

TECHNICAL SUMMARY
DISPLACEMENT APPLICATION FOR CONSTRUCTION PERMIT
LOW POWER DIGITAL STATION K27PC-D
YUMA, ARIZONA
CHANNEL 26 1.8 KW (DA)

1. *Application Purpose:* As detailed below, K27PC-D is eligible for displacement due to impermissible interference caused and received with the authorized (CP) operation of full power station KAZS on channel 27 at Yuma, Arizona (LMS File No. 0000212367). Therefore, it is proposed to operate K27PC-D on channel 26 from its current site location with a directional antenna maximum effective radiated power (ERP) of 1.8 kW using an ERI model ALP8L2-HSOC-26 horizontally polarized directional antenna (DA) with a main lobe orientation of 270 degrees true. The antenna radiation center height will be 546.6 m AMSL. There will be no change in the overall structure height (ASRN 1007974).

2. *Eligibility to File a Displacement Application:* Station K27PC-D's licensed channel 27 operation (LMS File No. 0000179077) is considered to be displaced due to impermissible interference caused and received with the authorized operation of full power station KAZS on channel 27 at Yuma, Arizona (LMS File No. 0000212367). Specifically, as indicated by the attached *TVStudy* analysis (Figure 1), K27PC-D's licensed channel 27 operation is predicted to cause 9.36% new interference to KAZS (up to 0.5% new interference is permitted) and will receive 82.49% new interference from KAZS (a 2% threshold is generally used by the FCC for determination of displacement).

3. *Interference Compliance:* As indicated in the attached *TVStudy* analysis summaries, K27PC-D's proposed channel 26 operation meets the FCC's interference protection requirements with respect to all protected domestic and Mexican facilities.¹

4. *RFR Compliance:* The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. In this case, the site is on a remote mountaintop controlled by the Bureau of Land Management (BLM) and is considered a controlled site. The radiation center for the

¹ Two *TVStudy* analyses were run, one with US stations only (Figure 2A) and one with US and Mexican stations (Figure 2B). It is noted that the “default” template along with a terrain cell size of 2 km and a profile point spacing of 1 kilometer were used for the *TVStudy* analysis depicted in Figure 2B.

proposed DTV antenna will be located 55 meters above ground level. The total DTV ERP is 1.8 kW (horizontal polarization). A greater than expected vertical plane relative field value of 0.27 is presumed for the antenna's downward radiation (-60° to -90° elevation, see antenna vertical plane relative field pattern attached). The calculated power density at a point 2 meters above ground level is 1.56 uW/cm² which is 0.09% of the FCC's recommended limit of 1816.7 uW/cm² for channel 26 for a controlled environment and 0.43% of the FCC's recommended limit of 363.3 uW/cm² for an uncontrolled environment. Thus, it is believed that the proposed K27PC-D facility is in full compliance with the FCC's requirements with regard to RF radiation exposure.

Access to the transmitting site shall be restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

TVStudy Analysis - K27PC-D Ch 27 License

tvstudy v2.2.5 (4uoc83)
 Database: localhost, Study: K27PC-D License #320, Model: Longley-Rice
 Start: 2023.03.20 10:25:48

Study created: 2023.03.20 10:25:47

Study build station data: LMS TV 2023-03-19

Proposal: K27PC-D D27 LD LIC YUMA, AZ
 File number: K27PC-D License
 Facility ID: 182419
 Station data: User record
 Record ID: 319
 Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K19CX-D	N19	TX	LIC	YUMA, AZ	BLTT19941212JC	0.3 km
No	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	224.4
No	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	235.8
No	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	243.2
No	K27DA-D	D27	LD	LIC	BIG SANDY VALLEY, AZ	BLDTT20130308AAI	274.2
No	KTVW-CD	D27	DC	LIC	FLAGSTAFF/DONEY PARK, AZ	BLDTA20140421ACI	365.0
No	K27KS-D	D27	LD	LIC	GLOBE/MIAMI, AZ	BLDTT20130312ACC	331.4
No	K27NT-D	D27	LD	LIC	GOLDEN VALLEY, AZ	BLANK0000071725	284.2
No	K27OP-D	D27	LD	LIC	ORO VALLEY/TUCSON, AZ	BLANK0000067692	316.5
Yes	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	224.3
No	DDDCKDFQ-LPD27z		LD	APP	PRESCOTT, AZ	BLANK0000052540	303.7
No	KYPO-LD	D27	LD	LIC	TACNA, AZ	BLANK0000179279	134.8
No	KYPO-LD	N27	TX	LIC	TACNA, AZ	BLTTL20080818AAL	134.8
No	K27NR-D	D27	LD	LIC	TOPOCK, AZ	BLANK0000071723	262.7
Yes	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	62.5
No	KSCD-LD	D27-	LD	LIC	HEMET, CA	BLANK0000193695	303.4
Yes	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955	235.7
No	K27ON-D	D27	LD	LIC	LUCERNE VALLEY, CA	BLANK0000082020	308.4
No	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	385.7
No	KPCD-LD	D27-	LD	LIC	SAN FERNANDO, CA	BLANK0000193342	303.4
No	KPCD-LD	D27-	LD	APP	SAN FERNANDO, CA	BLANK0000203594	313.1
No	K27AE-D	D27	LD	LIC	VICTORVILLE, ETC., CA	BLANK0000143996	347.8
No	K27AE-D	N27	TX	LIC	VICTORVILLE, ETC., CA	BLTT19820105IF	347.8
No	DK27DS	D27	LD	APP	YUCCA VALLEY, CA	BDFCDTT20120606AAZ	275.6
No	KPVT-LD	D27	LD	LIC	LAS VEGAS, NV	BLANK000010689	376.0
No	KGRY-LD	D28	LD	LIC	GILA RIVER INDIAN CO, AZ	BLANK0000157663	224.0
No	K28QP-D	D28	LD	CP	SALOME, AZ	BNPDTL20100514AEQ	130.0
No	K28QO-D	D28	LD	CP	SENTINEL, AZ	BNPDTL20100510AAS	107.4
Yes	DK28FM	N28z	TX	APP	YUMA, AZ	BLTTL20001006AAL	0.2
No	KESQ-TV	D28	DT	LIC	PALM SPRINGS, CA	BLANK0000078362	235.9
No	KESE-LD	N35	TX	LIC	YUMA, AZ	BLTTL20001117AAJ	21.3

