



ENGINEERING EXHIBIT

Incentive Auction Channel Reassignment

Application for Digital Television Station Construction Permit

prepared for

CBS Broadcasting Inc.
KCBS-TV Los Angeles, CA
Facility ID 9628
Ch. 31 470 kW 952 m

CBS Broadcasting Inc. (“*CBS*”) is the licensee of digital television station KCBS-TV, Channel 43, Facility ID 9628, Los Angeles, CA. *CBS* herein proposes construction of the KCBS-TV post-auction facility on Channel 31. Reassignment of KCBS-TV from Channel 43 to Channel 31 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (“*CCRPN*”, DA 17-317, released April 13, 2017).

The proposed Channel 31 operation will employ the existing broadband antenna system utilized by the licensed KCBS-TV facility. The antenna is located on the tower structure which corresponds to FCC Antenna Structure Registration number 1007719. No change to the overall structure height will result.

The antenna is a horizontally polarized Harris model TAD-16UDA-8/64. *CBS* proposes to operate KCBS-TV with an effective radiated power (“ERP”) of 470 kW at 952 meters antenna height above average terrain (“HAAT”). The antenna’s azimuthal pattern is supplied in Figure 1 and the elevation pattern is depicted in Figure 2.

A map is supplied as Figure 3 which depicts the standard predicted coverage contours. This map includes the location of Los Angeles, KCBS-TV’s principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire principal community will be encompassed by the 48 dB μ contour.

The proposed noise limited service contour (“NLSC”) extends slightly beyond that of the *CCPN* parameters of 426 kW ERP and 951 meters HAAT.¹ The proposal complies with §73.3700(b)(ii) as described in the following.

KCBS-TV’s reassignment facility experiences a loss of interference-free coverage area within the NLSC when compared to that of its baseline² pre-auction facility. Detailed analysis shows that an area of 262.4 square kilometers having a population of 48,787 persons which received interference-free service from the baseline KCBS-TV facility does not receive interference-free service from the reassignment parameters. A map is supplied as Figure 4 which shows the interference-free results for the *CCPN* parameters and the baseline interference-free individual cells that are lost at reassignment. Therefore, KCBS-TV qualifies under §73.3700(b)(ii)(A) for a contour extension due the loss of interference-free coverage area resulting from the new channel assignment.

Interference study per FCC OET Bulletin 69³ shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby post-auction full service and Class A television stations and reassessments as required by §73.616. The interference study output report is provided as Table 1. This satisfies §73.3700(b)(ii)(C) for the proposed NLSC extension.

The amount of NLSC extension does not exceed one percent in any direction. Figure 5 supplies a coverage contour comparison of the proposed KCBS-TV facility to the reassignment facility’s contour and a one percent extension distance of the reassignment facility’s contour. Here, the contour level is adjusted with the dipole factor to match FCC application processing.

¹There is no change in antenna height above ground or above mean sea level. The proposed KCBS-TV antenna HAAT is recalculated to be 951.8 meters, based on FCC 30 meter terrain data developed by OET.

²“Final Digital Television Baseline Coverage Area And Population Served Information Related To Incentive Auction Repacking,” DA 15-1296, Public Notice, Released November 12, 2015.

³FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). This analysis employed the FCC’s current “TVStudy” software with the default application processing template settings, 2 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCCs implementation of TVStudy show excellent correlation.

Table 1's results also demonstrate that the proposed contour is within the baseline contour plus one percent. Therefore the proposed contour extension complies with §73.3700(b)(ii)(B).

The proposed KCBS-TV facility's terrain-limited population provides a 100.5 percent match of the CCRPN baseline facility, as detailed in the following table. The OET Bulletin 69 report summary in Table 1 also concludes that the proposed service area population is more than 95 percent of the baseline population.

Terrain Limited Population - Match of Reassignment

Population Summary (2010 Census) OET Bulletin 69: TVStudy	Reassignment Parameters	Proposed
Within Noise Limited Contour	17,595,935	17,638,683
Not affected by terrain losses	16,271,388	16,351,952
Match of Reassignment	---	100.50%

The proposed 470 kW ERP exceeds the maximum permitted by §73.622(f)(8)(i) for the proposed antenna HAAT of 952 meters. Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. As demonstrated in Figure 6, the total area within the proposed KCBS-TV NLSC is 43,735 square kilometers, which does not exceed that of KNBC-TV (52,259 sq. km Ch. 36, Los Angeles, CA, BLCDT-20070820ACK). Thus, the 470 kW ERP specified herein is in compliance with §73.622(f)(5) of the FCC's Rules.

The site location is within the Mexican coordination zone (207 km to the Mexico border). According to the "TVStudy" summary in Table 1, which includes non-US records from current FCC LMS data, no Mexican station would receive any interference from the proposed KCBS-TV facility.

The nearest FCC monitoring station is 511 km distant at Livermore, CA. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no authorized AM stations within 3 kilometers of the site.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The transmitting location is on Mount Wilson overlooking the Los Angeles metropolitan area. There are numerous other transmitting facilities at this site area situated on various antenna supporting structures, each within a fenced compound with RF exposure warning signs. *CBS* participates in a radiofrequency (“RF”) electromagnetic field exposure safety program, along with other broadcasters and FCC licensees that utilize the Mount Wilson site area. Following construction of the proposed facility, *CBS* will conduct RF exposure measurements (and/or detailed calculations) to evaluate the level of RF exposure resulting from the KCBS-TV facility. As necessary, based on these results and considering all emitters, appropriate exposure abatement procedures will be established and followed, in order to comply with the FCC’s exposure limits. Such abatement procedures may involve the restriction of access to certain areas and/or facility modifications to reduce RF levels.

Considering the post-construction measurement and an appropriate abatement program, the general public and workers will not be exposed to RF levels attributable to the proposal in excess of the FCC’s guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, authorized personnel will be trained and/or supervised as necessary for access to any “controlled” areas. *CBS* will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field. No tower or antenna work is required to carry out this proposal.

List of Attachments

- | | |
|-----------|---|
| Figure 1 | Antenna Azimuthal Pattern |
| Figure 2 | Antenna Elevation Pattern |
| Figure 3 | Proposed Coverage Contours |
| Figure 4 | Reassignment Service Loss |
| Figure 5 | Proposed Contour Expansion |
| Figure 6 | Maximum ERP per §73.622(f) |
| Table 1 | OET Bulletin 69 Interference Study |
| Form 2100 | Saved Version of Engineering Sections from FCC Form at Time of Upload |

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E. June 25, 2017
207 Old Dominion Road Yorktown, VA 23692 703-650-9600

