



**STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN APPLICATION FOR  
CONSTRUCTION PERMIT  
KFSN-TV - FRESNO, CALIFORNIA  
CH. 30 - 400 kW - 625 meters HAAT**

Prepared for: KFSN TELEVISION, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, License No. 7418, and in the State of New York, License No. 63418.

**GENERAL**

This office has been authorized by KFSN TELEVISION, LLC, licensee of KFSN-TV, channel 30, Fresno, California, to prepare this statement, FCC Form 301, Section III-D, and the associated exhibits, in support of an application for a post-transition construction permit. The instant application seeks only to increase KFSN-TV's Effective Radiated Power (ERP) from its authorized 260 kW to 400 kW. The licensee requests no other change in KFSN-TV's authorized broadcast facility.

**PROPOSED TECHNICAL FACILITY**

KFSN-TV broadcasts its digital television signal with an ERP of 260 kW employing an ERI Model ATW30H6-HTCX-30H channel 30 directional horizontally polarized antenna, on the tower bearing registration number 1019441, with its radiation center line located

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72.7 meters above ground level, and 625 meters above average terrain. The antenna employs an electrical beam-tilt of 1.5 degrees below the horizontal plane. The manufacturer's horizontal plane azimuth pattern is shown in exhibit 2 and is tabulated in exhibit 3. The manufacturer's elevation plane radiation pattern is shown in exhibit 4, and is tabulated in exhibit 5.

**DTV ALLOCATION CONSIDERATIONS**

KFSN-TV's current authorization allows a digital television facility with an Effective Radiated Power (ERP) of 260 kW, using a directional antenna, at a Height Above Average Terrain (HAAT) of 625 meters. According to a study performed using the Commission's application processing and interference analysis software, **with program parameters set to employ 1 km squares**, the results of which are shown in Appendix B, KFSN-TV's proposed modified facility, the only change of which is the ERP from 260 kW to 400 kW, is predicted to cause no new interference in excess of 0.5% to any other authorized digital television facility.

**Class A Television Allocation Considerations**

Using the application processing software, the study result revealed no predicted interference to any authorized Class A LPTV station, as required in Section 73.616(f) of the FCC's Rules. The instant proposal is, therefore, in compliance with Section 73.616(f).

**AM Radio Station Considerations**

There are no AM radio stations located within 3.2 kilometers of the KFSN-TV antenna site.

**PREDICTED COVERAGE CONTOURS**

The predicted coverage contours were calculated using the method described in Section 73.684 of the FCC's Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site was determined using the National Geophysical Data Center Thirty Second Point Database (TPG-0050) as prescribed in the FCC's Rules. The antenna site elevation and coordinates were determined from FCC tower registration data. Exhibit 1 shows the predicted DTV Noise Limited (41 dBu) contour and principal community (48 dBu) contour, which encompasses Fresno, California.

**LARGEST STATION IN THE MARKET**

The processing study stated that "Facility does not meet maximum height/power limits - Channel 30 ERP = 400.00 HAAT = 625". Pursuant to Section 73.622(f)(5), Exhibit 6 attached hereto shows the station with the largest coverage area in the market, KNSO, channel 11, 45 kW, 622 meters HAAT. Therefore, KFSN-TV's proposed facility, which covers a smaller area than KNSO, complies with Section 73.622(f)(5).

**BLANKETING AND INTERMODULATION INTERFERENCE**

Other broadcast and non-broadcast technical facilities are co-located with, or located within, 10 km of the current and proposed KFSN-TV transmitter/antenna site. The applicant recognizes its responsibility to remedy complaints of interference which might result from this proposal in accordance with applicable FCC Rules.

**RADIO FREQUENCY IMPACT**

Effective October 15, 1997 the FCC adopted modified guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions. The guidelines are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986) and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines establish maximum permissible exposure (MPE) levels for both occupational or "controlled" environments, as well as for "uncontrolled" environments such that apply in cases that could affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (DA 04-319, February 6, 2004), provides assistance in the determination of whether FCC-regulated transmitting facilities, operations or devices comply with guideline limits for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. Bulletin No. 65 provides the technical data required to evaluate compliance with the FCC's policies and guidelines.

The FCC's Maximum Permitted Exposure (MPE) level established for "uncontrolled" environments is 0.2 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) when applied to broadcast facilities operating between 30 MHz and 300 MHz, and for broadcast facilities operating between 300 MHz and 1500 MHz, primarily UHF TV stations, the MPE is derived from the formula,  $(\text{frequency (MHz)}/1500)$ . The MPE level that is established for occupational, or

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“controlled” environments is 1.0 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) for operations between 30 MHz and 300 MHz, and for broadcast stations operating between 300 MHz and 1500 MHz the MPE is derived from the formula,  $(\text{frequency (MHz)}/300)$ .

The predicted emissions of KFSN-TV operating on channel 30 must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For KFSN-TV, which will operate on television channel 30 (566-572 MHz), the MPE is 0.379 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) in an “uncontrolled” environment and 1.895  $\text{mW}/\text{cm}^2$  in a “controlled” environment. The proposed KFSN-TV facility will operate with a maximum ERP of 400 kW using a horizontally polarized directional transmitting antenna with a centerline height of 72.7 meters above ground level (AGL). Considering the proposed antenna’s vertical plane relative field factor of 0.10 the KFSN-TV facility is predicted to produce a power density at two meters above ground level of 0.02673  $\text{mW}/\text{cm}^2$ , which is 7.05% of the FCC guideline value for an “uncontrolled” environment, and 1.41% of the FCC’s guideline value for “controlled” environments. (See Appendix A)

There is one other full-service DTV station, and one FM radio station, that are authorized to be located within the relevant proximity of 315 meters. There are no AM radio stations located within 3.2 km of the site. The total predicted percentage of the ANSI value at the proposed site, including the cumulative predicted radiation based on actual antenna elevation pattern field factors, from all post-transition broadcast stations within the relevant proximity is 57.06% of the limit for “uncontrolled” environments, and 11.41% of the limit for “controlled” environments.

