

**APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
FCC FILE NO. BPCDT-19991026ABK
FACILITY ID 10061
STATION KGNS-DT
LAREDO, TEXAS
CH 15 1000 kW 285 M HAAT**

Technical Narrative

This technical exhibit has been prepared in support of an application for modification of the construction permit for station KGNS-DT on channel 15 at Laredo, Texas (File No. BPCDT-19991026ABK). By means of this instant modification application, KGNS-DT proposes to decrease the antenna maximum effective radiated power ("ERP") from 1000 kW to 2.4 kW and employ a directional antenna pattern to better serve the Laredo, Texas community. No other changes are proposed. This instant application is considered a minor change in facilities pursuant to 47 C.F.R. Section 73.3572(a). Furthermore, as detailed below, this instant application is also acceptable for filing under the criteria set forth in the FCC TV/DTV freeze as there will be no increase in KGNS-DT's authorized DTV service area in any direction.

Proposed Facilities

It is proposed to operate KGNS-DT from the existing tower (FCC Tower registration 1045081) (NAD27 coordinates: 27° 40' 21" N, 99° 39' 51" W) on DTV channel 15 (476 - 482 MHz) with a directional antenna maximum ERP of 2.4 kW and an antenna HAAT of 285 meters. No other changes are proposed. It is proposed to utilize an ERI model AL8-15 directional antenna which will be mounted at 287 meters above ground level ("AGL") on the existing tower structure and will incorporate an electrical beam tilt of 1.75 degree. The proposed antenna radiation center height above mean sea level will be 435 meters.

Antenna Data

Figure 1 provides a graph of the horizontal and vertical plane relative patterns for the proposed ERI model AL8-15 horizontally polarized, directional antenna system.

**Compliance with Second Periodic Review - Use it or Loose it
Replication and Maximization Deadline**

Figure 2 shows the KGNS-DT original DTV allotment predicted 41 dBu F(50,90) contour as compared to the proposed modification predicted 41 dBu F(50,90) contour. KGNS-DT has elected to return to the current KGNS-TV analog channel of 8 at the end of the DTV transition. Therefore, according to ***paragraph 78 of the Second DTV Periodic Review Report and Order***, "***Those licensees that receive a tentative DTV channel designation on a channel that is not their current DTV channel must serve at least 80 percent of the number of viewers served by the 1997 facility on which their replication coverage was based.***" The KGNS-TV 1997 facility served a total U.S. population of 199,681 while the herein proposed modification will serve a total U.S. population of 193,291. Considering the aforementioned population totals, this proposed modification will serve 96.8% of the number of viewers served by the 1997 KGNS-TV facility and therefore is in compliance with the FCC's Second Periodic Review - Use it or Loose it Replication and Maximization Deadline.

Compliance with TV Freeze Order

Figure 3 is a predicted contour map which shows the location of the KGNS-DT predicted 41 dBu, F(50,90) contour for the authorized KGNS-DT channel 15 operation (File No. BPCDT-19991026ABK) and the proposed KGNS-DT channel 15 operation as specified in this application. As indicated, the predicted 41 dBu contour for this instant modification application is entirely within the authorized facility's predicted 41 dBu contour. Therefore, it is believed that this instant modification application is acceptable for filing under the criteria set forth in the FCC TV/DTV freeze as there will be no increase in the KGNS-DT channel 15 DTV service area, based on the currently authorized facilities, in any direction.

Principal City Coverage

Figure 4 depicts the predicted 48 dBu, F(50,90) coverage contour for the proposed KGNS-DT channel 15 operation. As indicated, Laredo, Texas is located within the 48 dBu contour. The Laredo city limits were derived from information contained in the 2000 U.S. Census for Texas.

The distances to the predicted 41 dBu and 48 dBu, F(50,90) coverage contours were determined in accordance with the provisions of Section 73.625.

