

ENGINEERING STATEMENT
RE MINOR CHANGE APPLICATION
FOR DTV CONSTRUCTION PERMIT (BPCDT-19991021ABA)
ON BEHALF OF
YOUNG BROADCASTING OF SIOUX FALLS, INC.
KPLO-DT, RELIANCE, SOUTH DAKOTA
CHANNEL 13 40 KW ERP MAX DA 317.8 METERS HAAT

DECEMBER 2002

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WASHINGTON, D.C.

Introduction

This engineering statement has been prepared on behalf of Young Broadcasting of Sioux Falls, South Dakota ("Young Broadcasting"), licensee of KPLO-TV. The purpose of this engineering statement is to accompany its request for a modification to its DTV construction permit (BPCDT-19991021ABA). Specifically this minor modification involves the change of channel from 14 (470-476) to 13 (210-216) authorized by FCC MB Docket No. 02-101 (RM-10429).

Young Broadcasting operates station KPLO-TV on NTSC television Channel 6 (82-88 MHz) with a maximum effective radiated power (ERP) of 100 kW (non-directional) and an antenna height above average terrain (HAAT) of 338 meters (1108.9 feet). Young Broadcasting has been allotted DTV Channel 14 with facilities of 1000 kW and an HAAT of 338 meters in the revised DTV Table of Allotments.¹ Report and Order, MB Docket No. 02-101 (RM-10429) authorized Young Broadcasting to substitute DTV Channel 13 in place of DTV Channel 14. This Report and Order also authorizes an ERP of 40 kW and an HAAT of 338 meters.

KPLO-DT Tower

The DTV antenna will be side-mounted on an existing tower having a total overall structure height above ground of 219.0 meters (718.5 feet). The existing transmitter site is located at Medicine Butte, 6 miles north of Reliance, South Dakota. The tower has been registered under the number 1035406.

¹In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket No. 87-286, Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order. (FCC 98-24), 2/12/98, DTV Table of Allotments (Pg. B-43).

The geographic coordinates for the site are:

North Latitude: 43° 57' 57"

West Longitude: 99° 36' 11"

(NAD-27)

Antenna and Elevation Data

Antenna:	Dielectric	THA-P45P-2H/8HD-1-R
	Beam Tilt	0.40 electrical
	Directional Max. Power Gain	8.13 9.17 dB (See Exhibits E-2a - E-2d per §73.625.)
Elevation of the site above mean sea level:		662.0 meters (2171.9 feet)
Elevation of the top of existing supporting structure above ground including appurtenances		219.0 meters (718.5 feet)
Elevation of the top of supporting structure above mean sea level including appurtenances		881.0 meters (2890.4 feet)
Height of DTV antenna radiation center meters above ground		182.9 meters (600 feet)
Height of DTV antenna radiation center above mean sea level		844.9 meters (2772.0 feet)
Height of DTV antenna radiation center above average terrain		317.8 meters (1042.7 feet)

Note: Slight height differences result due to conversion to metric.

Allocation

An allocation study from the proposed site has not been included here since the proposed DTV facilities will radiate an ERP in every direction that is either less than or equal to that authorized for the KPLO-DT facilities in the Report and Order, MB Docket No. 02-101 (RM-10429).

Interference Analysis

A complete interference analysis study was completed and filed with the Commission as a part of the Petition for Rule Making (BPRM-20020219ABH). Since the proposed facilities match the facilities authorized by Report and Order, MB Docket 02-101 (RM-10429) in every way with the exception of a slight reduction in height, no new interference issues can be caused by the proposed facilities. Hence, a complete analysis is not required.

Principal Community Coverage

In MM Docket No. 00-39, the Commission adopted rules to require DTV stations to place a stronger TV signal over the principal community.

The operation proposed by Station KPLO-DT places a predicted 43 dBu contour over the community of Reliance, South Dakota.

Topographic Data

The average elevation data of the eight cardinal radials from 3.2 to 16.1 kilometers, is based on the NGDC 3-second computerized terrain database.

Contour Data

Utilizing the formula in Section 73.625(b)(2) for the effective heights shown on the attached tabulation, the depression angle A_h , for each azimuth has been calculated. The maximum radiation value has been used to calculate ERP where the vertical radiation pattern at these angles is greater than 90% of the maximum.

