



MARSAND, INC.

Matthew A. Sanderford, Jr., P.E.

## ENGINEERING STATEMENT

In support of a

**Digital Flashcut Application for Construction Permit**

**On Digital Channel 29 for**

**KCWF-LD Las Cruces, NM**

**1.5 kW ERP 1495 m RCAMSL**

### PURPOSE

MARSAND, INC. has been retained by TTBG/KDBC License Sub, LLC (the "Licensee") Licensee of KCWF-LP analog Channel 20+ of Las Cruces, NM (the "Station"), to prepare this engineering statement in support of a Digital Flashcut Application for Construction Permit (CP) to move to digital service on Channel 20.

### DISCUSSION

The Licensee proposes to use the existing, non-directional, side mount antenna. The Licensee also proposes to install a type accepted, digital transmitter and add a new Full mask, RF filter for digital service. The proposed facility is located at the existing analog site.

An interference study using the TV Process (digital low power version) by Meintel, Sgrignoli & Wallace (a software program which is familiar to the Commission that is written in Fortran and run on a Sun Microsystems workstation and employs the methods outlined in the OET 69 Bulletin), confirms that the proposed facility would not exceed 0.5% new interference to any other full power or class A stations and would not exceed 2.0% new interference to other low power stations (using the existing, post transition database). The study results are listed in the Appendix. A summary of the interference study is included below in **Table 1**.

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**Stations Potentially Affected by Proposal**

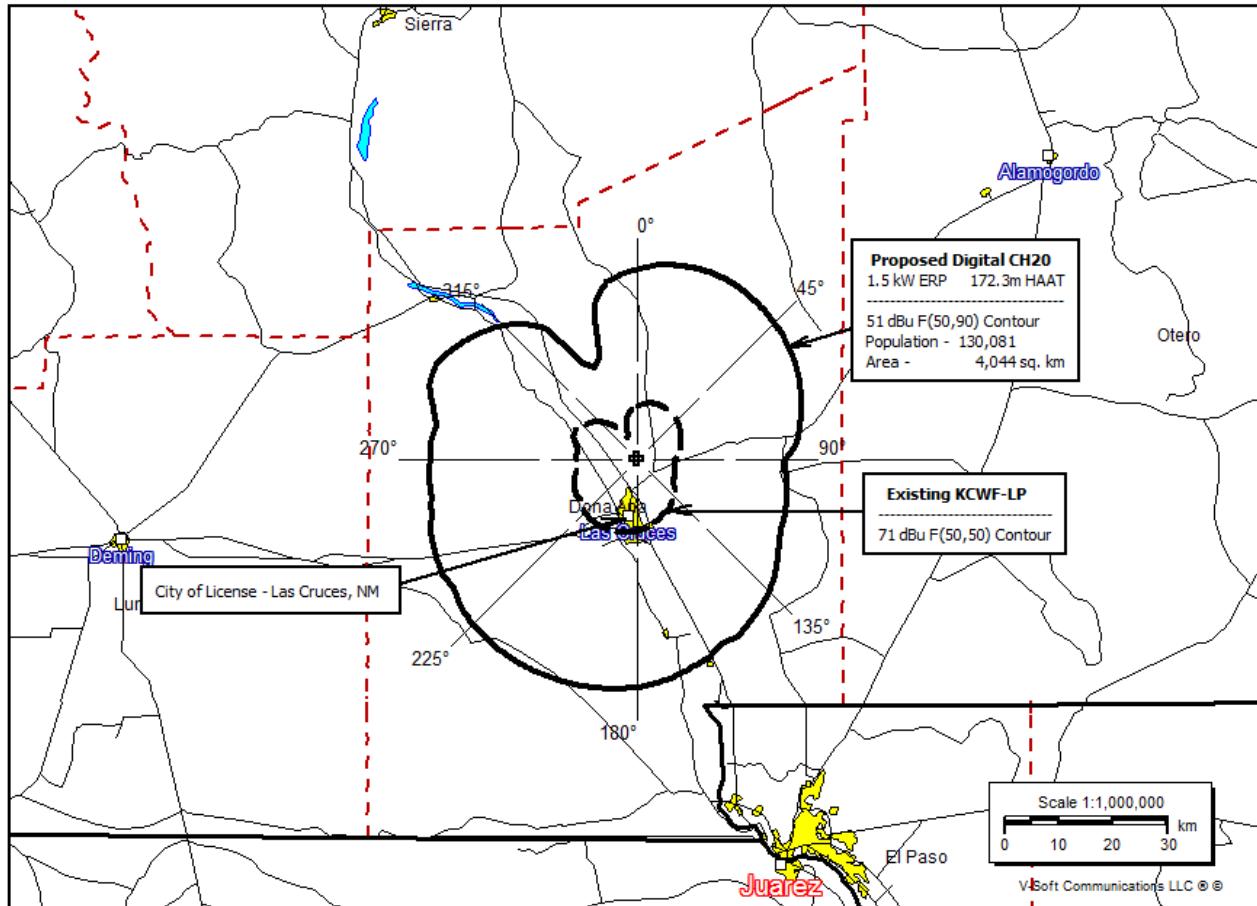
Channel	Call Letters	City/State	Distance (km)	Status	Application Reference Number	Interference	
						Existing	New
16	K57BV	LAS CRUCES & ORGAN NM	19.9	CP	BDISTTL -20071003AAN	Proposal causes no Interference	
18	K18DY	HILLSBORO NM	93.4	LIC	BLTT -19930624IC	Beyond evaluation distance	
19	KVBA-LP	ALAMOGORDO NM	95.8	LIC	BLTTL -20070720AAD	Proposal causes no Interference	
19	K19HV	DEMING NM	82.9	LIC	BLTT -20100629AOR	Proposal causes no Interference	
20	K20GG-D	DUNCAN AZ	244.9	LIC	BLDTT -20090715AIQ	Proposal causes no Interference	
20	K20FO	SIERRA VISTA AZ	318.2	LIC	BLTT -20000913AAO	Proposal causes no Interference	
20	NEW	ALBUQUERQUE NM	313.6	APP	BSFDTL -20060630BVS	Proposal causes no Interference	
20	K20HA	CABALLO NM	76.5	LIC	BLTT -20050202ADM	Proposal causes no Interference	
20	K20HA	CABALLO NM	76.5	APP	BDFCDTT -20090824ADV	0.00%	0.02%
20	NEW	DEMING NM	127.6	APP	BNPDTL -20100504AMZ	0.00%	0.17%
20	K40GC	DORA NM	345.2	CP	BDISDTT -20100803AAU	Proposal causes no Interference	
20	K20GT	INDIAN VILLAGE NM	366.7	CP	BDFCDTT -20090824AHE	Beyond evaluation distance	
20	K20GT	INDIAN VILLAGE NM	366.7	LIC	BLTT -20040723ADJ	Beyond evaluation distance	
20	K20GQ-D	LAS VEGAS NM	381.6	LIC	BLDTT -20091112AKK	Proposal causes no Interference	
20	K20GU	RUIDOSO, ETC. NM	143.8	LIC	BLTT -20040723ADO	Proposal causes no Interference	
20	K20GU	RUIDOSO, ETC. NM	143.8	APP	BDFCDTT -20110404AEV	Proposal causes no Interference	
20	KADX-LP	ANDREWS TX	394.6	CP MOD	BMPTTL -20110324ABT	Beyond evaluation distance	
20	NEW	BALMORHEA TX	324.2	APP	BNPDTL -20100416ABG	Proposal causes no Interference	
21	NEW	ALAMOGORDO NM	94.4	APP	BDCCDTL -20110301ABA	Proposal causes no Interference	
21	K21JO-D	LORDSBURG NM	157.3	CP	BDCCDTT -20070723ACS	Beyond evaluation distance	
24	K24CT	ALAMOGORDO NM	95.8	LIC	BLTTL -19980804JD	Beyond evaluation distance	
27	K27BN	TRUTH OR CONSEQUEN	96	LIC	BLTT -19871106IB	Beyond evaluation distance	
28	K28HB	ALAMOGORDO NM	95.8	LIC	BLTTL -20010801ALG	Beyond evaluation distance	

**Table 1**

The calculated F(50,90) 51 dBu service grade contour would encompass the principal community, Las Cruces, NM, entirely as shown in Figure 1.

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**Figure 1**

The proposal is clear of any FCC monitoring stations, quiet zones, and Table Mountain. It is also further than 3.2 km from the nearest AM station. However, the proposal is 69 km from the Mexican border and, therefore, will require Mexican coordination.

## RF Radiation Exposure Statement

The requirements of Section 73.1307(b) of the FCC Rules regarding human exposure to radio frequency (RF) energy are met under this instant application for the post-transition digital television facility proposed herein.

The proposed facility utilizes the an existing, multi-use tower structure (ASR 1037523). The site is restricted access. The station agrees to maintain full compliance with the safety precautions to workers on the tower (controlled) and the general public (uncontrolled) by reducing or removing radiated power during the time of construction or maintenance on or near the antenna. The station also certifies that it, in coordination with other users of the site, will

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reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from Radiofrequency Electromagnetic exposure in excess of FCC guidelines.

**Table 2** shows the calculations of RF level 2m above ground level for the General Public / Uncontrolled (GP/U) would not exceed 5% of the Maximum Permissible Exposure (MPE) limit. The calculations are shown in the Appendix. The proposed facility is therefore a negligible contributor to the RF environment at all ground level locations and is excluded from the routine environmental evaluation pursuant to Section 1.1307(b) of the FCC Rules.