**OCCUPATIONAL SAFETY**

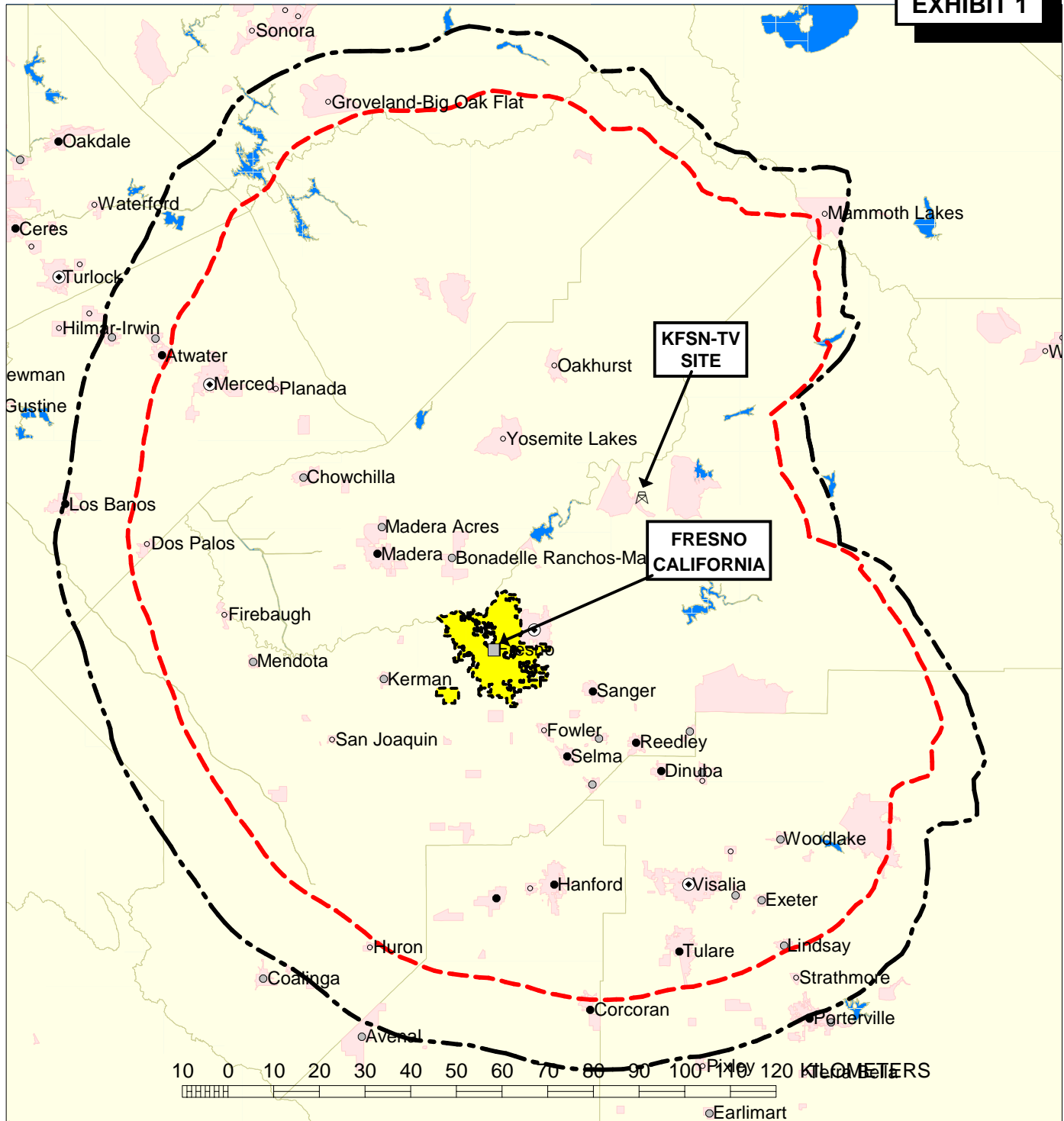
The applicant is committed to the protection of station personnel and/or tower contractors working on the tower support structure, or in the vicinity of the proposed KFSN-TV antenna, by reducing power and/or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure the proper protection of persons who might be required to perform their assigned tasks in this "controlled" environment.

**SUMMARY**

It is submitted that the instant application for post-transition construction permit, seeking an increase in KFSN-TV's ERP from 260 kW to 400 kW, as described herein, complies with the Rules, Regulations, and Policies of the Federal Communications Commission. This statement, FCC Form 301, Section III-D, and the attached exhibits were prepared by me, or under my direct supervision, and are believed to be true and correct to the best of my knowledge and belief.

