

TECHNICAL EXHIBIT  
CONCERNING HUMAN EXPOSURE TO RF ELECTROMAGNETIC ENERGY  
PREPARED FOR  
STATION KWEX-DT  
SAN ANTONIO, TEXAS  
CH 41 382 KW (MAX-DA) 432 M

Technical Statement

The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 433 meters above ground level. The total DTV ERP is 458.4 kW (382-horizontal polarization, 76.4 kW-vertical polarization). A “worst-case” vertical plane relative field value of 0.10 (for angles below 60 degrees downward) is assumed for the antenna's downward radiation (see Figure 2 attached). The calculated power density at a point 2 meters above ground level is  $0.0008 \text{ mW/cm}^2$ . This is 0.19% of the FCC's recommended limit of  $0.42 \text{ mW/cm}^2$  for channel 41 for an “uncontrolled” environment.<sup>1</sup> Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules. Furthermore, public access to the licensed transmitting site is restricted and appropriately marked with RFR warning signs. It is noted that initiation of the proposed operation in place of the existing licensed operations of KWEX-TV and KWEX-DT on February 18, 2009 will substantially reduce the ambient radiofrequency energy at this site and on the tower.

Finally, this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the environmental

---

<sup>1</sup> There will be approximately an 84% reduction in KWEX-TV's calculated power density levels based on the proposed post-transition DTV operation as compared to the current analog operation.

processing analysis already have been provided to the FCC by the tower owner as part of the tower registration process.

A handwritten signature in black ink, appearing to read "W. Jeffrey Reynolds". The signature is fluid and cursive, with the first name "W." being more distinct than the last name.

W. Jeffrey Reynolds

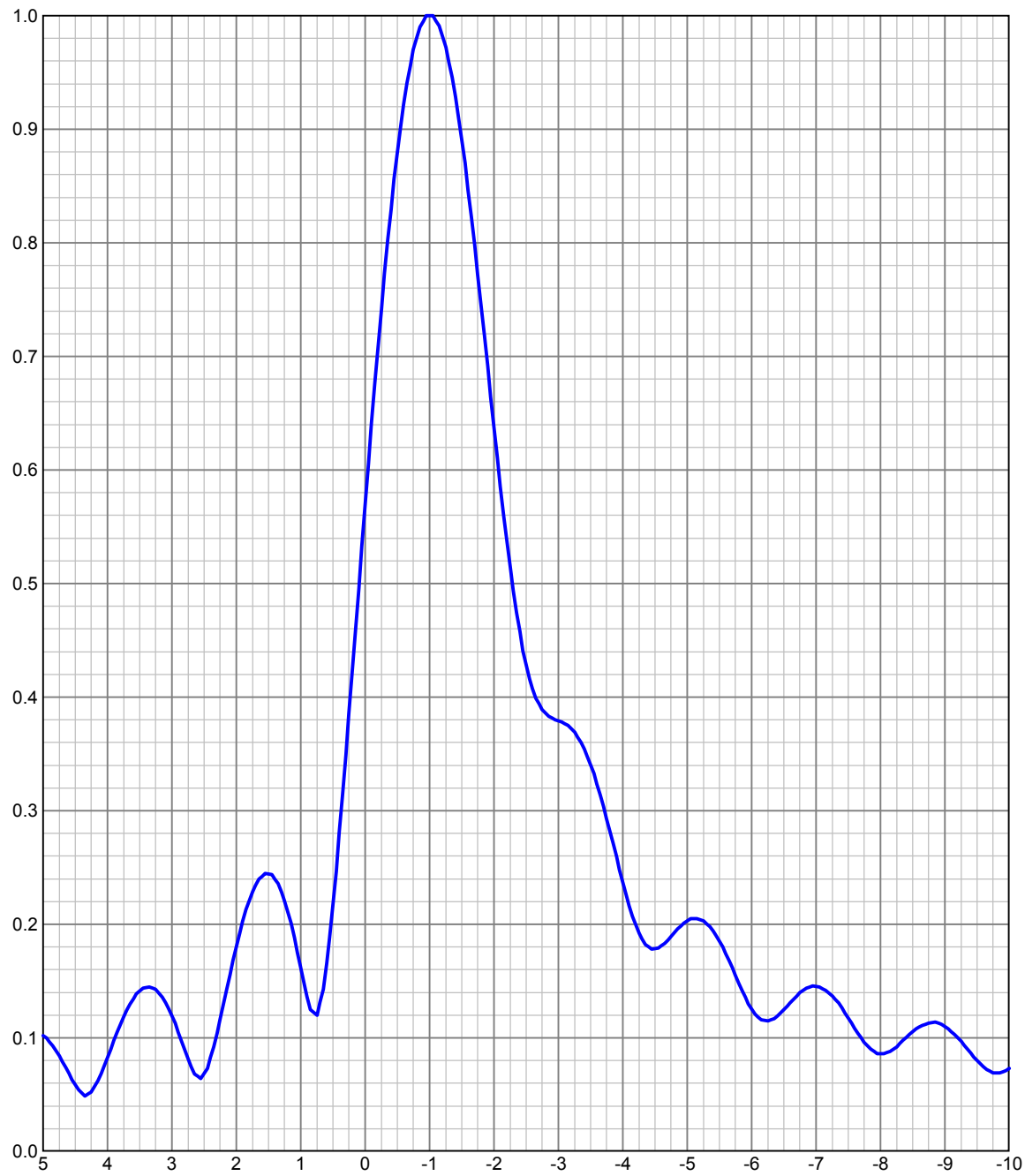
du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, FL 34237-6019  
(941) 329-6000  
JEFF@DLR.COM

