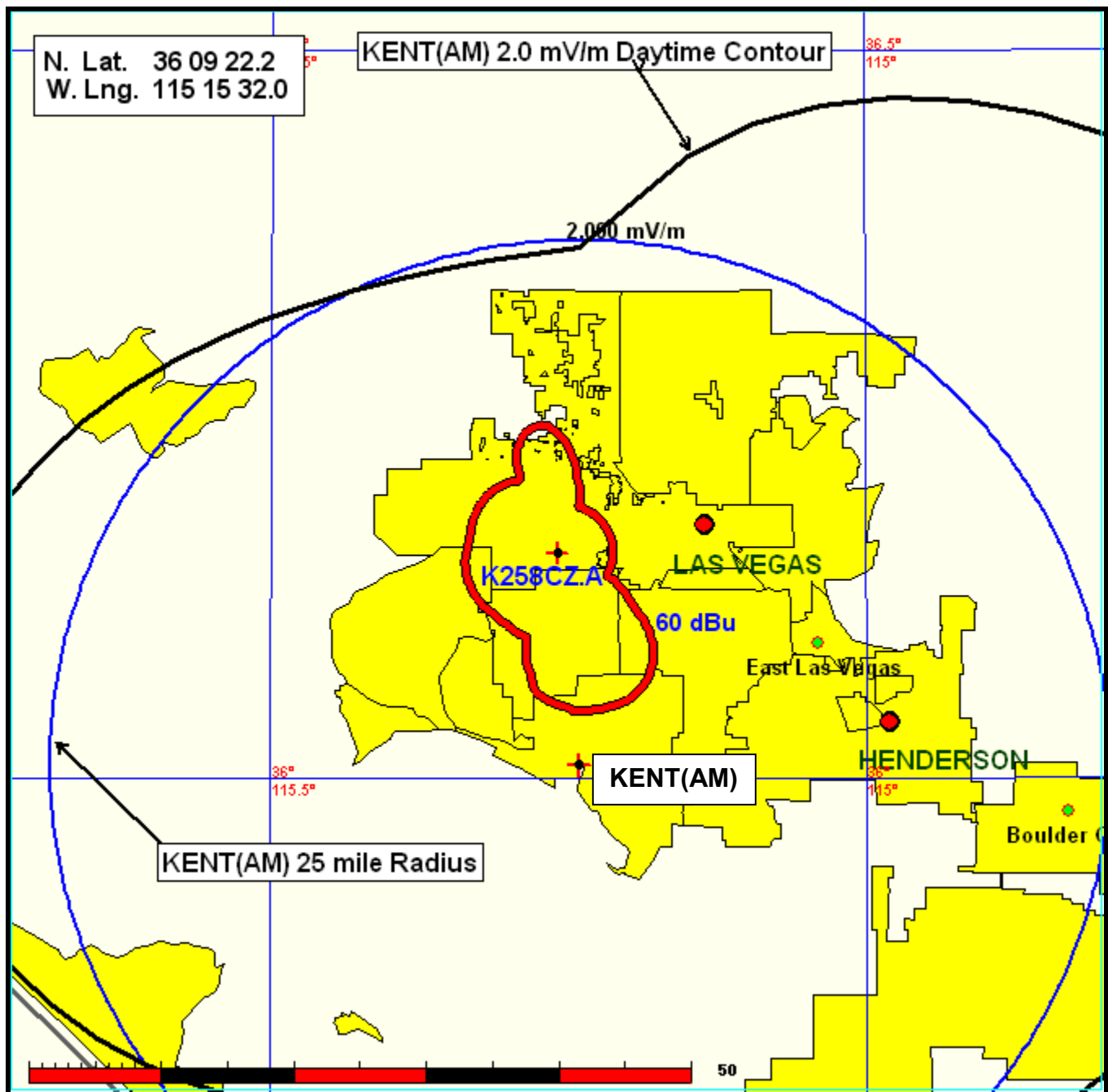


Figure 5

## **Environmental Compliance**

Applicant proposes to mount the antenna on a currently registered tower. There will be no new construction. The antenna system will consist of a skewed array of two (2) Scala/Kathrein CL-FM Yagi antennas, one antenna oriented at 200 degrees radiating 50 % power, the second antenna oriented at 300 degrees radiating 50 % of the power. The Center-of-Radiation will be 96 meters AGL. The facility will radiate a maximum 250 watts Vertical only.

Using the online version of the FCC's FMModel software, and employing a worst-case scenario of an EPA Type 1 antenna, ignoring reduced downward radiation typical of the Yagi antenna, the resultant maximum RF electromagnetic field would be less than  $0.9 \text{ microvolts/cm}^2$ , 21.69 meters from the base of the tower, clearly less than the uncontrolled maximum.

The permittee/licensee in coordination with other users of the site will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.