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D27
 Mask: Full Service
 Latitude: 32 40 21.00 N (NAD83)
 Longitude: 114 20 10.00 W
 Height AMSL: 499.4 m (Adjusted based on actual ground elevation calculation)
 HAAT: 0.0 m
 Peak ERP: 1.00 kW
 Antenna: IRTE-1230EH (ID 1009136) 270.0 deg
 Elev Pattn: Generic

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.002 kW	428.1 m	14.7 km
45.0	0.002	344.6	13.1
90.0	0.014	432.3	22.9
135.0	0.002	343.4	13.1

180.0	0.002	187.7	9.9
225.0	0.240	368.8	36.5
270.0	1.00	411.4	46.6
315.0	0.240	322.2	34.9

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 355 m

Distance to Canadian border: 1814.8 km

**Proposal is within coordination distance of Mexican border
Distance to Mexican border: 33.9 km

Conditions at FCC monitoring station: Douglas AZ
Bearing: 105.2 degrees Distance: 459.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 41.9 degrees Distance: 1158.6 km

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 BLANK0000204930 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	
Undesireds:	K27PC-D	D27	LD	LIC	YUMA, AZ	K27PC-D License	224.3 km
	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	0.1
	KTVW-CD	D27	DC	LIC	FLAGSTAFF/DONEY PARK, AZ	BLDTA20140421ACI	188.7
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	259.1
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	158.8
Service area					Terrain-limited	IX-free, before	IX-free, after
35433.1	4,174,222	28814.7	4,159,877	28584.4	4,159,723	28582.4	4,159,723
Undesired					Total IX	Unique IX, before	Unique IX, after
K27PC-D D27 LD LIC		2.0		0		2.0	0
KUTP D26 DT LIC		141.2		141	141.2	141	141
KTVW-CD D27 DC LIC		38.0		13	37.0	13	37.0
KAZS D27 DT CP		49.0		0	48.0	0	48.0
KUAS-TV D28 DT LIC		3.0		0	3.0	0	3.0

Interference to BLANK0000204930 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	
Undesireds:	K27PC-D	D27	LD	LIC	YUMA, AZ	K27PC-D License	224.3 km
	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	0.1
	KTVW-CD	D27	DC	LIC	FLAGSTAFF/DONEY PARK, AZ	BLDTA20140421ACI	188.7
	KAZS	D27	DT	BL	YUMA, AZ	DTVBL776268	259.2
	KUAS-TV	D28	DT	LIC	TUCSON, AZ	BLEDT20030115ABS	158.8
Service area					Terrain-limited	IX-free, before	IX-free, after
35433.1	4,174,222	28814.7	4,159,877	28573.4	4,159,723	28573.4	4,159,723
Undesired					Total IX	Unique IX, before	Unique IX, after
K27PC-D D27 LD LIC		2.0		0		0.0	0
KUTP D26 DT LIC		141.2		141	141.2	141	141
KTVW-CD D27 DC LIC		38.0		13	36.0	13	36.0
KAZS D27 DT BL		61.0		0	59.0	0	57.0
KUAS-TV D28 DT LIC		3.0		0	3.0	0	3.0

Interference to BLANK0000212367 CP scenario 1

****IX: 9.36% interference caused**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	
Undesireds:	K27PC-D	D27	LD	LIC	YUMA, AZ	K27PC-D License	62.5 km
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	174.2
	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	259.1
	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955	174.1
Service area					Terrain-limited	IX-free, before	
19377.6	388,463	17051.0	387,999	16583.4	386,591	15481.5	350,414
4505.5	1,065,875	4499.5	1,065,875	4499.5	1,065,875	4332.8	1,042,232
Mexico)							
Undesired					Total IX	Unique IX, before	
K27PC-D D27 LD LIC		1144.7		36,210		1101.9	36,177
K27PC-D D27 LD LIC		166.7		23,643		166.7	23,643
KMIR-TV D26 DT LIC		5.0		0	0.0	0.0	0
KASW D27 DD LIC		24.9		28	24.9	28	11.9
KVER-CD D27 DC LIC		442.7		1,380	437.8	1,380	412.9
							1,375
(in Mexico)							