DATED: November 27, 2012





## PREDICTED COVERAGE CONTOURS

KFSN-TV, FRESNO, CALIFORNIA

DTV - CH. 30 - 400 kW - 625 m HAAT

Predicted Principal Community Contour

F(50,90) - 48 dBu

Area = 25,175 sq km

Population = 1,634,627

NOVEMBER 2012



Predicted Noise Limited Contour

F(50,90) - 41 dBu

Area = 33,060 sq km

Population = 1,807,415

ERI - ATW30H6-HTCX-30H

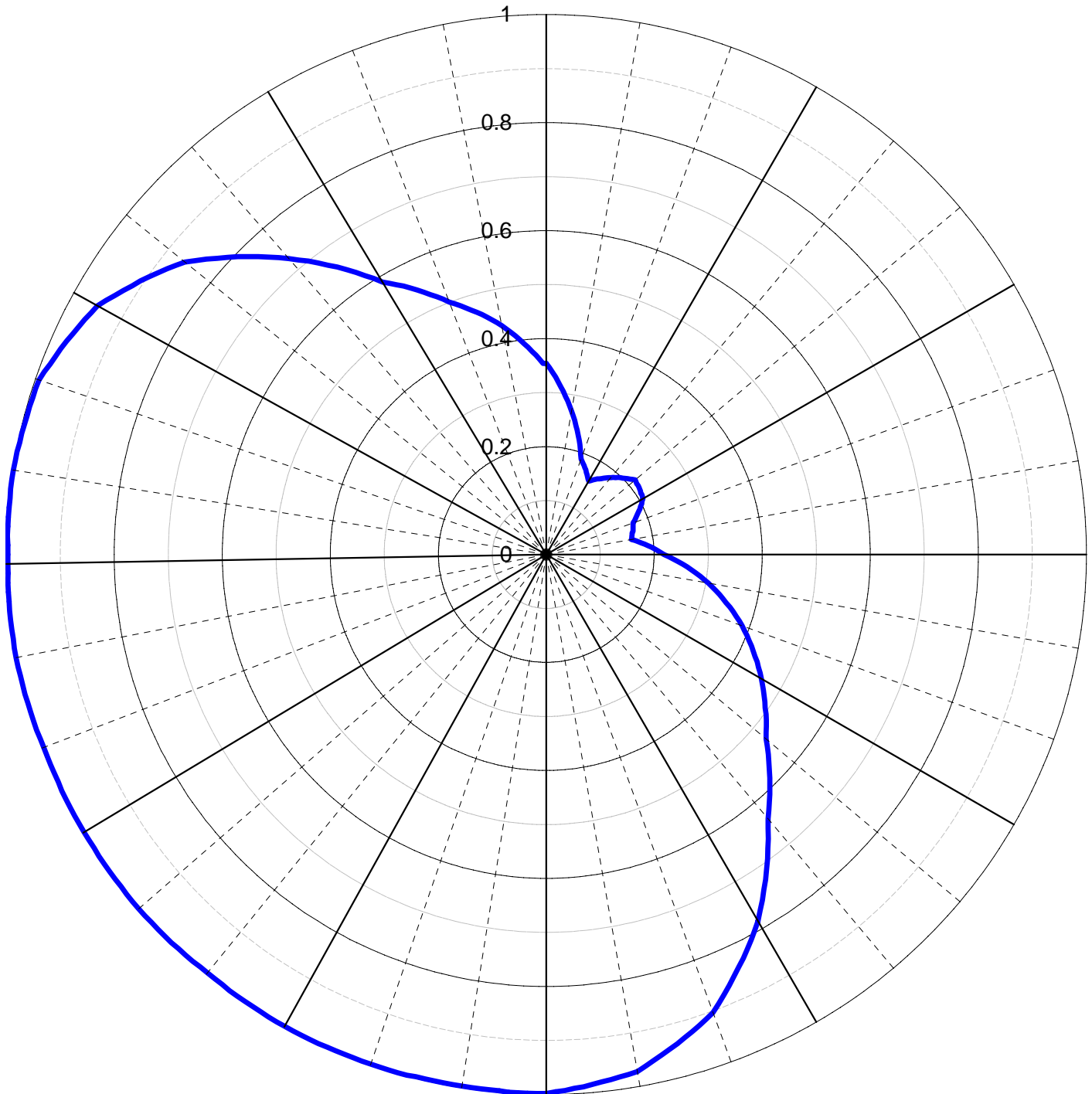
## AZIMUTH PATTERN

EXHIBIT 2

TYPE: CH30AZH  
Numeric dB

Polarization: Horizontal  
Channel: 30 (NTSC/DTV)  
Location: Fresno, CA

Directivity:



Note: Pattern shape and directivity may vary with channel and mounting configuration.



Electronics Research, Inc.

10500 W. 153rd Street

Orland Park, Illinois U.S.A. 60462



**TABULATED DATA FOR AZIMUTH PATTERN****EXHIBIT 3****TYPE: CH30AZH**

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	0.35	-9.02	90	0.22	-13.23	180	1.00	-0.02	270	1.00	-0.03
2	0.34	-9.45	92	0.24	-12.58	182	1.00	-0.02	272	1.00	-0.03
4	0.32	-9.90	94	0.25	-11.94	184	1.00	-0.02	274	1.00	-0.02
6	0.30	-10.34	96	0.27	-11.37	186	1.00	-0.03	276	1.00	-0.02
8	0.29	-10.84	98	0.29	-10.81	188	1.00	-0.03	278	1.00	-0.01
10	0.27	-11.37	100	0.31	-10.31	190	1.00	-0.03	280	1.00	-0.01
12	0.25	-11.90	102	0.32	-9.87	192	1.00	-0.03	282	1.00	-0.02
14	0.24	-12.51	104	0.34	-9.45	194	1.00	-0.03	284	1.00	-0.03
16	0.22	-13.11	106	0.35	-9.02	196	1.00	-0.02	286	1.00	-0.04
18	0.20	-13.81	108	0.37	-8.64	198	1.00	-0.02	288	0.99	-0.05
20	0.19	-14.52	110	0.39	-8.27	200	1.00	-0.02	290	0.99	-0.06
22	0.18	-14.80	112	0.40	-7.94	202	1.00	-0.02	292	0.98	-0.14
24	0.18	-15.09	114	0.42	-7.62	204	1.00	-0.02	294	0.98	-0.21
26	0.17	-15.44	116	0.43	-7.33	206	1.00	-0.01	296	0.97	-0.29
28	0.16	-15.76	118	0.45	-7.03	208	1.00	-0.01	298	0.96	-0.36
30	0.16	-16.08	120	0.46	-6.74	210	1.00	-0.01	300	0.95	-0.45
32	0.16	-15.76	122	0.47	-6.48	212	1.00	-0.01	302	0.93	-0.61
34	0.17	-15.44	124	0.49	-6.23	214	1.00	-0.02	304	0.91	-0.78
36	0.17	-15.19	126	0.50	-5.97	216	1.00	-0.02	306	0.90	-0.94
38	0.18	-14.89	128	0.52	-5.73	218	1.00	-0.03	308	0.88	-1.12
40	0.19	-14.61	130	0.53	-5.50	220	1.00	-0.03	310	0.86	-1.30
42	0.19	-14.33	132	0.55	-5.15	222	1.00	-0.02	312	0.83	-1.58
44	0.20	-14.07	134	0.57	-4.82	224	1.00	-0.02	314	0.81	-1.86
46	0.20	-13.85	136	0.60	-4.50	226	1.00	-0.01	316	0.78	-2.16
48	0.21	-13.60	138	0.62	-4.19	228	1.00	-0.01	318	0.75	-2.46
50	0.22	-13.35	140	0.64	-3.89	230	1.00	0.00	320	0.73	-2.78
52	0.21	-13.43	142	0.67	-3.50	232	1.00	0.00	322	0.70	-3.11
54	0.21	-13.47	144	0.70	-3.14	234	1.00	-0.01	324	0.67	-3.47
56	0.21	-13.56	146	0.73	-2.78	236	1.00	-0.01	326	0.64	-3.82
58	0.21	-13.60	148	0.76	-2.44	238	1.00	-0.02	328	0.62	-4.21
60	0.21	-13.68	150	0.78	-2.11	240	1.00	-0.02	330	0.59	-4.60
62	0.20	-13.98	152	0.81	-1.85	242	1.00	-0.02	332	0.57	-4.87
64	0.19	-14.29	154	0.83	-1.60	244	1.00	-0.02	334	0.55	-5.13
66	0.19	-14.66	156	0.86	-1.36	246	1.00	-0.03	336	0.54	-5.42
68	0.18	-14.99	158	0.88	-1.12	248	1.00	-0.03	338	0.52	-5.70
70	0.17	-15.34	160	0.90	-0.89	250	1.00	-0.03	340	0.50	-6.00
72	0.17	-15.44	162	0.92	-0.75	252	1.00	-0.02	342	0.49	-6.25
74	0.17	-15.55	164	0.93	-0.62	254	1.00	-0.02	344	0.47	-6.50
76	0.16	-15.70	166	0.94	-0.50	256	1.00	-0.01	346	0.46	-6.74
78	0.16	-15.81	168	0.96	-0.37	258	1.00	-0.01	348	0.45	-7.01
80	0.16	-15.92	170	0.97	-0.25	260	1.00	0.00	350	0.43	-7.29
82	0.17	-15.29	172	0.98	-0.20	262	1.00	-0.01	352	0.42	-7.62
84	0.18	-14.75	174	0.98	-0.16	264	1.00	-0.01	354	0.40	-7.94
86	0.20	-14.20	176	0.99	-0.10	266	1.00	-0.02	356	0.39	-8.29
88	0.21	-13.72	178	0.99	-0.06	268	1.00	-0.02	358	0.37	-8.64