February 28, 2008

# ELEVATION PATTERN

Type:	ATW30H4H		Channel:	41
Directivity:	Numeric	dBd	Location:	
Main Lobe:	30.00	14.77	Beam Tilt:	-1.00
Horizontal:	9.73	9.88	Polarization:	Horizontal

Relative Field



Preliminary, subject to final design and review.

## TABULATED DATA FOR ELEVATION PATTERN

Type: ATW30H4H  
Polarization: Horizontal

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
5.00	0.102	-19.83	-6.75	0.140	-17.08	-27.00	0.028	-31.21	-50.50
4.75	0.084	-21.51	-7.00	0.145	-16.74	-27.50	0.035	-29.12	-51.00
4.50	0.058	-24.66	-7.25	0.137	-17.27	-28.00	0.030	-30.46	-51.50
4.25	0.052	-25.68	-7.50	0.117	-18.60	-28.50	0.020	-33.98	-52.00
4.00	0.082	-21.67	-7.75	0.096	-20.35	-29.00	0.026	-31.70	-52.50
3.75	0.119	-18.49	-8.00	0.086	-21.31	-29.50	0.034	-29.50	-53.00
3.50	0.142	-16.98	-8.25	0.092	-20.72	-30.00	0.029	-30.75	-53.50
3.25	0.143	-16.89	-8.50	0.105	-19.53	-30.50	0.020	-34.20	-54.00
3.00	0.119	-18.45	-8.75	0.113	-18.94	-31.00	0.025	-32.04	-54.50
2.75	0.081	-21.83	-9.00	0.110	-19.17	-31.50	0.033	-29.76	-55.00
2.50	0.069	-23.29	-9.25	0.097	-20.26	-32.00	0.028	-31.06	-55.50
2.25	0.116	-18.71	-9.50	0.080	-21.94	-32.50	0.018	-34.66	-56.00
2.00	0.180	-14.89	-9.75	0.069	-23.22	-33.00	0.022	-33.15	-56.50
1.75	0.229	-12.80	-10.00	0.073	-22.73	-33.50	0.030	-30.31	-57.00
1.50	0.244	-12.23	-10.50	0.092	-20.72	-34.00	0.029	-30.75	-57.50
1.25	0.221	-13.11	-11.00	0.083	-21.57	-34.50	0.019	-34.42	-58.00
1.00	0.161	-15.84	-11.50	0.058	-24.73	-35.00	0.018	-34.89	-58.50
0.75	0.120	-18.42	-12.00	0.067	-23.48	-35.50	0.028	-31.21	-59.00
0.50	0.217	-13.25	-12.50	0.078	-22.16	-36.00	0.029	-30.60	-59.50
0.25	0.385	-8.29	-13.00	0.061	-24.22	-36.50	0.021	-33.35	-60.00
0.00	0.570	-4.89	-13.50	0.048	-26.38	-37.00	0.015	-36.48	-60.50