Interference to BLANK0000074955 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955	
Undesireds:	K27PC-D	D27	LD	LIC	YUMA, AZ	K27PC-D License	235.7 km
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	0.1
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	174.1
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	154.9
	KEYT-TV	D27	DT	LIC	SANTA BARBARA, CA	BLCDT20061102ABJ	332.3
	KESQ-TV	D28	DT	LIC	PALM SPRINGS, CA	BLANK0000078362	0.1
Service area					Terrain-limited	IX-free, before	
7452.7	623,334	5255.5	453,763	5085.0	439,834	5085.0	439,834
Undesired					Total IX	Unique IX, before	
K27PC-D D27 LD LIC		3.0		0		0.0	0
KMIR-TV D26 DT LIC		66.4		4,634	25.7	909	25.7
KAZS D27 DT CP		97.2		710	77.4	686	76.4
KPOM-CD D27 DC LIC		21.7		7,299	14.8	5,476	14.8
KEYT-TV D27 DT LIC		2.0		0	0.0	0	0.0
KESQ-TV D28 DT LIC		43.6		5,031	6.9	3,133	6.9
							3,133

Interference to BLANK0000074955 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955	
Undesireds:	K27PC-D	D27	LD	LIC	YUMA, AZ	K27PC-D License	235.7 km
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	0.1
	KAZS	D27	DT	BL	YUMA, AZ	DTVBL776268	173.9
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	154.9
	KEYT-TV	D27	DT	LIC	SANTA BARBARA, CA	BLCDT20061102ABJ	332.3
	KESQ-TV	D28	DT	LIC	PALM SPRINGS, CA	BLANK0000078362	0.1
Service area					Terrain-limited	IX-free, before	
7452.7	623,334	5255.5	453,763	5105.8	439,389	5105.8	439,389
Undesired					Total IX	Unique IX, before	
K27PC-D D27 LD LIC		3.0		0		0.0	0
KMIR-TV D26 DT LIC		66.4		4,634	24.8	913	24.8
KAZS D27 DT BL		76.4		1,151	56.6	1,131	55.6
KPOM-CD D27 DC LIC		21.7		7,299	14.8	5,476	14.8
KEYT-TV D27 DT LIC		2.0		0	0.0	0	0.0
KESQ-TV D28 DT LIC		43.6		5,031	7.9	3,133	7.9
							3,133

Interference to BLTTL20001006AAL APP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	DK28FM	N28z	TX	APP	YUMA, AZ	BLTTL20001006AAL	
Undesireds:	K27PC-D	D27	LD	LIC	YUMA, AZ	K27PC-D License	0.2 km
	K28QO-D	D28	LD	CP	SENTINEL, AZ	BNPDTL20100510AAS	107.5
	Service area	Terrain-limited			IX-free, before	IX-free, after	Percent New IX
108.2	32,143	90.1	30,278		88.1	30,278	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
K27PC-D D27 LD LIC	1.0	0	0.0 0
K28QO-D D28 LD CP	2.0	0	1.0 0

Interference to proposal scenario 1

82.49% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K27PC-D	D27	LD	LIC	YUMA, AZ	K27PC-D License	
Undesireds:	KYPO-LD	D27	LD	LIC	TACNA, AZ	BLANK0000179279	134.8 km
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	62.5
	KPCD-LD	D27-	LD	LIC	SAN FERNANDO, CA	BLANK0000193342	303.4
	Service area	Terrain-limited			IX-free	Percent IX	
2148.1	170,845	2053.1	170,589		642.7	29,876	68.69 82.49
89.1	8,903	89.1	8,903		31.0	6,557	65.18 26.35 (in Mexico)
	Undesired	Total IX			Unique IX	Prcnt Unique IX	
KAZS D27 DT CP	1410.3	140,713	1410.3	140,713	140,713	68.69 82.49	
KAZS D27 DT CP	58.1	2,346	58.1	2,346	2,346	65.18 26.35 (in Mexico)	

TVStudy Analysis - US Stations Only

tvstudy v2.2.5 (4uoc83)
 Database: localhost, Study: K27PC-D D26F 1.8kw-DA US Only #376, Model: Longley-Rice
 Start: 2023.03.22 11:11:43