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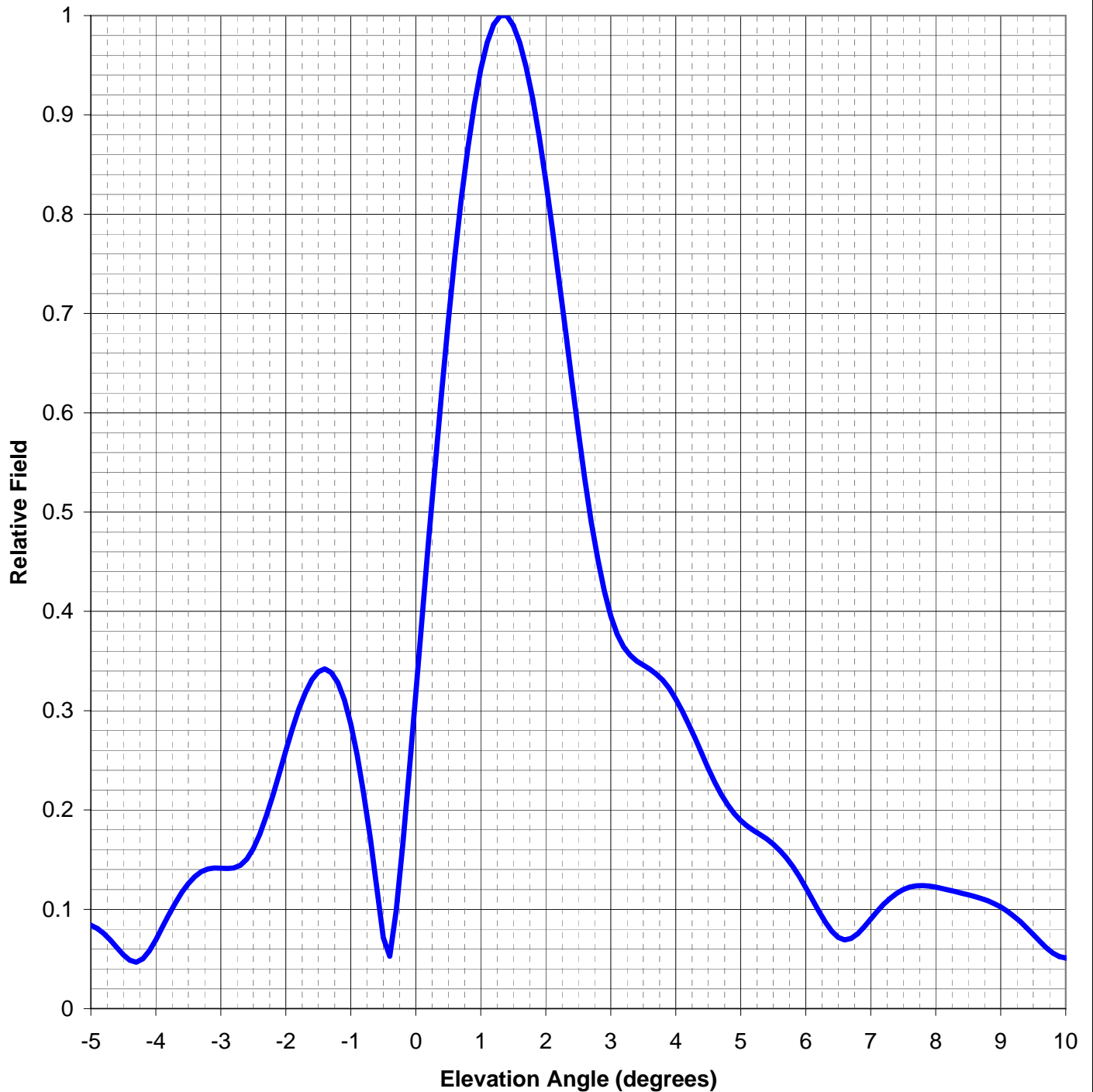
ERI - ATW30H6-HTCX-30H