-0.25	0.742	-2.59	-14.00	0.063	-24.01	-37.50	0.023	-32.77	-61.00
-0.50	0.879	-1.12	-14.50	0.064	-23.88	-38.00	0.029	-30.75	-61.50
-0.75	0.970	-0.26	-15.00	0.045	-26.94	-38.50	0.025	-32.04	-62.00
-1.00	1.000	0.00	-15.50	0.043	-27.23	-39.00	0.015	-36.19	-62.50
-1.25	0.972	-0.25	-16.00	0.058	-24.81	-39.50	0.018	-34.89	-63.00
-1.50	0.891	-1.01	-16.50	0.051	-25.85	-40.00	0.027	-31.37	-63.50
-1.75	0.772	-2.25	-17.00	0.035	-29.12	-40.50	0.028	-31.06	-64.00
-2.00	0.637	-3.91	-17.50	0.042	-27.43	-41.00	0.020	-33.98	-64.50
-2.25	0.514	-5.78	-18.00	0.051	-25.85	-41.50	0.014	-37.08	-65.00
-2.50	0.428	-7.36	-18.50	0.041	-27.85	-42.00	0.021	-33.56	-65.50
-2.75	0.389	-8.20	-19.00	0.030	-30.31	-42.50	0.029	-30.90	-66.00
-3.00	0.379	-8.43	-19.50	0.042	-27.54	-43.00	0.026	-31.54	-66.50
-3.25	0.369	-8.66	-20.00	0.045	-26.94	-43.50	0.018	-34.89	-67.00
-3.50	0.341	-9.36	-20.50	0.032	-30.03	-44.00	0.014	-36.77	-67.50
-3.75	0.293	-10.66	-21.00	0.028	-31.06	-44.50	0.023	-32.77	-68.00
-4.00	0.237	-12.51	-21.50	0.041	-27.85	-45.00	0.029	-30.90	-68.50
-4.25	0.192	-14.33	-22.00	0.039	-28.18	-45.50	0.026	-31.70	-69.00
-4.50	0.178	-14.97	-22.50	0.027	-31.37	-46.00	0.017	-35.39	-69.50
-4.75	0.189	-14.47	-23.00	0.029	-30.75	-46.50	0.013	-37.39	-70.00
-5.00	0.203	-13.85	-23.50	0.040	-28.07	-47.00	0.022	-33.15	-70.50
-5.25	0.203	-13.85	-24.00	0.035	-29.12	-47.50	0.029	-30.90	-71.00
-5.50	0.185	-14.66	-24.50	0.024	-32.58	-48.00	0.028	-31.21	-71.50
-5.75	0.155	-16.19	-25.00	0.029	-30.75	-48.50	0.019	-34.42	-72.00
-6.00	0.126	-18.03	-25.50	0.037	-28.52	-49.00	0.013	-37.72	-72.50
-6.25	0.115	-18.79	-26.00	0.032	-29.90	-49.50	0.020	-33.98	-73.00
-6.50	0.125	-18.06	-26.50	0.021	-33.56	-50.00	0.028	-31.21	-73.50

*Preliminary, subject to final design and review.*