Environmental Protection Act

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 287 meters above ground level. The maximum DTV ERP is 2.4 kW (horizontal polarization). The calculated power density at a point 2 meters above ground level is 0.000119 mW/cm². This is 0.0373% of the FCC's recommended limit of 0.319 mW/cm² for channel 15 for an "uncontrolled" environment.

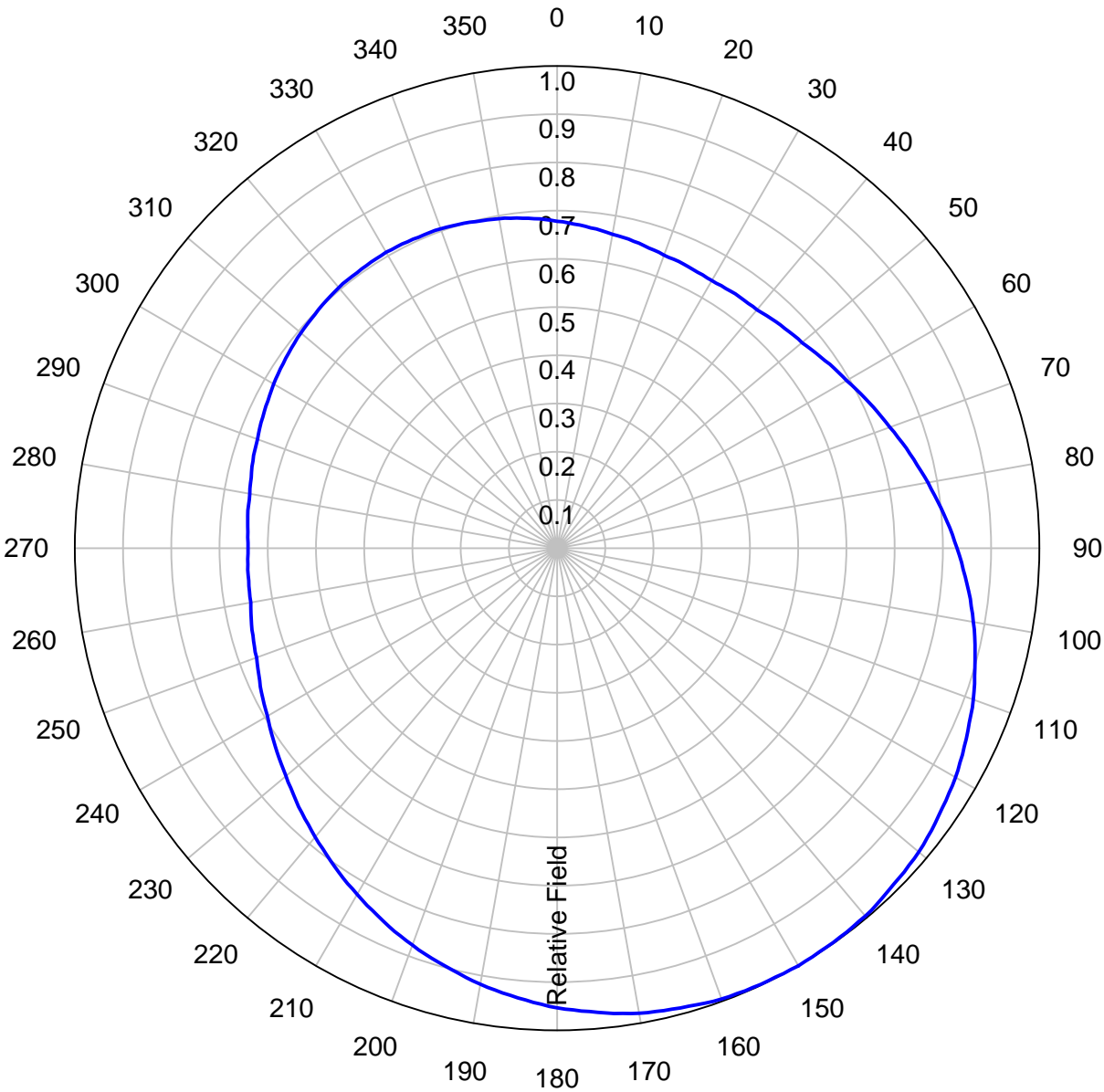
Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