## ELEVATION PATTERN

EXHIBIT 4

TYPE: CH30ELH  
Directivity: Numeric dBd  
Main Lobe:  
Horizontal:

Beam Tilt: \_\_\_\_\_  
Polarization: Horizontal  
Channel: 30 (NTSC/DTV)  
Location: Fresno, CA



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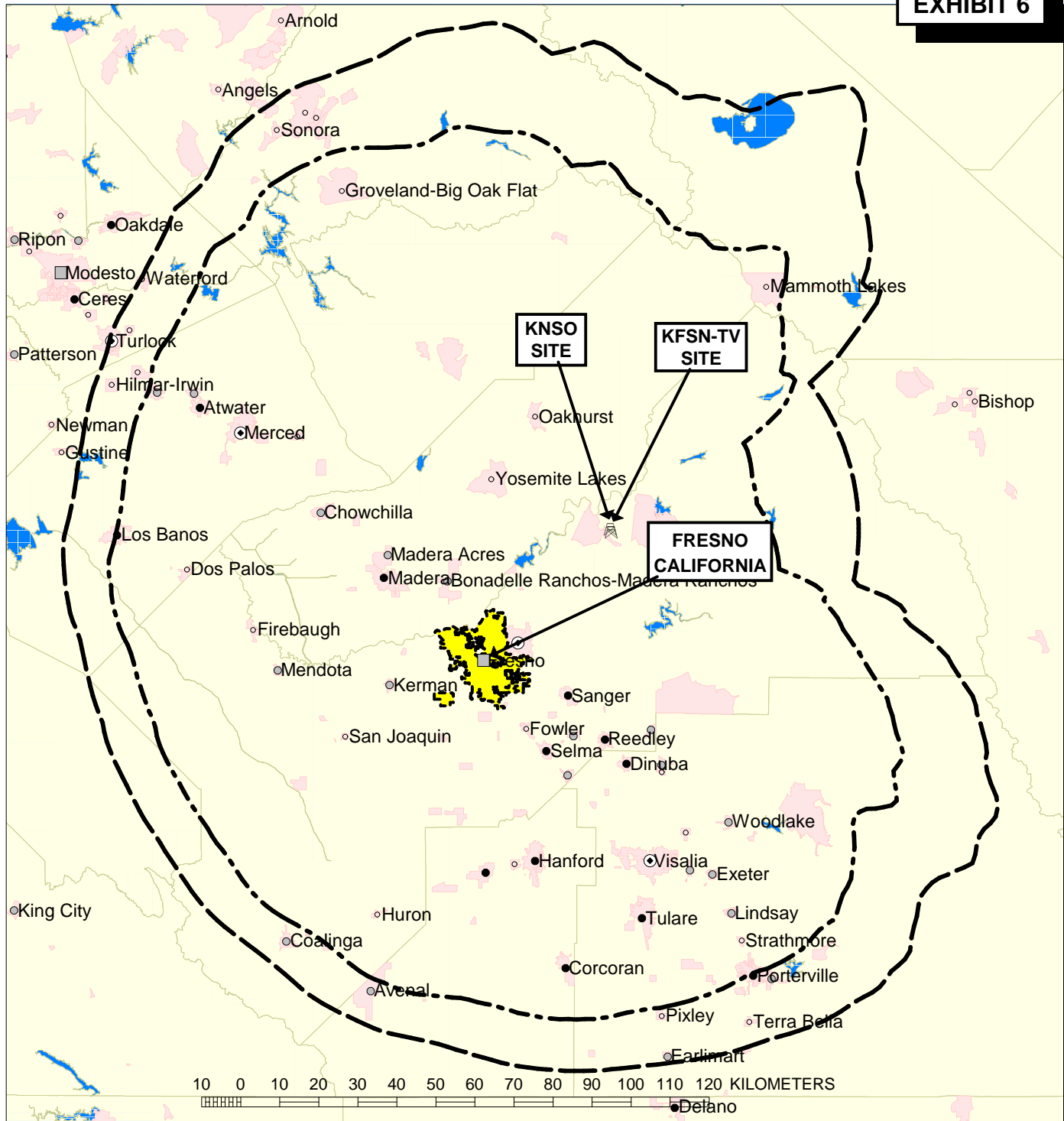
**TABULATED DATA FOR ELEVATION PATTERN****EXHIBIT 5****TYPE: CH30ELH**