Table I provides the distances along the radials spaced every 10 degrees to the predicted F(50,90) 43 and 36 dBu contours, the average elevations, and the effective antenna heights.

The distances along each radial to the limits of F(50,90) 43 dBu and 36 dBu contours were determined as specified in Section 73.625(b) by reference to the propagation data for Channels 7-13, as published by the Commission in Figures 10 and 10a, Section 73.699 of its rules.

Other Stations

There are two FM and four TV broadcast stations located within 5 km of the proposed site. No objectionable interference problems are anticipated, however, if any problems occur, the permittee will take the necessary steps to resolve them. There are no AM stations within 3.22 km of the proposed site.

The following three broadcast stations are operating from the tower:

KPLO-TV

KPLO-DT

KPLO-FM

The radiofrequency field level (“RFF”) contribution of these stations will be calculated and summed to create final representative value.

Station KPLO-TV

Channel 6 Freq: 82-88 MHz Range

$$S = \frac{33.4 (F^2) ERP}{R^2}$$

ERP =	100 kW (Horizontal only)
R =	200 meters (antenna height above ground -2 meters)
F =	0.2 (assumed)

$$S = <1.67 \mu\text{W}/\text{cm}^2$$

The limit for an uncontrolled environment (general population) for this frequency is 200 $\mu\text{W}/\text{cm}^2$.

KPLO-TV contributes less than 0.84% RFF level for an uncontrolled environment (general population) two meters above the ground.

Station KPLO-DT

Channel 13 Freq: 210-216 MHz Range

$$S = \frac{33.4 (F^2) ERP}{R^2}$$

ERP =	40 watts (Horizontal only)
R =	180.6 meters (antenna height above ground -2 meters)
F =	0.033 (manufacturer data)

$$S = <0.05 \mu\text{W}/\text{cm}^2$$

The limit for an uncontrolled environment (general population) for this frequency is 200 $\mu\text{W}/\text{cm}^2$.

KPLO-DT contributes less than 0.02% RFF level for an uncontrolled environment (general population) two meters above the ground.

Station KPLO-FM (application to be filed)

Channel 233C Freq: 94.5 MHz

$$S = \frac{33.4 (F^2) ERP}{R^2} \quad \begin{array}{l} ERP = 95.0 \text{ kW (H) \& 95.0 kW (V)} \\ R = 159.5 \text{ meters (antenna height above ground -2 meters)} \\ F = 0.2 \text{ (assumed)} \end{array}$$

$$S = <9.98 \mu\text{W}/\text{cm}^2$$

The limit for an uncontrolled environment (general population) for this frequency is $200 \mu\text{W}/\text{cm}^2$.

KPLO-FM contributes less than 4.99% RFF level for an uncontrolled environment (general population) two meters above the ground.

Therefore the total RF percentage two meters above the ground at the highest RFF point will still be less than 6.0% of the limit, when all transmitters on the tower are operational.

The permittee indicates that all authorized personnel climbing the tower will be alerted to the potential zones of high radiation, and if necessary, the station will operate with reduced power or terminated power should the situation require.

Summary of Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations since the permittee indicates:

- (a)(1) The proposed facilities on the existing tower will not be located in an officially designated wilderness area.
- (a)(2) The proposed facilities on the existing tower will not be located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities on the existing tower will not affect any listed threatened or endangered species or habitats.

- (a)(3)(ii) The proposed facilities on the existing tower will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities on the existing tower will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The proposed facilities on the existing tower will not be located near any known Indian religious sites.
- (a)(6) The proposed facilities on the existing tower will not be located in a flood plain.
- (a)(7) The installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines. Authorized personnel will be alerted to areas of the antennas where potential radiation levels are in excess of the FCC guidelines.

TABLE I
DTV COVERAGE DATA
FOR PROPOSED OPERATION OF
KPLO-DT, RELIANCE, SOUTH DAKOTA
CHANNEL 13 40.0 KW ERP 317.8 METERS HAAT
DECEMBER 2002

