

KTNV-TV ENGINEERING EXHIBIT
CHANNEL 26 CONSTRUCTION PERMIT APPLICATION
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Scripps Broadcasting Holdings, LLC
Las Vegas, Nevada

This engineering exhibit is prepared on behalf of Scripps Broadcasting Holdings, LLC, licensee of KTNV-TV - Las Vegas, Nevada. KTNV-TV is presently licensed to operate on Channel 13 with a nondirectional effective radiated power of 30.5 kilowatts at 606 meters above average terrain. The October 18, 2023 *Report and Order* in MB Docket 21-221 substituted Channel 26 for Channel 13 in Las Vegas and modified the KTNV-TV license to specify operation on Channel 26 in lieu of Channel 13. The attached application requests a construction permit for KTNV-TV to operate nondirectionally on Channel 26 with an effective radiated power of 1000 kilowatts at 606 meters above average terrain from its presently licensed transmitter site (ASRN 1011437) using the exact same facilities specified in the Channel 26 petition for rulemaking:

Coordinates (NAD83): 35-56-44.7/115-02-37.6
Antenna Height: 1389 meters MSL/606 meters above average terrain
Effective Radiated Power: 1000 kilowatts(H)/250 kilowatts(V) nondirectional

The information included in this engineering statement documents that the proposed facilities would provide the required protection to all other stations requiring protection consideration, while also providing the required principal community coverage to its community of license.

As outlined in Table 1.0, the proposed Channel 26 facilities won't be predicted to cause any new or increased interference exceeding the 0.5% de minimis limit to any other post-repack facilities requiring protection consideration.

As shown in Figure 1.0, the predicted 48 dBu principal community contour for the proposed facilities will totally encompass Las Vegas, as required by Section 73.625(a)

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of the FCC Rules. This figure also depicts the predicted 40 dBu noise limited contour for the proposed KTNV-TV Channel 26 facilities, which is predicted to provide interference free service to 1,931,712 people.

KTNV-TV TV Study Output
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tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: KTNV-TV (Channel 26 CP App), Model: Longley-Rice

Start: 2023.12.21 14:08:43

Study created: 2023.12.21 14:08:43

Study build station data: LMS TV 2023-12-21

Proposal: KTNV-TV D26 DT CP LAS VEGAS, NV

File number: BLANK0000145120

Facility ID: 74100

Station data: LMS TV 2023-12-21

Record ID: 25076ff3793b58bf01793e074eea0815

Country: U.S.

Zone: II

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	398.2 km
No	KUVI-DT	D26	DT	LIC	BAKERSFIELD, CA	BLANK0000081232	338.5
Yes	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	263.5
Yes	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	400.7
Yes	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000232314	400.7
No	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612	335.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

KTNV-TV TV Study Output
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Record parameters as studied:

Channel: D26
Latitude: 35 56 44.70 N (NAD83)
Longitude: 115 2 37.60 W
Height AMSL: 1389.0 m
HAAT: 606.0 m
Peak ERP: 1000 kW
Antenna: Omnidirectional
Elev Pattn: Generic

40.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1000 kW	739.8 m	130.3 km
45.0	1000	669.7	127.0
90.0	1000	660.9	126.6
135.0	1000	775.2	131.7
180.0	1000	386.6	107.3
225.0	1000	378.9	106.6
270.0	1000	559.4	120.6
315.0	1000	670.6	127.1

Database HAAT does not agree with computed HAAT
Database HAAT: 606 m Computed HAAT: 605 m

ERP exceeds maximum
ERP: 1000 kW ERP maximum: 322 kW

Distance to Canadian border: 1450.9 km

Distance to Mexican border: 359.9 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 290.3 degrees Distance: 628.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 58.6 degrees Distance: 973.7 km

KTNV-TV TV Study Output (Page 3 of 8)

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

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDT20130625AAK	
Undesireds:	KTNV-TV	D26	DT	CP	LAS VEGAS, NV	BLANK0000145120	398.2 km
	KMSB	D25	DT	LIC	TUCSON, AZ	BLCDT20050623ABE	162.0
	KASW	D27	DT	LIC	PHOENIX, AZ	BLANK0000233323	0.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
40766.7 4,191,015	33142.5 4,176,014	33010.0 4,174,230	32989.9 4,174,230	0.06 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
KTNV-TV D26 DT CP	20.1 0	20.1 0	
KMSB D25 DT LIC	64.4 18	64.4 18	
KASW D27 DT LIC	68.0 1,766	68.0 1,766	

