

COMPREHENSIVE TECHNICAL EXHIBIT

K293CU, St. George, UT

DISCUSSION

Applicant seeks a Minor Modification to relocate FM Translator K293CU to a new tower, with a change in the CORAMSL, operating as a "Fill-in" for primary station KCLS-HD3, Leeds, UT, Facility ID # 55461.

LACK OF CONTOUR OVERLAP

The following study (**Figure 1**) reveals the lack of any contour overlap with 1st, 2nd, 3rd adjacent and I.F. related facilities, excepting Full Service KXFF, Colorado City, AZ, Facility ID # 69623 for which a 2nd adjacent waiver is being sought.

Minor Modification of K293CU to new tower Canyon Media Group, LLC											
REFERENCE		CH# 293D - 106.5 MHz, Pwr= 0.099 kw, HAAT= 536.7 M, COR= 1907 M								DISPLAY DATES	
36 50 59.0 N.		Average Protected F(50-50)= 24.2 km								DATA 06-16-20	
113 29 34.0 W.		Omni-directional								SEARCH 06-17-20	
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)	
293D	K293CU!	LIC	UT	167.0	0.35	36 50 47.90	0.099		---Reference---		
St. George				347.0	BLFT20181106AAA	113 29 30.80		1914	Canyon Media Group, LLC		
293C0	KSNE-FM	LIC	NV	235.8	164.56	36 00 29.90	100.000	186.6	79.5	-38.8*	27.4
Las Vegas				54.9	BMLH20110126ABC	115 00 23.00	352	1048	Citicasters Licenses, Inc.		
291C1	KXFF	LIC	AZ	44.9	38.54	37 05 40.90	35.000	7.0	58.9	3.0	-21.1*
Colorado City				225.1	BLH20130711AAY	113 11 08.80	347	1728	Ccr-St. George IV, LLC		
295D	K295CY	LIC	DH	314.5	48.26	37 09 11.80	0.250	0.6	24.7	18.4	16.5
St. George			UT	134.2	0000107999	113 52 53.20		2308	Canyon Media Group, LLC		
293C1	DKLFZ	VAC	AZ	122.2	252.05	35 37 00.00	100.000	175.4	74.6	51.6	99.5
Leupp				303.6		111 08 02.51	299	1748	Alex Media, Inc.		
295C1	KVGQ	LIC	D	278.1	95.46	36 57 59.00	100.000	1.6	13.5	70.1	77.1
Overton			NV	97.5	BLH20110315AAG	114 33 24.10	289	1384	Kemp Communications, Inc.		
296D	K296AR	LIC	D	49.7	113.58	37 30 24.90	0.033	0.0	1.6	86.0	104.3
Long Valley Junctio			UT	230.3	BLFT192	112 30 39.70	54	2409	Western Kane County Specia		
290D	K290BW	LIC	UT	22.6	119.61	37 50 31.90	0.016	0.3	10.9	89.6	106.9
Parowan				202.9	BLFT20150325ABK	112 58 12.80	201	2063	Iron County		
295D	KVGQ-FM1	LIC	D	247.0	144.22	36 20 00.80	20.000	3.9	39.6	120.7	93.4
Apex			NV	66.1	BLFTB20110628ABI	114 58 30.00		1061	Kemp Communications, Inc.		
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 exclamation marks 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.											

2nd Adjacent Waiver Requested

Figure 1

Waiver Request of Section 74.1204 and Showing of Compliance

With respect to KXFF:

The proposed FM translator is located within the protected 60 dBu F(50,50) contour of 2nd adjacent channel KXFF Colorado City, AZ, FID # 69623 (see **Figure 1**). The predicted F(50,50) field strength of KXFF at the proposed translator site is 70.06 dBu (free space equation).

Using the Undesired-to-Desired method for calculating proposed interference, the proposed interfering contour with respect to KXFF is 110.06 dBu (70.06 + 40) (free space method employed). This interfering signal would, in the worst case, extend 219.29 meters from the proposed antenna.

The interference area described above is located in an unpopulated area. Any structures in the immediate area house communications equipment only, and have no regular human occupancy.