**Azimuth Pattern - Relative Field
(True North)**

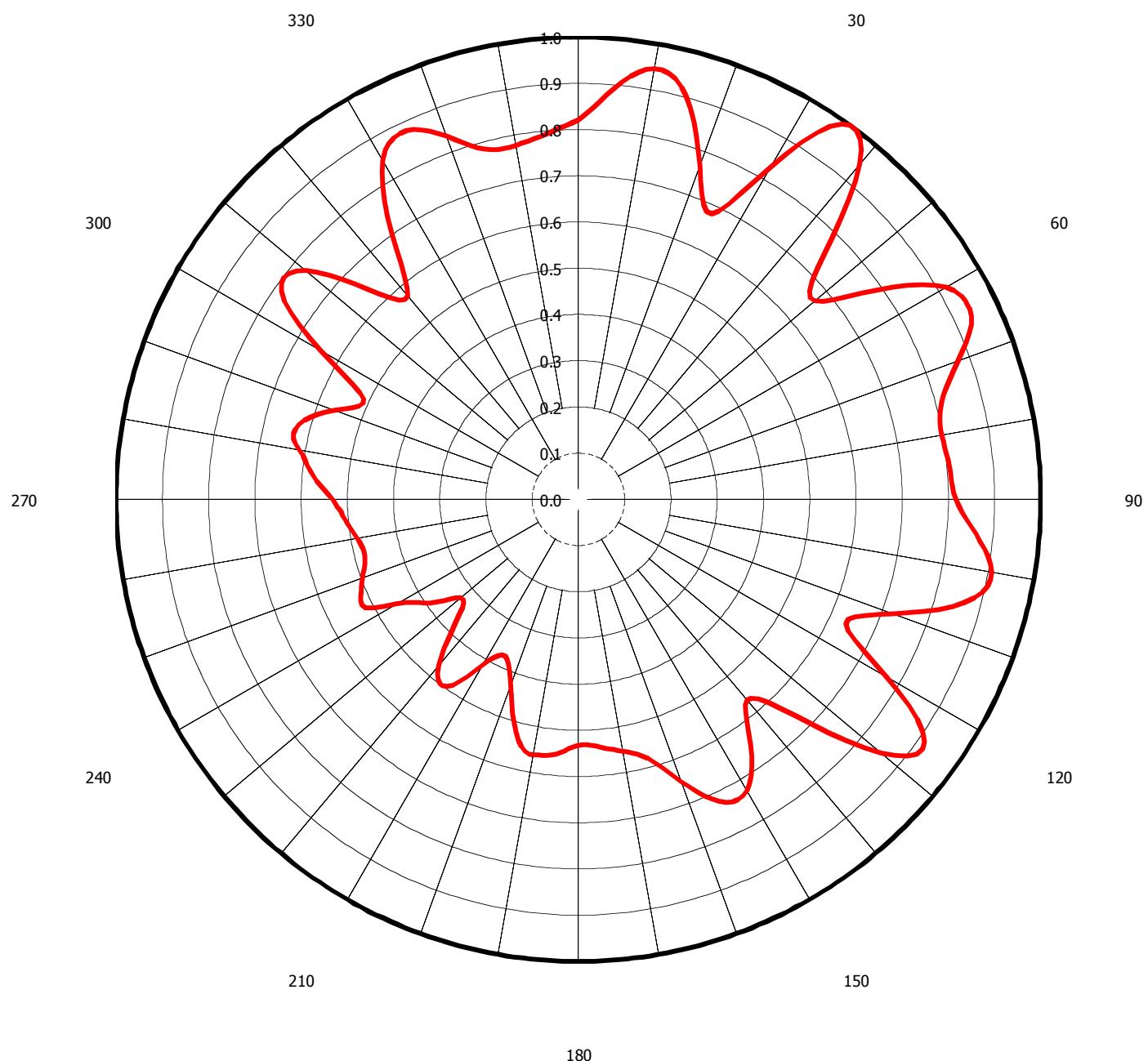


Figure 1
Antenna Azimuthal Pattern
KCBS-TV Los Angeles, CA
Facility ID 9628
Ch. 31 470 kW 952 m

prepared for
CBS Broadcasting Inc.

June, 2017

ELEVATION PATTERN

RMS Directivity at Main Lobe
RMS Directivity at Horizontal

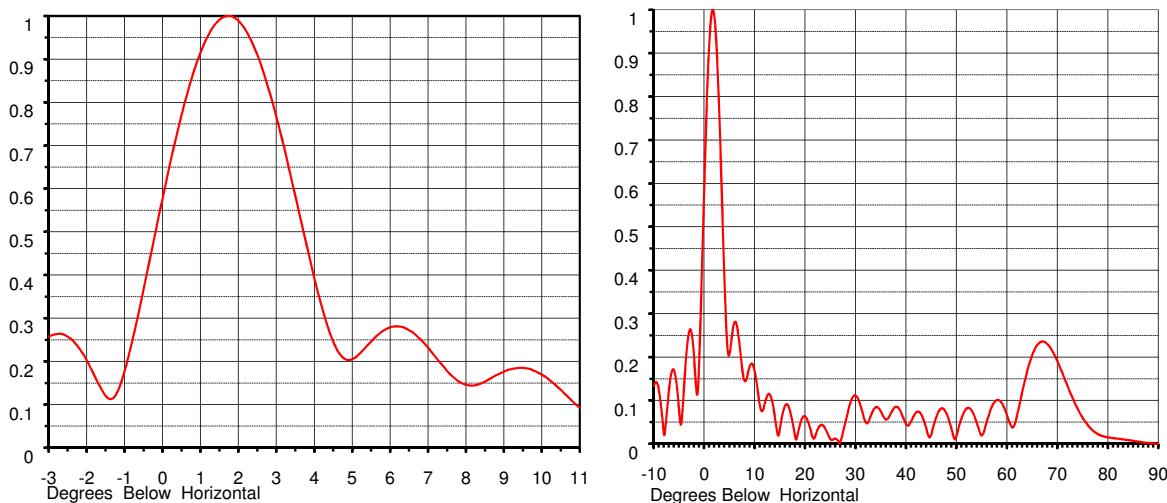
15.0 (11.76 dB)
5.0 (6.99 dB)

Calculated

Beam Tilt
Pattern Number

1.7 deg
16P150165

Proposal No. **C-70058**
Date **18-Mar-17**
Call Letters **KCBS**
Channel **31**
Frequency **575 MHz**
Antenna Type **TAD-16UDA-8/64**