KTNV-TV TV Study Output (Page 4 of 8)

Interference to BLCDDT20130625AAK LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired:	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDDT20130625AAK				
Undesireds:	KTNV-TV	D26	DT	CP	LAS VEGAS, NV	BLANK0000145120	398.2 km			
	KMSB	D25	DT	LIC	TUCSON, AZ	BLCDDT20050623ABE	162.0			
	KASW	D27	DD	APP	PHOENIX, AZ	BLANK0000233477	0.1			
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX		
40766.7	4,191,015	33142.5		4,176,014	32961.9	4,149,386	32941.9	4,149,386	0.06	0.00
Undesired				Total IX		Unique IX, before		Unique IX, after		
KTNV-TV	D26	DT	CP		20.1		0	20.1		0
KMSB	D25	DT	LIC		64.4		18	64.4		18
KASW	D27	DD	APP		116.1		26,610	116.1		26,610

Interference to BLCDDT20130625AAK LIC scenario 3

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	KUTP	D26	DT	LIC	PHOENIX, AZ	BLCDDT20130625AAK			
Undesireds:	KTNV-TV	D26	DT	CP	LAS VEGAS, NV	BLANK0000145120	398.2 km		
	KMSB	D25	DT	LIC	TUCSON, AZ	BLCDDT20050623ABE	162.0		
	KASW	D27	DD	LIC	PHOENIX, AZ	BLANK0000204930	0.1		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent	New IX
40766.7	4,191,015	33142.5		4,176,014	32961.9	4,149,386	32941.9	4,149,386	0.06 0.00
Undesired				Total IX	Unique IX, before		Unique IX, after		
KTNV-TV	D26	DT	CP	20.1	0		20.1	0	
KMSB	D25	DT	LIC	64.4	18	64.4	18	64.4	18
KASW	D27	DD	LIC	116.1	26,610	116.1	26,610	116.1	26,610

KTNV-TV TV Study Output (Page 5 of 8)

Interference to BLANK0000075143 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	
Undesireds:	KTNV-TV	D26	DT	CP	LAS VEGAS, NV	BLANK0000145120	263.5 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
	KAZS	D27	DT	LIC	YUMA, AZ	BLANK0000221580	174.4
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	154.9

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
24915.7 2,760,914	12602.4 730,764	12418.2 717,619	12354.2 717,156	0.52 0.06

Undesired	Total IX	Unique IX, before	Unique IX, after
KTNV-TV D26 DT CP 100.0	499	64.0 463	
KVEA D25 DT LIC 40.1	8,838	8.0 335	
KUVI-DT D26 DT LIC 12.0	0	8.0 0	
KSWB-TV D26 DT LIC 104.2	12,535	76.1 4,073	
KSKJ-CD D26 DC LIC 20.0	31	12.0 0	
KAZS D27 DT LIC 40.0	0	40.0 0	
KPOM-CD D27 DC LIC 16.0	490	4.0 234	

KTNV-TV TV Study Output (Page 6 of 8)

Interference to BLANK0000075143 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KMIR-TV	D26	DT	LIC	PALM SPRINGS, CA	BLANK0000075143	
Undesireds:	KTNV-TV	D26	DT	CP	LAS VEGAS, NV	BLANK0000145120	263.5 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	BLANK0000232314	138.2
	KSKJ-CD	D26	DC	LIC	VAN NUYS, CA	BLANK0000071612	154.8
	KAZS	D27	DT	LIC	YUMA, AZ	BLANK0000221580	174.4
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	154.9

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
24915.7 2,760,914	12602.4 730,764	12418.2 717,619	12354.2 717,156	0.52 0.06

Undesired	Total IX	Unique IX, before	Unique IX, after
KTNV-TV D26 DT CP 100.0	499	64.0 463	
KVEA D25 DT LIC 40.1	8,838	8.0 335	
KUVI-DT D26 DT LIC 12.0	0	8.0 0	
KSWB-TV D26 DT LIC 104.2	12,535	76.1 4,073	
KSKJ-CD D26 DC LIC 20.0	31	12.0 0	
KAZS D27 DT LIC 40.0	0	40.0 0	
KPOM-CD D27 DC LIC 16.0	490	4.0 234	

KTNV-TV TV Study Output (Page 7 of 8)