To further support this waiver request, an interference area represented by a circle having a radius of 220 meters from the proposed translator site has been plotted on a section of the Hole-n-Wall Canyon, AZ 7.5 min USGS Topographical Map (see **Figure 2**). In addition a circle with a radius of 220 meters has been plotted on a recent aerial photo to account for any newer development in the area (see **Figure 3**).

Since no population inhabits the interference area, the Applicant respectfully requests waiver of the FM translator contour overlap requirements with respect to 2nd adjacent station KXFF, as permitted in CFR Section 74.1204.

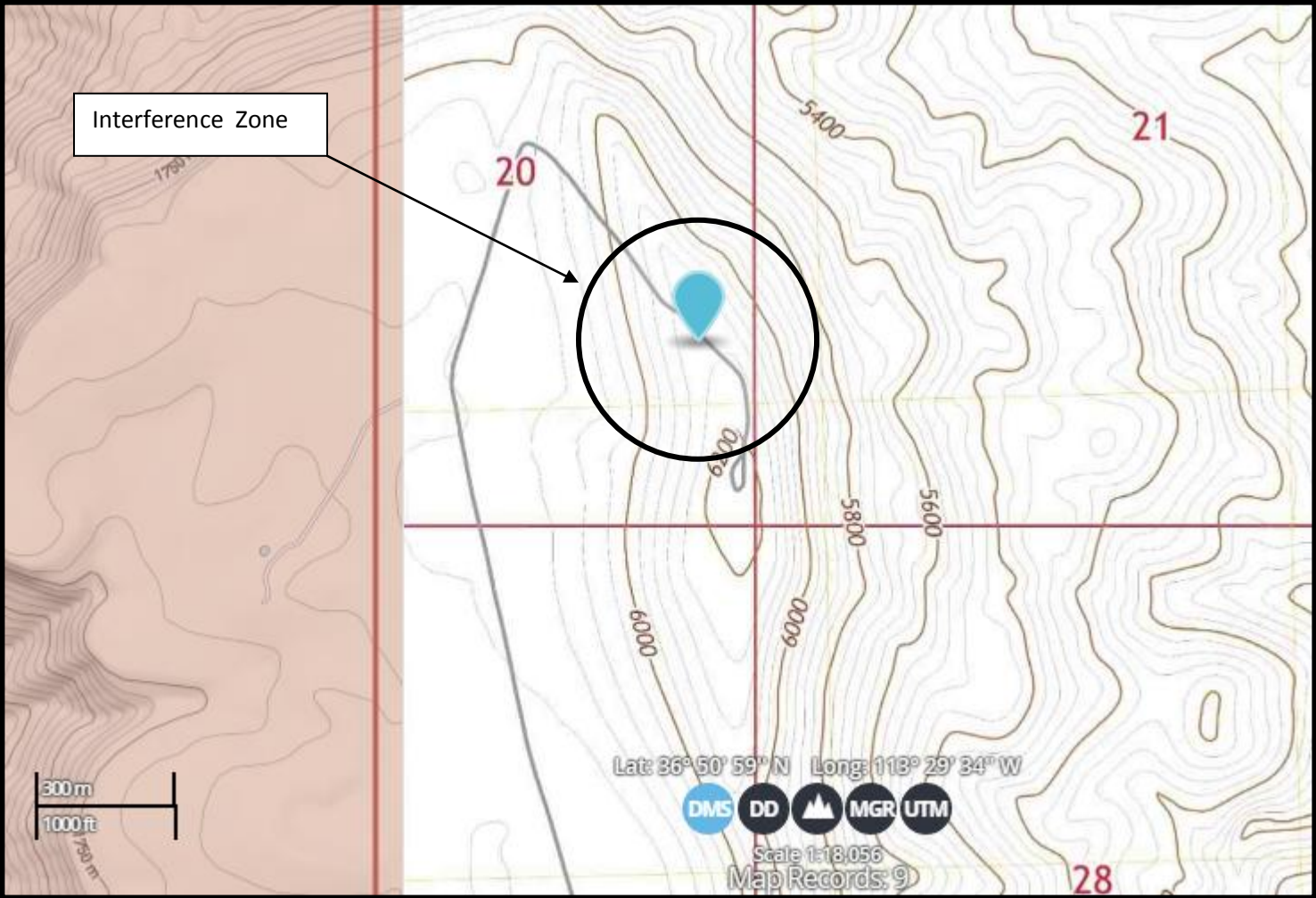


Figure 2



Figure 3

“FILL-IN QUALIFICATION”

Figure 4 below illustrates the fact that the proposed fill-in FM translator’s 60 dBu contour lies completely within the 60 dBu contour of primary station KCLS-HD3, Leeds, UT, FID # 55461.