<u>Radial</u>	<u>Effective</u>	<u>Average</u>		<u>Distance to Contour</u>	
<u>N ° E, T</u>	<u>Height</u>	<u>Elevation</u>	<u>ERP</u>	<u>43 dBu</u>	<u>36 dBu</u>
	<u>meters</u>	<u>meters</u>	<u>kW</u>	<u>km</u>	<u>km</u>
0	320.6	524.3	18.7	86.2	98.7
10	349.1	495.8	15.3	86.8	99.3
20	363.9	481.0	15.6	88.0	100.6
30	367.6	477.3	20.1	90.3	102.9
40	363.9	481.0	26.8	92.2	105.0
50	361.7	483.2	33.1	93.7	106.6
60	359.5	485.4	37.3	94.5	107.5
70	362.6	482.3	39.6	95.2	108.3
80	371.0	473.9	39.7	95.8	108.9
90	370.3	474.6	38.3	95.5	108.6
100	363.8	481.1	35.6	94.5	107.5
110	356.4	488.5	31.8	93.0	105.9
120	347.4	497.5	27.6	91.2	104.0
130	330.3	514.6	23.9	88.8	101.5
140	319.5	525.4	23.9	88.0	100.6
150	324.3	520.6	28.0	89.6	102.3
160	323.0	521.9	32.8	90.7	103.5
170	314.0	530.9	33.7	90.2	103.0
180	303.5	541.4	29.1	88.4	100.9
190	305.9	539.0	21.5	86.2	98.7
200	305.9	539.0	15.0	83.6	95.9
210	302.8	542.1	13.0	82.3	94.5
220	299.1	545.8	15.9	83.5	95.8
230	296.1	548.8	20.7	85.4	97.7
240	297.9	547.0	25.0	86.9	99.3
250	298.0	546.9	27.9	87.7	100.2
260	296.6	548.3	28.7	87.9	100.3
270	295.0	549.9	27.5	87.5	99.9
280	302.5	542.4	25.0	87.2	99.6

TABLE I
DTV COVERAGE DATA
FOR PROPOSED OPERATION OF
KPLO-DT, RELIANCE, SOUTH DAKOTA
CHANNEL 13 40.0 KW ERP 317.8 METERS HAAT
DECEMBER 2002
 (continued)

<u>Radial</u>	<u>Effective</u>	<u>Average</u>		<u>Distance to Contour</u>	
N ° E, T	<u>Height</u>	<u>Elevation</u>	<u>ERP</u>	<u>43 dBu</u>	<u>36 dBu</u>
	meters	meters	kW	km	km
290	309.8	535.1	21.8	86.6	99.1
300	305.1	539.8	18.2	84.9	97.3
310	302.8	542.1	15.6	83.6	95.9
320	301.6	543.3	16.7	84.1	96.4
330	301.7	543.2	22.1	86.2	98.6
340	299.3	545.6	28.3	87.9	100.4
350	297.8	547.1	30.3	88.4	100.9