The transmitter building and antenna supporting structure will be surrounded by a gated and locked chain link fence at a height of 2 meters. Appropriate warning signs will be placed on the fence to warn the general public of the possible RF radiation exposure. If work is to be performed on the tower in an area where overexposure could occur, KGNS-DT will take the necessary action to prevent overexposure of workers on the tower, including reducing the KGNS-DT transmitter power or ceasing KGNS-DT operation completely. Additionally, KGNS-DT will cooperate with other site users to assure that work is performed at the site without exceeding the FCC maximum permissible exposure limit (MPE) for occupational /controlled exposure.

Please note that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be, or already has been, provided to the FCC by the tower owner as part of the tower registration process.

KGNS-DT
Proposed Modification
AZIMUTH PATTERN

Type:	AL8-OC		Channel:	15
Directivity:	Numeric	dBd	Location:	Laredo, TX
Peak(s) at:	1.62	2.10	Polarization:	Horizontal
			Note: Pattern shape and directivity may vary with channel and mouting configuration.	



KGNS-DT
Proposed Modification

TABULATED DATA FOR AZIMUTH PATTERN
FCC FILING FORMAT

Type: AL8-OC

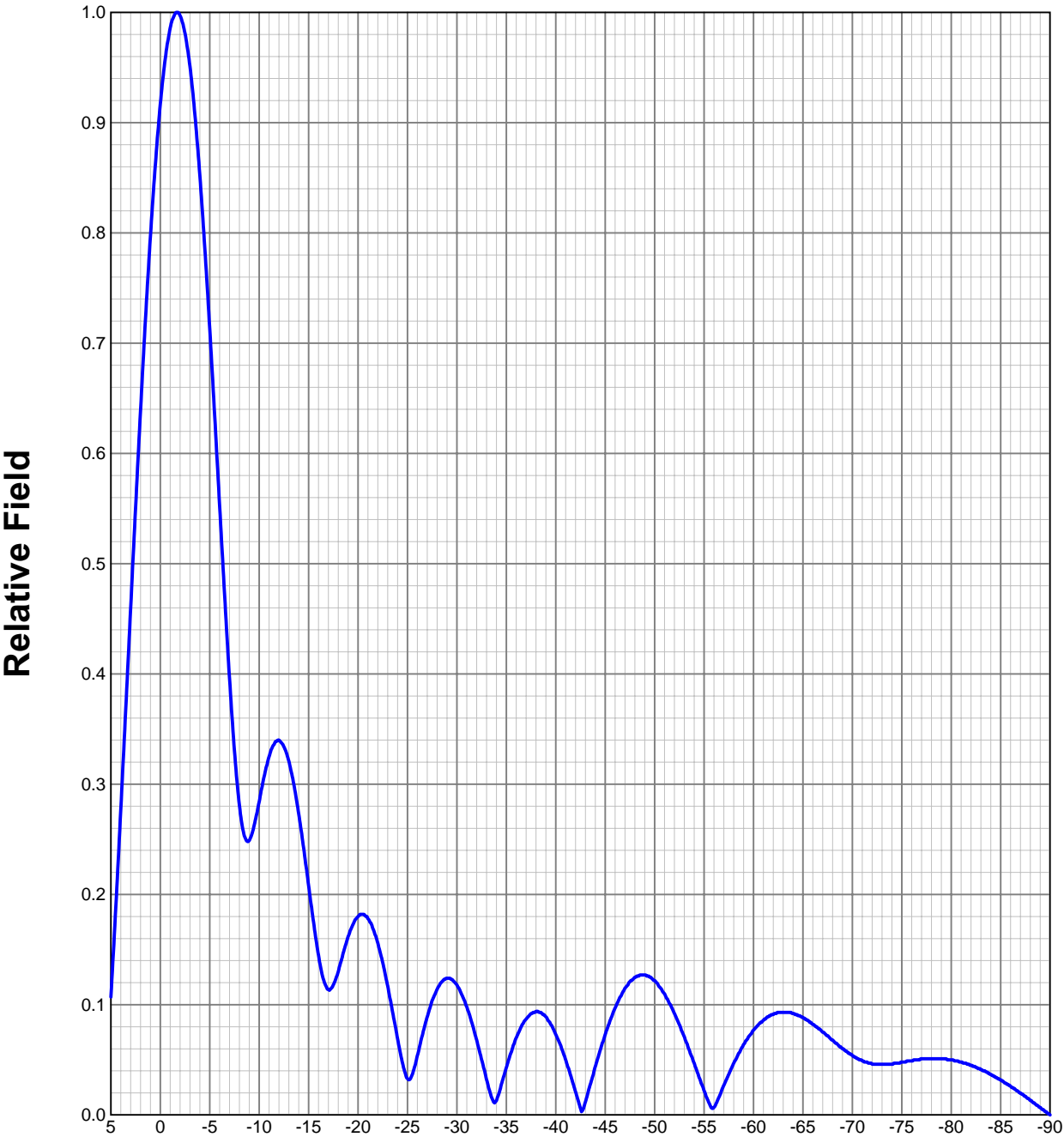
Polarization Horizontal

<i>ANGLE</i>	<i>FIELD</i>	<i>ERP (kW)</i>	<i>ERP (dBk)</i>
0	0.678	1.118	0.484
10	0.661	1.063	0.263
20	0.647	1.018	0.077
30	0.641	0.999	-0.004
40	0.645	1.012	0.051
50	0.663	1.069	0.290
60	0.694	1.171	0.687
70	0.734	1.310	1.173
80	0.781	1.483	1.712
90	0.829	1.671	2.230
100	0.876	1.866	2.709
110	0.918	2.049	3.116
120	0.953	2.209	3.441
130	0.979	2.331	3.675
140	0.995	2.408	3.816
150	1.000	2.432	3.859
160	0.995	2.408	3.816
170	0.979	2.331	3.675
180	0.953	2.209	3.441
190	0.918	2.049	3.116
200	0.876	1.866	2.709
210	0.829	1.671	2.230
220	0.781	1.483	1.712
230	0.734	1.310	1.173
240	0.694	1.171	0.687
250	0.663	1.069	0.290
260	0.645	1.012	0.051
270	0.641	0.999	-0.004
280	0.647	1.018	0.077
290	0.661	1.063	0.263
300	0.679	1.121	0.497
310	0.694	1.171	0.687
320	0.705	1.209	0.823
330	0.709	1.222	0.872
340	0.705	1.209	0.823
350	0.694	1.171	0.687

KGNS-DT
Proposed Modification

ELEVATION PATTERN

Type:	AL8		Channel:	15
Directivity:	Numeric	dBd	Location:	Laredo, TX
Main Lobe:	8.68	9.39	Beam Tilt:	-1.75
Horizontal:	7.30	8.63	Polarization:	Horizontal