Call Letters	Channel / Frequency	Distance from RCAGL to 2 m AGL	Worst Case Downward Radiation (Relative Field)	Calculated Power Density ( $\mu\text{W}/\text{cm}^2$ )	GP/U MPE ( $\mu\text{W}/\text{cm}^2$ )	Percentage of GP/U MPE
KCWF-LD	CH20 506–512 MHz	24 m	0.1	0.87	300	0.26%

**Table 2**

## CONCLUSION

It is respectfully requested that the Commission grant this request for CP for the proposed transmission facility as indicated in the Tech Box of the accompanying Application Form 346. Mexican coordination is requested.

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**Matthew A. Sanderford, Jr., P.E.****DECLARATION**

Matthew A. Sanderford, Jr., P.E., declares and states that he is a graduate Electrical Engineer with a Bachelor of Science Degree in Electrical Engineering from the University of Texas at El Paso, a Licensed Professional Engineer in the State of Texas, and his qualifications are known to the Federal Communications Commission, and that he is President of MARSAND, INC., a Registered Professional Engineering firm in the State of Texas, and that firm has been retained by the Licensee, to perform the engineering support as contained in this report.

All facts contained herein are true of his own knowledge except where stated to be on information or belief provided by the Licensee, and as to those facts, he believes them to be true.

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I declare under penalty of perjury that the foregoing is true and correct.



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Matthew A. Sanderford, Jr., P.E.  
President - MARSAND, INC.

Executed this 19<sup>th</sup> day of April, 2011  
State of Texas

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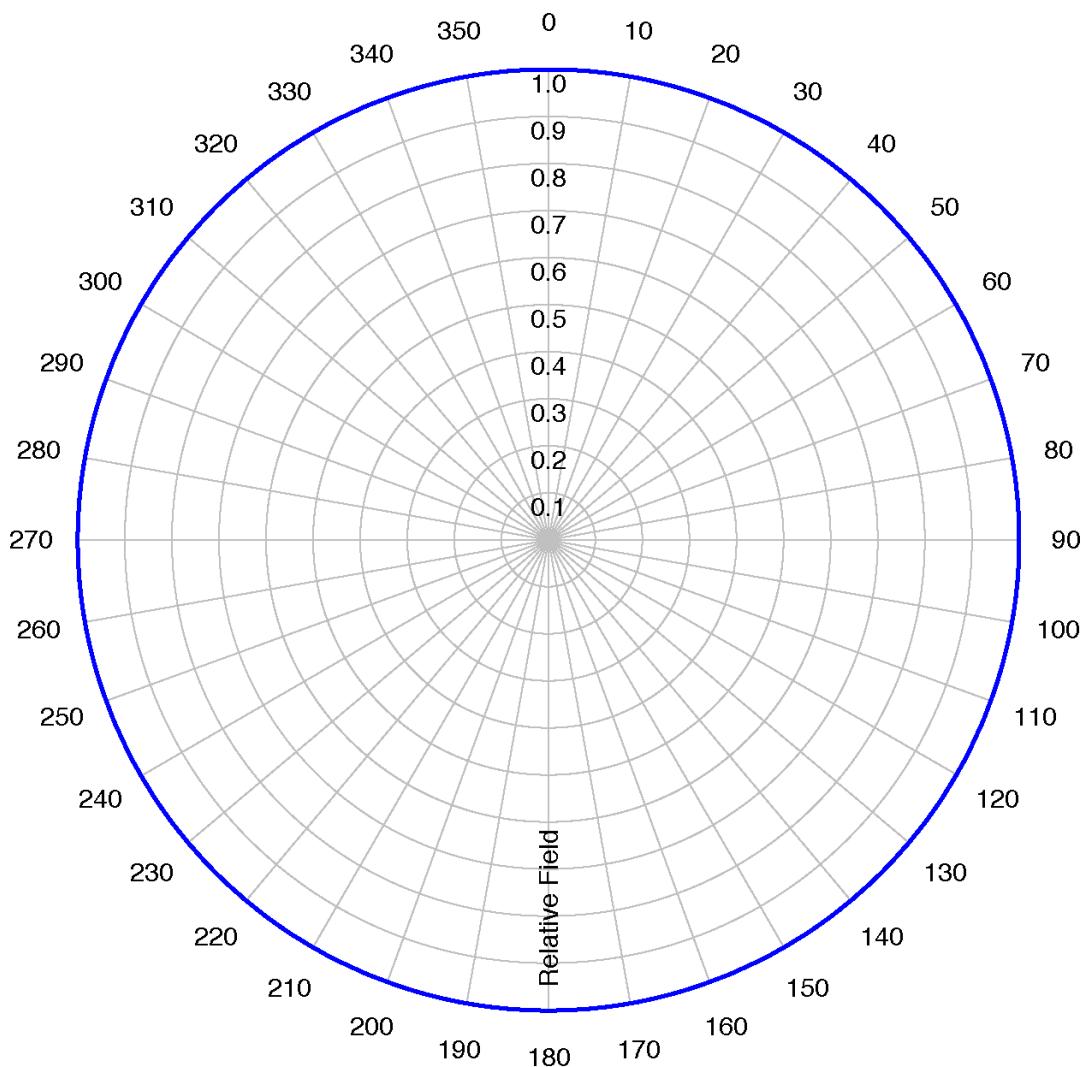
## **Appendix**

AL8O-20

Page 1

**AZIMUTH PATTERN****Type:****AL8-O****Directivity:**  
**Peak(s) at:****Numeric  
1.00****dBd  
0.00****Channel:****20****Location:**  
**Polarization:****Las Cruces, NM  
Horizontal**

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

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AL8O-20

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**TABULATED DATA FOR AZIMUTH PATTERN****Type: AL8-O****Polarization: Horizontal**

ANGLE	FIELD	dB									
0	1.000	0.00	92	1.000	0.00	184	1.000	0.00	276	1.000	0.00
2	1.000	0.00	94	1.000	0.00	186	1.000	0.00	278	1.000	0.00
4	1.000	0.00	96	1.000	0.00	188	1.000	0.00	280	1.000	0.00
6	1.000	0.00	98	1.000	0.00	190	1.000	0.00	282	1.000	0.00
8	1.000	0.00	100	1.000	0.00	192	1.000	0.00	284	1.000	0.00
10	1.000	0.00	102	1.000	0.00	194	1.000	0.00	286	1.000	0.00
12	1.000	0.00	104	1.000	0.00	196	1.000	0.00	288	1.000	0.00
14	1.000	0.00	106	1.000	0.00	198	1.000	0.00	290	1.000	0.00
16	1.000	0.00	108	1.000	0.00	200	1.000	0.00	292	1.000	0.00
18	1.000	0.00	110	1.000	0.00	202	1.000	0.00	294	1.000	0.00
20	1.000	0.00	112	1.000	0.00	204	1.000	0.00	296	1.000	0.00
22	1.000	0.00	114	1.000	0.00	206	1.000	0.00	298	1.000	0.00
24	1.000	0.00	116	1.000	0.00	208	1.000	0.00	300	1.000	0.00
26	1.000	0.00	118	1.000	0.00	210	1.000	0.00	302	1.000	0.00
28	1.000	0.00	120	1.000	0.00	212	1.000	0.00	304	1.000	0.00
30	1.000	0.00	122	1.000	0.00	214	1.000	0.00	306	1.000	0.00
32	1.000	0.00	124	1.000	0.00	216	1.000	0.00	308	1.000	0.00
34	1.000	0.00	126	1.000	0.00	218	1.000	0.00	310	1.000	0.00
36	1.000	0.00	128	1.000	0.00	220	1.000	0.00	312	1.000	0.00
38	1.000	0.00	130	1.000	0.00	222	1.000	0.00	314	1.000	0.00
40	1.000	0.00	132	1.000	0.00	224	1.000	0.00	316	1.000	0.00
42	1.000	0.00	134	1.000	0.00	226	1.000	0.00	318	1.000	0.00
44	1.000	0.00	136	1.000	0.00	228	1.000	0.00	320	1.000	0.00
46	1.000	0.00	138	1.000	0.00	230	1.000	0.00	322	1.000	0.00
48	1.000	0.00	140	1.000	0.00	232	1.000	0.00	324	1.000	0.00
50	1.000	0.00	142	1.000	0.00	234	1.000	0.00	326	1.000	0.00
52	1.000	0.00	144	1.000	0.00	236	1.000	0.00	328	1.000	0.00
54	1.000	0.00	146	1.000	0.00	238	1.000	0.00	330	1.000	0.00
56	1.000	0.00	148	1.000	0.00	240	1.000	0.00	332	1.000	0.00
58	1.000	0.00	150	1.000	0.00	242	1.000	0.00	334	1.000	0.00
60	1.000	0.00	152	1.000	0.00	244	1.000	0.00	336	1.000	0.00
62	1.000	0.00	154	1.000	0.00	246	1.000	0.00	338	1.000	0.00
64	1.000	0.00	156	1.000	0.00	248	1.000	0.00	340	1.000	0.00
66	1.000	0.00	158	1.000	0.00	250	1.000	0.00	342	1.000	0.00
68	1.000	0.00	160	1.000	0.00	252	1.000	0.00	344	1.000	0.00
70	1.000	0.00	162	1.000	0.00	254	1.000	0.00	346	1.000	0.00
72	1.000	0.00	164	1.000	0.00	256	1.000	0.00	348	1.000	0.00
74	1.000	0.00	166	1.000	0.00	258	1.000	0.00	350	1.000	0.00
76	1.000	0.00	168	1.000	0.00	260	1.000	0.00	352	1.000	0.00
78	1.000	0.00	170	1.000	0.00	262	1.000	0.00	354	1.000	0.00
80	1.000	0.00	172	1.000	0.00	264	1.000	0.00	356	1.000	0.00
82	1.000	0.00	174	1.000	0.00	266	1.000	0.00	358	1.000	0.00
84	1.000	0.00	176	1.000	0.00	268	1.000	0.00	360	1.000	0.00
86	1.000	0.00	178	1.000	0.00	270	1.000	0.00			
88	1.000	0.00	180	1.000	0.00	272	1.000	0.00			
90	1.000	0.00	182	1.000	0.00	274	1.000	0.00			