Study created: 2023.03.22 11:11:43

Study build station data: LMS TV 2023-03-21 #180

Proposal: K27PC-D D26 LD APP YUMA, AZ
 File number: K27PC-D D26F 1.8kw-DA US Only
 Facility ID: 182419
 Station data: User record
 Record ID: 375
 Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K19CX-D	N19	TX	LIC	YUMA, AZ	BLTT19941212JC	0.3 km
No	KJPO-LD	D25	LD	LIC	TONOPAH, AZ	BLANK0000151024	148.9
No	K25QN-D	D25	LD	CP	DESERT CENTER, CA	BNPDTL20100514ACT	140.7
No	K26OD-D	D26	LD	LIC	GLOBE, AZ	BLANK000064242	331.4
No	K26OK-D	D26	LD	LIC	LAKE HAVASU CITY, AZ	BLANK000071722	214.5
No	K26GF-D	D26	LD	LIC	PEACH SPRINGS, AZ	BLDTT20130308ACF	329.0
Yes	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	224.4
No	K26MW-D	D26	LD	LIC	LUCERNE VALLEY, CA	BLANK0000116236	347.8
No	K26PR-D	D26	LD	LIC	NEEDLES, CA	BLANK0000178666	241.0
Yes	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK000075143	235.8
No	KMRZ-LD	D26	LD	LIC	POMONA, CA	BLANK0000168080	354.6
Yes	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK000068712	243.2
No	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK000071612	385.6
No	KGNG-LD	D26	LD	LIC	LAS VEGAS, NV	BLANK0000126700	369.6
No	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	369.6
No	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	224.3
No	KYPO-LD	D27	LD	LIC	TACNA, AZ	BLANK0000179279	134.8
No	KYPO-LD	N27	TX	LIC	TACNA, AZ	BLTTL20080818AAL	134.8
Yes	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	62.5
No	DK28FM	N28z	TX	APP	YUMA, AZ	BLTTL20001006AAL	0.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D26
 Mask: Full Service
 Latitude: 32 40 21.00 N (NAD83)
 Longitude: 114 20 10.00 W
 Height AMSL: 546.6 m
 HAAT: 0.0 m
 Peak ERP: 1.80 kW
 Antenna: ERI ALP8L1-HSOC-26 270.0 deg
 Elev Pattn: Generic

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.803 kW	475.3 m	47.2 km
45.0	0.682	391.8	43.8
90.0	0.823	479.5	47.5
135.0	0.682	390.5	43.8
180.0	0.803	234.8	37.8
225.0	1.44	415.9	49.0
270.0	1.80	458.5	51.6
315.0	1.44	369.4	47.5

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 402 m

Distance to Canadian border: 1814.8 km

**Proposal is within coordination distance of Mexican border

Distance to Mexican border: 33.9 km

Conditions at FCC monitoring station: Douglas AZ
Bearing: 105.2 degrees Distance: 459.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 41.9 degrees Distance: 1158.6 km

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 BLCDT20130625AAK LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	224.4 km
	KMSB	D25	DT	LIC	TUCSON, AZ	BLCDT20050623ABE	162.0
	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	398.2
	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	0.1
Service area	40812.1	4,190,712	33141.1	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
				4,175,090	32954.9	4,167,099	0.12 0.00
Undesired	K27PC-D D26 LD APP	39.9	Total	IX	Unique IX, before	Unique IX, after	
	KMSB D25 DT LIC	64.2		0	38.9	0	
	KTNV-TV D26 DT APP	10.9		18	64.2	18	
	KASW D27 DD LIC	111.0		0	10.9	0	
				7,973	111.0	7,973	
					110.0	7,973	

Interference to BLANK0000075143 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	235.8 km
	KVEA	D25	DT	LIC	CORONA, CA	BLANK0000136469	155.4
	KUVI-DT	D26	DT	LIC	BAKERSFIELD, CA	BLANK0000081232	273.8
	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	138.2
	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612	154.8
	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	263.5
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	174.2
	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955	0.1
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	154.9
Service area	24922.6	2,766,029	12562.2	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
				739,240	12330.4	727,910	0.45 0.01
Undesired	K27PC-D D26 LD APP	87.5	Total	IX	Unique IX, before	Unique IX, after	
	KVEA D25 DT LIC	50.3		104	26.6	1,097	
	KUVI-DT D26 DT LIC	2.0		0	0.0	0	
	KSWB-TV D26 DT LIC	92.1		6,477	51.4	3,773	
	KSKJ-CD D26 DC LIC	18.9		27	9.9	0	
	KTNV-TV D26 DT APP	71.3		613	56.3	242	
	KAZS D27 DT CP	38.9		0	38.9	0	
	KVER-CD D27 DC LIC	1.0		0	1.0	0	
	KPOM-CD D27 DC LIC	9.9		1,069	1.0	467	
					1.0	1.0	
					467	467	

Interference to BLANK0000075143 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	235.8 km

