

TECHNICAL EXHIBIT  
IN SUPPORT OF LICENSE APPLICATION  
FOR STATION KZTV-DT (FACILITY ID 33079)  
CORPUS CHRISTI, TEXAS  
CH 18 71 KW (MAX-DA) 258 M

Technical Narrative

This technical statement was prepared in support of the license application for station KZTV-DT at Corpus Christi, Texas. Station KZTV-DT is authorized to operate on channel 18 with a maximum effective radiated power (ERP) of 71 kilowatts (kW) and an antenna radiation center height above average terrain (HAAT) of 258 meters (BMPCDT-20000502AAO). Except for the transmitting antenna, the facility was constructed as requested in the application for construction permit.

The directional antenna proposed in the application for construction permit (and authorized by the FCC) is an ERI, model ALP16L3-HSW-18. Station KZTV has substituted a similar antenna in place of the originally proposed ERI model. The new antenna is a Jampro, model JA/MS-16/18 SHC. The azimuthal relative field pattern for the Jampro antenna is identical to the ERI pattern (i.e., there is no change to the authorized relative field values). A tabulation is provided in Figure 1.

Since Section 73.1690(c)(3) permits changes of this nature without filing a 301 application for construction permit, no allocation studies or coverage map is provided. It is believe that the proposed antenna substitution is insignificant.

Ground Level Radiofrequency Electromagnetic Field Exposure

The KZTV-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. A conservative downward relative field value of 0.25 was assumed for the newly installed KZTV antenna

(see Figure 1). The maximum ERP is 71 kW. The “worst-case” calculated power density at a point 2 meters above ground level is  $0.0023 \text{ mW/cm}^2$ . This is less than 5% of the FCC's recommended limit of  $0.33 \text{ mW/cm}^2$  for channel 18 for an “uncontrolled” environment.

Access to the transmitting site is restricted and appropriately marked with warning signs. As this is a multi-user site, an agreement with the stations will control site access. In the event that workers or other authorized personnel enter restricted areas or climb the tower or any nearby adjacent towers, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner as part of the tower registration process.