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AL80-20

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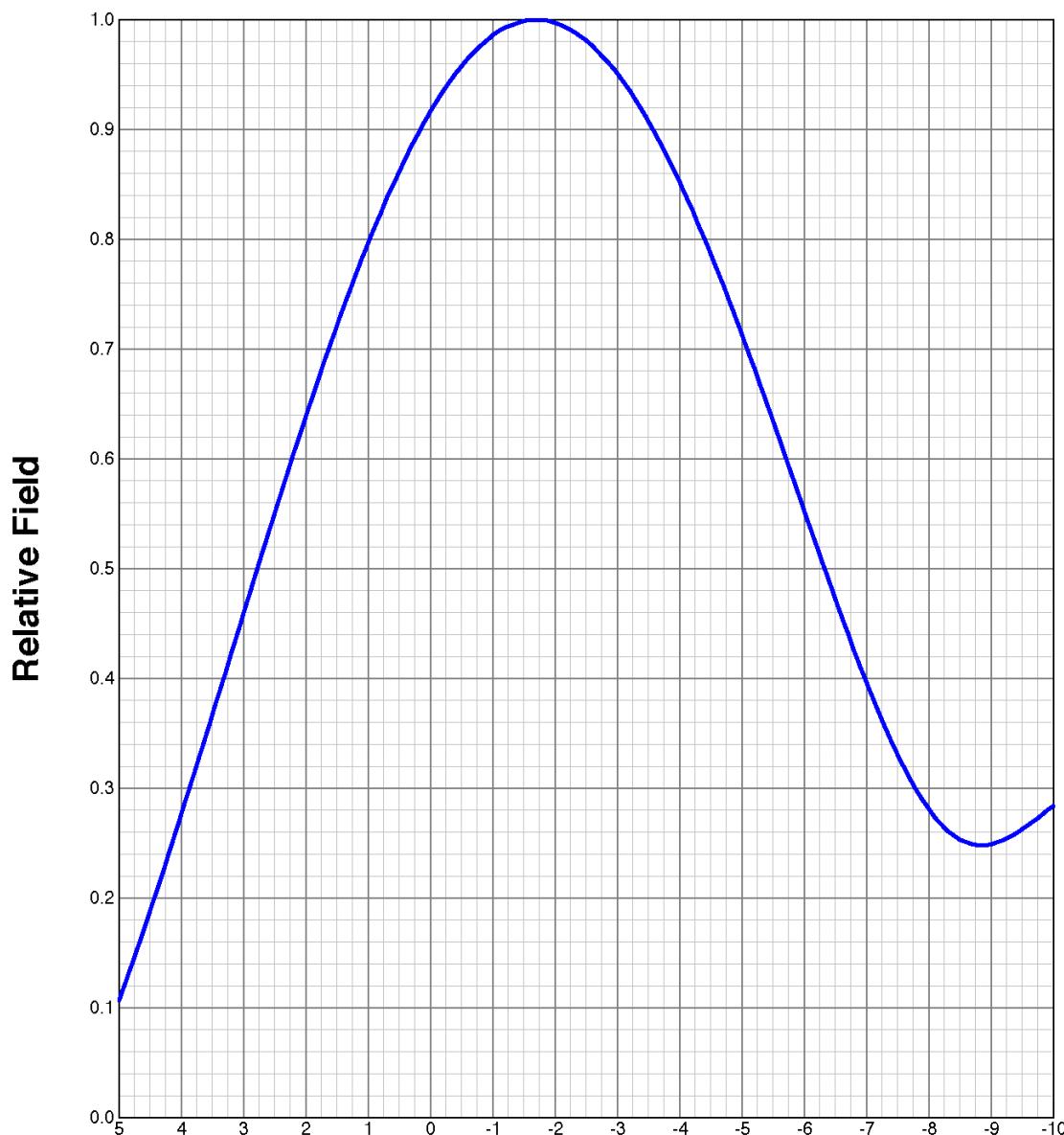
**ELEVATION PATTERN**

Type:  
Directivity:  
Main Lobe:  
Horizontal:

AL8  
Numeric  
8.68  
7.30

Channel:  
Location:  
Beam Tilt:  
Polarization:

20  
Las Cruces, NM  
-1.75  
Horizontal

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AL80-20

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**TABULATED DATA FOR ELEVATION PATTERN****Type: AL8****Polarization: Horizontal**

ANGLE FIELD	dB	ANGLE FIELD	dB	ANGLE FIELD	dB	ANGLE FIELD	dB	ANGLE FIELD	dB
5.00	0.107	-19.41	-6.75	0.433	-7.27	-27.00	0.089	-21.01	-50.50
4.75	0.147	-16.65	-7.00	0.396	-8.05	-27.50	0.104	-19.66	-51.00
4.50	0.189	-14.47	-7.25	0.361	-8.84	-28.00	0.114	-18.86	-51.50
4.25	0.232	-12.69	-7.50	0.330	-9.63	-28.50	0.121	-18.34	-52.00
4.00	0.277	-11.15	-7.75	0.303	-10.37	-29.00	0.124	-18.13	-52.50
3.75	0.322	-9.84	-8.00	0.281	-11.03	-29.50	0.123	-18.20	-53.00
3.50	0.368	-8.68	-8.25	0.264	-11.57	-30.00	0.118	-18.56	-53.50
3.25	0.413	-7.67	-8.50	0.253	-11.94	-30.50	0.109	-19.25	-54.00
3.00	0.460	-6.74	-8.75	0.248	-12.09	-31.00	0.098	-20.18	-54.50
2.75	0.506	-5.92	-9.00	0.249	-12.08	-31.50	0.084	-21.51	-55.00
2.50	0.551	-5.18	-9.25	0.255	-11.89	-32.00	0.068	-23.35	-55.50
2.25	0.596	-4.50	-9.50	0.263	-11.60	-32.50	0.050	-26.02	-56.00
2.00	0.639	-3.89	-9.75	0.273	-11.28	-33.00	0.032	-29.90	-56.50
1.75	0.681	-3.33	-10.00	0.284	-10.93	-33.50	0.016	-35.92	-57.00
1.50	0.722	-2.83	-10.50	0.307	-10.26	-34.00	0.013	-37.72	-57.50
1.25	0.760	-2.38	-11.00	0.325	-9.76	-34.50	0.028	-31.06	-58.00
1.00	0.797	-1.97	-11.50	0.336	-9.47	-35.00	0.043	-27.33	-58.50
0.75	0.831	-1.61	-12.00	0.340	-9.37	-35.50	0.057	-24.88	-59.00
0.50	0.862	-1.29	-12.50	0.334	-9.53	-36.00	0.070	-23.10	-59.50
0.25	0.891	-1.00	-13.00	0.321	-9.87	-36.50	0.080	-21.94	-60.00
0.00	0.917	-0.75	-13.50	0.300	-10.46	-37.00	0.087	-21.21	-60.50
-0.25	0.939	-0.55	-14.00	0.273	-11.28	-37.50	0.092	-20.72	-61.00
-0.50	0.958	-0.37	-14.50	0.242	-12.32	-38.00	0.094	-20.54	-61.50
-0.75	0.974	-0.23	-15.00	0.208	-13.64	-38.50	0.093	-20.63	-62.00
-1.00	0.986	-0.12	-15.50	0.175	-15.14	-39.00	0.089	-21.01	-62.50
-1.25	0.994	-0.05	-16.00	0.145	-16.77	-39.50	0.082	-21.72	-63.00
-1.50	0.999	-0.01	-16.50	0.123	-18.20	-40.00	0.073	-22.73	-63.50
-1.75	1.000	0.00	-17.00	0.114	-18.86	-40.50	0.063	-24.01	-64.00
-2.00	0.997	-0.03	-17.50	0.118	-18.56	-41.00	0.050	-26.02	-64.50
-2.25	0.990	-0.08	-18.00	0.130	-17.72	-41.50	0.036	-28.87	-65.00
-2.50	0.981	-0.17	-18.50	0.147	-16.65	-42.00	0.021	-33.56	-65.50
-2.75	0.967	-0.29	-19.00	0.162	-15.81	-42.50	0.006	-44.44	-66.00
-3.00	0.951	-0.44	-19.50	0.173	-15.24	-43.00	0.012	-38.42	-66.50
-3.25	0.931	-0.63	-20.00	0.180	-14.89	-43.50	0.028	-31.06	-67.00
-3.50	0.907	-0.85	-20.50	0.182	-14.80	-44.00	0.044	-27.13	-67.50
-3.75	0.881	-1.11	-21.00	0.178	-14.99	-44.50	0.059	-24.58	-68.00
-4.00	0.852	-1.39	-21.50	0.169	-15.44	-45.00	0.073	-22.73	-68.50
-4.25	0.820	-1.72	-22.00	0.156	-16.14	-45.50	0.086	-21.31	-69.00
-4.50	0.786	-2.09	-22.50	0.138	-17.20	-46.00	0.097	-20.26	-69.50
-4.75	0.750	-2.49	-23.00	0.117	-18.64	-46.50	0.107	-19.41	-70.00
-5.00	0.713	-2.94	-23.50	0.093	-20.63	-47.00	0.115	-18.79	-70.50
-5.25	0.674	-3.43	-24.00	0.069	-23.22	-47.50	0.121	-18.34	-71.00
-5.50	0.634	-3.96	-24.50	0.047	-26.56	-48.00	0.125	-18.06	-71.50
-5.75	0.593	-4.54	-25.00	0.033	-29.63	-48.50	0.127	-17.92	-72.00
-6.00	0.552	-5.16	-25.50	0.037	-28.64	-49.00	0.127	-17.92	-72.50
-6.25	0.512	-5.81	-26.00	0.054	-25.35	-49.50	0.125	-18.06	-73.00
-6.50	0.472	-6.52	-26.50	0.072	-22.85	-50.00	0.122	-18.27	-73.50