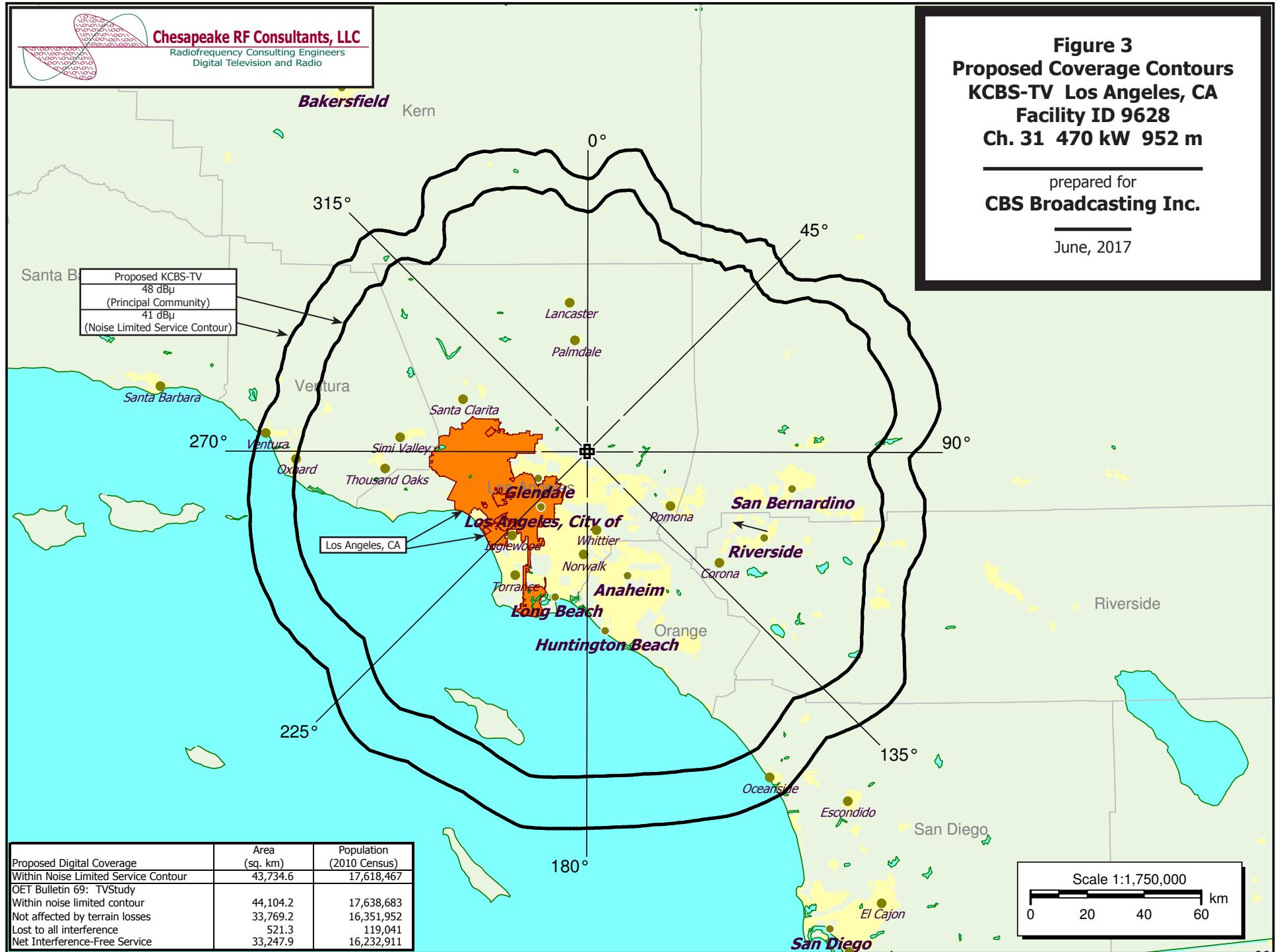
Angle	Field								
-10.0	0.134	10.0	0.164	30.0	0.111	50.0	0.022	70.0	0.188
-9.0	0.120	11.0	0.086	31.0	0.084	51.0	0.062	71.0	0.160
-8.0	0.020	12.0	0.095	32.0	0.049	52.0	0.082	72.0	0.131
-7.0	0.129	13.0	0.112	33.0	0.066	53.0	0.075	73.0	0.104
-6.0	0.168	14.0	0.057	34.0	0.085	54.0	0.046	74.0	0.079
-5.0	0.071	15.0	0.039	35.0	0.073	55.0	0.020	75.0	0.058
-4.0	0.142	16.0	0.089	36.0	0.056	56.0	0.054	76.0	0.042
-3.0	0.261	17.0	0.073	37.0	0.072	57.0	0.087	77.0	0.030
-2.0	0.186	18.0	0.014	38.0	0.085	58.0	0.101	78.0	0.022
-1.0	0.210	19.0	0.049	39.0	0.071	59.0	0.092	79.0	0.017
0.0	0.618	20.0	0.062	40.0	0.044	60.0	0.063	80.0	0.015
1.0	0.936	21.0	0.032	41.0	0.053	61.0	0.038	81.0	0.013
2.0	0.979	22.0	0.020	42.0	0.073	62.0	0.069	82.0	0.012
3.0	0.733	23.0	0.043	43.0	0.066	63.0	0.122	83.0	0.010
4.0	0.359	24.0	0.033	44.0	0.032	64.0	0.170	84.0	0.008
5.0	0.210	25.0	0.010	45.0	0.025	65.0	0.207	85.0	0.007
6.0	0.281	26.0	0.012	46.0	0.064	66.0	0.229	86.0	0.005
7.0	0.221	27.0	0.008	47.0	0.082	67.0	0.236	87.0	0.003
8.0	0.144	28.0	0.054	48.0	0.068	68.0	0.229	88.0	0.002
9.0	0.180	29.0	0.098	49.0	0.031	69.0	0.212	89.0	0.001
									90.0 0.000

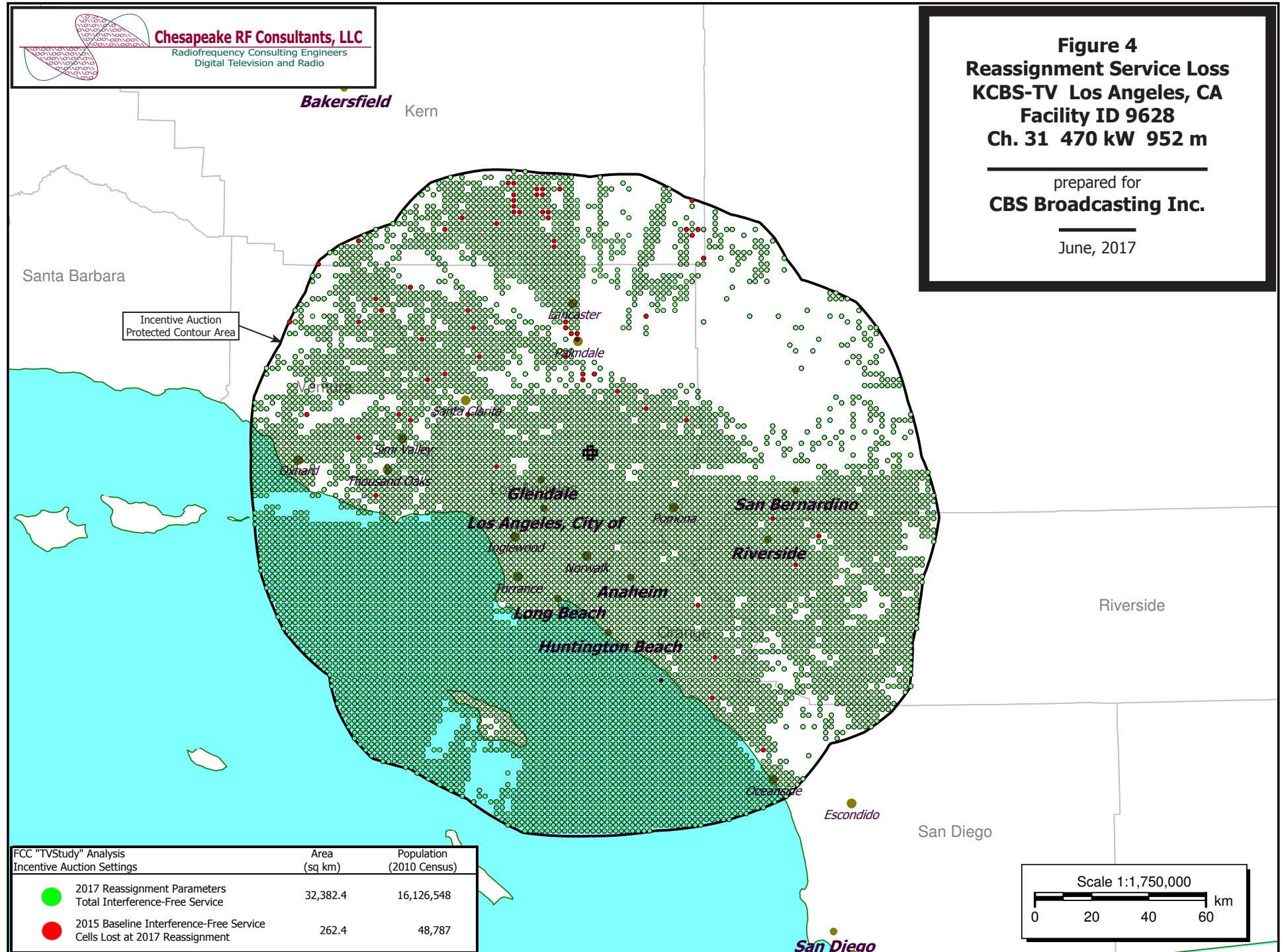
Figure 2
Antenna Elevation Pattern
KCBS-TV Los Angeles, CA
Facility ID 9628
Ch. 31 470 kW 952 m