Jonathan N. Edwards

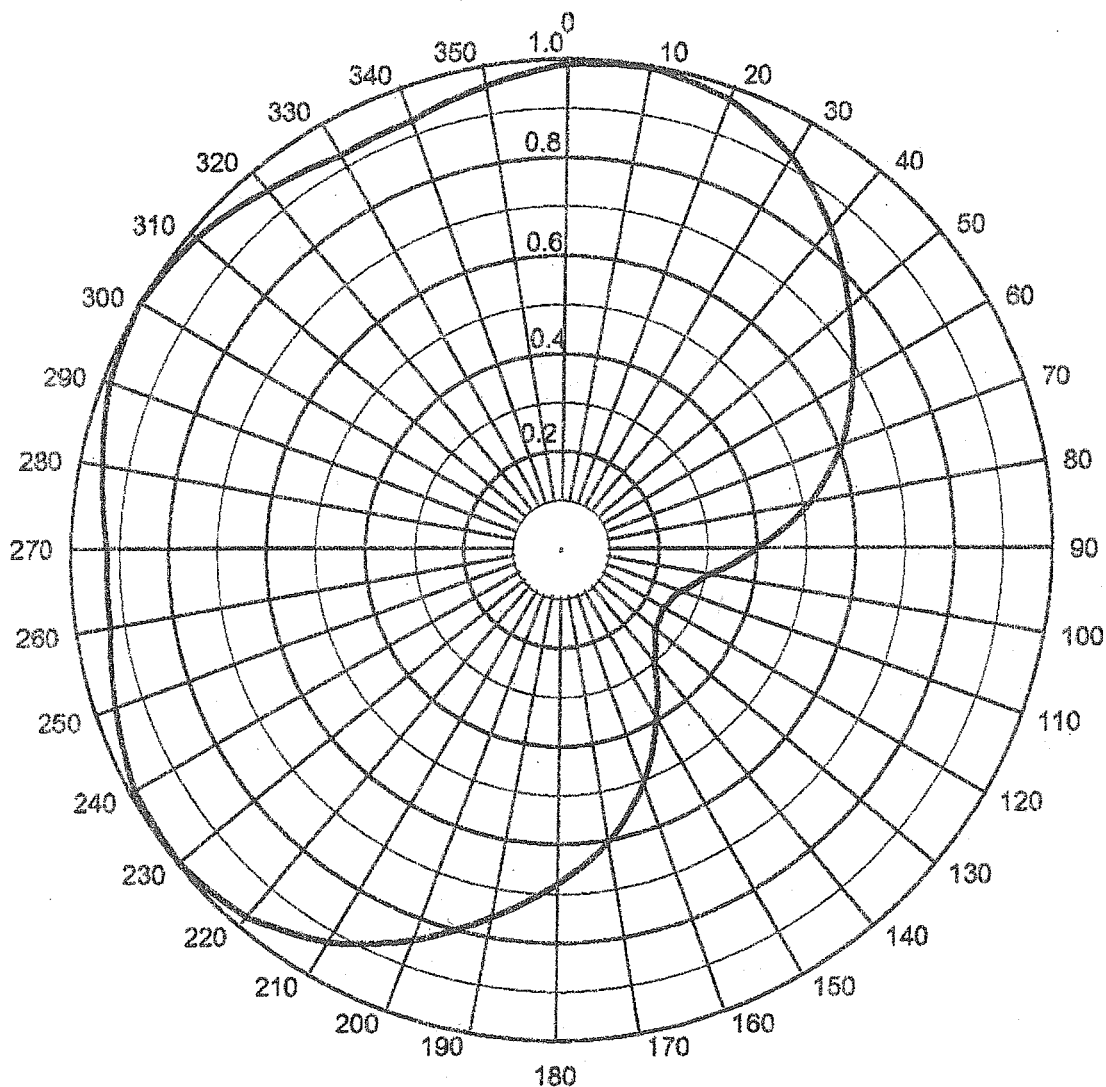
du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
(941) 329-6000  
JON@DLR.COM

February 8, 2007

TECHNICAL EXHIBIT  
IN SUPPORT OF LICENSE APPLICATION  
FOR STATION KZTV-DT (FACILITY ID 33079)  
CORPUS CHRISTI, TEXAS  
CH 18 71 KW (MAX-DA) 258 M

KZTV-DT RF Transmission System Specifications

Description	System
Transmitter Power Output (5 kW):	7.0 dBk
Transmission Line Loss (54%) (HJ-11-50 4" air) 950 feet:	2.63 dB
JAM JA/MS-16/18 SHC (25.9 Power Gain):	14.13 dB
Effective Radiated Power (71 kW):	18.5 dBk



