

Amended DTV Allocation Study

Attached are the results of an updated *TVStudy* v.2.2.4 allocation study which demonstrates that the KARNV-DT proposal satisfies all applicable interference criteria. By specifying a Study Cell Size of 1.0 km (rather than the default value of 2.0 km used in the original application) and a Profile Point Spacing of 0.2 km (rather than the default value of 1.0 km used in the original application), the application's proposed interference caused to the pending KGO-TV maximization application (FCC File No. 0000033605) is reduced to 0.43%.¹

Because the instant proposal causes no new interference exceeding 0.5% to the population served by any relevant protections, the application satisfies all applicable interference criteria with the *TVStudy* input parameters set as described above.

¹ It should be noted that the predicted 0.51% interference to the KGO-TV outstanding construction permit facility (FCC File No. 0000025366) may be disregarded because the KGO-TV CP facility will be superseded upon grant of the pending KGO-TV maximization application discussed above.

tvstudy v2.2.4 (Z2Qqz3)
Database: localhost, Study: KRVN 12 App 1 X p2 Grid, Model: Longley-Rice
Start: 2018.03.08 15:59:48

Study created: 2018.03.08 15:59:48

Study build station data: LMS TV 2018-03-07 (50)

Proposal: KRVN-DT D12 DT APP *P RENO, NV
File number: BLANK0000034623
Facility ID: 60307
Station data: LMS TV 2018-03-07 (50)
Record ID: 25076f915f0d91b4015f170edac01573
Country: U.S.
Zone: II

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KNSO	D11	DT	LIC	MERCED, CA	BLCDT20100202ABE	252.5 km
No	KTVN	D11	DT	CP	RENO, NV	BLANK0000034040	0.0
Yes	KGO-TV	D12	DT	CP	SAN FRANCISCO, CA	BLANK0000025366	282.7
Yes	KGO-TV	D12	DT	APP	SAN FRANCISCO, CA	BLANK0000033605	282.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D12
Latitude: 39 18 56.20 N (NAD83)
Longitude: 119 53 6.00 W
Height AMSL: 2976.4 m
HAAT: 891.4 m
Peak ERP: 19.0 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.90

36.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	19.0 kW	679.7 m	121.6 km
45.0	19.0	1310.3	135.7
90.0	19.0	1245.9	134.4
135.0	19.0	1366.5	136.7
180.0	19.0	737.5	123.4
225.0	19.0	864.5	125.8
270.0	19.0	474.9	110.9
315.0	19.0	451.5	109.1

ERP exceeds maximum

ERP: 19.0 kW ERP maximum: 15.7 kW

Distance to Canadian border: 1032.4 km

Distance to Mexican border: 778.6 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 223.2 degrees Distance: 240.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 81.1 degrees Distance: 1252.7 km

Study cell size: 1.00 km

Profile point spacing: 0.20 km

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

Maximum new IX to LPTV: 2.00%

Interference to BLANK0000025366 CP scenario 1

**IX: 0.51% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KGO-TV	D12	DT	CP	SAN FRANCISCO, CA	BLANK0000025366	
Undesireds:	KRNV-DT	D12	DT	BL	RENO, NV	DTVBL60307	282.6 km
	KRNV-DT	D12	DT	APP	RENO, NV	BLANK0000034623	282.7
	KCBA	D11	DT	CP	SALINAS, CA	BLANK0000028196	139.3
	KNTV	D13	DT	CP	SAN JOSE, CA	BLANK0000026912	8.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
41795.9	8,286,325	36780.0	7,370,555	34852.9	7,012,058	34704.3	6,976,579 0.43 0.51
Undesired				Total IX	Unique IX, before	Unique IX, after	
KRNV-DT D12 DT BL		1683.3		339,124	1683.3	339,124	
KRNV-DT D12 DT APP		1831.9		374,603		1831.9	374,603
KCBA D11 DT CP		124.9		150	124.9	150	124.9
KNTV D13 DT CP		118.8		19,223	118.8	19,223	118.8