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**DTV EFFECTIVE RADIATED POWER CALCULATIONS**

Call letters: **KCWF-LD** Date: **4/19/2011**

Location: **Las Cruces, NM**

Channel: **20A**

Frequency: **509 MHz Mid-Band**

Antenna: **ERI AL8-20**

Transmitter Power Output (TPO): **0.195 kW avg.** -7.10 dBk

Filter Type: Loss: dB

Transmission Line: 1-5/8" Heliax

Loss per 100 ft.: **-0.513 dB**

Line Length: **105 ft.**

Total Line Loss: **-0.539 dB** -0.54 dB

Antenna Input Power: **0.17 kW** -7.64 dBk

Efficiency: **88.335 %**

Elevation Antenna Gain -

*Horizontal* -

Vert. Polarization -	Gain	dB
Hor. Polarization -	7.29 Gain	<b>8.63 dB</b>

*Maximum* -

Vert. Polarization -	Gain	dB
Hor. Polarization -	8.69 Gain	<b>9.39 dB</b>

Azimuthal Antenna Gain -

Vert. Polarization -	Gain	dB
Hor. Polarization -	1.00 Gain	<b>0.00 dB</b>

**Horizontal ERP -**

**Vertical Polarization:** kW dBk

**Horizontal Polarization:** 1.26 kW 0.99 dBk

**Maximum ERP -**

<b>Vertical Polarization:</b>	kW	dBk
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<b>Horizontal Polarization:</b>	1.50 kW	<b>1.75 dBk</b>
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**Radio Frequency Radiation Human Exposure Calculations**

Call letters: **KCWF-LD** Date: **4/19/2011**  
 City of License: **Las Cruces, NM**  
 Channel: **20A**

Reference:

**FCC Rules Section 73.1307(b) & 73.1310**  
**OET Bulletin No. 65 Edition 97-01, August, 1997**  
**OET Bulletin No. 56**

**DTV Average Power** **1,500 W ERP**

**Typical relative field factor** in the downward direction: **0.10**

(conservative estimate)

Antenna Radiation Center Above Ground Level (RCAGL): **26.0 m**

**Occupational/Controlled (O/C) Exposure**

Highest Calculated Power Density: **0.74  $\mu\text{W}/\text{cm}^2$**

Maximum Permissible Exposure (MPE) for this Channel -

Frequency (middle of the band): **509 MHz**  
 MPE O/C Limit (6 minutes average): **1.7  $\text{mW}/\text{cm}^2$**   
 Percentage of MPE O/C Limit: **0.04 %**

**General Population/Uncontrolled (GP/U) Exposure**

Typical height of a person's head standing at ground level: **2 m**

Distance from head height to antenna radiation center: **24.0 m**

Highest Calculated Power Density: **0.87  $\mu\text{W}/\text{cm}^2$**

Maximum Permissible Exposure (MPE) for this Channel -

Frequency (middle of the band): **509 MHz**  
 MPE GP/U Limit (30 minutes average): **0.3  $\text{mW}/\text{cm}^2$**   
 Percentage of MPE GP/U Limit: **0.26 %**

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ASR Registration 1037523

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ASR Registration Search  
**Registration 1037523**

 [Map Registration](#)
**Registration Detail**

Reg Number	1037523	Status	Constructed
File Number	A0565367	Constructed	01/01/1988
FAA Study	2004-ASW-4769-OE	EMI	No
FAA Issue Date	09/24/2004	NEPA	No

**Antenna Structure**

Structure Type TOWER - Free standing or Guyed Structure used for Communications Purposes

**Location (in NAD83 Coordinates)**

Lat/Long	32-24-16.7 N 106-45-39.9 W	7651 N. Twin View Rd. (Las Cruces/I-10 #9063)
City, State	LAS CRUCES , NM	
Center of AM Array		

**Heights (meters)**

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
1468.8	33.5
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
1502.3	30.8

**Painting and Lighting Specifications**

None

**Owner & Contact Information**

FRN	0005885231	Licensee ID	L00008376
Assignor FRN	0006156145	Assignor ID	L00008376

**Owner**

American Towers, Inc.  
Attention To: FAA/FCC Compliance Dept.  
1101 Perimeter Drive  
Schaumburg , IL 60173

P: (847)240-1508  
E: ATCfaa-fccmidwest@americantower.com

**Contact**

Compliance Dept. , FAA/FCC  
1101 Perimeter Drive  
Schaumburg , IL 60173

P: (847)240-1508  
E: ATCfaa-fccmidwest@americantower.com

**Last Action Status**

Status	Constructed	Received	10/04/2007
Purpose	Change Owner	Entered	10/04/2007
Mode	Interactive		

**Related Applications**

**MARSAND, INC.****Matthew A. Sanderford, Jr., P.E.**

ASR Registration 1037523

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10/04/2007 A0565367 - Change Owner (OC)

01/10/2006 A0485908 - Admin Update (AU)

09/30/2004 A0398559 - Notification (NT)

Related applications (10)

**Comments****Comments**

None

**Automated Letters**

10/05/2007 Authorization, Reference

10/05/2007 Ownership Change, Reference 583877

01/11/2006 Application Receipt, Reference 479963

All letters (13)

**CLOSE WINDOW**

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Federal Communications Commission Washington, D.C. 20554	Approved by OMB 3060-0016 (February 2005)	<b>FOR FCC USE ONLY</b>
<b>FCC 346</b>		
<b>APPLICATION FOR AUTHORITY TO CONSTRUCT OR MAKE CHANGES IN A LOW POWER TV, TV TRANSLATOR OR TV BOOSTER STATION</b>		<b>FOR COMMISSION USE ONLY</b> FILE NO. -
Read INSTRUCTIONS Before Filling Out Form		

**Section I - General Information**

1. Legal Name of the Applicant TTBG/KDBC LICENSE SUB, LLC														
Mailing Address 888 3RD STREET SUITE A														
City ATLANTA		State or Country (if foreign address) GA												
ZIP Code 30318 -														
Telephone Number (include area code) 6789040516		E-Mail Address (if available)												
FCC Registration Number: <input type="text"/> Call Sign <input type="text"/> KCWF-CA		Facility ID Number 33767												
2. Contact Representative (if other than Applicant) MATTHEW L. GIBSON														
Mailing Address 1776 K STREET, NW														
City WASHINGTON		State or Country (if foreign address) DC												
ZIP Code 20006 -														
Telephone Number (include area code) 2027197185		E-Mail Address (if available) MGIBSON@WILEYREIN.COM												
3. If this application has been submitted without a fee, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114): <input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial Educational Licensee/Permittee <input type="radio"/> Other <input type="radio"/> N/A (Fee Required)														
4. Facility Information a. <input checked="" type="radio"/> Low Power TV Station <input type="radio"/> TV Translator <input type="radio"/> TV Booster <input type="radio"/> Digital Low Power TV <input type="radio"/> Digital TV Translator b. Community of License: City: State:														
5. Application Purpose <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><input type="radio"/> New station</td> <td style="width: 50%;"><input type="radio"/> Major Modification of construction permit</td> </tr> <tr> <td><input type="radio"/> Major Change in licensed facility</td> <td><input type="radio"/> Minor Modification of construction permit</td> </tr> <tr> <td><input type="radio"/> Minor Change in licensed facility</td> <td><input type="radio"/> Amendment to pending application</td> </tr> <tr> <td><input checked="" type="radio"/> Digital Flash Cut</td> <td><input type="radio"/> Digital Companion Channel</td> </tr> <tr> <td><input type="radio"/> Displacement [Exhibit 1]</td> <td></td> </tr> <tr> <td><input type="radio"/> Analog</td> <td><input type="radio"/> Digital</td> </tr> </table> <p>a. File number of original construction permit or pending application: BDISSTL-20071113AIB</p>			<input type="radio"/> New station	<input type="radio"/> Major Modification of construction permit	<input type="radio"/> Major Change in licensed facility	<input type="radio"/> Minor Modification of construction permit	<input type="radio"/> Minor Change in licensed facility	<input type="radio"/> Amendment to pending application	<input checked="" type="radio"/> Digital Flash Cut	<input type="radio"/> Digital Companion Channel	<input type="radio"/> Displacement [Exhibit 1]		<input type="radio"/> Analog	<input type="radio"/> Digital
<input type="radio"/> New station	<input type="radio"/> Major Modification of construction permit													
<input type="radio"/> Major Change in licensed facility	<input type="radio"/> Minor Modification of construction permit													
<input type="radio"/> Minor Change in licensed facility	<input type="radio"/> Amendment to pending application													
<input checked="" type="radio"/> Digital Flash Cut	<input type="radio"/> Digital Companion Channel													
<input type="radio"/> Displacement [Exhibit 1]														
<input type="radio"/> Analog	<input type="radio"/> Digital													

**MARSAND, INC.****Matthew A. Sanderford, Jr., P.E.**

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If an amendment, submit as an **Exhibit** a listing by Section and Question Number the portions of the pending application that are being revised.