ABOVE MEAN SEA LEVEL

ABOVE GROUND

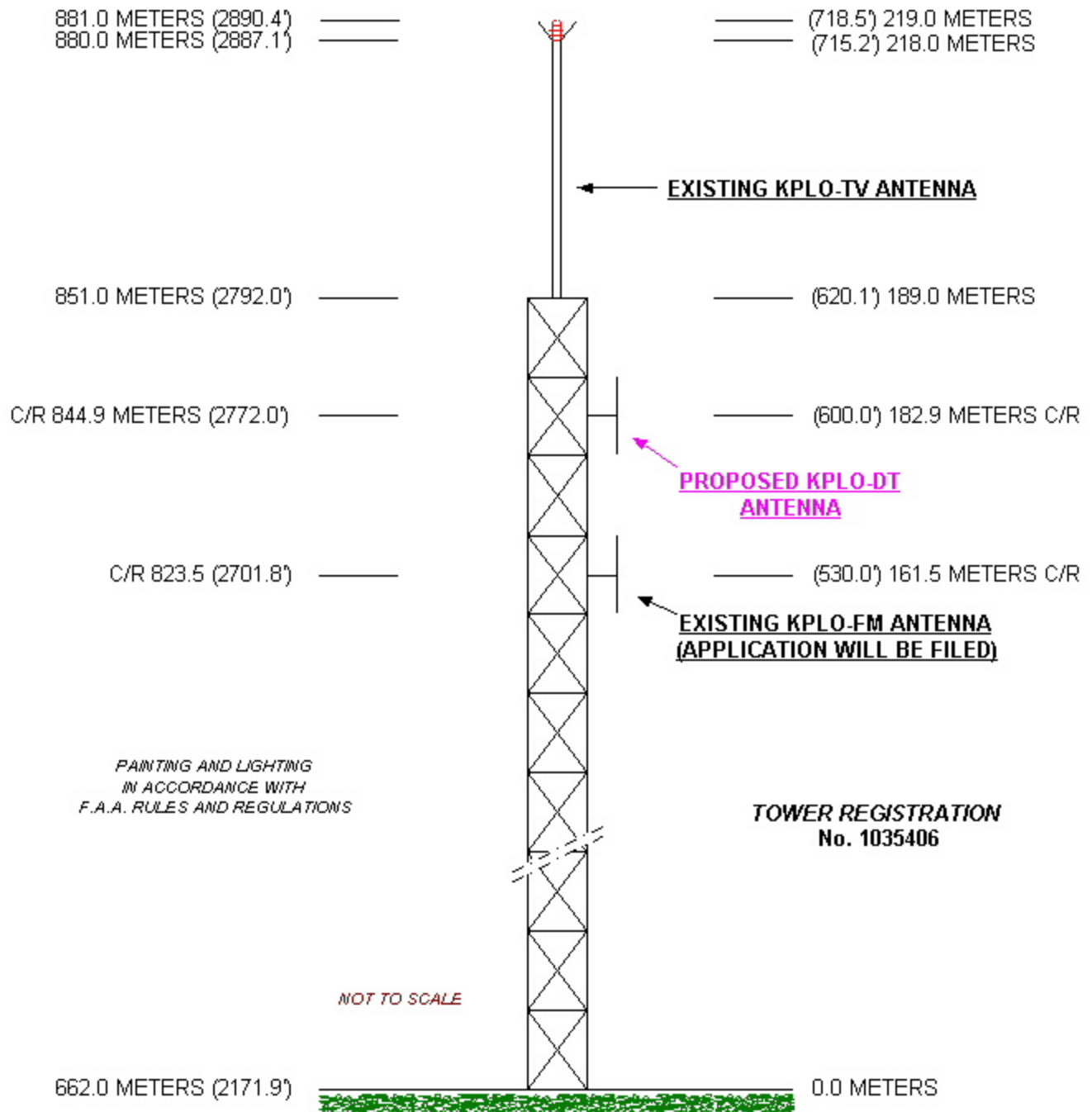


EXHIBIT E-1
VERTICAL SKETCH
FOR THE PROPOSED OPERATION OF
KPLO-DT, RELIANCE, SOUTH DAKOTA
DECEMBER 2002

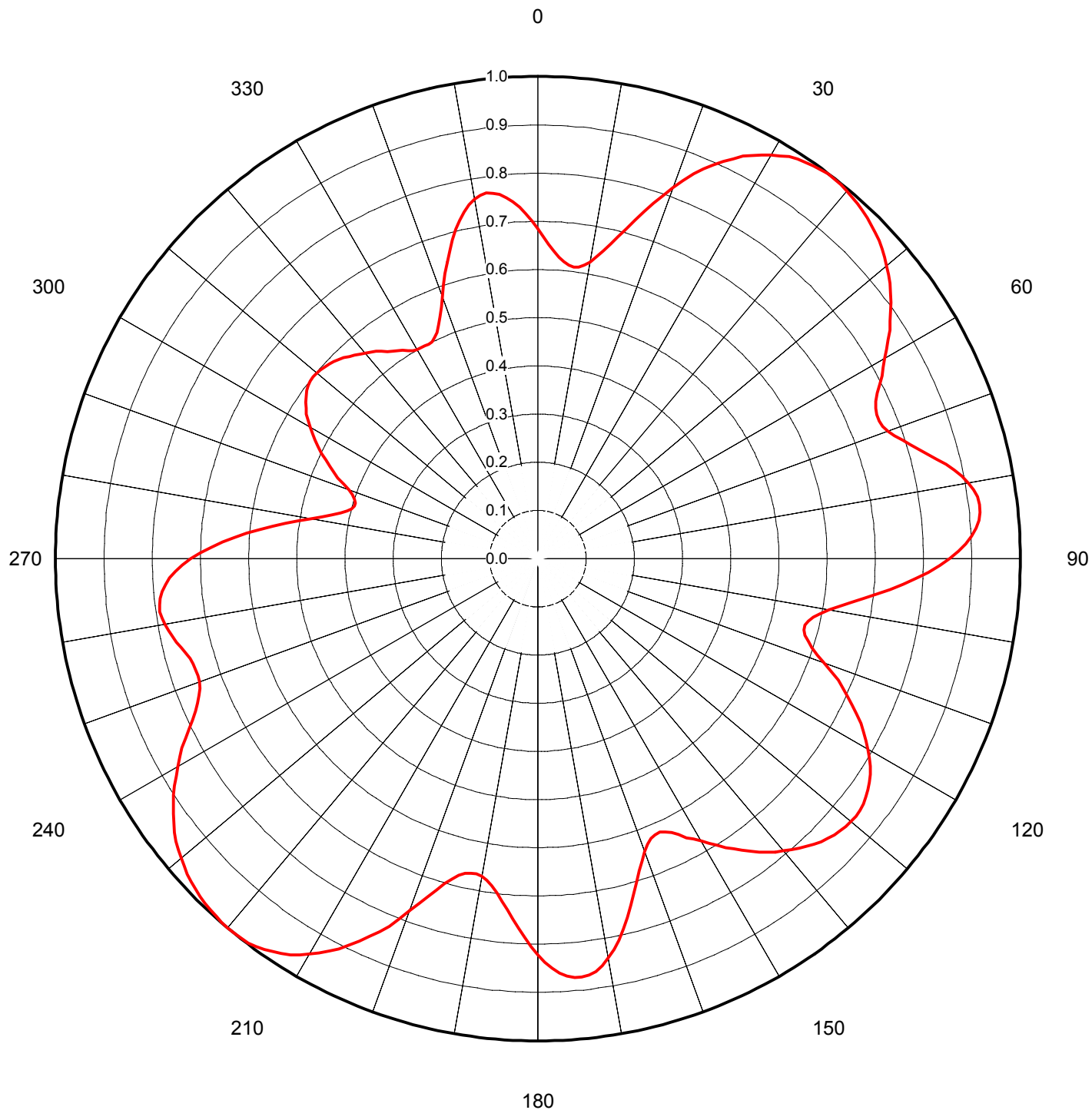


Proposal Number	DCA-9660	Revision:	1
Date	13-Nov-02		
Call Letters	KPLO	Channel	13
Location	Reliance, SD		
Customer			
Antenna Type	THA-P4SP-2H/8HD-1-R		

AZIMUTH PATTERN

Gain	1.71	(2.34 dB)
Calculated / Measured	Calculated	

Frequency	213.00 MHz
Drawing #	THA-P4SP-213





Proposal Number	DCA-9660	Revision:	1
Date	13-Nov-02		
Call Letters	KPLO	Channel	13
Location	Reliance, SD		
Customer			
Antenna Type	THA-P4SP-2H/8HD-1-R		

