

INTERFERENCE ANALYSIS FOR PROPOSED K38AI-D COTTONWOOD, AZ (CHANNEL 28)

tvstudy v2.2.3 (Dxtpx3)
Database: localhost, Study: k38ai28p4, Model: Longley-Rice

Study build station data: LMS TV 2017-10-11 (36)

Proposal: K38AI28P4 D28 LD APP COTTONWOOD, AZ
File number: k38ai28p4
Facility ID: 2754
Station data: User record
Record ID: 1069
Country: U.S.

Build options:
Protect records not on baseline channel
Protect baseline records from LPTV

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KASW	D27	DT	CP	PHOENIX, AZ	BLANK0000028421	150.5 km
KASW	D27	DT	BL	PHOENIX, AZ	DTVBL7143	150.4
K28CW-D	D28	LD	LIC	FLAGSTAFF, AZ	BLDTT20120731ACI	77.7
K28MO-D	D28	LD	CP	GILA RIVER INDIAN CO, AZ	BNPDTL20100713APJ	145.9
KCOS-LP	D28	LD	APP	PHOENIX, AZ	BDFCDTL20111107AFN	139.6
KCOS-LP	N28-	TX	LIC	PHOENIX, AZ	BLTTL19990325JD	139.6
KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	293.4
KTAZ	D29	DT	CP	PHOENIX, AZ	BLANK0000026902	150.4
KTAZ	D29	DT	BL	PHOENIX, AZ	DTVBL81458	150.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D28
Mask: Full Service
Latitude: 34 41 12.00 N (NAD83)
Longitude: 112 7 1.80 W
Height AMSL: 2349.0 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: ERI-AL8-28-2 0.0 deg
Elev Pattn: Generic
Elec Tilt: 1.8

50.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	6.44 kW	800.6 m	67.4 km
45.0	7.27	1159.7	75.1
90.0	12.1	1197.4	80.2
135.0	15.0	790.3	73.1
180.0	12.1	623.2	67.9
225.0	7.28	577.3	63.3
270.0	6.44	599.7	63.1
315.0	7.50	427.5	58.8

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 772 m

Distance to Canadian border: 1590.8 km

Distance to Mexican border: 315.2 km

Conditions at FCC monitoring station: Douglas AZ
Bearing: 146.4 degrees Distance: 421.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 43.1 degrees Distance: 854.9 km

Study cell size: 1.00 km
Profile point spacing: 0.10 km (Higher resolution profile point spacing is requested.)

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

INTERFERENCE ANALYSIS FOR PROPOSED K38AI-D COTTONWOOD, AZ (CHANNEL 28)

Interference to BLANK0000028421 CP, scenario 1

Desired:	Call KASW	Chan D27	Svc DT	Status CP	City, State PHOENIX, AZ	File Number BLANK0000028421	Distance	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	150.5 km	
	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	0.1	
	KTVW-CD	D27	DC	LIC	FLAGSTAFF/DONEY PARK, AZ	BLDTA20140421ACI	188.7	
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX
30938.8	4,169,663	25368.3	4,144,241	25324.5	4,142,206	25308.4	4,142,206	0.06 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after		
K38AI28P4 D28 LD APP		18.1		0		16.1	0	
KUTP D26 DT LIC		40.8		2,035	40.8 2,035	40.8	2,035	
KTVW-CD D27 DC LIC		3.0		0	3.0 0	1.0	0	

Interference to DTVBL7143 BL, scenario 1

Desired:	Call KASW	Chan D27	Svc DT	Status BL	City, State PHOENIX, AZ	File Number DTVBL7143	Distance			
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	150.4 km			
	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	0.1			
	KTVW-CD	D27	DC	LIC	FLAGSTAFF/DONEY PARK, AZ	BLDTA20140421ACI	188.6			
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX		
31956.1	4,170,508	26443.5	4,149,504		26332.0	4,148,715	26312.9	4,148,715	0.07	0.00
Undesired				Total IX	Unique IX, before		Unique IX, after			
K38AI28P4	D28	LD	APP	19.2	0	19.2		0		
KUTP	D26	DT	LIC	109.5	789	109.5		789		
KTVW-CD	D27	DC	LIC	2.0	0	2.0		0		

Interference to BLDTT20120731ACI LIC, scenario 1

Desired:	Call K28CW-D	Chan D28	Svc LD	Status LIC	City, State FLAGSTAFF, AZ	File Number BLDTT20120731ACI	Distance	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	77.7 km	
	KTVW-CD	D27	DC	LIC	FLAGSTAFF/DONEY PARK, AZ	BLDTA20140421ACI	31.3	
	KCOS-LP	D28	LD	APP	PHOENIX, AZ	BDFCDTL20111107AFN	194.2	
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX
6582.8	103,087	5391.2	90,737		5251.5	88,853	5058.7	88,021
							3.67	0.94
Undesired				Total IX	Unique IX, before		Unique IX, after	
K38AI28P4	D28	LD	APP	235.8	834		192.8	
KTVW-CD	D27	DC	LIC	139.7	1,884		96.7	
					139.7	1,884	96.7	
							1,882	

