

TECHNICAL SUMMARY

LOW POWER TELEVISION STATION KMUV-LD
MONTEREY, CALIFORNIA
CHANNEL 23 15 KW (MAX-DA) 1001.1 M AMSL

1. The instant application is a displacement application for KMUV-LD, currently licensed and operating on channel 21 at Monterey, CA (FCC File No. 0000072057).

2. KMUV-LD is eligible for displacement due to predicted interference to the post-transition licensed facility of KDTV-DT, San Francisco, CA (Channel 20) (FCC File No. 0000106811), which exceeds the permissible 0.5% rounding tolerance. An interference analysis for the licensed KMUV-LD facility with respect to the KDTV-DT post-transition facility is attached hereto to demonstrate displacement eligibility.

3. It is noted that the KDTV-DT facility now licensed, was modified on March 13, 2020, eleven months after KMUV-LD was granted its current license for operation on Channel 21 on April 23, 2019. See KDTV-DT FCC File No. 0000106811. While the KMUV-LD facility met the interference protection limit to the KDTV-DT facility prior to its March 2020 modification, the change in the KDTV-DT antenna pattern and height created the present displacement issue for KMUV-LD.

4. An interference analysis for the proposed KMUV-LD facility on Channel 23 was conducted using the FCC's *TVStudy* software. The results of this analysis are attached as an exhibit. The proposed facility meets the FCC's interference protection requirements with respect to all protected facilities.

INTERFERENCE ANALYSIS FOR KMUV-LD CHANNEL 21 LICENSED FACILITY WITH RESPECT TO KDTV-DT, CHANNEL 20

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: kmuv_lic4, Model: Longley-Rice

Study build station data: LMS TV 2020-11-18

Proposal: KMUV-LD D21 LD LIC MONTEREY, CA
File number: BLANK0000072057
Facility ID: 59362
Station data: LMS TV 2020-11-18
Record ID: 25076f916a230454016a355ad63466ca
Country: U.S.

Search options:

Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K2000-D	D20	LD	CP	CERES, CA	BLANK0000072037	98.8 km
No	KSEE	D20	DT	LIC	FRESNO, CA	BLANK0000116952	187.8
No	K20JX-D	D20	DC	CP	SACRAMENTO, CA	BLANK0000073020	213.2
Yes	KDTV-DT	D20	DT	LIC	SAN FRANCISCO, CA	BLANK0000113449	88.8
No	K21MN-D	D21	LD	CP	BAKERSFIELD, CA	BNPDTL20100514ABR	271.3
No	NEW	D21	LD	CP	CHICO, CA	BNPDTL20090825AOS	346.4
Yes	KFTV-DT	D21	DT	LIC	HANFORD, CA	BLANK0000116939	187.4
No	KTAV-LD	D21	LD	CP	LANCASTER, CA	BLANK0000120186	406.5
Yes	KQRM-LD	D21z	LD	LIC	PETALUMA, CA	BLANK0000118108	132.3
No	K21IN-D	D21	LD	LIC	RIDGECREST, ETC., CA	BLDTT20090622AAK	371.1
Yes	KSPX-TV	D21	DT	LIC	SACRAMENTO, CA	BLANK0000115705	165.7
Yes	KCNZ-CD	D21z	DC	LIC	SAN FRANCISCO, CA	BLANK0000117957	132.3
Yes	KPMR	D21	DT	LIC	SANTA BARBARA, CA	BLCDT20110607ABB	284.5
Yes	KPMR	D21	DT	APP	SANTA BARBARA, CA	BPCDT20120817ABD	283.8
Yes	KDTV-CD	D21	DC	LIC	SANTA ROSA, CA	BLANK0000112915	234.6
No	K21CD-D	D21	LD	LIC	UKIAH, CA	BLDTT20120201ALL	297.1
No	KRXI-TV	D21	LD	LIC	RENO, NV	BLCDT20140116ABJ	317.2
No	K22LI-D	D22	LD	CP	NEWMAN, CA	BNPDTL20100513ADU	78.3
No	KTXL	D22	DT	LIC	SACRAMENTO, CA	BLANK0000117080	168.4
No	KLFB-LD	D22	LD	CP	SALINAS, CA	BPDTL20120425AAW	26.8
No	KLFB-LD	D22	LD	LIC	SALINAS, CA	BLDTL20101005ABL	26.9
No	KAXT-CD	D22	DC	LIC	SAN FRANCISCO, SAN JO, CA	BLANK0000117033	88.8
No	KNXT	D22	DT	LIC	VISALIA, CA	BLANK0000093296	243.6
No	K29AB	N29	TX	LIC	MONTEREY, ETC., CA	BLTT19811124IC	0.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D21