### Azimuth Pattern Details

Customer: KZTV-DT

Model: JA/MS-16/18 SHC

Type: UHF Slot Antenna

Channel: 18

Notes: Horizontally Polarized, 16-bay Slot Antenna



**KZTV-DT**  
**Corpus Christi, TX**

**PROPOSED JA/MS-16 PATTERN**  
**ERP =      71.0      KW**

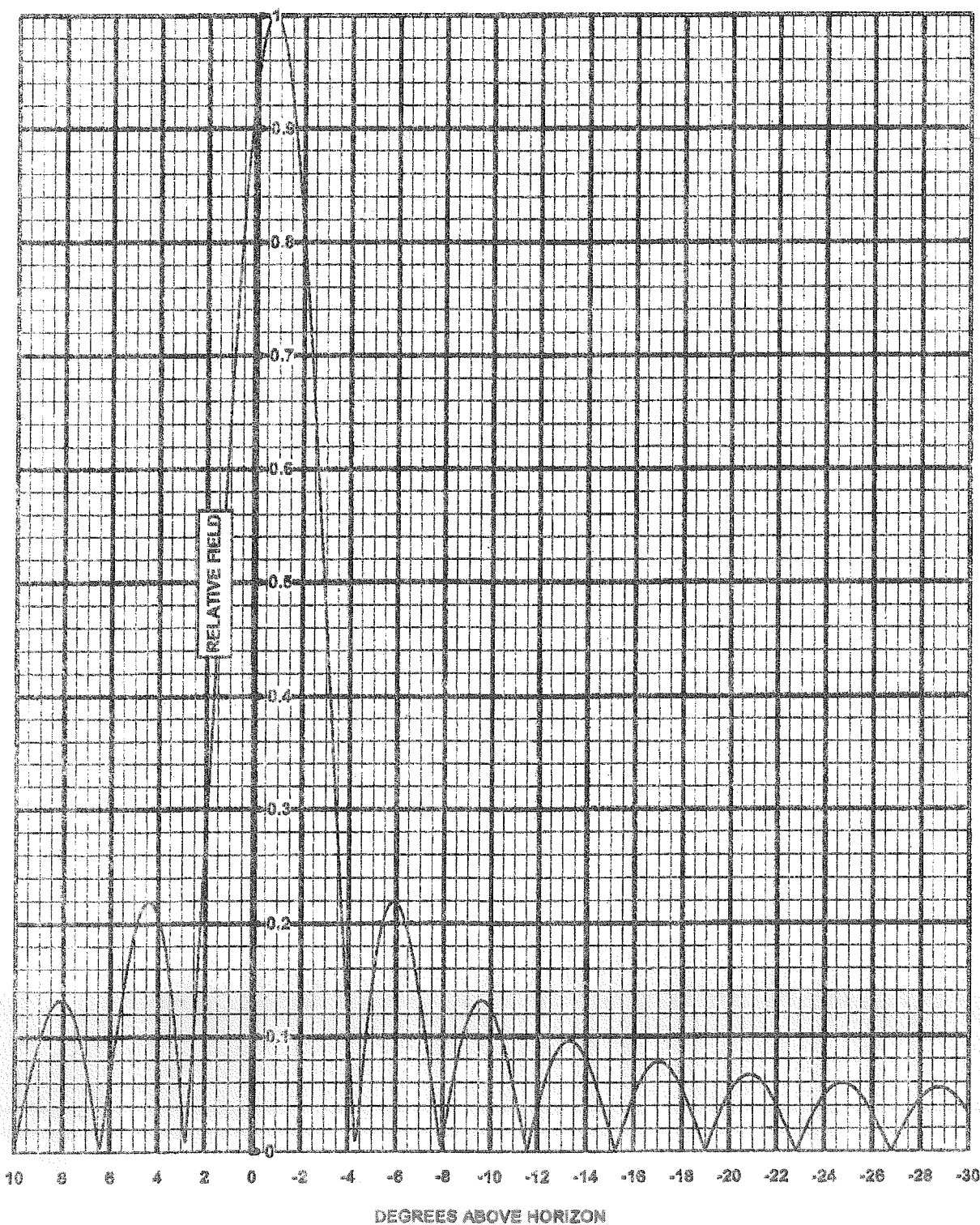
<u>AZIMUTH</u>	<u>FIELD</u>	<u>dB</u>	<u>ERP</u>	<u>dBK</u>
0	0.990	-0.087	69.587	18.43
10	0.997	-0.026	70.575	18.49
20	0.975	-0.220	67.494	18.29
30	0.922	-0.705	60.356	17.81
40	0.845	-1.463	50.696	17.05
50	0.758	-2.407	40.794	16.11
60	0.680	-3.350	32.830	15.16
70	0.605	-4.365	25.988	14.15
80	0.510	-5.849	18.467	12.66
90	0.397	-8.024	11.190	10.49
100	0.302	-10.400	6.475	8.11
110	0.253	-11.938	4.545	6.57
120	0.241	-12.360	4.124	6.15
130	0.253	-11.938	4.545	6.57
140	0.302	-10.400	6.475	8.11
150	0.397	-8.024	11.190	10.49
160	0.510	-5.849	18.467	12.66
170	0.605	-4.365	25.988	14.15
180	0.680	-3.350	32.830	15.16
190	0.758	-2.407	40.794	16.11
200	0.845	-1.463	50.696	17.05
210	0.922	-0.705	60.356	17.81
220	0.975	-0.220	67.494	18.29
230	0.997	-0.026	70.575	18.49
240	0.990	-0.087	69.587	18.43
250	0.959	-0.364	65.297	18.15
260	0.929	-0.640	61.276	17.87
270	0.925	-0.677	60.749	17.84
280	0.951	-0.436	64.212	18.08
290	0.985	-0.131	68.886	18.38
300	1.000	0.000	71.000	18.51
310	0.985	-0.131	68.886	18.38
320	0.951	-0.436	64.212	18.08
330	0.925	-0.677	60.749	17.84
340	0.929	-0.640	61.276	17.87
350	0.959	-0.364	65.297	18.15