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **THA-P4SP-213**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.684	45	0.978	90	0.853	135	0.829	180	0.822	225	0.990	270	0.719	315	0.584
1	0.667	46	0.973	91	0.832	136	0.823	181	0.804	226	0.986	271	0.699	316	0.579
2	0.651	47	0.967	92	0.809	137	0.815	182	0.785	227	0.982	272	0.677	317	0.573
3	0.638	48	0.960	93	0.785	138	0.808	183	0.767	228	0.977	273	0.655	318	0.568
4	0.627	49	0.952	94	0.759	139	0.800	184	0.749	229	0.972	274	0.631	319	0.562
5	0.618	50	0.944	95	0.733	140	0.791	185	0.731	230	0.965	275	0.606	320	0.556
6	0.612	51	0.936	96	0.706	141	0.782	186	0.714	231	0.959	276	0.580	321	0.551
7	0.609	52	0.927	97	0.679	142	0.773	187	0.698	232	0.952	277	0.553	322	0.545
8	0.610	53	0.915	98	0.655	143	0.762	188	0.685	233	0.943	278	0.528	323	0.538
9	0.615	54	0.904	99	0.633	144	0.750	189	0.675	234	0.932	279	0.502	324	0.531
10	0.624	55	0.892	100	0.613	145	0.738	190	0.668	235	0.922	280	0.478	325	0.525
11	0.637	56	0.881	101	0.596	146	0.726	191	0.665	236	0.911	281	0.456	326	0.519
12	0.653	57	0.870	102	0.584	147	0.715	192	0.666	237	0.901	282	0.436	327	0.515
13	0.670	58	0.856	103	0.575	148	0.701	193	0.670	238	0.888	283	0.420	328	0.509
14	0.688	59	0.843	104	0.571	149	0.688	194	0.677	239	0.874	284	0.408	329	0.504
15	0.709	60	0.830	105	0.571	150	0.675	195	0.688	240	0.861	285	0.399	330	0.501
16	0.730	61	0.819	106	0.576	151	0.665	196	0.702	241	0.848	286	0.395	331	0.499
17	0.753	62	0.809	107	0.586	152	0.655	197	0.719	242	0.836	287	0.396	332	0.500
18	0.774	63	0.795	108	0.597	153	0.642	198	0.736	243	0.820	288	0.399	333	0.499
19	0.796	64	0.782	109	0.612	154	0.632	199	0.756	244	0.804	289	0.406	334	0.500
20	0.818	65	0.773	110	0.630	155	0.624	200	0.777	245	0.790	290	0.417	335	0.506
21	0.840	66	0.766	111	0.650	156	0.621	201	0.800	246	0.777	291	0.431	336	0.514
22	0.862	67	0.763	112	0.671	157	0.622	202	0.823	247	0.766	292	0.448	337	0.526
23	0.878	68	0.763	113	0.687	158	0.626	203	0.841	248	0.757	293	0.460	338	0.541
24	0.894	69	0.766	114	0.703	159	0.634	204	0.858	249	0.750	294	0.472	339	0.559
25	0.909	70	0.773	115	0.719	160	0.646	205	0.875	250	0.746	295	0.485	340	0.579
26	0.923	71	0.782	116	0.735	161	0.662	206	0.892	251	0.745	296	0.498	341	0.600
27	0.936	72	0.795	117	0.751	162	0.681	207	0.908	252	0.747	297	0.512	342	0.622
28	0.947	73	0.807	118	0.765	163	0.700	208	0.922	253	0.748	298	0.523	343	0.643
29	0.957	74	0.821	119	0.777	164	0.722	209	0.934	254	0.750	299	0.534	344	0.664
30	0.966	75	0.836	120	0.790	165	0.744	210	0.946	255	0.755	300	0.545	345	0.684
31	0.975	76	0.852	121	0.802	166	0.766	211	0.958	256	0.761	301	0.555	346	0.703
32	0.983	77	0.868	122	0.813	167	0.788	212	0.969	257	0.769	302	0.565	347	0.720
33	0.987	78	0.882	123	0.821	168	0.808	213	0.976	258	0.775	303	0.573	348	0.735
34	0.991	79	0.895	124	0.828	169	0.826	214	0.983	259	0.780	304	0.580	349	0.747
35	0.995	80	0.906	125	0.835	170	0.841	215	0.989	260	0.785	305	0.586	350	0.756
36	0.997	81	0.914	126	0.840	171	0.854	216	0.994	261	0.789	306	0.592	351	0.762
37	1.000	82	0.921	127	0.845	172	0.864	217	0.998	262	0.792	307	0.597	352	0.765
38	0.999	83	0.923	128	0.847	173	0.870	218	0.999	263	0.790	308	0.599	353	0.764
39	0.998	84	0.922	129	0.848	174	0.872	219	1.000	264	0.787	309	0.599	354	0.759
40	0.996	85	0.918	130	0.847	175	0.871	220	1.000	265	0.782	310	0.599	355	0.752
41	0.993	86	0.911	131	0.846	176	0.867	221	0.999	266	0.774	311	0.597	356	0.742
42	0.990	87	0.900	132	0.843	177	0.860	222	0.997	267	0.764	312	0.594	357	0.730
43	0.987	88	0.888	133	0.840	178	0.850	223	0.995	268	0.752	313	0.592	358	0.716
44	0.983	89	0.872	134	0.835	179	0.837	224	0.993	269	0.737	314	0.588	359	0.700