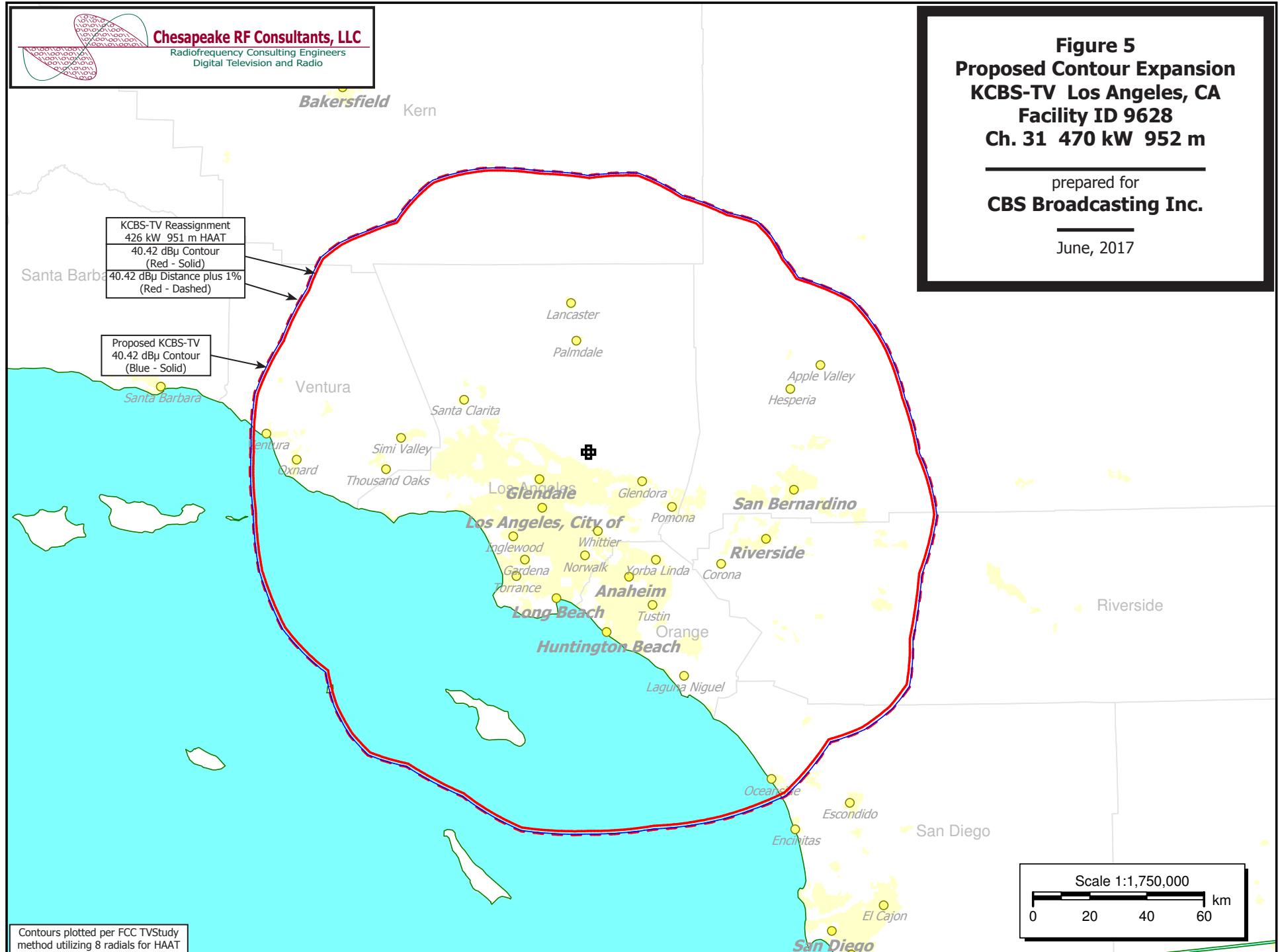
prepared for
CBS Broadcasting Inc.

June, 2017









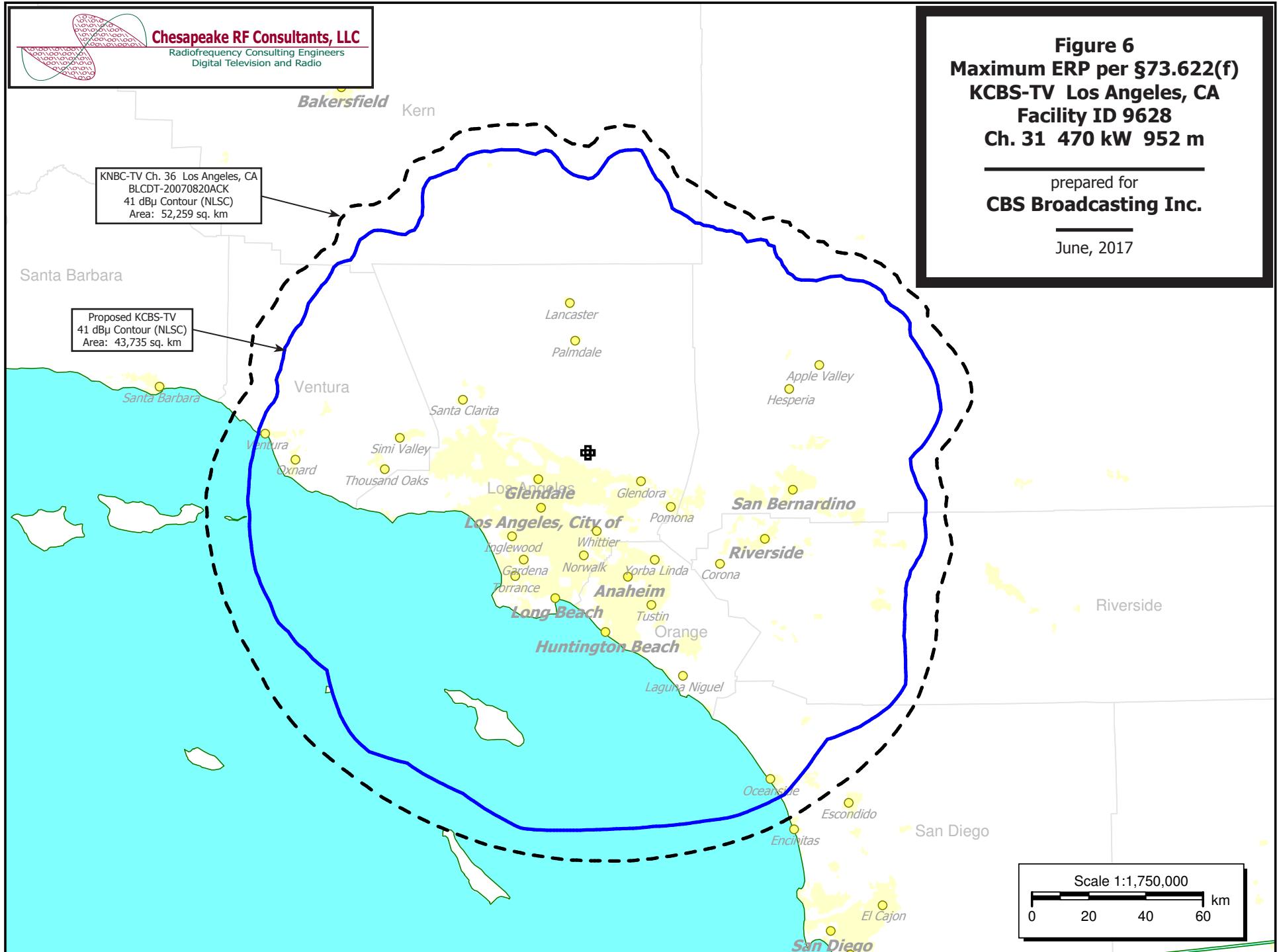


Table 1 KCBS-TV OET Bulletin 69 Interference Study
(page 1 of 7)



tvstudy v2.2.2
Database: localhost, Study: KCBS-TV 470KW PROP, Model: Longley-Rice
Start: 2017.06.25 12:28:54

Study created: 2017.06.25 12:28:46

Study build station data: LMS TV 2017-06-23 LMSTV

Proposal: KCBS-TV D31 DT APP LOS ANGELES, CA
File number: KCBS-TV PROP 470KW
Facility ID: 9628
Station data: User record
Record ID: 639
Country: U.S.