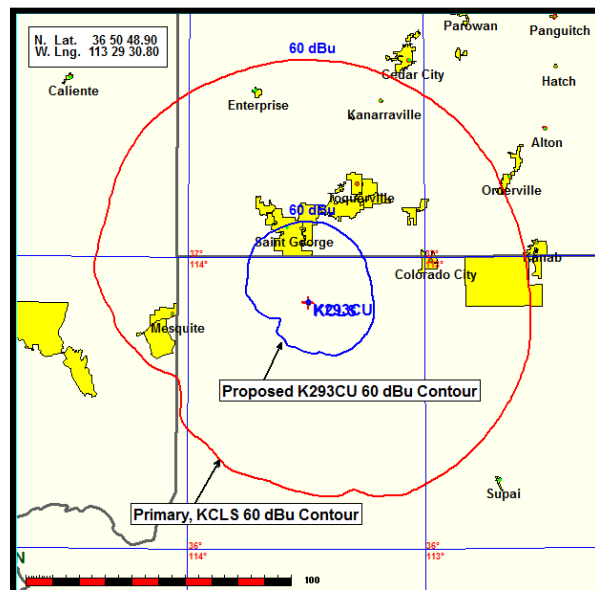


Figure 4

Figure 4

OVERLAPPING 60 dBu CONTOUR MINOR MODIFICATION QUALIFICATION

Figure 5 below demonstrates the overlapping 60 dBu contours of the licensed and proposed facilities.

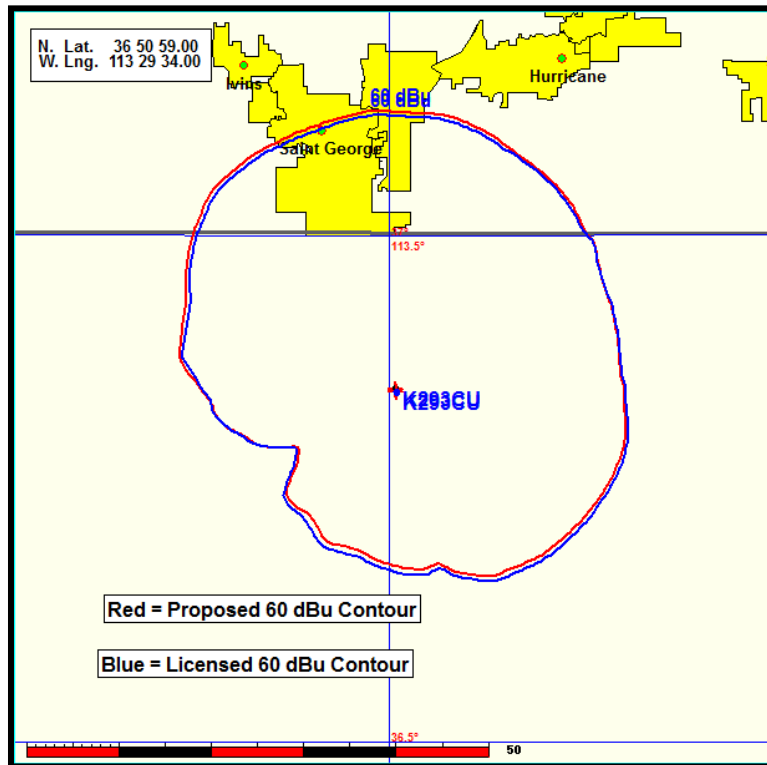


Figure 5

ENVIRONMENTAL COMPLIANCE:

The proposed facility (antenna) will be installed on a newly constructed, FAA approved 305 ft. tower (ASR # 1308648) at the established Seegmiller Mountain communications site. There will be no significant environmental impact as outlined in 47 CFR 1.1307.

With an ERP of 99 watts (<100), Commission Rules categorically exclude this facility from RF exposure guidelines.

Access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.