Interference to BNPDTL20100713APJ CP, scenario 1

Desired:	Call K28MO-D	Chan D28	Svc LD	Status CP	City, State GILA RIVER INDIAN CO, AZ	File Number BNPDTL20100713APJ	Distance
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	145.9 km
	KASW	D27	DT	CP	PHOENIX, AZ	BLANK0000028421	15.9
	KCOS-LP	D28	LD	APP	PHOENIX, AZ	BDFCDTL20111107AFN	55.7
	KGRQ-LD	D29	LD	LIC	GILA RIVER INDIAN CO, AZ	BLANK0000001686	46.2
	KTAZ	D29	DT	CP	PHOENIX, AZ	BLANK0000026902	16.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
555.0	95,822	506.2	90,657	246.7	19,265	220.8 19,265	10.48 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
K38AI28P4	D28	LD	APP	52.7	16,070	25.9	0
KASW	D27	DT	CP	17.9	717	0.0	0
KCOS-LP	D28	LD	APP	258.6	71,392	207.8 57,730	184.0 45,330
KGRQ-LD	D29	LD	LIC	5.0	0	0.0	0
KTAZ	D29	DT	CP	51.7	13,662	1.0 0	1.0 0

INTERFERENCE ANALYSIS FOR PROPOSED K38AI-D COTTONWOOD, AZ (CHANNEL 28)

Interference to BNPDTL20100713APJ CP, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K28MO-D	D28	LD	CP	GILA RIVER INDIAN CO, AZ	BNPDTL20100713APJ	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	145.9 km
	KASW	D27	DT	CP	PHOENIX, AZ	BLANK0000028421	15.9
	KCOS-LP	N28-	TX	LIC	PHOENIX, AZ	BLTTTL19990325JD	55.7
	KGRQ-LD	D29	LD	LIC	GILA RIVER INDIAN CO, AZ	BLANK0000001686	46.2
	KTAZ	D29	DT	CP	PHOENIX, AZ	BLANK0000026902	16.0
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	555.0	95,822	506.2	90,657	283.4	31,629	252.6 31,629 10.88 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
K38AI28P4 D28 LD APP	52.7 16,070		30.8 0
KASW D27 DT CP	17.9 717	0.0 0	0.0 0
KCOS-LP N28- TX LIC	221.8 59,028	171.1 45,366	152.2 32,966
KGRQ-LD D29 LD LIC	5.0 0	0.0 0	0.0 0
KTAZ D29 DT CP	51.7 13,662	1.0 0	1.0 0

Interference to BDFCDTL20111107AFN APP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KCOS-LP	D28	LD	APP	PHOENIX, AZ	BDFCDTL20111107AFN	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	139.6 km
	KASW	D27	DT	CP	PHOENIX, AZ	BLANK0000028421	43.0
	K28MO-D	D28	LD	CP	GILA RIVER INDIAN CO, AZ	BNPDTL20100713APJ	55.7
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	154.1
	KGRQ-LD	D29	LD	LIC	GILA RIVER INDIAN CO, AZ	BLANK0000001686	39.9
	K29KO-D	D29	LD	CP	GILA RIVER INDIAN CO, AZ	BNPDTL20100713APR	51.9
	KTAZ	D29	DT	CP	PHOENIX, AZ	BLANK0000026902	42.8
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	4046.6	3,125,867	3489.0	2,727,384	3110.1	2,406,403	3094.3 2,390,611 0.51 0.66

Undesired	Total IX	Unique IX, before	Unique IX, after
K38AI28P4 D28 LD APP	117.9 159,738		15.9 15,792
KASW D27 DT CP	108.0 112,695	0.0 0	0.0 0
K28MO-D D28 LD CP	180.7 136,339	89.4 21,368	80.5 19,781
KUAS-TV D28 DT LIC	42.6 8,467	10.9 2,547	10.9 2,547
KGRQ-LD D29 LD LIC	24.8 11,808	13.9 9,369	13.9 9,369
K29KO-D D29 LD CP	1.0 1,159	0.0 0	0.0 0
KTAZ D29 DT CP	262.7 287,697	120.9 141,000	91.2 95,678

Interference to BLTTTL19990325JD LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KCOS-LP	N28-	TX	LIC	PHOENIX, AZ	BLTTTL19990325JD	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	139.6 km
	KASW	D27	DT	CP	PHOENIX, AZ	BLANK0000028421	43.0
	K28MO-D	D28	LD	CP	GILA RIVER INDIAN CO, AZ	BNPDTL20100713APJ	55.7
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	154.1
	KGRQ-LD	D29	LD	LIC	GILA RIVER INDIAN CO, AZ	BLANK0000001686	39.9
	KTAZ	D29	DT	CP	PHOENIX, AZ	BLANK0000026902	42.8
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	1466.1	1,422,733	1449.2	1,396,911	1372.7	1,337,529	1368.7 1,334,458 0.29 0.23