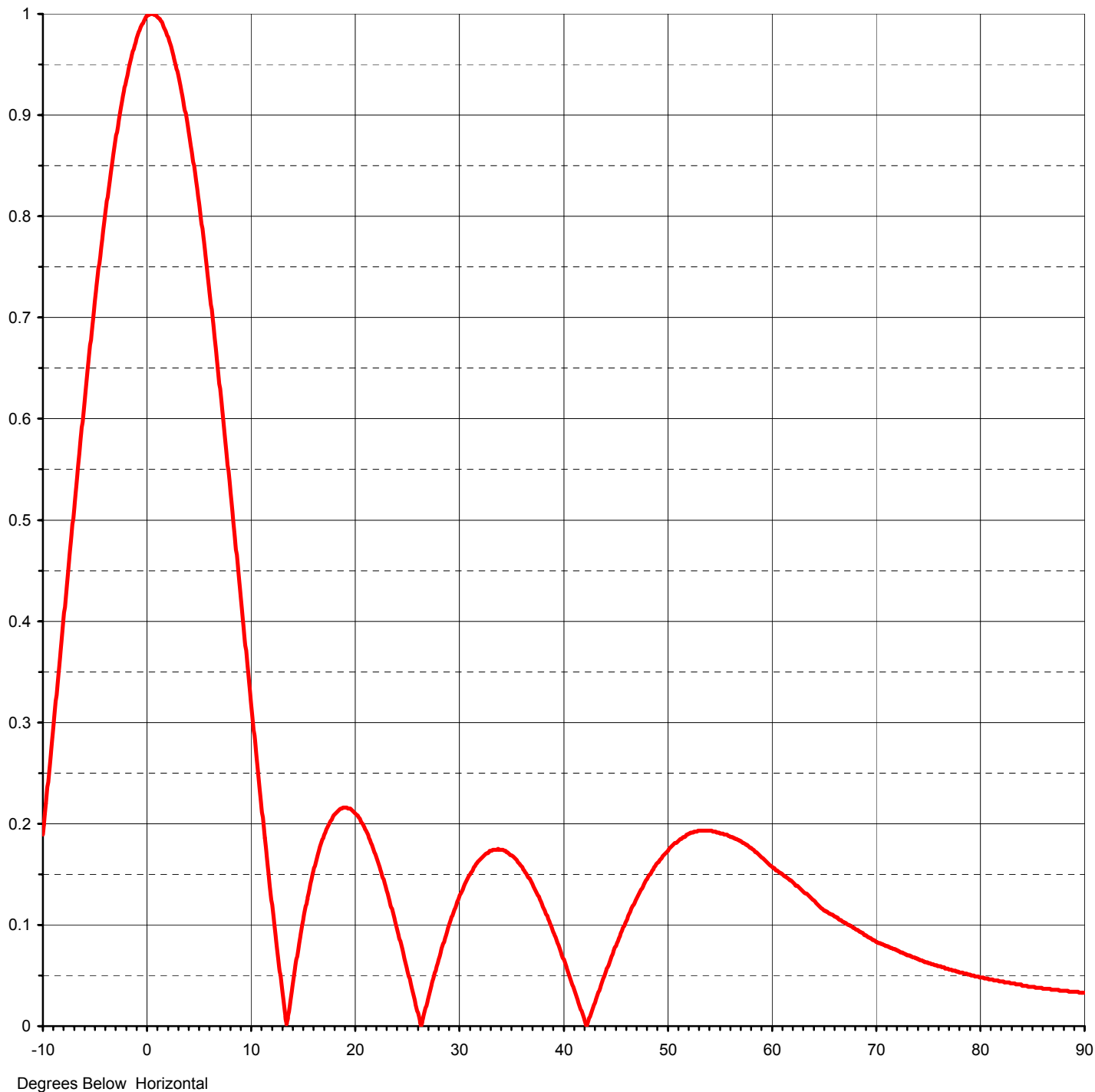


Proposal Number	DCA-9660	Revision:	1
Date	13-Nov-02		
Call Letters	KPLO	Channel	13
Location	Reliance, SD		
Customer			
Antenna Type	THA-P4SP-2H/8HD-1-R		

ELEVATION PATTERN

RMS Gain at Main Lobe	4.82	(6.83 dB)
RMS Gain at Horizontal	4.80	(6.81 dB)
Calculated / Measured	Calculated	