Interference to BLANK0000068712 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	
Undesireds:	KTNV-TV	D26	DT	CP	LAS VEGAS, NV	BLANK0000145120	400.7 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
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	198.3

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	21604.3	3,677,190	17198.9	3,488,655	16619.3	3,443,528	16619.3	3,443,528	0.00 0.00
	9713.0	1,760,915	8207.2	1,677,460	8065.8	1,677,158	8065.8	1,677,158	0.00 0.00

(in Mexico)

Undesired		Total IX	Unique IX, before	Unique IX, after	
KTNV-TV D26 DT CP	4.0	0		0.0	0
KVEA D25 DT LIC	28.1	7,953	0.0	0	0.0 0
KMIR-TV D26 DT LIC	28.1	0	28.1	0	24.1 0
KMIR-TV D26 DT LIC	4.0	0	4.0	0	4.0 0 (in Mexico)
KSKJ-CD D26 DC LIC	551.5	45,127	523.4	37,174	523.4 37,174
KSKJ-CD D26 DC LIC	137.4	302	137.4	302	137.4 302 (in Mexico)
KPOM-CD D27 DC LIC	4.0	0	0.0	0	0.0 0

KTNV-TV TV Study Output (Page 8 of 8)

Interference to BLANK0000232314 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000232314	
Undesireds:	KTNV-TV	D26	DT	CP	LAS VEGAS, NV	BLANK0000145120	400.7 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
	KPOM-CD	D27	DC	LIC	ONTARIO, CA	BLANK0000189414	198.3

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	21604.3	3,677,190	17198.9	3,488,655	16619.3	3,443,528	16619.3	3,443,528	0.00 0.00
	9713.0	1,760,915	8207.2	1,677,460	8065.8	1,677,158	8065.8	1,677,158	0.00 0.00

(in Mexico)

Undesired			Total IX	Unique IX, before	Unique IX, after	
KTNV-TV D26 DT CP	4.0		0		0.0	0
KVEA D25 DT LIC	28.1		7,953	0.0	0	0.0
KMIR-TV D26 DT LIC	28.1		0	28.1	0	24.1
KMIR-TV D26 DT LIC	4.0		0	4.0	0	4.0
KSKJ-CD D26 DC LIC	551.5		45,127	523.4	37,174	523.4
KSKJ-CD D26 DC LIC	137.4		302	137.4	302	137.4
KPOM-CD D27 DC LIC	4.0		0	0.0	0	0.0

(in Mexico)

(in Mexico)

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KTNV-TV	D26	DT	CP	LAS VEGAS, NV	BLANK0000145120	
Undesireds:	KSWB-TV	D26	DT	LIC	SAN DIEGO, CA	BLANK0000068712	400.7 km

	Service area		Terrain-limited		IX-free		Percent IX
	47337.2	2,096,608	30611.8	1,931,712	30611.8	1,931,712	0.00 0.00

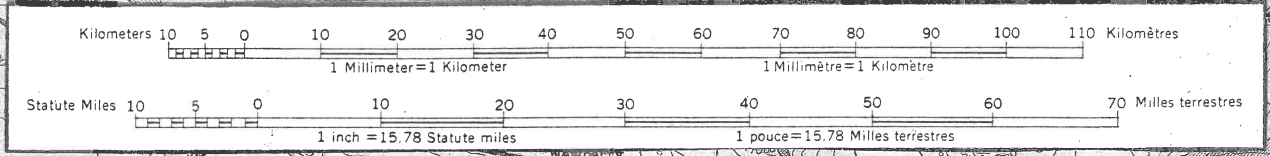
	LAND AREA (SQUARE KM)	POPULATION (2010 U.S. CENSUS)
GAIN AREA	523.9	223
LOSS AREA	460.9	5

LICENSED
CHANNEL 13 - 30.5 kW ND
PROPOSED
CHANNEL 26 - 1000 kW ND

- GAIN AREA

- LOSS AREA

CARL E. SMITH CONSULTING ENGINEERS
2324 N. CLEVE-MASS RD., BOX 807
BATH, OHIO 44210-0807
330/659-4440



36 dBu
(LICENSED)

40 dBu
(PROPOSED)

48 dBu
(PROPOSED)

KTNV-TV
SITE

LAS VEGAS
CITY LIMITS

FIG. 1.0

LICENSED AND PROPOSED
KTNV-TV NOISE LIMITED CONTOURS

Scripps Broadcasting Holdings, LLC
Las Vegas, NV