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-5.00	0.08	-21.51	-0.50	0.07	-22.94	2.00	0.83	-1.58	6.50	0.07	-22.90
-4.90	0.08	-21.86	-0.40	0.05	-25.58	2.10	0.79	-2.09	6.60	0.07	-23.21
-4.80	0.08	-22.43	-0.30	0.10	-20.12	2.20	0.74	-2.66	6.70	0.07	-23.02
-4.70	0.07	-23.22	-0.20	0.17	-15.58	2.30	0.68	-3.30	6.80	0.08	-22.44
-4.60	0.06	-24.22	-0.10	0.24	-12.38	2.40	0.63	-3.98	6.90	0.08	-21.69
-4.50	0.05	-25.32	0.00	0.32	-9.97	2.50	0.58	-4.70	7.00	0.09	-20.90
-4.40	0.05	-26.26	0.05	0.32	-9.97	2.60	0.53	-5.46	7.10	0.10	-20.18
-4.30	0.05	-26.59	0.10	0.40	-8.06	2.70	0.49	-6.19	7.20	0.11	-19.57
-4.20	0.05	-25.99	0.15	0.40	-8.06	2.80	0.45	-6.89	7.30	0.11	-19.07
-4.10	0.06	-24.70	0.20	0.47	-6.50	2.90	0.42	-7.52	7.40	0.12	-18.69
-4.00	0.07	-23.19	0.25	0.47	-6.50	3.00	0.40	-8.06	7.50	0.12	-18.42
-3.90	0.08	-21.75	0.30	0.55	-5.20	3.10	0.38	-8.47	7.60	0.12	-18.25
-3.80	0.09	-20.50	0.35	0.55	-5.20	3.20	0.36	-8.77	7.70	0.12	-18.16
-3.70	0.11	-19.46	0.40	0.62	-4.11	3.30	0.36	-8.98	7.80	0.12	-18.14
-3.60	0.12	-18.63	0.45	0.62	-4.11	3.40	0.35	-9.12	7.90	0.12	-18.17
-3.50	0.13	-18.00	0.50	0.69	-3.20	3.50	0.35	-9.22	8.00	0.12	-18.24
-3.40	0.13	-17.53	0.55	0.69	-3.20	3.60	0.34	-9.32	8.10	0.12	-18.35
-3.30	0.14	-17.22	0.60	0.76	-2.42	3.70	0.34	-9.45	8.20	0.12	-18.46
-3.20	0.14	-17.05	0.65	0.76	-2.42	3.80	0.33	-9.61	8.30	0.12	-18.57
-3.10	0.14	-16.98	0.70	0.81	-1.78	3.90	0.32	-9.83	8.40	0.12	-18.70
-3.00	0.14	-16.99	0.75	0.81	-1.78	4.00	0.31	-10.12	8.50	0.11	-18.82
-2.90	0.14	-17.01	0.80	0.87	-1.24	4.10	0.30	-10.47	8.60	0.11	-18.95
-2.80	0.14	-16.98	0.85	0.87	-1.24	4.20	0.29	-10.87	8.70	0.11	-19.10
-2.70	0.14	-16.81	0.90	0.91	-0.82	4.30	0.27	-11.32	8.80	0.11	-19.28
-2.60	0.15	-16.44	0.95	0.91	-0.82	4.40	0.26	-11.81	8.90	0.11	-19.51
-2.50	0.16	-15.86	1.00	0.95	-0.48	4.50	0.24	-12.33	9.00	0.10	-19.80
-2.40	0.18	-15.11	1.05	0.95	-0.48	4.60	0.23	-12.84	9.10	0.10	-20.15
-2.30	0.19	-14.25	1.10	0.97	-0.24	4.70	0.22	-13.32	9.20	0.09	-20.61
-2.20	0.21	-13.36	1.15	0.97	-0.24	4.80	0.21	-13.76	9.30	0.09	-21.15
-2.10	0.24	-12.50	1.20	0.99	-0.08	4.90	0.20	-14.14	9.40	0.08	-21.80
-2.00	0.26	-11.71	1.25	0.99	-0.08	5.00	0.19	-14.46	9.50	0.07	-22.54
-1.90	0.28	-11.01	1.30	1.00	0.00	5.10	0.18	-14.71	9.60	0.07	-23.37
-1.80	0.30	-10.42	1.35	1.00	0.00	5.20	0.18	-14.93	9.70	0.06	-24.23
-1.70	0.32	-9.95	1.40	1.00	0.00	5.30	0.18	-15.13	9.80	0.06	-25.03
-1.60	0.33	-9.60	1.45	1.00	0.00	5.40	0.17	-15.35	9.90	0.05	-25.62
-1.50	0.34	-9.39	1.50	0.99	-0.09	5.50	0.17	-15.62	10.00	0.05	-25.86
-1.40	0.34	-9.32	1.55	0.99	-0.09	5.60	0.16	-15.95			
-1.30	0.34	-9.41	1.60	0.97	-0.24	5.70	0.15	-16.36			
-1.20	0.33	-9.68	1.65	0.97	-0.24	5.80	0.14	-16.88			
-1.10	0.31	-10.15	1.70	0.95	-0.47	5.90	0.13	-17.52			
-1.00	0.29	-10.86	1.75	0.95	-0.47	6.00	0.12	-18.28			
-0.90	0.25	-11.88	1.80	0.92	-0.77	6.10	0.11	-19.16			
-0.80	0.22	-13.31	1.85	0.92	-0.77	6.20	0.10	-20.15			
-0.70	0.17	-15.34	1.90	0.88	-1.14	6.30	0.09	-21.18			
-0.60	0.12	-18.34	1.95	0.88	-1.14	6.40	0.08	-22.16			

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## PREDICTED COVERAGE CONTOURS

KFSN-TV, FRESNO, CALIFORNIA

DTV - CH. 30 - 400 kW - 625 m HAAT

KNSO - Ch 11 - Merced, CA - Largest Station

45 kW - 622 meters HAAT

Predicted Noise Limited Contour

F(50,90) - 36 dBu

Area = 46,300 sq km

Population = 2,064,739

NOVEMBER 2012



Consulting Engineers

**CTJC**

CARL T. JONES CORPORATION

Predicted Noise Limited Contour

F(50,90) - 41 dBu

Area = 33,060 sq km

Population = 1,807,415

**SUMMARY OF RADIOFREQUENCY  
RADIATION STUDY**  
KFSN-TV, FRESNO, CALIFORNIA  
CHANNEL 30, 400 kW ERP, 625 m HAAT  
NOVEMBER, 2012

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLARIZATION</u>	<u>ANTENNA HEIGHT ** mAGL</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>PREDICTED POWER DENSITY (mW/cm<sup>2</sup>)</u>	<u>FCC UNCONTROLLED LIMIT (mW/cm<sup>2</sup>)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
KFSN-TV	DT	30	569	H	70.7	400.000	0.100	0.02673	0.379	7.05%
KFRE-TV	DT	36	605	H	38.8	360.000	0.080	0.05112	0.403	12.67%
KSKS	FM	229	93.7	H & V	37	68.000	0.150	0.07468	0.200	37.34%

**TOTAL PERCENTAGE OF ANSI VALUE= 57.06%**

*\*\* The antenna heights indicated above are 2 meters less than the actual antenna heights so that the predicted power densities consider the 2 meter human height allowance.*

