

# EXHIBIT 12 – COMPREHENSIVE TECHNICAL EXHIBIT

## INTRODUCTION

Applicant seeks a minor modification changing the frequency from channel 205 to channel 258 (I.F. jump), and modification of the antenna pattern from directional to omnidirectional. There will be no physical change in the installation other than the type of antenna employed. The CORAMSL will remain unchanged. This translator has been operating continuously since it was first licensed in 1991.

## CHANNEL STUDY

The following study (figure 1) reveals the lack of any contour overlap with any relevant 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> adjacent or I.F. frequencies.

K205ET MINOR MODIFICATION - I.F. JUMP											
Lawrence Lee Amundsen											
CH# 258D - 99.5 MHz, Pwr= 0.01 kw, HAAT= 868.9 M, COR= 2852 M											
Average Protected F(50-50)= 16.1 km											
Omni-directional											
DISPLAY DATES											
DATA 05-14-16											
SEARCH 05-14-16											
REFERENCE											
36 58 33.0 N.											
118 07 22.0 W.											
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)
259B	KIOO	LIC	CX	220.2	126.01	36 06 26.0	25.000	59.0	45.2	48.0	22.2
Porterville		CA		39.7	BLH20130826AFC	119 01 45.0	214	385	Momentum Broadcasting Lp		
255B	KSOF	LIC	CX	242.9	82.15	36 38 11.8	19.000	2.1	29.1	59.7	52.6
Dinuba		CA		62.4	BLH20140630AED	118 56 33.6	250	1591	Capstar Tx, Llc		
257B1	KJWL	LIC	NCX	260.3	150.34	36 44 07.0	14.500	52.5	39.2	77.6	67.5
Fresno		CA		79.3	BLH20040112ACI	119 47 09.0	105	185	John Edward Ostlund		
260D	K260CO	LIC	DC	318.8	91.95	37 35 46.9	0.010	0.2	2.8	72.2	82.4
Mammoth Lakes, Etc.		CA		138.4	BLFT20160303ACI	118 48 36.3		2475	Western Inspirational Broa		
258D	K258AF	LIC	DHN	94.4	129.09	36 52 44.0	0.016	43.2	11.3	76.8	95.1
Oasis Valley		NV		275.2	BLFT19980720TE	116 40 31.0	389	1591	Beatty Town Advisory Counc		

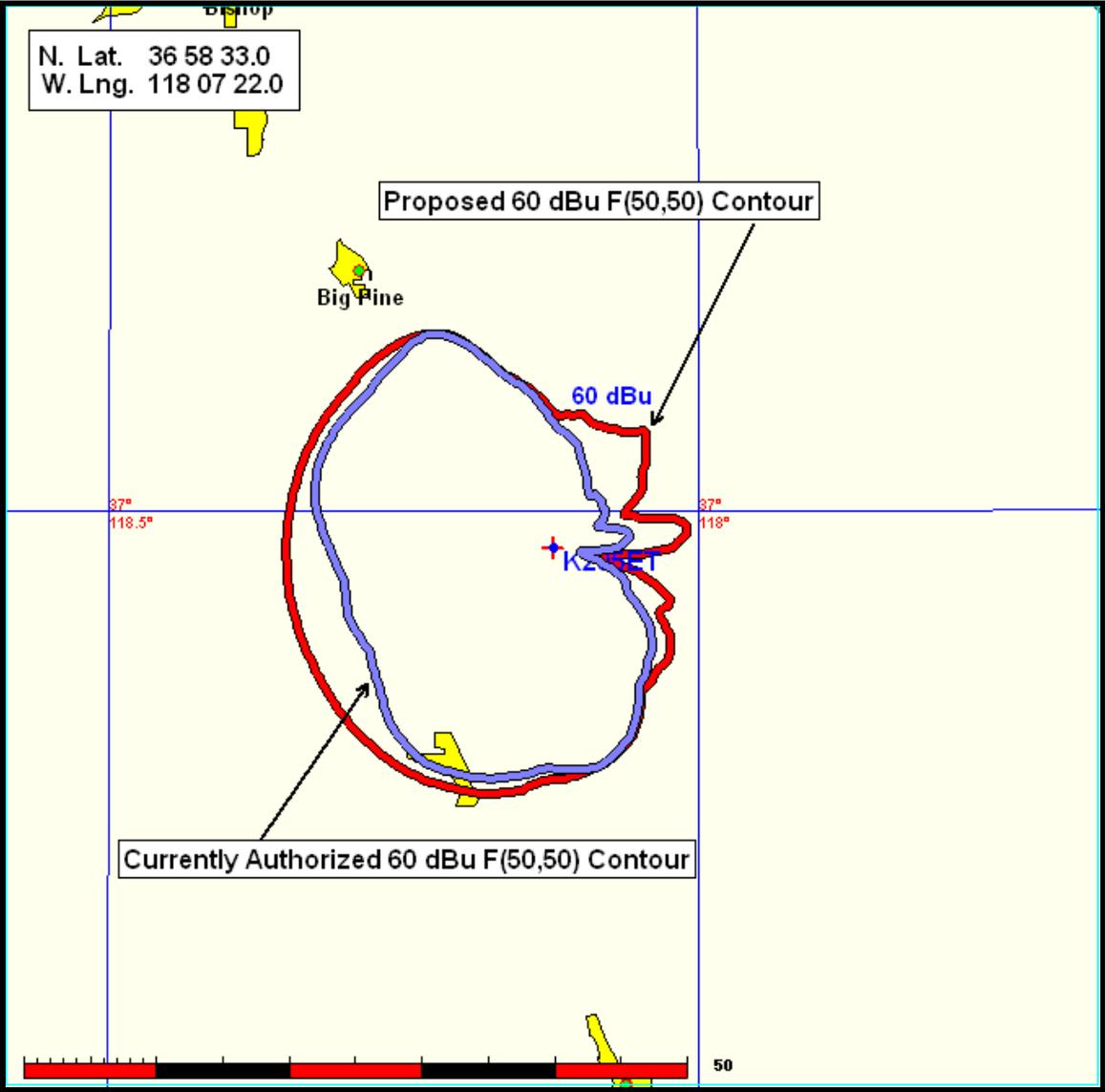
Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM In & Out distances between contours are shown at closest points. Reference Zone= East Zone 2A, Co to 3<sup>rd</sup> adjacent.

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)

**Figure 1**

Qualifying overlap of the current and proposed 60 dBu F(50,50) contours is illustrated in **Figure 2**.



**Figure 2**

**ENVIRONMENTAL PROTECTION**

There will be no new construction. Antenna will be mounted on an existing support structure. Application is for a frequency change and antenna pattern change only. At 10 watts ERP (<100), Commission Rules categorically exclude the facility from RF exposure guidelines.

**TOWAIR STUDY**

**DETERMINATION Results**

**Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.**

**Your Specifications**

**NAD83 Coordinates**

Latitude	36-58-32.7 north
Longitude	118-07-25.3 west

**Measurements (Meters)**

Overall Structure Height (AGL)	10
Support Structure Height (AGL)	0
Site Elevation (AMSL)	2845

**Structure Type**

UPOLE - Utility Pole/Tower used to provide service (Electric, Telephone, etc)