6340 Sky Creek Drive  
Sacramento, California 95828 USA

Telephone (916) 383-1177  
Fax (916) 383-1182

COMPUTED ELEVATION PATTERN



Customer: Northwest Broadcasting  
Site: KZTV-DT  
Channel: 18

Model: JA/MS-16/18 SHC  
Description: UHF Slot Antenna  
-0.75° Beam Tilt, 0% Null Fill



6340 Sky Creek Drive  
Sacramento, California 95828 USA

Telephone (916) 383-1177  
Fax (916) 383-1182

## Elevation Pattern Tabulation

### ELEVATION PATTERN TABULATION

#### RELATIVE FIELD VS ELEVATION ANGLE

<u>ELEVATION</u> <u>ANGLE</u>	<u>RELATIVE</u> <u>FIELD</u>	<u>ELEVATION</u> <u>ANGLE</u>	<u>RELATIVE</u> <u>FIELD</u>	<u>ELEVATION</u> <u>ANGLE</u>	<u>RELATIVE</u> <u>FIELD</u>
10	0.004	-26	0.033	-61	0.045
9	0.098	-27	0.010	-62	0.019
8	0.132	-28	0.045	-63	0.011
7	0.072	-29	0.054	-64	0.040
6	0.062	-30	0.033	-65	0.064
5	0.190	-31	0.005	-66	0.079
4	0.207	-32	0.040	-67	0.085
3	0.045	-33	0.053	-68	0.081
2	0.277	-34	0.038	-69	0.068
1	0.652	-35	0.005	-70	0.049
0	0.930	-36	0.030	-71	0.024
-1	0.992	-37	0.050	-72	0.002
-2	0.812	-38	0.047	-73	0.029
-3	0.467	-39	0.022	-74	0.054
-4	0.102	-40	0.012	-75	0.076
-5	0.148	-41	0.041	-76	0.094
-6	0.218	-42	0.053	-77	0.108
-7	0.135	-43	0.043	-78	0.117
-8	0.009	-44	0.016	-79	0.121
-9	0.113	-45	0.017	-80	0.121
-10	0.124	-46	0.044	-81	0.117
-11	0.055	-47	0.055	-82	0.111
-12	0.038	-48	0.047	-83	0.101
-13	0.093	-49	0.023	-84	0.090
-14	0.081	-50	0.008	-85	0.077
-15	0.018	-51	0.038	-86	0.063
-16	0.048	-52	0.056	-87	0.048
-17	0.077	-53	0.059	-88	0.032
-18	0.055	-54	0.045	-89	0.016
-19	0.000	-55	0.020	-90	0.000
-20	0.050	-56	0.011		
-21	0.066	-57	0.040		
-22	0.040	-58	0.060		
-23	0.008	-59	0.068		
-24	0.049	-60	0.063		
-25	0.058				