[Exhibit 2]

**NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.**

**Section II - Legal**

<p><b>1. Certification.</b> Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.</p> <p><b>2. Parties to the Application.</b> List the applicant and all parties to the application. If other than natural persons, list officers, directors, stockholders with interests of 1% or more, general and limited partners and/or members.</p> <p>a. Name and address of the applicant and, if applicable, its officers, directors, stockholders with interests of 1% or greater, or partners (if other than individual also show name, address and citizenship of natural person authorized to vote the stock). List the applicant first, officers next, then directors and, thereafter remaining stockholders and partners.</p>	<input type="radio"/> Yes <input checked="" type="radio"/> No <p>b. Citizenship.</p> <p>c. Positional Interest: Officer, director, general partner, limited partner, LLC member, etc.</p> <p>d. Percentage of votes.</p> <p>e. Percentage of equity.</p>
[Enter Parties Information]	
<p><b>3. Character Issues.</b> Applicant certifies that neither applicant nor any party to the application has or has had any interest in or connection with:</p> <p>a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or</p> <p>b. any pending broadcast application in which character issues have been raised.</p> <p><b>4. Adverse Findings.</b> Applicant certifies that, with respect to the applicant and any party to the application, no adverse finding has been made, nor has an adverse final action been taken related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination.</p> <p><b>5. Alien Ownership and Control.</b> Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.</p> <p><b>6. Program Service Certification.</b> (For Low Power Television Applicants Only) Applicant certifies that this station will offer a broadcast program service.</p> <p><b>7. Local Public Notice.</b> (For new station and major change Applicants Only) Applicant certifies that it has or will comply with the public notice requirements of 47 C.F.R. Section 73.3580.</p> <p><b>8. Rebroadcast Certification.</b> (For Applicants proposing translator rebroadcasts that are not the licensee of the primary station) Applicant certifies that written authority has been obtained from the licensee of the station whose programs are to be retransmitted.</p>	<input type="radio"/> Yes <input checked="" type="radio"/> No <p>See Explanation in [Exhibit 3]</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No  <p>See Explanation in [Exhibit 4]</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No  <p>See Explanation in [Exhibit 5]</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p> </p></p>

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9. <b>Auction Authorization.</b> If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A
<b>An exhibit is required unless</b> this question is inapplicable. [Exhibit 6]	
10. <b>Anti-Drug Abuse Act Certification.</b> Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.	<input type="radio"/> Yes <input checked="" type="radio"/> No
I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)	
Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

**SECTION III - ENGINEERING DATA (Digital)****TECHNICAL SPECIFICATIONS**

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

**TECH BOX**

1. Channel Number: 20					
2. Translator Input Channel No.: 18					
3. Primary station proposed to be rebroadcast:	Facility Identifier	Call Sign	City	State	
	33764	KDBC	EL PASO	TX	
4. Antenna Location Coordinates: (NAD 27) Latitude: Degrees 32 Minutes 24 Seconds 16 <input checked="" type="radio"/> North <input type="radio"/> South					
Longitude: Degrees 106 Minutes 45 Seconds 38 <input checked="" type="radio"/> West <input type="radio"/> East					
5. Antenna Structure Registration Number: 1037523 <input type="checkbox"/> Not Applicable    [Exhibit 10] <input type="checkbox"/> Notification filed with FAA					
6. Antenna Location Site Elevation Above Mean Sea Level:	1469 meters				
7. Overall Tower Height Above Ground Level:	33.5 meters				
8. Height of Radiation Center Above Ground Level:	26 meters				
9. Maximum Effective Radiated Power (ERP):	1.5 kW				
10. Transmitter Output Power:	0.195 kW				
11. a. Transmitting Antenna: Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under <a href="http://licensing.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm">CDBS Public Access</a> ( <a href="http://licensing.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm">http://licensing.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm</a> ). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search. <input checked="" type="radio"/> Nondirectional <input type="radio"/> Directional "Off-the-shelf" <input type="radio"/> Directional composite					
Manufacturer ERI    Model AL-8-20					

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b. Electrical Beam Tilt: 1.75 degrees <input type="checkbox"/> Not Applicable																																																																																																
c. Directional Antenna Relative Field Values: Rotation (Degrees): <input checked="" type="checkbox"/> N/A (Nondirectional or Directional "Off-the-shelf")  <table border="1"> <thead> <tr> <th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th> </tr> </thead> <tbody> <tr><td>0</td><td>10</td><td>20</td><td>30</td><td>40</td><td>50</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>60</td><td>70</td><td>80</td><td>90</td><td>100</td><td>110</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>120</td><td>130</td><td>140</td><td>150</td><td>160</td><td>170</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>180</td><td>190</td><td>200</td><td>210</td><td>220</td><td>230</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>240</td><td>250</td><td>260</td><td>270</td><td>280</td><td>290</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>300</td><td>310</td><td>320</td><td>330</td><td>340</td><td>350</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td colspan="12">Additional Azimuths</td></tr> </tbody> </table>	Degrees	Value	Degrees	Value	0	10	20	30	40	50							60	70	80	90	100	110							120	130	140	150	160	170							180	190	200	210	220	230							240	250	260	270	280	290							300	310	320	330	340	350							Additional Azimuths																			
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Relative Field Polar Plot

<b>NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.</b>	
12.	<b>Out-of-channel Emission Mask:</b> <input checked="" type="radio"/> Simple <input type="radio"/> Stringent
<b>CERTIFICATION</b>	
13.	<b>Interference</b> : The proposed facility complies with all of the following applicable rule sections. 47.C.F.R Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030. <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 11]
14.	<b>Environmental Protection Act.</b> The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance, an <b>Exhibit is required</b> . <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 12]  By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.
15.	<b>Channels 52-59.</b> If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:  <input type="checkbox"/> The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.  <input type="checkbox"/> Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licenses of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.
16.	<b>Channels 60-69.</b> If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:  <input type="checkbox"/> Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application , all commercial wireless licenses of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for

**MARSAND, INC.****Matthew A. Sanderford, Jr., P.E.**

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which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.

- Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreements(s) with 700 MHz public safety regional planning committee(s) and state administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.
- Pursuant to Section 74.786(e), the applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

**PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.****SECTION III PREPARER'S CERTIFICATION**

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name MATTHEW A. SANDERFORD, JR., P.E.	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 4/19/2011	
Mailing Address PO BOX 485 6100 I-35W		
City ALVARADO	State or Country (if foreign address) TX	Zip Code 76009 - 0485
Telephone Number (include area code) 8177835566		E-Mail Address (if available) TVCOWBOY@MARSAND.COM

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

**Exhibits****Exhibit 12****Description:** ENGINEERING STATEMENT**Attachment 12**

**MARSAND, INC.****Matthew A. Sanderford, Jr., P.E.**

Percent allowed new interference: 0.500  
 Percent allowed new interference to non Class A LPTV: 2.000  
 TW Census data selected 2000  
 Data Base Selected  
 /space/software/cdbs/pt\_tvdb.sff  
 TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 04-19-2011 Time: 06:24:45

Record Selected for Analysis

KCWF-LD USERRECORD-01 LAS CRUCES NM US  
 Channel 20 ERP 1.5 kW HAAT 173. m RCAMSL 01495 m FULL SERVICE MASK  
 Latitude 032-24-16 Longitude 0106-45-38  
 Status APP Zone 2 Border Site number: 01  
 Last update Cutoff date Docket  
 Comments  
 Applicant

Cell size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Not full service station

Service Class = LD

Maximum height/power limits not checked

Site number	1	Azimuth	ERP	HAAT	51.0 dBu F(50,90)
(Deg)		(Deg)	(kW)	(m)	(km)
0.0		0.0	1.500	142.8	34.4
45.0		45.0	1.500	153.8	35.2
90.0		90.0	1.500	67.2	26.8
135.0		135.0	1.500	132.6	33.8
180.0		180.0	1.500	268.4	41.5
225.0		225.0	1.500	285.6	42.3
270.0		270.0	1.500	194.5	37.6
315.0		315.0	1.500	142.4	34.4

Contour Overlap to Proposed Station

Station  
 KCWF-CA 20 LAS CRUCES NM BDISTTL20071113AIB

Station inside contour of Digital LPTV station  
 KCWF-LD 20 LAS CRUCES NM USERRECORD01

Contour Overlap Evaluation to Proposed Station Complete

NO LANDMOBILE SPACING VIOLATIONS FOUND

Checks to Site Number 01

**MARSAND, INC.**

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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 within the Mexican coordination distance  
 Distance to border = 69.0km  
 Proposed station is OK toward AM broadcast stations

\*\*\*\*\*  
Start of Interference Analysis

Proposed Station			
Channel	Call	City/State	ARN
20	KCWF-LD	LAS CRUCES NM	USERRECORD01

## Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	K57BV	LAS CRUCES & ORGAN NM	19.9	CP	BDISTTL -20071003AAN
18	K18DY	HILLSBORO NM	93.4	LIC	BLTT -19930624IC
19	KVBA-LP	ALAMOGORDO NM	95.8	LIC	BLTTL -20070720AAD
19	K19HV	DEMING NM	82.9	LIC	BLTT -20100629AOR
20	K20GG-D	DUNCAN AZ	244.9	LIC	BLDTT -20090715AIQ
20	K20FO	SIERRA VISTA AZ	318.2	LIC	BLTT -20000913AAO
20	NEW	ALBUQUERQUE NM	313.6	APP	BSFDTL -20060630BVS
20	K20HA	CABALLO NM	76.5	LIC	BLTT -20050202ADM
20	K20HA	CABALLO NM	76.5	APP	BDFCDTT -20090824ADV
20	NEW	DEMING NM	127.6	APP	BNPDTL -20100504AMZ
20	K40GC	DORA NM	345.2	CP	BDISDTT -20100803AAU
20	K20GT	INDIAN VILLAGE NM	366.7	CP	BDFCDTT -20090824AHE
20	K20GT	INDIAN VILLAGE NM	366.7	LIC	BLTT -20040723ADJ
20	K20GQ-D	LAS VEGAS NM	381.6	LIC	BLDTT -20091112AKK
20	K20GU	RUIDOSO, ETC. NM	143.8	LIC	BLTT -20040723ADO
20	K20GU	RUIDOSO, ETC. NM	143.8	APP	BDFCDTT -20110404AEV
20	KADX-LP	ANDREWS TX	394.6	CP MOD	BMPTTL -20110324ABT
20	NEW	BALMORHEA TX	324.2	APP	BNPDTL -20100416ABG
21	NEW	ALAMOGORDO NM	94.4	APP	BDCCDTL -20110301ABA
21	K21JO-D	LORDSBURG NM	157.3	CP	BDCCDTT -20070723ACS
24	K24CT	ALAMOGORDO NM	95.8	LIC	BLTTL -19980804JD
27	K27BN	TRUTH OR CONSEQUENCE NM	96.0	LIC	BLTT -19871106IB
28	K28HB	ALAMOGORDO NM	95.8	LIC	BLTTL -20010801ALG

%%%%%%%%%%%%%

## Analysis of Interference to Affected Station 1

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
16	K57BV	LAS CRUCES & ORGAN NM	BDISTTL -20071003AAN

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KFOX-TV	EL PASO TX	65.0	LIC	BLCDT -20051103AAE
16	K16BZ-D	RUIDOSO NM	163.6	LIC	BLDTT -20091211AEN
16	KTSM-DR	EL PASO TX	66.2	APP	BPRM -20101129APK

**MARSAND, INC.**

Matthew A. Sanderford, Jr., P.E.

17	KVIA-DR	EL PASO TX	66.2	APP	BPRM	-20110120ABW
18	KDBC-TV	EL PASO TX	67.0	LIC	BLCDT	-20090713ABW
23	KRWG-TV	LAS CRUCES NM	20.0	CP	BPEDT	-20080709AHL
23	KRWG-TV	LAS CRUCES NM	20.0	LIC	BLEDT	-20071119AFE
20	KCWF-LD	LAS CRUCES NM	19.9	APP	USERRECORD-01	

Proposal causes no interference

# #####

**Analysis of Interference to Affected Station 2****Analysis of current record**

Channel	Call	City/State	Application Ref. No.
18	K18DY	HILLSBORO NM	BLTT -19930624IC

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
18	K18IL-D	CABALLO NM	30.1	CP	BDCCDTT -20061030AIE
18	K18GQ	RUIDOSO NM	172.5	CP	BDFCDTT -20060301ABG
18	K18GQ	RUIDOSO, ETC. NM	172.5	LIC	BLTT -20060227ADL
18	KDBC-TV	EL PASO TX	160.2	LIC	BLCDT -20090713ABW
20	KCWF-LD	LAS CRUCES NM	93.4	APP	USERRECORD-01

Proposed station is beyond the site to  
nearest cell evaluation distance

# #####

**Analysis of Interference to Affected Station 3****Analysis of current record**

Channel	Call	City/State	Application Ref. No.
19	KVBA-LP	ALAMOGORDO NM	BLTTL -20070720AAD

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KFOX-TV	EL PASO TX	126.8	LIC	BLCDT -20051103AAE
16	KTSM-DR	EL PASO TX	127.5	APP	BPRM -20101129APK
17	KVIA-DR	EL PASO TX	127.5	APP	BPRM -20110120ABW
18	K18GQ	RUIDOSO NM	64.4	CP	BDFCDTT -20060301ABG
18	KDBC-TV	EL PASO TX	128.4	LIC	BLCDT -20090713ABW
19	KOCT	CARLSBAD NM	155.4	LIC	BLCDT -20090616ABK
20	K20GU	RUIDOSO, ETC. NM	64.4	APP	BDFCDTT -20110404AEV
23	KRWG-TV	LAS CRUCES NM	97.8	CP	BPEDT -20080709AHL
23	KRWG-TV	LAS CRUCES NM	97.8	LIC	BLEDT -20071119AFE
34	K34CR	ALAMOGORDO, ETC. NM	1.6	LIC	BLTT -19890703IB
20	KCWF-LD	LAS CRUCES NM	95.8	APP	USERRECORD-01

Proposal causes no interference

# #####

**Analysis of Interference to Affected Station 4****Analysis of current record**

Channel	Call	City/State	Application Ref. No.
19	K19HV	DEMING NM	BLTT -20100629AOR

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**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KFOX-TV	EL PASO TX	113.5	LIC	BLCDT -20051103AAE
16	KTSM-DR	EL PASO TX	114.5	APP	BPRM -20101129APK
17	KVIA-DR	EL PASO TX	114.5	APP	BPRM -20110120ABW
18	KDBC-TV	EL PASO TX	114.9	LIC	BLCDT -20090713ABW
19	KTTU	TUCSON AZ	292.9	LIC	BLCDT -20030926ANZ
19	KOCT	CARLSBAD NM	325.6	LIC	BLCDT -20090616ABK
23	KRWG-TV	LAS CRUCES NM	86.2	CP	BPEDT -20080709AHL
23	KRWG-TV	LAS CRUCES NM	86.2	LIC	BLEDT -20071119AFE
20	KCWF-LD	LAS CRUCES NM	82.9	APP	USERRECORD-01

Proposal causes no interference

# #####

**Analysis of Interference to Affected Station 5****Analysis of current record**

Channel	Call	City/State	Application Ref. No.
20	K20GG-D	DUNCAN AZ	BLDTT -20090715AIQ

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	KPAZ-TV	PHOENIX AZ	260.6	LIC	BLCDT -20070313AAV
20	KPAZ-TV	PHOENIX AZ	260.6	CP	BPCDT -20080617ACV
20	K20FO	SIERRA VISTA AZ	167.1	LIC	BLTT -20000913AAO
20	K20HA	CABALLO NM	195.2	LIC	BLTT -20050202ADM
20	K20HA	CABALLO NM	195.2	APP	BFCDTT -20090824ADV
20	NEW	DEMING NM	128.5	APP	BNPDTL -20100504AMZ
21	K21GC	SAFFORD AZ	56.5	LIC	BLTT -20060215AAV
21	K21JO-D	LORDSBURG NM	89.7	CP	BDCCDTT -20070723ACS
20	KCWF-LD	LAS CRUCES NM	244.9	APP	USERRECORD-01

Proposal causes no interference

# #####

**Analysis of Interference to Affected Station 6****Analysis of current record**

Channel	Call	City/State	Application Ref. No.
20	K20FO	SIERRA VISTA AZ	BLTT -20000913AAO

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
19	KTTU	TUCSON AZ	125.7	LIC	BLCDT -20030926ANZ
20	KPAZ-TV	PHOENIX AZ	285.1	LIC	BLCDT -20070313AAV
20	KPAZ-TV	PHOENIX AZ	285.1	CP	BPCDT -20080617ACV
23	KVOA	TUCSON AZ	125.7	CP MOD	BMPCDT -20031010ADG
28	KUAS-TV	TUCSON AZ	128.0	LIC	BLEDT -20030115ABS
20	KCWF-LD	LAS CRUCES NM	318.2	APP	USERRECORD-01

Proposal causes no interference

# #####

**Analysis of Interference to Affected Station 7**

**MARSAND, INC.**

Matthew A. Sanderford, Jr., P.E.

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	NEW	ALBUQUERQUE NM	BSFDTL -20060630BVS

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	KRMU	DURANGO CO	262.1	LIC	BLEDT -20041012AIM
20	KRMU	DURANGO CO	262.1	CP MOD	BMPEDT -20050414ACG
20	K20GO	EAGLE NEST/ANGELFIRE NM	191.8	LIC	BLTT -20010928ABE
20	K20GT	INDIAN VILLAGE NM	164.7	CP	BDFCDTT -20090824AHE
20	K20GT	INDIAN VILLAGE NM	164.7	LIC	BLTT -20040723ADJ
20	K20GQ-D	LAS VEGAS NM	116.2	LIC	BLDTT -20091112AKK
20	K20GU	RUIDOSO, ETC. NM	210.4	LIC	BLTT -20040723ADO
20	K20GU	RUIDOSO, ETC. NM	210.4	APP	BDFCDTT -20110404AEV
20	KCWF-LD	LAS CRUCES NM	313.6	APP	USERRECORD-01

Proposal causes no interference

# #####

## Analysis of Interference to Affected Station 8

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	K20HA	CABALLO NM	BLTT -20050202ADM

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	K20GU	RUIDOSO, ETC. NM	142.5	APP	BDFCDTT -20110404AEV
23	KRWG-TV	LAS CRUCES NM	90.1	CP	BPEDT -20080709AHL
23	KRWG-TV	LAS CRUCES NM	90.1	LIC	BLEDT -20071119AFE
20	KCWF-LD	LAS CRUCES NM	76.5	APP	USERRECORD-01

Proposal causes no interference

# #####

## Analysis of Interference to Affected Station 9

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	K20HA	CABALLO NM	BDFCDTT -20090824ADV