KGNS-DT
Proposed Modification

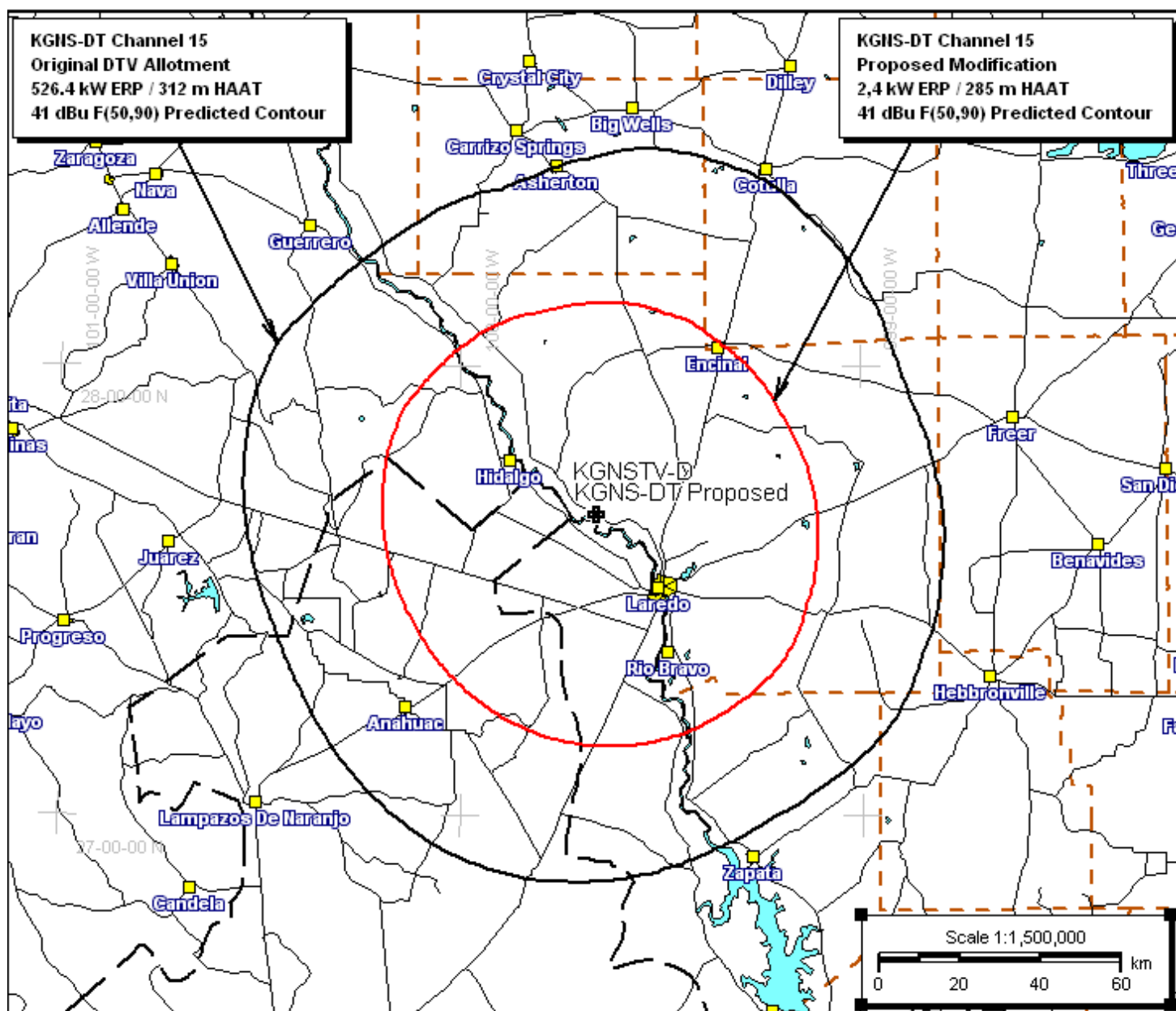
TABULATED DATA FOR ELEVATION PATTERN

Type: **AL8**

Polarization **Horizontal**

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	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