Interference to BLANK0000025366 CP scenario 2

**IX: 0.51% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KGO-TV	D12	DT	CP	SAN FRANCISCO, CA	BLANK0000025366	
Undesireds:	KRNV-DT	D12	DT	BL	RENO, NV	DTVBL60307	282.6 km
	KRNV-DT	D12	DT	APP	RENO, NV	BLANK0000034623	282.7
	KCBA	D11	DT	CP	SALINAS, CA	BLANK0000028196	139.3
	KNTV	D13	DT	APP	SAN JOSE, CA	BLANK0000034344	8.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
41795.9	8,286,325	36780.0	7,370,555	34842.8	7,010,074	34694.2	6,974,595 0.43 0.51
Undesired				Total IX	Unique IX, before	Unique IX, after	
KRNV-DT D12 DT BL		1683.3		339,124	1683.3	339,124	
KRNV-DT D12 DT APP		1831.9		374,603		1831.9	374,603
KCBA D11 DT CP		124.9		150	123.9	150	123.9
KNTV D13 DT APP		129.9		21,207	129.0	21,207	129.0

Interference to BLANK0000033605 APP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KGO-TV	D12	DT	APP	SAN FRANCISCO, CA	BLANK0000033605	
Undesireds:	KRNV-DT	D12	DT	BL	RENO, NV	DTVBL60307	282.6 km
	KRNV-DT	D12	DT	APP	RENO, NV	BLANK0000034623	282.7
	KCBA	D11	DT	CP	SALINAS, CA	BLANK0000028196	139.3
	KNTV	D13	DT	CP	SAN JOSE, CA	BLANK0000026912	8.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
42407.7	8,644,911	37596.7	7,850,525	35419.7	7,346,905	35133.5	7,315,581 0.81 0.43
Undesired				Total IX	Unique IX, before	Unique IX, after	
KRNV-DT D12 DT BL		2026.4		481,723	2026.4	481,723	
KRNV-DT D12 DT APP		2312.6		513,047		2312.6	513,047
KCBA D11 DT CP		54.0		163	54.0	163	54.0
KNTV D13 DT CP		96.7		21,734	96.7	21,734	96.7

Interference to BLANK0000033605 APP scenario 2

Desired:	Call KGO-TV	Chan D12	Svc DT	Status APP	City, State SAN FRANCISCO, CA	File Number BLANK0000033605	Distance
Undesireds:	KRNV-DT	D12	DT	BL	RENO, NV	DTVBL60307	282.6 km
	KRNV-DT	D12	DT	APP	RENO, NV	BLANK0000034623	282.7
	KCBA	D11	DT	CP	SALINAS, CA	BLANK0000028196	139.3
	KNTV	D13	DT	APP	SAN JOSE, CA	BLANK0000034344	8.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
42407.7 8,644,911	37596.7 7,850,525	35412.7 7,346,887	35126.4 7,315,563	0.81 0.43

Undesired	Total IX	Unique IX, before	Unique IX, after
KRNV-DT D12 DT BL	2026.4 481,723	2026.4 481,723	
KRNV-DT D12 DT APP	2312.6 513,047		2312.6 513,047
KCBA D11 DT CP	54.0 163	54.0 163	54.0 163
KNTV D13 DT APP	103.8 21,752	103.8 21,752	103.8 21,752

Interference to proposal scenario 1

Desired:	Call KRNV-DT	Chan D12	Svc DT	Status APP	City, State RENO, NV	File Number BLANK0000034623	Distance
Undesireds:	KGO-TV	D12	DT	CP	SAN FRANCISCO, CA	BLANK0000025366	282.7 km

Service area	Terrain-limited	IX-free	Percent IX
49370.4 985,363	42214.9 887,350	42014.0 883,578	0.48 0.43

Undesired	Total IX	Unique IX	Prcnt Unique IX
KGO-TV D12 DT CP	200.9 3,772	200.9 3,772	0.48 0.43

Interference to proposal scenario 2

Desired:	Call KRNV-DT	Chan D12	Svc DT	Status APP	City, State RENO, NV	File Number BLANK0000034623	Distance
Undesireds:	KGO-TV	D12	DT	APP	SAN FRANCISCO, CA	BLANK0000033605	282.7 km

Service area	Terrain-limited	IX-free	Percent IX
49370.4 985,363	42214.9 887,350	42003.1 883,578	0.50 0.43

Undesired	Total IX	Unique IX	Prcnt Unique IX
KGO-TV D12 DT APP	211.8 3,772	211.8 3,772	0.50 0.43