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	K20GG-D	DUNCAN AZ	195.2	LIC	BLDTT -20090715AIQ
20	NEW	ALBUQUERQUE NM	259.2	APP	BSFDTL -20060630BVS
20	NEW	DEMING NM	110.5	APP	BNPDTL -20100504AMZ
20	K20GU	RUIDOSO, ETC. NM	142.5	LIC	BLTT -20040723ADO
20	K20GU	RUIDOSO, ETC. NM	142.5	APP	BDFCDTT -20110404AEV
21	NEW	ALAMOGORDO NM	125.7	APP	BDCCDTL -20110301ABA
20	KCWF-LD	LAS CRUCES NM	76.5	APP	USERRECORD-01

Total scenarios = 1

Result key: 1

Scenario 1 Affected station 9  
Before Analysis

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Results for: 20A NM CABALLO BDFCDTT 20090824ADV APP

HAAT 942.0 m, ATV ERP 0.2 kw

	POPULATION	AREA (sq km)
within Noise Limited Contour	11345	2330.4
not affected by terrain losses	10901	2288.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

## After Analysis

Results for: 20A NM CABALLO BDFCDTT 20090824ADV APP

HAAT 942.0 m, ATV ERP 0.2 kw

	POPULATION	AREA (sq km)
within Noise Limited Contour	11345	2330.4
not affected by terrain losses	10901	2288.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	2	151.5
lost to ATV IX only	2	151.5
lost to all IX	2	151.5

Potential Interfering Stations Included in above Scenario 1

20A NM LAS CRUCES USERRECORD01 APP

Percent new IX = 0.0183%

Worst case new IX 0.0183% Scenario 1

# #####

## Analysis of Interference to Affected Station 10

## Analysis of current record

Channel 20	Call NEW	City/State DEMING NM	Application Ref. No. BNPDTL	-20100504AMZ
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## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	K20GG-D	DUNCAN AZ	128.5	LIC	BLDTT -20090715AIQ
20	KPAZ-TV	PHOENIX AZ	385.3	LIC	BLCDT -20070313AAV
20	KPAZ-TV	PHOENIX AZ	385.3	CP	BPCDT -20080617ACV
20	K20FO	SIERRA VISTA AZ	196.9	LIC	BLTT -20000913AAO
20	K20HA	CABALLO NM	110.5	LIC	BLTT -20050202ADM
20	K20HA	CABALLO NM	110.5	APP	BDFCDTT -20090824ADV
21	K21J0-D	LORDSBURG NM	41.0	CP	BDCCDTT -20070723ACS
20	KCWF-LD	LAS CRUCES NM	127.6	APP	USERRECORD-01

Total scenarios = 1

Result key: 2

Scenario 1 Affected station 10  
Before Analysis

Results for: 20A NM DEMING BNPDTL 20100504AMZ APP

HAAT 167.0 m, ATV ERP 2.0 kw

POPULATION	AREA (sq km)
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within Noise Limited Contour	19407	3330.5
not affected by terrain losses	19368	3318.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

## After Analysis

Results for: 20A NM DEMING BNPDTL 20100504AMZ APP  
HAAT 167.0 m, ATV ERP 2.0 kw

	POPULATION	AREA (sq km)
within Noise Limited Contour	19407	3330.5
not affected by terrain losses	19368	3318.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	33	8.8
lost to ATV IX only	33	8.8
lost to all IX	33	8.8

Potential Interfering Stations Included in above Scenario 1

20A NM LAS CRUCES USERRECORD01 APP

Percent new IX = 0.1704%

Worst case new IX 0.1704% Scenario 1

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## Analysis of Interference to Affected Station 11

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	K40GC	DORA NM	BDISDTT -20100803AAU

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	K20GU	RUIDOSO, ETC. NM	217.3	LIC	BLTT -20040723ADO
20	K20GU	RUIDOSO, ETC. NM	217.3	APP	BDFCDTT -20110404AEV
20	KDAX-LD	AMARILLO TX	219.4	CP	BDCCDTL -20081215AAW
20	KFIQ-LP	LUBBOCK TX	157.6	APP	BDISDTL -20090630AAZ
20	KTXS-TV	SWEETWATER TX	357.5	CP MOD	BMPCDT -20080619ABA
20	KTXS-TV	SWEETWATER TX	357.5	LIC	BLCDT -20080815ABJ
21	KRWB-TV	ROSWELL NM	112.8	LIC	BLCDT -20090619ABH
20	KCWF-LD	LAS CRUCES NM	345.2	APP	USERRECORD-01

Proposal causes no interference

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## Analysis of Interference to Affected Station 12

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	K20GT	INDIAN VILLAGE NM	BDFCDTT -20090824AHE

## Stations Potentially Affecting This Station

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Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	KRMU	DURANGO CO	202.0	LIC	BLEDT -20041012AIM
20	KRMU	DURANGO CO	202.0	CP MOD	BMPEDT -20050414ACG
20	NEW	ALBUQUERQUE NM	164.7	APP	BSFDTL -20060630BVS
21	K21HJ	GALLUP & TOHATCHI NM	43.2	LIC	BLTT -20050531BQJ
20	KCWF-LD	LAS CRUCES NM	366.7	APP	USERRECORD-01

Proposed station is beyond the site to nearest cell evaluation distance

#####

**Analysis of Interference to Affected Station 13**

Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	K20GT	INDIAN VILLAGE NM	BLTT -20040723ADJ

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	KRMU	DURANGO CO	202.0	LIC	BLEDT -20041012AIM
20	KRMU	DURANGO CO	202.0	CP MOD	BMPEDT -20050414ACG
20	NEW	ALBUQUERQUE NM	164.7	APP	BSFDTL -20060630BVS
22	KTFQ-DT	ALBUQUERQUE NM	137.3	LIC	BLCDT -20090618ACG
20	KCWF-LD	LAS CRUCES NM	366.7	APP	USERRECORD-01

Proposed station is beyond the site to nearest cell evaluation distance

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**Analysis of Interference to Affected Station 14**

Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	K20GQ-D	LAS VEGAS NM	BLDTT -20091112AKK

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	KRMU	DURANGO CO	299.5	LIC	BLEDT -20041012AIM
20	KRMU	DURANGO CO	299.5	CP MOD	BMPEDT -20050414ACG
20	NEW	ALBUQUERQUE NM	116.2	APP	BSFDTL -20060630BVS
20	K20GO	EAGLE NEST/ANGELFIRE NM	113.7	LIC	BLTT -20010928ABE
20	K20CV-D	RATON NM	141.9	LIC	BLDTT -20101008AAL
20	KCWF-LD	LAS CRUCES NM	381.6	APP	USERRECORD-01

Proposed station is beyond the site to nearest cell evaluation distance

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**Analysis of Interference to Affected Station 15**

Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	K20GU	RUIDOSO, ETC. NM	BLTT -20040723ADO

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**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	NEW	ALBUQUERQUE NM	210.4	APP	BSFDTL -20060630BVS
21	NEW	ALAMOGORDO NM	64.6	APP	BDCCDTL -20110301ABA
27	KRPV-DT	ROSWELL NM	130.5	LIC	BLCDT -20090211ABQ
35	K35GU	RUIDOSO, ETC. NM	0.0	APP	BSTA -20070123AAC
35	K35GU	RUIDOSO, ETC. NM	0.0	LIC	BLTT -20060221AAN
20	KCWF-LD	LAS CRUCES NM	143.8	APP	USERRECORD-01

Proposal causes no interference

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**Analysis of Interference to Affected Station 16****Analysis of current record**

Channel	Call	City/State	Application Ref. No.
20	K20GU	RUIDOSO, ETC. NM	BDFCDTT -20110404AEV

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
19	KVBA-LP	ALAMOGORDO NM	64.4	LIC	BLTTL -20070720AAD
20	NEW	ALBUQUERQUE NM	210.4	APP	BSFDTL -20060630BVS
20	K20HA	CABALLO NM	142.5	LIC	BLTT -20050202ADM
20	K20HA	CABALLO NM	142.5	APP	BDFCDTT -20090824ADV
20	K40GC	DORA NM	217.3	CP	BDISDTT -20100803AAU
21	NEW	ALAMOGORDO NM	64.6	APP	BDCCDTL -20110301ABA
20	KCWF-LD	LAS CRUCES NM	143.8	APP	USERRECORD-01

Proposal causes no interference

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**Analysis of Interference to Affected Station 17****Analysis of current record**

Channel	Call	City/State	Application Ref. No.
20	KADX-LP	ANDREWS TX	BMPTTL -20110324ABT

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
18	KUPB	MIDLAND TX	57.2	LIC	BLCDT -20090615ABW
20	KTLE-LP	ODESSA TX	56.6	LIC	BLTTL -20040419AAH
20	KTXS-TV	SWEETWATER TX	230.0	CP MOD	BMPCDT -20080619ABA
20	KTXS-TV	SWEETWATER TX	230.0	LIC	BLCDT -20080815ABJ
23	KPEJ-TV	ODESSA TX	37.9	LIC	BLCDT -20060629AGO
27	KAMC	LUBBOCK TX	145.3	CP MOD	BMPCDT -20070125ABW
35	KJTV-TV	LUBBOCK TX	142.8	CP MOD	BMPCDT -20061213AFW
20	KCWF-LD	LAS CRUCES NM	394.6	APP	USERRECORD-01