Non-U.S. records included

Stations potentially affected:

Call	Chan	Svc	Status	City, State	File Number	Distance
KXLA	D30	DT	BL	RANCHO PALOS VERDES, CA	DTVBL55083	0.1 km
KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.6
KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	155.6
KNLA-CD	D32	DC	BL	LOS ANGELES, CA	DTVBL167309	0.7
LICITACIOND30	DT	LIC		TIJUANA, BN	BLANKBPFSXXXX0004XXX	214.2
XEWT	D32	DT	LIC	TIJUANA, BN	BLANKBPFS20100517ABQ	214.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D31
Latitude: 34 13 38.00 N (NAD83)
Longitude: 118 4 3.00 W
Height AMSL: 1844.0 m
HAAT: 951.9 m
Peak ERP: 470 kW
Antenna: TAD-16UDA 20170625 0.0 deg

40.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	318 kW	400.7 m	97.0 km
45.0	305	399.0	96.6
90.0	313	704.3	115.7
135.0	238	1414.9	136.9
180.0	133	1540.0	133.6
225.0	75.8	1488.3	125.8
270.0	133	1022.3	118.3
315.0	213	645.0	109.6

ERP exceeds maximum

ERP: 470 kW ERP maximum: 148 kW

Proposal service area is within baseline plus 1.0%

Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 1620.3 km

**Proposal is within coordination distance of Mexican border
Distance to Mexican border: 190.4 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 320.6 degrees Distance: 510.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 56.2 degrees Distance: 1308.3 km

Study cell size: 2.00 km

Table 1 KCBS-TV OET Bulletin 69 Interference Study
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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 DTVBL55083 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KXLA	D30	DT	BL	RANCHO PALOS VERDES, CA	DTVBL55083	
Undesireds:	KCBS-TV	D31	DT	BL	LOS ANGELES, CA	DTVBL9628	0.1 km
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	0.1
	KBFX-CD	D29	DC	LIC	BAKERSFIELD, CA	BLTTA20101018ACF	144.5
	KFTR-DT	D29	DT	LIC	ONTARIO, CA	BLCDT20100401AFY	0.0
	KQMM-CD	D29	DC	LIC	SANTA MARIA, CA	BLDTL20080423AEG	208.4
	KFSN-TV	D30	DT	APP	FRESNO, CA	BPCDT20121206AAP	340.0
	KDFS-CD	D30-	DC	LIC	SANTA MARIA, CA	BLANK0000001617	242.8
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.7
	KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	155.5
	XHTIT	D29	DT	LIC	TIJUANA, BN	BLANKBPF20091109AAC	214.1
	LICITACIOND30	DT	LIC		TIJUANA, BN	BLANKBPFXXXX0004XXX	214.1
	XHRCs	D30	DT	LIC	SAN LUIS RIO COLORAD, SO	BLANKBPF20160302AAE	361.7
Service area	43736.5	17,652,592	Terrain-limited	34800.4	16,363,109	IX-free, before	IX-free, after
					34197.3	16,174,466	34181.3 16,182,579
							Percent New IX
							0.05 -0.05
Undesired			Total IX		Unique IX, before	Unique IX, after	
KCBS-TV D31 DT BL		127.9	33,269		83.9	27,336	
KCBS-TV D31 DT APP		143.9	25,156			99.9	19,223
KBFX-CD D29 DC LIC		7.9	0	0.0	0	0.0	0
KFTR-DT D29 DT LIC		44.0	5,933	0.0	0	0.0	0
KFSN-TV D30 DT APP		27.8	0	15.9	0	15.9	0
KDFS-CD D30- DC LIC		20.0	1,696	20.0	1,696	20.0	1,696
KBTF-CD D31 DC LIC		11.9	0	0.0	0	0.0	0
KRET-CD D31 DC LIC		8.0	5	8.0	5	8.0	5
LICITACION D30 DT LIC		419.4	153,673	419.4	153,673	419.4	153,673

Interference to DTVBL55083 BL, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KXLA	D30	DT	BL	RANCHO PALOS VERDES, CA	DTVBL55083	
Undesireds:	KCBS-TV	D31	DT	BL	LOS ANGELES, CA	DTVBL9628	0.1 km
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	0.1
	KBFX-CD	D29	DC	LIC	BAKERSFIELD, CA	BLTTA20101018ACF	144.5
	KFTR-DT	D29	DT	LIC	ONTARIO, CA	BLCDT20100401AFY	0.0
	KQMM-CD	D29	DC	LIC	SANTA MARIA, CA	BLDTL20080423AEG	208.4
	KFSN-TV	D30	DT	LIC	FRESNO, CA	BLCDT20110914ABW	340.0
	KDFS-CD	D30-	DC	LIC	SANTA MARIA, CA	BLANK0000001617	242.8
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.7
	KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	155.5
	XHTIT	D29	DT	LIC	TIJUANA, BN	BLANKBPF20091109AAC	214.1
	LICITACIOND30	DT	LIC		TIJUANA, BN	BLANKBPFXXXX0004XXX	214.1
	XHRCs	D30	DT	LIC	SAN LUIS RIO COLORAD, SO	BLANKBPF20160302AAE	361.7
Service area	43736.5	17,652,592	Terrain-limited	34800.4	16,363,109	IX-free, before	IX-free, after
					34209.2	16,174,466	34193.2 16,182,579
							Percent New IX
							0.05 -0.05
Undesired		Total IX		Unique IX, before	Unique IX, after		
KCBS-TV D31 DT BL		127.9	33,269	83.9	27,336		
KCBS-TV D31 DT APP		143.9	25,156			99.9	19,223
KBFX-CD D29 DC LIC		7.9	0	0.0	0	0.0	0
KFTR-DT D29 DT LIC		44.0	5,933	0.0	0	0.0	0
KFSN-TV D30 DT LIC		15.9	0	4.0	0	4.0	0
KDFS-CD D30- DC LIC		20.0	1,696	20.0	1,696	20.0	1,696
KBTF-CD D31 DC LIC		11.9	0	0.0	0	0.0	0
KRET-CD D31 DC LIC		8.0	5	8.0	5	8.0	5
LICITACION D30 DT LIC		419.4	153,673	419.4	153,673	419.4	153,673

Table 1 KCBS-TV OET Bulletin 69 Interference Study
(page 3 of 7)