*This evaluation includes facilities collocated at the site, and facilities located within 315 meters.*





**KFSN-TV - APPENDIX B  
LONGLEY-RICE INTERFERENCE ANALYSIS  
NOVEMBER 2012**

Percent allowed new interference: 0.500  
Percent allowed new interference to non Class A LPTV: 2.000  
Census data selected 2000  
Data Base Selected  
./data/tvdb.sff  
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 11-26-2012 Time: 15:34:55

Record Selected for Analysis

KFSN-TV BLCDT -20110914ABW FRESNO CA US  
Channel 30 ERP 400 kW HAAT 625. m RCAMSL 1457. m  
Latitude 037-04-38 Longitude 0119-26- 0  
Status LIC Zone 2 Border Site number: 01  
Dir Antenna Make CDB Model 00000000105779 Beam tilt N Ref Azimuth 0.0  
Last update 00000000 Cutoff date 20120323 Docket  
Comments  
Applicant KFSN TELEVISION, LLC

**Cell Size for Service Analysis 1.0 km/side**

Distance Increments for Longley-Rice Analysis 1.00 km

Facility (site # 01) does not meet maximum height/power limits  
Channel 30 ERP = 400.00 HAAT = 625.

Site number	1			
Azimuth	ERP	HAAT	41.0 dBu F(50,90)	
(Deg)	(kW)	(m)	(km)	
0.0	49.000	555.0	91.5	
45.0	16.810	200.5	61.8	
90.0	19.360	33.0	41.2	
135.0	136.890	525.5	98.1	
180.0	392.079	863.6	122.9	
225.0	381.977	1039.9	128.1	
270.0	387.606	939.9	125.1	
315.0	243.535	977.5	121.6	

Evaluation toward Class A Stations from site # 01

Contour overlap to Class A station  
KDFA-CA 30 SANTA MARIA CA BLTTL 19980618JH

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KFSN-TV 30 FRESNO CA BLCDT 20110914ABW Site # 01  
and station

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SHORT TO: KFSN-TV 30 FRESNO CA DTVPLN DTVP1086  
037-04-37 0119-26- 1  
Req. separation 223.7 Actual separation 0.0 Short 223.7 km

### LANDMOBILE SPACING VIOLATIONS FOUND

NONE from Site # 01

### Checks to Site Number 01

Proposed facility OK to FCC Monitoring Stations  
Proposed facility OK toward West Virginia quiet zone  
Proposed facility OK toward Table Mountain  
Proposed facility is beyond the Canadian coordination distance  
Proposed facility is beyond the Mexican coordination distance  
Proposed station is OK toward AM broadcast stations

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### Start of Interference Analysis

Channel	Proposed Station	Call	City/State	ARN
30	KFSN-TV	FRESNO CA	BLCDT	20110914ABW

Chans	Call	City/State	Dist(km)	Status	Application	Ref. No.
29	KBFX-CD	BAKERSFIELD CA	195.7	LIC	BLTTA	20101018ACF
30	KQED	SAN FRANCISCO CA	276.9	LIC	BLEDT	20100216ACU
30	KQED	SAN FRANCISCO CA	276.9	CP	BPEDT	20120522AFI
30	KDFS-CA	SANTA MARIA CA	263.6	LIC	BLTTL	19980618JH
31	KBTF-CD	BAKERSFIELD CA	195.5	LIC	BLDTA	20100921ABW
31	KSMS-TV	MONTEREY CA	187.2	LIC	BLCDT	20120111ABM

%%%

### Analysis of Interference to Affected Station 1

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
29	KBFX-CD	BAKERSFIELD CA	BLTTA	-20101018ACF

Chans	Call	City/State	Dist(km)	Status	Application	Ref. No.
29	KFTR-DT	ONTARIO CA	144.4	APP	BPCDT	-20100426ACW
29	KFTR-DT	ONTARIO CA	144.4	LIC	BLCDT	-20100401AFY
29	KQMM-CD	SANTA MARIA CA	157.0	LIC	BLDTL	-20080423AEG
29	KVKV-LP	VICTORVILLE CA	150.7	CP	BPTTL	-20090227ABH
29	KVCW	LAS VEGAS NV	329.2	LIC	BLCDT	-20070109AAW
30	KFSN-TV	FRESNO CA	195.7	LIC	BLCDT	-20110914ABW

Proposed station is beyond the site to  
nearest cell evaluation distance

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### Analysis of Interference to Affected Station 2

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### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
30	KQED	SAN FRANCISCO CA	BLEDT	-20100216ACU

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
29	KPIX-TV	SAN FRANCISCO CA	0.0	LIC	BLCDDT	-20091112AIZ
30	KFSN-TV	FRESNO CA	276.9	LIC	BLCDDT	-20110914ABW
31	KSMS-TV	MONTEREY CA	139.3	LIC	BLCDDT	-20120111ABM
30	KFSN-TV	FRESNO CA	276.9	PLN	DTVPLN	-DTVP1086

Total scenarios = 1

Result key: 1  
Scenario 1 Affected station 2  
Before Analysis

Results for: 30A CA SAN FRANCISCO BLEDT 20100216ACU LIC  
HAAT 511.0 m, ATV ERP 710.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7428656	35756.3
not affected by terrain losses	6694712	30348.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	239849	1357.1
lost to ATV IX only	239849	1357.1
lost to all IX	239849	1357.1

Potential Interfering Stations Included in above Scenario 1  
31A CA MONTEREY BLCDDT 20120111ABM LIC  
30A CA FRESNO DTVPLN DTVP1086 PLN

### After Analysis

Results for: 30A CA SAN FRANCISCO BLEDT 20100216ACU LIC  
HAAT 511.0 m, ATV ERP 710.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7428656	35756.3
not affected by terrain losses	6694712	30348.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	258691	1653.6
lost to ATV IX only	258691	1653.6
lost to all IX	258691	1653.6

Potential Interfering Stations Included in above Scenario 1  
31A CA MONTEREY BLCDDT 20120111ABM LIC  
30A CA FRESNO BLCDDT 20110914ABW LIC