Figure 2



**KGNS-DT Channel 15
Laredo, Texas
Proposed Modification Application**

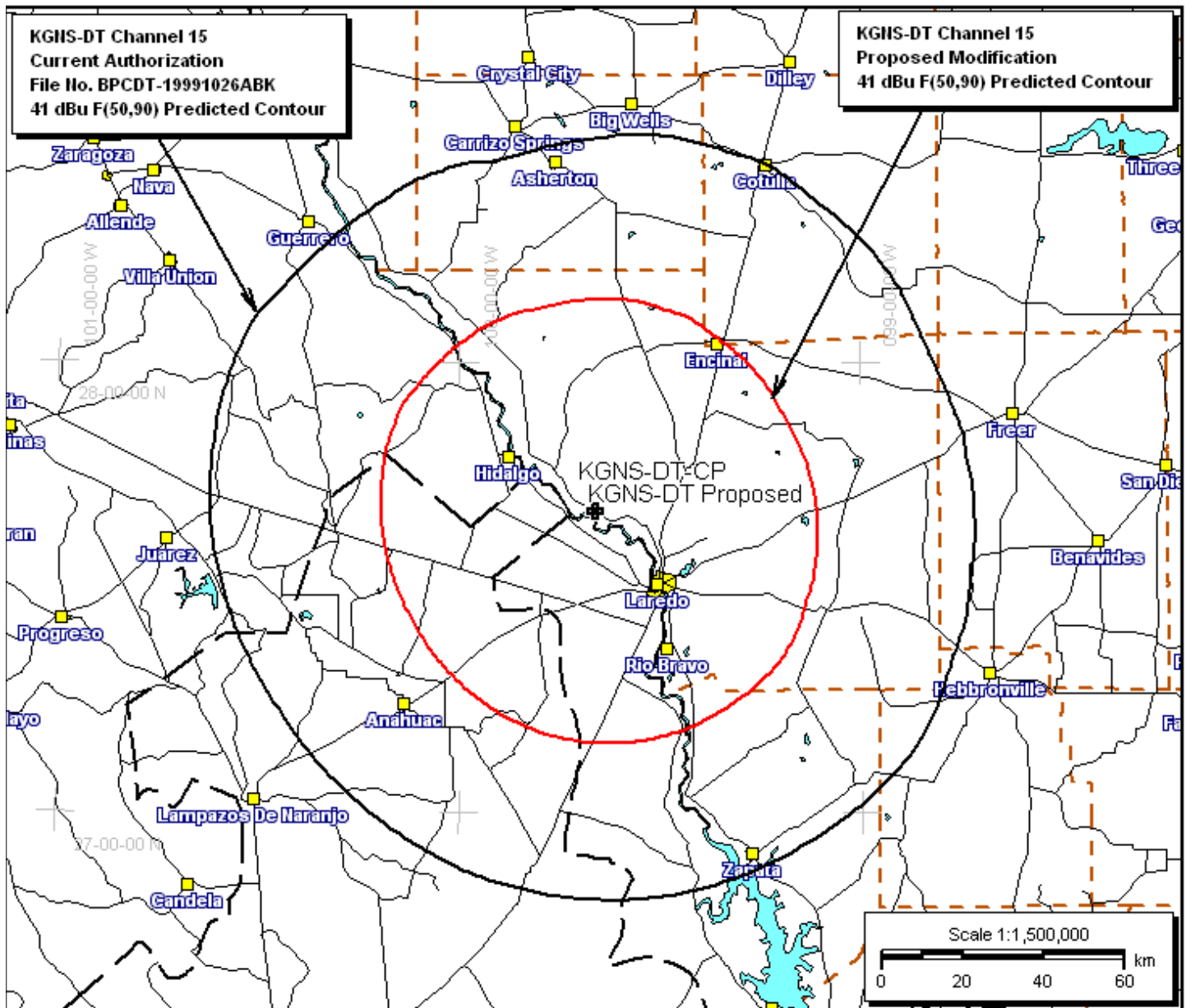
KGNS-DT Original DTV Allotment 526.4 kW ERP / 312 m HAAT 41 dBu Contour
compared to
KGNS-DT Proposed Modification 2.4 kW ERP / 285 m HAAT 41 dBu Contour