Interference to DTVBL55083 BL, scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KXLA	D30	DT	BL	RANCHO PALOS VERDES, CA	DTVBL55083	
Undesireds:	KCBS-TV	D31	DT	BL	LOS ANGELES, CA	DTVBL9628	0.1 km
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	0.1
	KBFX-CD	D29	DC	LIC	BAKERSFIELD, CA	BLTTA20101018ACF	144.5
	KFTR-DT	D29	DT	APP	ONTARIO, CA	BPCDT20100426ACW	0.0
	KQMM-CD	D29	DC	LIC	SANTA MARIA, CA	BLDTL20080423AEG	208.4
	KFSN-TV	D30	DT	APP	FRESNO, CA	BPCDT20121206AAP	340.0
	KDFS-CD	D30-	DC	LIC	SANTA MARIA, CA	BLANK0000001617	242.8
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.7
	KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	155.5
	XHTIT	D29	DT	LIC	TIJUANA, BN	BLANKBPF20091109AAC	214.1
	LICITACIOND30	DT	LIC		TIJUANA, BN	BLANKBPFXXXX0004XXX	214.1
	XHRCs	D30	DT	LIC	SAN LUIS RIO COLORAD, SO	BLANKBPF20160302AAE	361.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
43736.5	17,652,592	34800.4	16,363,109	34169.2	16,167,166	34161.3	16,179,091
0.02	-0.07						
Undesired							
KCBS-TV	D31	DT	BL	Total IX	Unique IX, before	Unique IX, after	
				127.9	33,269	76.0	23,888
KCBS-TV	D31	DT	APP	143.9	25,156	83.9	11,963
KBFX-CD	D29	DC	LIC	7.9	0	0.0	0
KFTR-DT	D29	DT	APP	80.0	16,681	28.0	7,300
KFSN-TV	D30	DT	APP	27.8	0	15.9	0
KDFS-CD	D30-	DC	LIC	20.0	1,696	20.0	1,696
KBTF-CD	D31	DC	LIC	11.9	0	0.0	0
KRET-CD	D31	DC	LIC	8.0	5	8.0	5
LICITACION	D30	DT	LIC	419.4	153,673	419.4	153,673

Interference to DTVBL55083 BL, scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KXLA	D30	DT	BL	RANCHO PALOS VERDES, CA	DTVBL55083	
Undesireds:	KCBS-TV	D31	DT	BL	LOS ANGELES, CA	DTVBL9628	0.1 km
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	0.1
	KBFX-CD	D29	DC	LIC	BAKERSFIELD, CA	BLTTA20101018ACF	144.5
	KFTR-DT	D29	DT	APP	ONTARIO, CA	BPCDT20100426ACW	0.0
	KQMM-CD	D29	DC	LIC	SANTA MARIA, CA	BLDTL20080423AEG	208.4
	KFSN-TV	D30	DT	LIC	FRESNO, CA	BLCDT20110914ABW	340.0
	KDFS-CD	D30-	DC	LIC	SANTA MARIA, CA	BLANK0000001617	242.8
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.7
	KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	155.5
	XHTIT	D29	DT	LIC	TIJUANA, BN	BLANKBPF20091109AAC	214.1
	LICITACIOND30	DT	LIC		TIJUANA, BN	BLANKBPFXXXX0004XXX	214.1
	XHRCs	D30	DT	LIC	SAN LUIS RIO COLORAD, SO	BLANKBPF20160302AAE	361.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
43736.5	17,652,592	34800.4	16,363,109	34181.1	16,167,166	34173.2	16,179,091
0.02	-0.07						
Undesired							
KCBS-TV	D31	DT	BL	Total IX	Unique IX, before	Unique IX, after	
				127.9	33,269	76.0	23,888
KCBS-TV	D31	DT	APP	143.9	25,156	83.9	11,963
KBFX-CD	D29	DC	LIC	7.9	0	0.0	0
KFTR-DT	D29	DT	APP	80.0	16,681	28.0	7,300
KFSN-TV	D30	DT	LIC	15.9	0	4.0	0
KDFS-CD	D30-	DC	LIC	20.0	1,696	20.0	1,696
KBTF-CD	D31	DC	LIC	11.9	0	0.0	0
KRET-CD	D31	DC	LIC	8.0	5	8.0	5
LICITACION	D30	DT	LIC	419.4	153,673	419.4	153,673

Interference to BLDTA20100921ABW LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	
Undesireds:	KCBS-TV	D31	DT	BL	LOS ANGELES, CA	DTVBL9628	144.6 km
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	144.6

Table 1 KCBS-TV OET Bulletin 69 Interference Study
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KXLA	D30	DT	BL	RANCHO PALOS VERDES, CA	DTVBL55083	144.7	
KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	264.8	
KVPT	D32	DT	BL	FRESNO, CA	DTVBL69733	156.3	
KNLA-CD	D32	DC	BL	LOS ANGELES, CA	DTVBL167309	144.0	
Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX	
14481.0	749,417	11796.9	725,828	11676.8	725,708	0.00 0.00	
Undesired		Total IX		Unique IX, before	Unique IX, after		
KCBS-TV D31 DT BL	120.1	120	116.1	9	116.1	9	
KCBS-TV D31 DT APP	120.1	120			0.0	0	
KVPT D32 DT BL	4.0	111	0.0	0	0.0	0	
<hr/>							
Interference to BLDTA20100921ABW LIC, scenario 2							
Desired:	Call KBTF-CD	Chan D31	Svc DC	Status LIC	City, State BAKERSFIELD, CA	File Number BLDTA20100921ABW	Distance
Undesireds:	KCBS-TV KCBS-TV KXLA KRET-CD KVPT KNLA-CD	D31 D31 D30 D31 D32 D32	DT DT DT DC DT DC	BL APP BL LIC BL BL	LOS ANGELES, CA LOS ANGELES, CA RANCHO PALOS VERDES, CA PALM SPRINGS, CA FRESNO, CA LOS ANGELES, CA	DTVBL9628 KCBS-TV PROP 470KW DTVBL55083 BLDTA20140702ADK DTVBL69733 DTVBL167309	144.6 km 144.6 144.7 264.8 156.3 144.0
Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX	
14481.0	749,417	11796.9	725,828	11676.8	725,708	0.00 0.00	
Undesired		Total IX		Unique IX, before	Unique IX, after		
KCBS-TV D31 DT BL	120.1	120	116.1	9	116.1	9	
KCBS-TV D31 DT APP	120.1	120			0.0	0	
KVPT D32 DT BL	4.0	111	0.0	0	0.0	0	
<hr/>							
Interference to BLDTA20140702ADK LIC, scenario 1							
Desired:	Call KRET-CD	Chan D31	Svc DC	Status LIC	City, State PALM SPRINGS, CA	File Number BLDTA20140702ADK	Distance
Undesireds:	KCBS-TV KCBS-TV KBTF-CD	D31 D31 D31	DT DT DC	BL APP LIC	LOS ANGELES, CA LOS ANGELES, CA BAKERSFIELD, CA	DTVBL9628 KCBS-TV PROP 470KW BLDTA20100921ABW	155.6 km 155.6 264.8
Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX	
7138.5	606,687	4973.6	457,263	4897.3	445,883	0.25 0.00	
Undesired		Total IX		Unique IX, before	Unique IX, after		
KCBS-TV D31 DT BL	76.3	11,380	76.3	11,380	88.3	11,385	
KCBS-TV D31 DT APP	88.3	11,385					
<hr/>							
Interference to DTVBL167309 BL, scenario 1							
Desired:	Call KNLA-CD	Chan D32	Svc DC	Status BL	City, State LOS ANGELES, CA	File Number DTVBL167309	Distance
Undesireds:	KCBS-TV KCBS-TV KBTF-CD KRET-CD KVPT K50LZ-D KBAK-TV KDFX-CD KTBN-TV XEWT XHLRT	D31 D31 D31 D31 D32 D32 D33 D33 D33 D32 D32	DT DT DC DC DT DC DT DC DT DT DT	BL APP LIC LIC BL LIC LIC CP LIC LIC	LOS ANGELES, CA LOS ANGELES, CA BAKERSFIELD, CA PALM SPRINGS, CA FRESNO, CA SAN LUIS OBISPO, CA BAKERSFIELD, CA INDIO/PALM SPRINGS, CA SANTA ANA, CA TIJUANA, BN SAN LUIS RIO COLORAD, SO	DTVBL9628 KCBS-TV PROP 470KW BLDTA20100921ABW BLDTA20140702ADK DTVBL69733 DTVBL29885 BLCDT20060628ABK BLANK0000024531 BLCDT20091019ABG BLANKBPF20100517ABQ BLANKBPF20160315ABL	0.7 km 0.7 144.0 156.1 300.1 267.1 143.7 156.2 1.2 214.9 362.7
Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX	
17156.4	14,757,762	12133.1	13,191,072	12004.9	13,121,785	12008.9 13,133,713 -0.03 -0.09	
Undesired		Total IX		Unique IX, before	Unique IX, after		