Figure 2A
Sheet 3 of 4

KVEA	D25	DT	LIC	CORONA, CA	BLANK0000136469	155.4
KUVI-DT	D26	DT	LIC	BAKERSFIELD, CA	BLANK0000081232	273.8
KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	138.2
KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612	154.8
KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	263.5
KAZS	D27	DT	BL	YUMA, AZ	DTVBL776268	174.0
KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955	0.1
KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	154.9
Service area						
24922.6	2,766,029	12562.2	739,240	12336.4	727,910	IX-free, after
					12280.7	Percent New IX
					727,807	0.45 0.01
Undesired						
K27PC-D D26 LD APP		87.5	104	Total IX	Unique IX, before	Unique IX, after
KVEA D25 DT LIC		50.3	6,477	26.6	1,097	55.7 103
KUVI-DT D26 DT LIC		2.0	0	0.0	0	26.6 1,097
KSWB-TV D26 DT LIC		92.1	9,463	51.4	3,773	0 0
KSKJ-CD D26 DC LIC		18.9	27	9.9	0	45.5 3,772
KTNV-TV D26 DT APP		71.3	613	56.3	242	6.0 0
KAZS D27 DT BL		32.9	0	32.9	0	51.3 242
KVER-CD D27 DC LIC		1.0	0	1.0	0	16.0 0
KPOM-CD D27 DC LIC		9.9	1,069	1.0	467	1.0 0
IX-free, after						467

Interference to BLANK0000068712 LIC scenario 1						
Desired:	Call KSWB-TV	Chan D26	Svc DT	Status LIC	City, State SAN DIEGO, CA	File Number BLANK0000068712
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA 243.2 km
	KVEA	D25	DT	LIC	CORONA, CA	BLANK0000136469 199.6
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143 138.2
	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612 198.3
	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120 400.7
	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955 138.1
Service area						
21607.6	3,684,151	17308.4	3,499,535	16650.1	3,420,946	IX-free, after
9683.1	1,766,001	8239.7	1,685,009	8095.6	1,684,767	Percent New IX
Mexico)					16597.3 3,420,892	0.32 0.00
					8083.5 1,684,763	0.15 0.00 (in
Undesired						
K27PC-D D26 LD APP		62.8	54	Total IX	Unique IX, before	Unique IX, after
K27PC-D D26 LD APP		12.0	4		52.8 54	12.0 4 (in Mexico)
KVEA D25 DT LIC		26.8	13,419	3.0	1,034	3.0 1,034
KMIR-TV D26 DT LIC		36.7	0	30.7	0	27.8 0
KMIR-TV D26 DT LIC		7.0	0	3.0	0	3.0 0 (in Mexico)
KSKJ-CD D26 DC LIC		620.6	77,555	594.8	65,170	587.8 65,170
KSKJ-CD D26 DC LIC		141.1	242	137.0	242	137.0 242 (in Mexico)
KTNV-TV D26 DT APP		2.0	0	0.0	0	0.0 0
KVER-CD D27 DC LIC		2.0	0	0.0	0	0.0 0

Interference to BLANK0000212367 CP scenario 1						
Desired:	Call KAZS	Chan D27	Svc DT	Status CP	City, State YUMA, AZ	File Number BLANK0000212367
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA 62.5 km
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143 174.2
	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930 259.1
	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955 174.1
Service area						
19377.6	388,463	17051.0	387,999	16583.4	386,591	IX-free, after
4505.5	1,065,875	4499.5	1,065,875	4499.5	1,065,875	Percent New IX
Mexico)					16453.1 386,134	0.79 0.12
					4499.5 1,065,875	0.00 0.00 (in
Undesired						
K27PC-D D26 LD APP		137.3	474	Total IX	Unique IX, before	Unique IX, after
KMIR-TV D26 DT LIC		5.0	0	0.0	0	130.3 457
KASW D27 DD LIC		24.9	28	24.9	28	0.0 0
KVER-CD D27 DC LIC		442.7	1,380	437.8	1,380	17.9 11
						437.8 1,380

Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	
Undesireds:	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	235.8 km
	KYPO-LD	D27	LD	LIC	TACNA, AZ	BLANK0000179279	134.8
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	62.5
	Service area	Terrain-limited			IX-free	Percent IX	
5957.3	197,991	5369.5	197,962	5304.4	197,962	1.21	0.00
672.0	157,783	671.0	157,783	668.0	157,783	0.45	0.00 (in Mexico)
Undesired		Total IX			Unique IX	Prcnt Unique IX	
KMIR-TV D26 DT LIC		32.1	0	11.0	0	0.21	0.00
KAZS D27 DT CP		54.1	0	33.1	0	0.62	0.00
KAZS D27 DT CP		3.0	0	3.0	0	0.45	0.00 (in Mexico)

TVStudy Analysis - US & Mexican Stations

tvstudy v2.2.5 (4uoc83)
 Database: localhost, Study: K27PC-D D26F 1.8kw-DA US & Mexico #377, Model: Longley-Rice
 Start: 2023.03.22 11:20:03

Study created: 2023.03.22 11:20:03

[Note: Default Template Used for Interference Analysis]

Study build station data: LMS TV 2023-03-21 #180

Proposal: K27PC-D D26 LD APP YUMA, AZ
 File number: K27PC-D D26F 1.8kw-DA US & Mexico
 Facility ID: 182419
 Station data: User record
 Record ID: 376
 Country: U.S.