U.S. Population Count

KGNS-TV 1997 Facility
199,681

KGNS-DT Proposed Facility
193,291

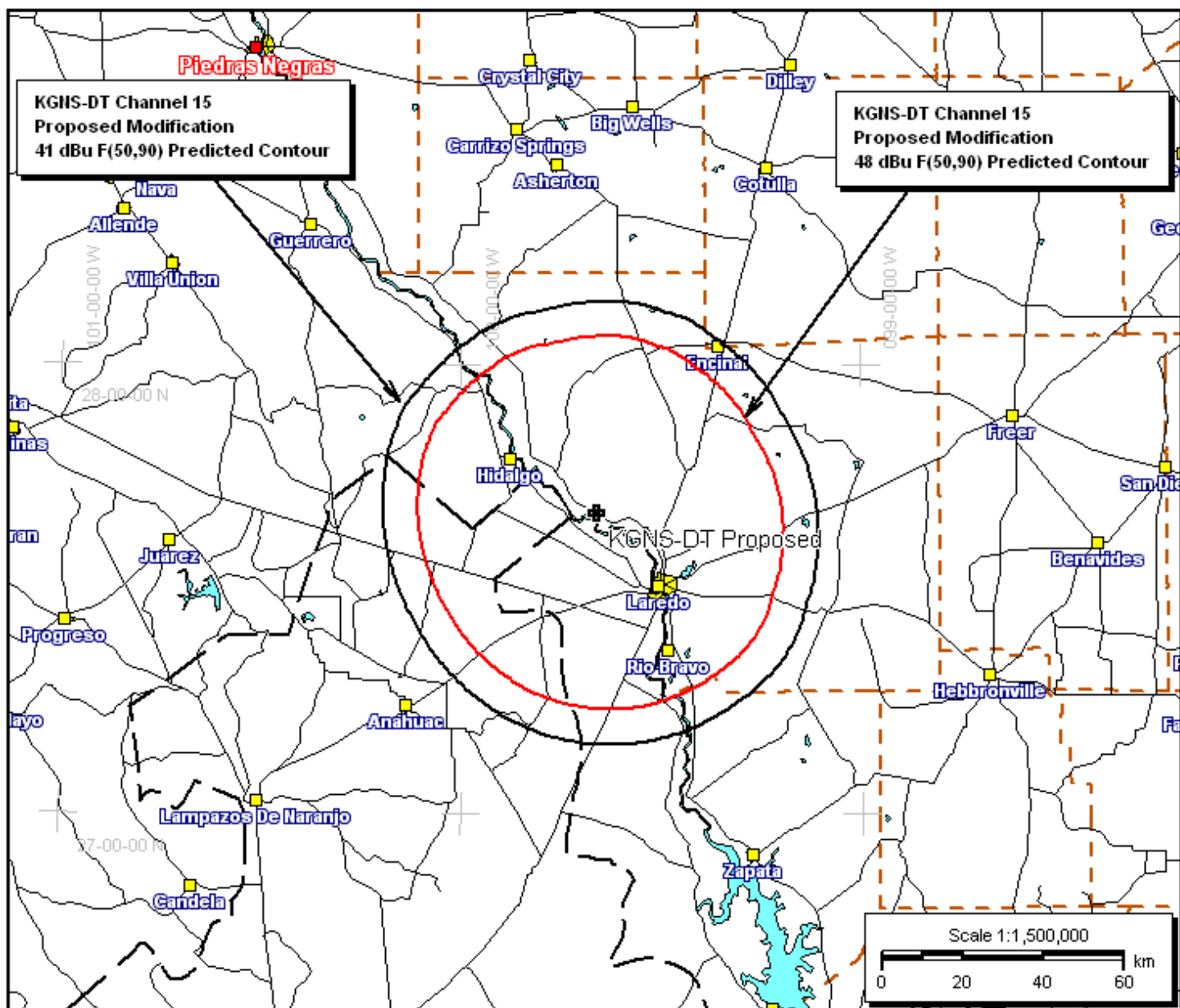
Figure 3



**KGNS-DT Channel 15
Laredo, Texas
Proposed Modification Application**

Showing the KGNS-DT Current Authorization 41 dBu F(50,90) Predicted Contour compared to
The KGNS-DT Proposed Modification 41 dBu F(50,90) Predicted Contour.

Figure 4



**KGNS-DT Channel 15
Laredo, Texas
Proposed Modification Application**

Principal City Coverage

This map shows that the KGNS-DT Proposed Modification 48 dBu F(50,90) predicted contour serves the entire city of Laredo, Texas.