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KCBS-TV D31 DT BL	44.1	45,199	12.0	22,421		
KCBS-TV D31 DT APP	40.1	33,271			8.0	10,493
KTBN-TV D33 DT LIC	76.2	46,710	40.1	19,976	40.1	19,976
XEWT D32 DT LIC	48.1	4,112	40.0	156	40.0	156

Interference to DTVBL167309 BL, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KNLA-CD	D32	DC	BL	LOS ANGELES, CA	DTVBL167309	
Undesireds:	KCBS-TV	D31	DT	BL	LOS ANGELES, CA	DTVBL9628	0.7 km
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	0.7
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.0
	KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	156.1
	KVPT	D32	DT	BL	FRESNO, CA	DTVBL69733	300.1
	K50LZ-D	D32	DC	BL	SAN LUIS OBISPO, CA	DTVBL29885	267.1
	KBAK-TV	D33	DT	LIC	BAKERSFIELD, CA	BLCDT20060628ABK	143.7
	KDFX-CD	D33	DC	BL	INDIO/PALM SPRINGS, CA	DTVBL51207	156.2
	KTBN-TV	D33	DT	LIC	SANTA ANA, CA	BLCDT20091019ABG	1.2
	XEWT	D32	DT	LIC	TIJUANA, BN	BLANKBPF20100517ABQ	214.9
	XHLRT	D32	DT	LIC	SAN LUIS RIO COLORAD, SO	BLANKBPF20160315ABL	362.7
Service area					Terrain-limited	IX-free, before	
17156.4	14,757,762	12133.1	13,191,072	12004.9	13,121,785	12008.9	13,133,713
Undesired					Total IX	Unique IX, before	
KCBS-TV D31 DT BL		44.1	45,199		12.0	22,421	
KCBS-TV D31 DT APP		40.1	33,271			8.0	10,493
KTBN-TV D33 DT LIC		76.2	46,710	40.1	19,976	40.1	19,976
XEWT D32 DT LIC		48.1	4,112	40.0	156	40.0	156
Service area					IX-free, after		
17156.4	14,757,762	12133.1	13,191,072	12004.9	13,121,785	12008.9	13,133,713
Undesired					IX-free, after		
KCBS-TV D31 DT BL		44.1	45,199		12.0	22,421	
KCBS-TV D31 DT APP		40.1	33,271			8.0	10,493
KTBN-TV D33 DT LIC		76.2	46,710	40.1	19,976	40.1	19,976
XEWT D32 DT LIC		48.1	4,112	40.0	156	40.0	156

Interference to DTVBL167309 BL, scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KNLA-CD	D32	DC	BL	LOS ANGELES, CA	DTVBL167309	
Undesireds:	KCBS-TV	D31	DT	BL	LOS ANGELES, CA	DTVBL9628	0.7 km
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	0.7
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.0
	KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	156.1
	KVPT	D32	DT	BL	FRESNO, CA	DTVBL69733	300.1
	K50LZ-D	D32	DC	BL	SAN LUIS OBISPO, CA	DTVBL29885	267.1
	KBAK-TV	D33	DT	LIC	BAKERSFIELD, CA	BLCDT20060628ABK	143.7
	KDFX-CD	D33	DC	CP	INDIO/PALM SPRINGS, CA	BLANK0000024531	156.2
	KTBN-TV	D33	DT	LIC	SANTA ANA, CA	BLCDT20091019ABG	1.2
	XEWT	D32	DT	LIC	TIJUANA, BN	BLANKBPF20100517ABQ	214.9
	XHLRT	D32	DT	LIC	SAN LUIS RIO COLORAD, SO	BLANKBPF20160315ABL	362.7
Service area					Terrain-limited	IX-free, before	
17156.4	14,757,762	12133.1	13,191,072	12004.9	13,121,785	12008.9	13,133,713
Undesired					Total IX	Unique IX, before	
KCBS-TV D31 DT BL		44.1	45,199		12.0	22,421	
KCBS-TV D31 DT APP		40.1	33,271			8.0	10,493
KTBN-TV D33 DT LIC		76.2	46,710	40.1	19,976	40.1	19,976
XEWT D32 DT LIC		48.1	4,112	40.0	156	40.0	156
Service area					IX-free, after		
17156.4	14,757,762	12133.1	13,191,072	12004.9	13,121,785	12008.9	13,133,713
Undesired					IX-free, after		
KCBS-TV D31 DT BL		44.1	45,199		12.0	22,421	
KCBS-TV D31 DT APP		40.1	33,271			8.0	10,493
KTBN-TV D33 DT LIC		76.2	46,710	40.1	19,976	40.1	19,976
XEWT D32 DT LIC		48.1	4,112	40.0	156	40.0	156

Interference to DTVBL167309 BL, scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KNLA-CD	D32	DC	BL	LOS ANGELES, CA	DTVBL167309	
Undesireds:	KCBS-TV	D31	DT	BL	LOS ANGELES, CA	DTVBL9628	0.7 km
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	0.7
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.0
	KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	156.1
	KVPT	D32	DT	BL	FRESNO, CA	DTVBL69733	300.1
	K50LZ-D	D32	DC	BL	SAN LUIS OBISPO, CA	DTVBL29885	267.1
	KBAK-TV	D33	DT	LIC	BAKERSFIELD, CA	BLCDT20060628ABK	143.7
	KDFX-CD	D33	DC	CP	INDIO/PALM SPRINGS, CA	BLANK0000024531	156.2

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KTBN-TV	D33	DT	LIC	SANTA ANA, CA	BLCDT20091019ABG	1.2
XEWT	D32	DT	LIC	TIJUANA, BN	BLANKBPF20100517ABQ	214.9
XHLRT	D32	DT	LIC	SAN LUIS RIO COLORAD, SO	BLANKBPF20160315ABL	362.7
Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
17156.4	14,757,762	12133.1	13,191,072	12004.9	13,121,785	12008.9 13,133,713 -0.03 -0.09
Undesired		Total IX		Unique IX, before	Unique IX, after	
KCBS-TV D31 DT BL	44.1	45,199		12.0	22,421	
KCBS-TV D31 DT APP	40.1	33,271			8.0	10,493
KTBN-TV D33 DT LIC	76.2	46,710		40.1	19,976	40.1 19,976
XEWT D32 DT LIC	48.1	4,112		40.0	156	40.0 156