Search options:

Non-U.S. records included

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K19CX-D	N19	TX	LIC	YUMA, AZ	BLTT19941212JC	0.3 km
No	KJPO-LD	D25	LD	LIC	TONOPAH, AZ	BLANK0000151024	148.9
No	K25QN-D	D25	LD	CP	DESERT CENTER, CA	BNPDTL20100514ACT	140.7
No	K26OD-D	D26	LD	LIC	GLOBE, AZ	BLANK0000064242	331.4
No	K26OK-D	D26	LD	LIC	LAKE HAVASU CITY, AZ	BLANK0000071722	214.5
No	K26GF-D	D26	LD	LIC	PEACH SPRINGS, AZ	BLDDT20130308ACF	329.0
Yes	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	224.4
No	K26MW-D	D26	LD	LIC	LUCERNE VALLEY, CA	BLANK0000116236	347.8
No	K26PR-D	D26	LD	LIC	NEEDLES, CA	BLANK0000178666	241.0
Yes	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	235.8
No	KMRZ-LD	D26	LD	LIC	POMONA, CA	BLANK0000168080	354.6
Yes	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	243.2
No	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612	385.6
No	KGNG-LD	D26	LD	LIC	LAS VEGAS, NV	BLANK0000126700	369.6
No	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	369.6
No	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	224.3
No	KYPO-LD	D27	LD	LIC	TACNA, AZ	BLANK0000179279	134.8
No	KYPO-LD	N27	TX	LIC	TACNA, AZ	BLTTL20080818AAL	134.8
Yes	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	62.5
No	DK28FM	N28z	TX	APP	YUMA, AZ	BLTTL20001006AAL	0.2
No	CADENATRESD25		DT	LIC	SAN QUINTIN SAN TELM, BN	BLANKBPF20160524AAX	270.3
No	CADENATRESD25		DT	LIC	PUERTO PENASCO, SO	BLANKBPF20130710AAD	169.6
No	CADENATRESD26		DT	LIC	AGUA PRIETA, SO	BLANKBPF20160525ACB	476.4
No	XHNON	D26	DT	LIC	NOGALES, SO	BLANKBPF20160315ABG	352.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D26
 Mask: Full Service
 Latitude: 32 40 21.00 N (NAD83)
 Longitude: 114 20 10.00 W
 Height AMSL: 546.6 m
 HAAT: 0.0 m
 Peak ERP: 1.80 kW
 Antenna: ERI ALP8L1-HSOC-26 270.0 deg
 Elev Pattn: Generic

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.803 kW	475.3 m	47.2 km
45.0	0.682	391.8	43.8
90.0	0.823	479.5	47.5
135.0	0.682	390.5	43.8
180.0	0.803	234.8	37.8

225.0	1.44	415.9	49.0
270.0	1.80	458.5	51.6
315.0	1.44	369.4	47.5

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 402 m

Distance to Canadian border: 1814.8 km

**Proposal is within coordination distance of Mexican border
Distance to Mexican border: 33.9 km

Conditions at FCC monitoring station: Douglas AZ
Bearing: 105.2 degrees Distance: 459.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 41.9 degrees Distance: 1158.6 km

**Study cell size: 2.00 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 BLCDT20130625AAK LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	224.4 km
	KMSB	D25	DT	LIC	TUCSON, AZ	BLCDT20050623ABE	162.0
	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	398.2
	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	0.1
	XHNON	D26	DT	LIC	NOGALES, SO	BLANKBPF20160315ABG	246.2
Service area							
40766.7	4,191,015	33142.5	4,176,014	32929.8	4,149,386	32881.8	4,149,386
Undesired							
K27PC-D D26	LD APP	52.0	0	Total IX	Unique IX, before	Unique IX, after	
KMSB D25 DT LIC		64.4	18	64.4	18	64.4	18
KTNV-TV D26 DT APP		24.0	0	24.0	0	24.0	0
KASW D27 DD LIC		116.1	26,610	116.1	26,610	116.1	26,610
XHNON D26 DT LIC		8.0	0	8.0	0	4.0	0

Interference to BLANK0000075143 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	235.8 km
	KVEA	D25	DT	LIC	CORONA, CA	BLANK0000136469	155.4
	KUVI-DT	D26	DT	LIC	BAKERSFIELD, CA	BLANK0000081232	273.8
	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	138.2
	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612	154.8
	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	263.5
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	174.2
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	154.9
	XHEXT	D25	DT	BL	MEXICALI, BN	DTVBL704637	164.8
Service area							
24915.7	2,760,914	12602.4	730,764	12338.2	717,156	12286.3	716,950
Undesired							
K27PC-D D26	LD APP	95.9	207	Total IX	Unique IX, before	Unique IX, after	
KVEA D25 DT LIC		40.1	8,838	8.0	335	8.0	335
KUVI-DT D26 DT LIC		12.0	0	0.0	0	0.0	0
KSWB-TV D26 DT LIC		108.1	12,535	52.1	4,037	48.1	4,036
KSKJ-CD D26 DC LIC		28.0	480	12.0	0	4.0	0

KTNV-TV D26 DT APP	100.0	499	68.0	463	68.0	463
KAZS D27 DT CP	48.0	0	44.0	0	24.0	0
KPOM-CD D27 DC LIC	16.0	490	0.0	0	0.0	0
XHEXT D25 DT BL	4.0	0	4.0	0	0.0	0