Percent new IX = 0.2919%

Worst case new IX 0.2919% Scenario 1

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### Analysis of Interference to Affected Station 3

### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
30	KQED	SAN FRANCISCO CA	BPEDT	-20120522AFI



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## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
29	KPIX-TV	SAN FRANCISCO CA	0.0	LIC	BLCDT	-20091112AIZ
30	KFSN-TV	FRESNO CA	276.9	LIC	BLCDT	-20110914ABW
31	KSMS-TV	MONTEREY CA	139.3	LIC	BLCDT	-20120111ABM
30	KFSN-TV	FRESNO CA	276.9	PLN	DTVPLN	-DTVP1086

Total scenarios = 1

Result key: 2  
 Scenario 1 Affected station 3  
 Before Analysis

Results for: 30A CA SAN FRANCISCO BPEDT 20120522AFI CP  
 HAAT 511.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7642605	37907.6
not affected by terrain losses	6918179	32224.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	327547	1636.9
lost to ATV IX only	327547	1636.9
lost to all IX	327547	1636.9

Potential Interfering Stations Included in above Scenario 1  
 31A CA MONTEREY BLCDT 20120111ABM LIC  
 30A CA FRESNO DTVPLN DTVP1086 PLN

## After Analysis

Results for: 30A CA SAN FRANCISCO BPEDT 20120522AFI CP  
 HAAT 511.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7642605	37907.6
not affected by terrain losses	6918179	32224.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	355980	1934.4
lost to ATV IX only	355980	1934.4
lost to all IX	355980	1934.4

Potential Interfering Stations Included in above Scenario 1  
 31A CA MONTEREY BLCDT 20120111ABM LIC  
 30A CA FRESNO BLCDT 20110914ABW LIC

Percent new IX = 0.4314%

Worst case new IX 0.4314% Scenario 1

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## Analysis of Interference to Affected Station 4

### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
30	KDFS-CA	SANTA MARIA CA	BLTTL	-19980618JH

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
27	KEYT-TV	SANTA BARBARA CA	71.2	LIC	BLCDT	-20061102ABJ
30	KFSN-TV	FRESNO CA	263.6	LIC	BLCDT	-20110914ABW
30	KQED	SAN FRANCISCO CA	358.6	LIC	BLEDT	-20100216ACU

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30	KQED	SAN FRANCISCO CA	358.6	CP	BPEDT	-20120522AFI
30	K30MV-D	SANTA BARBARA CA	71.1	CP	BNPDTL	-20100727ACY
34	KTAS	SAN LUIS OBISPO CA	51.7	LIC	BLCDT	-20070222AAX
30	KFSN-TV	FRESNO CA	263.6	PLN	DTVPLN	-DTVP1086

Proposal causes no interference

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### Analysis of Interference to Affected Station 5

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
31	KBTF-CD	BAKERSFIELD CA	BLDTA	-20100921ABW

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
30	KFSN-TV	FRESNO CA	195.5	LIC	BLCDT	-20110914ABW
31	KTLA	LOS ANGELES CA	144.7	LIC	BLCDT	-20050713ACE
31	KSMS-TV	MONTEREY CA	298.5	LIC	BLCDT	-20120111ABM
32	NEW	BAKERSFIELD CA	0.0	APP	BSFDTL	-20060630BVW
32	NEW	BAKERSFIELD CA	0.0	APP	BSFDTL	-20060630COZ
32	NEW	BAKERSFIELD CA	0.3	APP	BSFDTL	-20060630CIR

Proposed station is beyond the site to  
nearest cell evaluation distance

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### Analysis of Interference to Affected Station 6

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
31	KSMS-TV	MONTEREY CA	BLCDT	-20120111ABM

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
30	KFSN-TV	FRESNO CA	187.2	LIC	BLCDT	-20110914ABW
30	KQED	SAN FRANCISCO CA	139.3	LIC	BLEDT	-20100216ACU
30	KQED	SAN FRANCISCO CA	139.3	CP	BPEDT	-20120522AFI
31	KTLA	LOS ANGELES CA	419.2	LIC	BLCDT	-20050713ACE
32	KION-TV	MONTEREY CA	26.8	LIC	BLCDT	-20030604ACO
32	KEMO-TV	SANTA ROSA CA	139.3	CP MOD	BMPCDT	-20120504ADE
30	KFSN-TV	FRESNO CA	187.2	PLN	DTVPLN	-DTVP1086
32	KEMO-TV	SANTA ROSA CA		CP MOD	BMPCDT	-20120504ADE

Proposal causes no interference

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### Analysis of Interference to Affected Station 7

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
30	KFSN-TV	FRESNO CA	BLCDT	-20110914ABW

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
30	KQED	SAN FRANCISCO CA	276.9	LIC	BLEDT	-20100216ACU
30	KQED	SAN FRANCISCO CA	276.9	CP	BPEDT	-20120522AFI
31	KSMS-TV	MONTEREY CA	187.2	LIC	BLCDT	-20120111ABM

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Total scenarios = 2

Result key: 3  
Scenario 1 Affected station 7  
Before Analysis

Results for: 30A CA FRESNO BLCDT 20110914ABW LIC  
HAAT 625.0 m, ATV ERP 400.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1549085	34603.9
not affected by terrain losses	1533453	30455.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	615	443.7
lost to ATV IX only	615	443.7
lost to all IX	615	443.7

Potential Interfering Stations Included in above Scenario 1  
30A CA SAN FRANCISCO BLEDT 20100216ACU LIC

Result key: 4  
Scenario 2 Affected station 7  
Before Analysis

Results for: 30A CA FRESNO BLCDT 20110914ABW LIC  
HAAT 625.0 m, ATV ERP 400.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1549085	34603.9
not affected by terrain losses	1533453	30455.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	714	470.6
lost to ATV IX only	714	470.6
lost to all IX	714	470.6

Potential Interfering Stations Included in above Scenario 2  
30A CA SAN FRANCISCO BPEDT 20120522AFI CP

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