Interference to DTVBL167309 BL, scenario 5						
Desired:	Call KNLA-CD	Chan D32	Svc DC	Status BL	City, State LOS ANGELES, CA	File Number DTVBL167309
Undesireds:	KCBS-TV D31 DT BL	44.1	45,199	12.0	22,421	0.7 km
KCBS-TV D31 DT APP	40.1	33,271			8.0	10,493
KBTF-CD D31 DC LIC	76.2	46,710		40.1	19,976	40.1 19,976
KRET-CD D31 DC LIC	48.1	4,112		40.0	156	40.0 156

Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
17156.4	14,757,762	12133.1	13,191,072	12004.9	13,121,785	12008.9 13,133,713 -0.03 -0.09
Undesired		Total IX		Unique IX, before	Unique IX, after	
KCBS-TV D31 DT BL	44.1	45,199		12.0	22,421	
KCBS-TV D31 DT APP	40.1	33,271			8.0	10,493
KTBN-TV D33 DT LIC	76.2	46,710		40.1	19,976	40.1 19,976
XEWT D32 DT LIC	48.1	4,112		40.0	156	40.0 156

Interference to DTVBL167309 BL, scenario 6						
Desired:	Call KNLA-CD	Chan D32	Svc DC	Status BL	City, State LOS ANGELES, CA	File Number DTVBL167309
Undesireds:	KCBS-TV D31 DT BL	44.1	45,199	12.0	22,421	0.7 km
KCBS-TV D31 DT APP	40.1	33,271			8.0	10,493
KBTF-CD D31 DC LIC	76.2	46,710		40.1	19,976	40.1 19,976
KRET-CD D31 DC LIC	48.1	4,112		40.0	156	40.0 156

Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
17156.4	14,757,762	12133.1	13,191,072	12004.9	13,121,785	12008.9 13,133,713 -0.03 -0.09
Undesired		Total IX		Unique IX, before	Unique IX, after	
KCBS-TV D31 DT BL	44.1	45,199		12.0	22,421	
KCBS-TV D31 DT APP	40.1	33,271			8.0	10,493
KTBN-TV D33 DT LIC	76.2	46,710		40.1	19,976	40.1 19,976
XEWT D32 DT LIC	48.1	4,112		40.0	156	40.0 156

Interference to BLANKBPFXXXX0004XXX LIC, scenario 1						
Proposal causes no interference.						

Interference to BLANKBPFXXXX0004XXX LIC, scenario 2						

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Proposal causes no interference.

Interference to BLANKBPFS20100517ABQ LIC, scenario 1
 Proposal causes no interference.

Interference to BLANKBPFS20100517ABQ LIC, scenario 2
 Proposal causes no interference.

Interference to BLANKBPFS20100517ABQ LIC, scenario 3
 Proposal causes no interference.

Interference to BLANKBPFS20100517ABQ LIC, scenario 4
 Proposal causes no interference.

Interference to BLANKBPFS20100517ABQ LIC, scenario 5
 Proposal causes no interference.

Interference to BLANKBPFS20100517ABQ LIC, scenario 6
 Proposal causes no interference.

Interference to proposal, scenario 1
 0.73% interference

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KCBS-TV	D31	DT	APP	LOS ANGELES, CA	KCBS-TV PROP 470KW	
Undesireds:	KXLA	D30	DT	BL	RANCHO PALOS VERDES, CA	DTVBL55083	0.1 km
	KBTF-CD	D31	DC	LIC	BAKERSFIELD, CA	BLDTA20100921ABW	144.6
	KRET-CD	D31	DC	LIC	PALM SPRINGS, CA	BLDTA20140702ADK	155.6
	KNLA-CD	D32	DC	BL	LOS ANGELES, CA	DTVBL167309	0.7
	LICITACIOND	30	DT	LIC	TIJUANA, BN	BLANKBPFSXXXX0004XXX	214.2
	XEWT	D32	DT	LIC	TIJUANA, BN	BLANKBPFS20100517ABQ	214.2
Service area		Terrain-limited			IX-free	Percent IX	
44104.2	17,638,683	33769.2	16,351,952	33247.9	16,232,911	1.54	0.73
Undesired		Total IX			Unique IX	Prcnt Unique	Unique IX
KXLA D30 DT BL	72.0	35,215	64.1	35,215	0.19	0.22	
KBTF-CD D31 DC LIC	290.0	47,961	274.1	47,961	0.81	0.29	
KRET-CD D31 DC LIC	16.0	5,315	16.0	5,315	0.05	0.03	
KNLA-CD D32 DC BL	159.1	30,550	143.2	30,550	0.42	0.19	
XEWT D32 DT LIC	4.0	0	4.0	0	0.01	0.00	

Channel and Facility Information	Section	Question	Response
	Proposed Community of License	Facility ID	9628
		State	California
		City	LOS ANGELES
		DTV Channel	31
	Facility Type	Facility Type	Commercial
		Station Type	Main
	Zone	Zone	2

Antenna Location Data	Section	Question	Response
	Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
		ASR Number	1007719
	Coordinates (NAD83)	Latitude	34° 13' 38.0" N+
		Longitude	118° 04' 03.0" W-
		Structure Type	LTOWER-Lattice Tower
		Overall Structure Height	141.4 meters
		Support Structure Height	118.0 meters
		Ground Elevation (AMSL)	1741.0 meters
	Antenna Data	Height of Radiation Center Above Ground Level	103 meters
		Height of Radiation Center Above Average Terrain	951.8 meters
		Height of Radiation Center Above Mean Sea Level	1844.0 meters
		Effective Radiated Power	470 kW

Antenna Technical Data	Section	Question	Response
	Antenna Type	Antenna Type	Directional Custom
		Do you have an Antenna ID?	No
		Antenna ID	
	Antenna Manufacturer and Model	Manufacturer:	HAR
		Model	TAD-16UDA-8/64
		Rotation	0 degrees
		Electrical Beam Tilt	1.7
		Mechanical Beam Tilt	1
		toward azimuth	217
		Polarization	Horizontal
	DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	No
		Uploaded file for elevation antenna (or radiation) pattern data	

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	V _A (Authorized Value)						
0	0.822	90	0.816	180	0.532	270	0.532
10	0.946	100	0.908	190	0.561	280	0.614
20	0.767	110	0.725	200	0.429	290	0.562
30	0.829	120	0.770	210	0.414	300	0.643
40	0.945	130	0.854	220	0.471	310	0.770
50	0.667	140	0.568	230	0.332	320	0.575
60	0.917	150	0.728	240	0.453	330	0.847
70	0.873	160	0.650	250	0.497	340	0.836
80	0.798	170	0.554	260	0.486	350	0.778

Additional Azimuths

Degree	V _A
36	1.000
306	0.794
216	0.499
126	0.920

Construction Permit Certifications	Section	Question	Response
	Post-Incentive Auction Expedited Processing	<p>It will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice.</p> <p>It will operate post-incentive auction facilities that do not expand the noise-limited service contour in any direction beyond that established by the post-incentive auction channel reassignment public notice.</p> <p>It will operate post-incentive auction facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the post-incentive auction channel reassignment public notice.</p> <p>The antenna structure to be used by this facility has been registered by the Commission and will not require re-registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely affect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.</p>	Yes No Yes Yes
	Environmental Effect	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See Section 1.1306 of 47 C.F.R.)	No
	Broadcast Facility	The proposed facility complies with the applicable engineering standards and assignment requirements of 47 C.F.R. Sections 73.616, 73.622(i), 73.623(e), 73.625, 73.1030, and 73.1125.	Yes