Mask: Full Service
Latitude: 36 45 22.80 N (NAD83)
Longitude: 121 30 8.70 W
Height AMSL: 1001.1 m
HAAT: 0.0 m
Peak ERP: 3.60 kW
Antenna: KAT-4x2 750 10210 (ID 1004929) 0.0 deg
Elev Pattern: Generic
Elec Tilt: 1.00

49.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.251 kW	822.4 m	47.4 km
45.0	0.037	767.8	34.8
90.0	0.019	617.8	28.6
135.0	0.192	280.3	32.9
180.0	1.96	701.8	58.7
225.0	2.50	880.1	63.4
270.0	2.60	849.3	63.2
315.0	2.26	770.0	60.9

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 711 m

INTERFERENCE ANALYSIS FOR KMUV-LD CHANNEL 21 LICENSED FACILITY WITH RESPECT TO KDTV-DT, CHANNEL 20

Distance to Canadian border: 1285.5 km

Distance to Mexican border: 592.1 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 348.4 degrees Distance: 109.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 70.2 degrees Distance: 1460.8 km

No land mobile station failures found

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLANK0000113449 LIC scenario 1

****IX: 0.67% interference caused**

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KDTV-DT	D20	DT	LIC	SAN FRANCISCO, CA	BLANK0000113449	
Undesireds:	KMUV-LD	D21	LD	LIC	MONTEREY, CA	BLANK0000072057	88.8 km
	KSTS	D19	DT	LIC	SAN JOSE, CA	BLANK0000112998	0.0
	KNVN	D20	DT	LIC	CHICO, CA	BLANK0000121428	307.3
	KSEE	D20	DT	LIC	FRESNO, CA	BLANK0000116952	221.5
	K20JX-D	D20	DC	CP	SACRAMENTO, CA	BLANK0000073020	144.5
	KNSN-TV	D20	DT	LIC	RENO, NV	BLANK0000001059	293.6
	KSPX-TV	D21	DT	LIC	SACRAMENTO, CA	BLANK0000115705	89.3
	KCNZ-CD	D21z	DC	LIC	SAN FRANCISCO, CA	BLANK0000117957	53.8
	KDTV-CD	D21	DC	LIC	SANTA ROSA, CA	BLANK0000112915	146.0

	Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX	
	36787.6	7,962,275	30359.9	7,099,618	28275.2	6,724,063
					27816.8	6,679,110
					1.62	0.67 FAIL

Undesired	Total IX	Unique IX, before	Unique IX, after
KMUV-LD D21 LD LIC	552.6	48,693	458.4
KSTS D19 DT LIC	2.0	627	2.0
KNVN D20 DT LIC	537.2	92,052	4.0
KSEE D20 DT LIC	1737.0	268,263	622.4
K20JX-D D20 DC CP	1184.7	271,564	90.8
KSPX-TV D21 DT LIC	1238.5	267,451	31.2
KCNZ-CD D21z DC LIC	58.4	38,079	31.2
KDTV-CD D21 DC LIC	34.2	18,751	24.2

Note: Interference fail occurs even at higher terrain profile point spacing specifications of 0.2 km and 0.25 km.