Interference to BLANK0000075143 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance	
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143		
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	235.8 km	
	KVEA	D25	DT	LIC	CORONA, CA	BLANK0000136469	155.4	
	KUVI-DT	D26	DT	LIC	BAKERSFIELD, CA	BLANK0000081232	273.8	
	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	138.2	
	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612	154.8	
	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	263.5	
	KAZS	D27	DT	BL	YUMA, AZ	DTVBL776268	174.0	
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	154.9	
	XHEXT	D25	DT	BL	MEXICALI, BN	DTVBL704637	164.8	
Service area					Terrain-limited	IX-free, before	IX-free, after	Percent New IX
24915.7	2,760,914	12602.4	730,764	12338.2	717,156	12290.3	716,950	0.39 0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
K27PC-D D26 LD APP	95.9	207	47.9 206
KVEA D25 DT LIC	40.1	8,838	8.0 335
KUVI-DT D26 DT LIC	12.0	0	0.0 0
KSWB-TV D26 DT LIC	108.1	12,535	52.1 4,037
KSKJ-CD D26 DC LIC	28.0	480	12.0 0
KTNV-TV D26 DT APP	100.0	499	68.0 463
KAZS D27 DT BL	48.0	0	44.0 0
KPOM-CD D27 DC LIC	16.0	490	0.0 0
XHEXT D25 DT BL	4.0	0	4.0 0

Interference to BLANK0000068712 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance	
	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712		
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	243.2 km	
	KVEA	D25	DT	LIC	CORONA, CA	BLANK0000136469	199.6	
	KUVI-DT	D26	DT	LIC	BAKERSFIELD, CA	BLANK0000081232	347.1	
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	138.2	
	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612	198.3	
	KTNV-TV	D26	DT	APP	LAS VEGAS, NV	BLANK0000145120	400.7	
	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955	138.1	
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	198.3	
	XHEXT	D25	DT	BL	MEXICALI, BN	DTVBL704637	135.8	
	XHSFB	D26	DT	BL	SAN FELIPE, BN	DTVBL704644	271.8	
	XHBJ	D27	DT	BL	TIJUANA, BN	DTVBL704655	23.7	
Service area					Terrain-limited	IX-free, before	IX-free, after	Percent New IX
23329.0	3,724,567	18459.2	3,519,922	17567.6	3,440,981	17547.6	3,440,981	0.11 0.00
11351.5	1,768,773	9716.5	1,656,226	9494.4	1,618,843	9490.3	1,618,843	0.04 0.00 (in Mexico)

Undesired	Total IX	Unique IX, before	Unique IX, after
K27PC-D D26 LD APP	32.0	0	20.0 0
K27PC-D D26 LD APP	12.1	0	4.0 0 (in Mexico)
KVEA D25 DT LIC	28.1	7,953	0.0 0
KUVI-DT D26 DT LIC	8.0	2,381	0.0 0
KMIR-TV D26 DT LIC	36.1	0	16.1 0
KMIR-TV D26 DT LIC	12.2	0	0.0 0
KSKJ-CD D26 DC LIC	843.4	78,941	795.3 68,607
KSKJ-CD D26 DC LIC	181.9	290	165.7 290
KTNV-TV D26 DT APP	12.0	0	0.0 0
KVER-CD D27 DC LIC	8.0	0	0.0 0
KPOM-CD D27 DC LIC	4.0	0	0.0 0
XHEXT D25 DT BL	4.0	0	4.0 0
XHEXT D25 DT BL	8.0	0	8.0 0
XHSFB D26 DT BL	4.0	0	4.0 0
XHBJ D27 DT BL	16.1	0	16.1 0
XHBJ D27 DT BL	36.2	37,093	32.2 37,093