Proposed station is beyond the site to  
nearest cell evaluation distance

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# #####

**Analysis of Interference to Affected Station 18****Analysis of current record**

**MARSAND, INC.**

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Channel 20	Call NEW	City/State BALMORHEA TX	Application Ref. No. BNPDTL -20100416ABG
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**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
19	NEW	BALMORHEA TX	0.0	APP	BNPDTL -20100416ABF
20	KTLE-LP	ODESSA TX	162.3	LIC	BLTTL -20040419AAH
20	KTXS-TV	SWEETWATER TX	379.2	CP MOD	BMPCDT -20080619ABA
20	KTXS-TV	SWEETWATER TX	379.2	LIC	BLCDT -20080815ABJ
20	KCWF-LD	LAS CRUCES NM	324.2	APP	USERRECORD-01

Proposal causes no interference

# #####

**Analysis of Interference to Affected Station 19****Analysis of current record**

Channel 21	Call NEW	City/State ALAMOGORDO NM	Application Ref. No. BDCCDTL -20110301ABA
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**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	K20GU	RUIDOSO, ETC. NM	64.6	LIC	BLTT -20040723ADO
20	K20GU	RUIDOSO, ETC. NM	64.6	APP	BDCCDTT -20110404AEV
21	K21IM-D	FORT SUMNER NM	231.4	LIC	BLDTT -20090303AAY
21	K21JO-D	LORDSBURG NM	238.9	CP	BDCCDTT -20070723ACS
21	KRWB-TV	ROSWELL NM	155.3	LIC	BLCDT -20090619ABH
22	K54GR	LAS CRUCES NM	96.6	APP	BDISDTT -20100412ABR
22	K54GR	LAS CRUCES NM	96.6	APP	BDISDTT -20080514ACO
22	K22FN	WHITE OAKS, ETC. NM	115.7	CP	BDCCDTT -20090818ABH
20	KCWF-LD	LAS CRUCES NM	94.4	APP	USERRECORD-01

Proposal causes no interference

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**Analysis of Interference to Affected Station 20****Analysis of current record**

Channel 21	Call K21JO-D	City/State LOREDSBURG NM	Application Ref. No. BDCCDTT -20070723ACS
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**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	K20GG-D	DUNCAN AZ	89.7	LIC	BLDTT -20090715AIQ
20	NEW	DEMING NM	41.0	APP	BNPDTL -20100504AMZ
21	K21GC	SAFFORD AZ	133.5	LIC	BLTT -20060215AAV
21	K21CX	TUCSON AZ	215.6	APP	BDCCDTL -20091214AHD
21	K21CX	TUCSON AZ	215.6	LIC	BLTTL -19910828JC
21	NEW	ALAMOGORDO NM	238.9	APP	BDCCDTL -20110301ABA
21	KRWB-TV	ROSWELL NM	393.7	LIC	BLCDT -20090619ABH
20	KCWF-LD	LAS CRUCES NM	157.3	APP	USERRECORD-01

Proposed station is beyond the site to  
nearest cell evaluation distance

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**MARSAND, INC.**

Matthew A. Sanderford, Jr., P.E.

## Analysis of Interference to Affected Station 21

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
24	K24CT	ALAMOGORDO NM	BLTTL -19980804JD

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KTSM-DR	EL PASO TX	127.5	APP	BPRM -20101129APK
17	KVIA-DR	EL PASO TX	127.5	APP	BPRM -20110120ABW
23	KRWG-TV	LAS CRUCES NM	97.8	CP	BPEDT -20080709AHL
23	KRWG-TV	LAS CRUCES NM	97.8	LIC	BLEDT -20071119AFE
24	KNAT-TV	ALBUQUERQUE NM	270.5	APP	BPCDT -20110324AAM
24	KNAT-TV	ALBUQUERQUE NM	270.5	CP MOD	BMPCTD -20080618ABF
24	KNAT-TV	ALBUQUERQUE NM	270.5	LIC	BLCDT -20051116ACT
25	KINT-TV	EL PASO TX	128.4	CP	BPCDT -19991029AGI
39	KSCE	EL PASO TX	127.5	CP	BPEDT -20080620AAC
39	KSCE	EL PASO TX	127.5	LIC	BLEDT -20080331AJZ
20	KCWF-LD	LAS CRUCES NM	95.8	APP	USERRECORD-01

Proposed station is beyond the site to nearest cell evaluation distance

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## Analysis of Interference to Affected Station 22

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
27	K27BN	TRUTH OR CONSEQUENCE NM	BLTT -19871106IB

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
23	KRWG-TV	LAS CRUCES NM	109.7	CP	BPEDT -20080709AHL
23	KRWG-TV	LAS CRUCES NM	109.7	LIC	BLEDT -20071119AFE
27	KRPV-DT	ROSWELL NM	271.7	LIC	BLCDT -20090211ABQ
27	KASA-TV	SANTA FE NM	242.2	LIC	BLCDT -20090417AAS
20	KCWF-LD	LAS CRUCES NM	96.0	APP	USERRECORD-01

Proposed station is beyond the site to nearest cell evaluation distance

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## Analysis of Interference to Affected Station 23

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
28	K28HB	ALAMOGORDO NM	BLTTL -20010801ALG

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
25	KINT-TV	EL PASO TX	128.4	CP	BPCDT -19991029AGI
27	K27HP-D	ALAMOGORDO NM	1.6	LIC	BLDTT -20091211AEQ
28	K28GJ-D	HATCH NM	112.5	LIC	BLDTT -20100115ACL
28	K28GK	SILVER CITY NM	221.4	LIC	BLTT -20021220ADV
29	KAPT-LP	ALAMOGORDO NM	1.5	LIC	BLTTL -19911205JF

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20 KCWF-LD LAS CRUCES NM 95.8 APP USERRECORD-01

Proposed station is beyond the site to  
nearest cell evaluation distance

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## Analysis of Interference to Affected Station 24

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	KCWF-LD	LAS CRUCES NM	USERRECORD-01

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
20	K20HA	CABALLO NM	76.5	LIC	BLTT -20050202ADM
20	K20HA	CABALLO NM	76.5	APP	BDFCDTT -20090824ADV
20	NEW	DEMING NM	127.6	APP	BNPDTL -20100504AMZ
20	K20GU	RUIDOSO, ETC. NM	143.8	LIC	BLTT -20040723ADO
20	K20GU	RUIDOSO, ETC. NM	143.8	APP	BDFCDTT -20110404AEV
21	NEW	ALAMOGORDO NM	94.4	APP	BDCCDTL -20110301ABA

Total scenarios = 5

Result key: 3  
 Scenario 1 Affected station 24  
 Before Analysis

Results for: 20A NM LAS CRUCES USERRECORD01 APP

HAAT	173.0 m, ATV ERP	1.5 kw	POPULATION	AREA (sq km)
within Noise Limited Contour			132851	4560.3
not affected by terrain losses			131470	3973.8
lost to NTSC IX			318	45.0
lost to additional IX by ATV			0	0.0
lost to ATV IX only			0	0.0
lost to all IX			318	45.0

Potential Interfering Stations Included in above Scenario 1

20N NM CABALLO BLTT 20050202ADM LIC

Result key: 4  
 Scenario 2 Affected station 24  
 Before Analysis

Results for: 20A NM LAS CRUCES USERRECORD01 APP

HAAT	173.0 m, ATV ERP	1.5 kw	POPULATION	AREA (sq km)
within Noise Limited Contour			132851	4560.3
not affected by terrain losses			131470	3973.8
lost to NTSC IX			318	45.0
lost to additional IX by ATV			2	225.2
lost to ATV IX only			320	270.2
lost to all IX			320	270.2

Potential Interfering Stations Included in above Scenario 2

20N NM CABALLO BLTT 20050202ADM LIC

20A NM CABALLO BDFCDTT 20090824ADV APP

20A NM DEMING BNPDTL 20100504AMZ APP

**MARSAND, INC.**

Matthew A. Sanderford, Jr., P.E.

Result key: 5  
 Scenario 3 Affected station 24  
 Before Analysis

Results for: 20A NM LAS CRUCES USERRECORD01 APP  
 HAAT 173.0 m, ATV ERP 1.5 kw

	POPULATION	AREA (sq km)
within Noise Limited Contour	132851	4560.3
not affected by terrain losses	131470	3973.8
lost to NTSC IX	318	45.0
lost to additional IX by ATV	0	52.9
lost to ATV IX only	318	96.9
lost to all IX	318	97.9

Potential Interfering Stations included in above Scenario 3

20N NM CABALLO BLTT 20050202ADM LIC  
 20A NM CABALLO BDFCDTT 20090824ADV APP

Result key: 6  
 Scenario 4 Affected station 24  
 Before Analysis

Results for: 20A NM LAS CRUCES USERRECORD01 APP  
 HAAT 173.0 m, ATV ERP 1.5 kw

	POPULATION	AREA (sq km)
within Noise Limited Contour	132851	4560.3
not affected by terrain losses	131470	3973.8
lost to NTSC IX	318	45.0
lost to additional IX by ATV	2	172.3
lost to ATV IX only	2	177.2
lost to all IX	320	217.3

Potential Interfering Stations included in above Scenario 4

20N NM CABALLO BLTT 20050202ADM LIC  
 20A NM DEMING BNPDTL 20100504AMZ APP

Result key: 7  
 Scenario 5 Affected station 24  
 Before Analysis

Results for: 20A NM LAS CRUCES USERRECORD01 APP  
 HAAT 173.0 m, ATV ERP 1.5 kw

	POPULATION	AREA (sq km)
within Noise Limited Contour	132851	4560.3
not affected by terrain losses	131470	3973.8
lost to NTSC IX	318	45.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	318	45.0

Potential Interfering Stations included in above Scenario 5

20N NM CABALLO BLTT 20050202ADM LIC

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