Undesired	Total IX	Unique IX, before	Unique IX, after
K38AI28P4 D28 LD APP	11.9 10,623		4.0 3,071
KASW D27 DT CP	7.9 10,351	0.0 0	0.0 0
K28MO-D D28 LD CP	24.8 24,827	16.9 14,560	8.9 7,008
KUAS-TV D28 DT LIC	6.9 107	4.0 23	4.0 23
KGRQ-LD D29 LD LIC	47.8 34,448	46.8 34,448	46.8 34,448
KTAZ D29 DT CP	7.9 10,351	0.0 0	0.0 0

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----- Interference to BLEDT20030115ABS LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	293.4 km
	KASW	D27	DT	CP	PHOENIX, AZ	BLANK0000028421	158.8
	KTAZ	D29	DT	CP	PHOENIX, AZ	BLANK0000026902	158.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
12406.5	994,818	9112.5	974,878	9103.5	974,878	9075.5 974,878	0.31 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
K38AI28P4 D28 LD APP	35.0			0		28.0 0	
KASW D27 DT CP	8.0			0	1.0 0	0.0 0	
KTAZ D29 DT CP	8.0			0	1.0 0	1.0 0	

----- Interference to BLEDT20030115ABS LIC, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	293.4 km
	KASW	D27	DT	BL	PHOENIX, AZ	DTVBL7143	158.8
	KTAZ	D29	DT	CP	PHOENIX, AZ	BLANK0000026902	158.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
12406.5	994,818	9112.5	974,878	9104.5	974,878	9075.5 974,878	0.32 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
K38AI28P4 D28 LD APP	35.0			0		29.0 0	
KASW D27 DT BL	7.0			0	0.0 0	0.0 0	
KTAZ D29 DT CP	8.0			0	1.0 0	1.0 0	

----- Interference to BLEDT20030115ABS LIC, scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	293.4 km
	KASW	D27	DT	CP	PHOENIX, AZ	BLANK0000028421	158.8
	KTAZ	D29	DT	BL	PHOENIX, AZ	DTVBL81458	158.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
12406.5	994,818	9112.5	974,878	9103.5	974,878	9075.5 974,878	0.31 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
K38AI28P4 D28 LD APP	35.0			0		28.0 0	
KASW D27 DT CP	8.0			0	1.0 0	0.0 0	
KTAZ D29 DT BL	8.0			0	1.0 0	1.0 0	

----- Interference to BLEDT20030115ABS LIC, scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	293.4 km
	KASW	D27	DT	BL	PHOENIX, AZ	DTVBL7143	158.8
	KTAZ	D29	DT	BL	PHOENIX, AZ	DTVBL81458	158.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
12406.5	994,818	9112.5	974,878	9104.5	974,878	9075.5 974,878	0.32 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
K38AI28P4 D28 LD APP	35.0			0		29.0 0	
KASW D27 DT BL	7.0			0	0.0 0	0.0 0	
KTAZ D29 DT BL	8.0			0	1.0 0	1.0 0	

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Interference to BLANK0000026902 CP, scenario 1

Desired:	Call KTAZ	Chan D29	Svc DT	Status CP	City, State PHOENIX, AZ	File Number BLANK0000026902	Distance
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	150.4 km
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	158.7
	KUAT-TV	D30	DT	LIC	TUCSON, AZ	BLEDT20040727ABR	161.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
34353.3	4,177,274	28267.1	4,152,422	28182.3	4,149,495	28174.2 4,149,260	0.03 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
K38AI28P4	D28 LD APP	8.1	235			8.1 235	
KUAS-TV	D28 DT LIC	1.0	0	1.0	0	1.0 0	
KUAT-TV	D30 DT LIC	83.9	2,927	83.9	2,927	83.9 2,927	

Interference to DTVBL81458 BL, scenario 1

Desired:	Call KTAZ	Chan D29	Svc DT	Status BL	City, State PHOENIX, AZ	File Number DTVBL81458	Distance
Undesireds:	K38AI28P4	D28	LD	APP	COTTONWOOD, AZ	k38ai28p4	150.4 km
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	158.7
	KUAT-TV	D30	DT	LIC	TUCSON, AZ	BLEDT20040727ABR	161.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
34234.6	4,176,411	28212.1	4,152,460	28129.3	4,149,940	28120.2 4,149,705	0.03 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
K38AI28P4	D28 LD APP	9.1	235			9.1 235	
KUAS-TV	D28 DT LIC	1.0	0	1.0	0	1.0 0	
KUAT-TV	D30 DT LIC	81.9	2,520	81.9	2,520	81.9 2,520	