Interference to BLANK0000212367 CP scenario 1

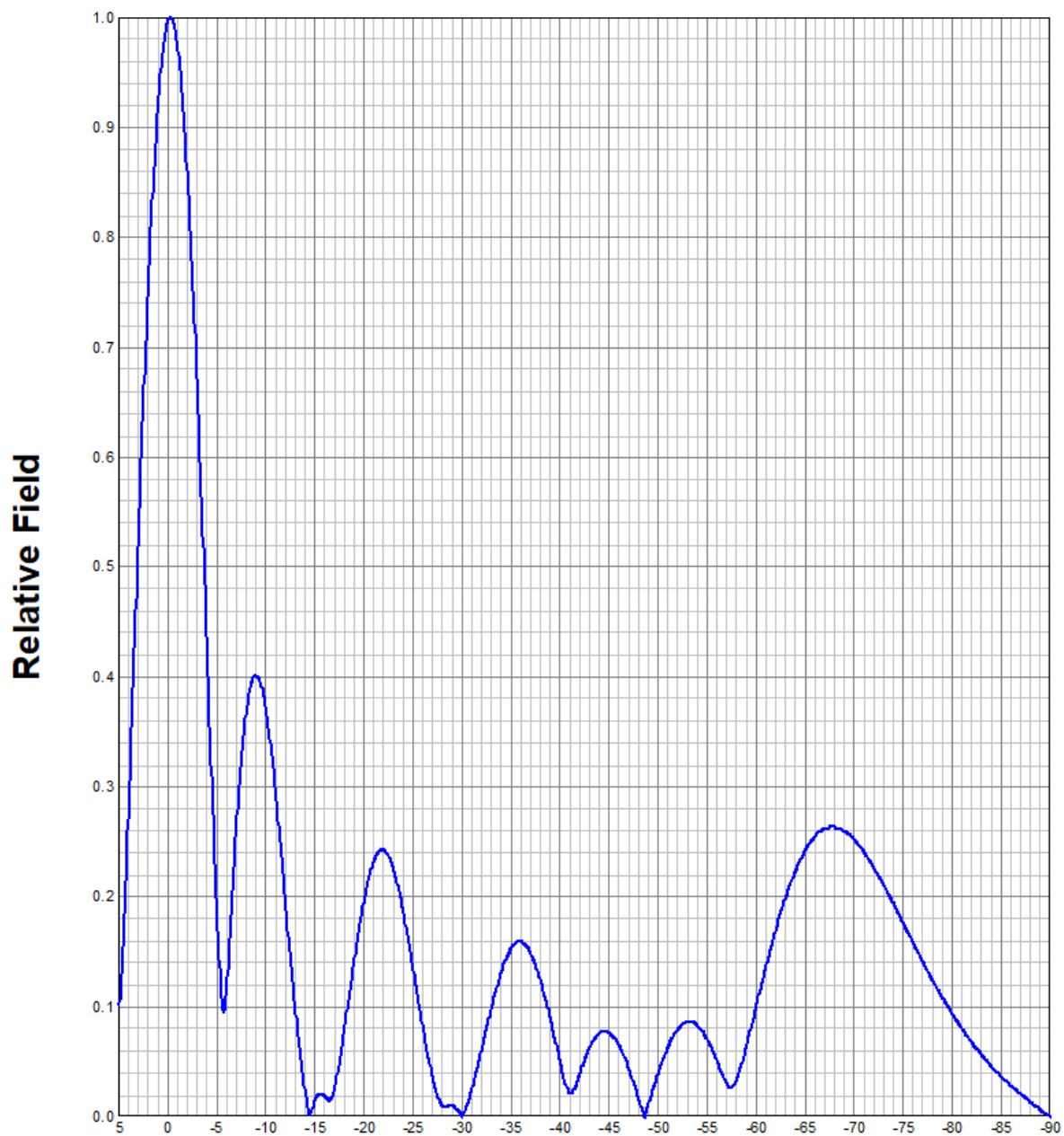
Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	
Undesireds:	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	62.5 km
	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	174.2
	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	259.1
	KVER-CD	D27	DC	LIC	INDIO, CA	BLANK0000074955	174.1
	XHBJ	D27	DT	BL	TIJUANA, BN	DTVBL704655	215.5
	XHAQ	D28	DT	LIC	MEXICALI, BN	BLANKBPF20050721AFZ	78.6
Service area					Terrain-limited	IX-free, before	
19368.9	388,472	17054.1			388,239	16479.2	386,726
4533.6	1,066,058	4529.6			1,066,058	4465.3	1,029,474
Mexico)						16350.5	386,197
						4465.3	1,029,474
							0.78 0.14
							0.00 0.00 (in
Undesired					Total IX	Unique IX, before	Percent New IX
K27PC-D	D26	LD	APP		148.7	539	
KMIR-TV	D26	DT	LIC		4.0	0	0.0
KASW	D27	DD	LIC		60.2	10	52.1
KVER-CD	D27	DC	LIC		451.0	1,503	415.0
XHBJ	D27	DT	BL		8.0	0	0.0
XHAQ	D28	DT	LIC		91.7	0	71.8
XHAQ	D28	DT	LIC		64.3	36,584	64.3
							36,584 (in Mexico)

Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K27PC-D	D26	LD	APP	YUMA, AZ	K27PC-D D26F 1.8kw-DA	
Undesireds:	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	235.8 km
	KYPO-LD	D27	LD	LIC	TACNA, AZ	BLANK0000179279	134.8
	KAZS	D27	DT	CP	YUMA, AZ	BLANK0000212367	62.5
Service area					Terrain-limited	IX-free	Percent IX
5924.3	197,991	5353.9			197,972	5277.6	197,944
689.5	161,139	689.5			161,139	685.5	161,139
							0.43 0.01
							0.58 0.00 (in Mexico)
Undesired					Total IX	Unique IX	Prcnt Unique IX
KMIR-TV	D26	DT	LIC		40.1	28	12.1
KAZS	D27	DT	CP		64.3	0	36.2
KAZS	D27	DT	CP		4.0	0	4.0
							0.23 0.01
							0.68 0.00
							0.58 0.00 (in Mexico)

ELEVATION PATTERN

Type:	ALP8L1		Channel:	26
Directivity:	Numeric	dBd	Location:	
Main Lobe:	9.05	9.57	Beam Tilt:	-0.25
Horizontal:	9.00	9.54	Polarization:	Horizontal



Preliminary, subject to final design and review.