Beam Tilt	0.40 deg
Frequency	213.00 MHz
Drawing #	02H048000-S213-90





Proposal Number **DCA-9660** Revision: **1**
 Date **13-Nov-02**
 Call Letters **KPLO** Channel **13**
 Location **Reliance, SD**
 Customer
 Antenna Type **THA-P4SP-2H/8HD-1-R**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **02H048000-S213-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.189	2.4	0.964	10.6	0.266	30.5	0.138	51.0	0.182	71.5	0.077
-9.5	0.241	2.6	0.956	10.8	0.246	31.0	0.148	51.5	0.186	72.0	0.075
-9.0	0.294	2.8	0.948	11.0	0.226	31.5	0.157	52.0	0.189	72.5	0.073
-8.5	0.349	3.0	0.939	11.5	0.177	32.0	0.164	52.5	0.191	73.0	0.070
-8.0	0.403	3.2	0.929	12.0	0.129	32.5	0.169	53.0	0.193	73.5	0.068
-7.5	0.458	3.4	0.919	12.5	0.084	33.0	0.173	53.5	0.193	74.0	0.066
-7.0	0.512	3.6	0.907	13.0	0.041	33.5	0.174	54.0	0.193	74.5	0.064
-6.5	0.565	3.8	0.896	13.5	0.002	34.0	0.174	54.5	0.192	75.0	0.062
-6.0	0.617	4.0	0.883	14.0	0.035	34.5	0.173	55.0	0.191	75.5	0.061
-5.5	0.668	4.2	0.870	14.5	0.069	35.0	0.169	55.5	0.189	76.0	0.059
-5.0	0.717	4.4	0.857	15.0	0.100	35.5	0.165	56.0	0.188	76.5	0.058
-4.5	0.761	4.6	0.843	15.5	0.127	36.0	0.158	56.5	0.186	77.0	0.056
-4.0	0.803	4.8	0.828	16.0	0.150	36.5	0.151	57.0	0.183	77.5	0.055
-3.5	0.842	5.0	0.813	16.5	0.170	37.0	0.142	57.5	0.180	78.0	0.053
-3.0	0.877	5.2	0.796	17.0	0.186	37.5	0.132	58.0	0.176	78.5	0.052
-2.8	0.889	5.4	0.779	17.5	0.198	38.0	0.121	58.5	0.172	79.0	0.051
-2.6	0.902	5.6	0.762	18.0	0.208	38.5	0.109	59.0	0.168	79.5	0.049
-2.4	0.913	5.8	0.744	18.5	0.213	39.0	0.096	59.5	0.163	80.0	0.048
-2.2	0.924	6.0	0.726	19.0	0.216	39.5	0.082	60.0	0.158	80.5	0.047
-2.0	0.935	6.2	0.708	19.5	0.215	40.0	0.068	60.5	0.154	81.0	0.046
-1.8	0.944	6.4	0.689	20.0	0.211	40.5	0.054	61.0	0.151	81.5	0.045
-1.6	0.953	6.6	0.670	20.5	0.205	41.0	0.039	61.5	0.147	82.0	0.044
-1.4	0.961	6.8	0.650	21.0	0.196	41.5	0.024	62.0	0.143	82.5	0.043
-1.2	0.969	7.0	0.630	21.5	0.184	42.0	0.009	62.5	0.139	83.0	0.042
-1.0	0.976	7.2	0.610	22.0	0.170	42.5	0.006	63.0	0.134	83.5	0.041
-0.8	0.982	7.4	0.590	22.5	0.155	43.0	0.021	63.5	0.130	84.0	0.040
-0.6	0.987	7.6	0.570	23.0	0.138	43.5	0.035	64.0	0.125	84.5	0.040
-0.4	0.991	7.8	0.549	23.5	0.119	44.0	0.049	64.5	0.119	85.0	0.039
-0.2	0.995	8.0	0.528	24.0	0.100	44.5	0.063	65.0	0.114	85.5	0.038
0.0	0.998	8.2	0.508	24.5	0.080	45.0	0.077	65.5	0.111	86.0	0.037
0.2	0.999	8.4	0.487	25.0	0.059	45.5	0.089	66.0	0.108	86.5	0.037
0.4	1.000	8.6	0.466	25.5	0.038	46.0	0.102	66.5	0.105	87.0	0.036
0.6	1.000	8.8	0.444	26.0	0.017	46.5	0.113	67.0	0.102	87.5	0.036
0.8	0.999	9.0	0.423	26.5	0.004	47.0	0.124	67.5	0.099	88.0	0.035
1.0	0.997	9.2	0.402	27.0	0.024	47.5	0.134	68.0	0.096	88.5	0.034
1.2	0.995	9.4	0.381	27.5	0.044	48.0	0.144	68.5	0.093	89.0	0.034
1.4	0.992	9.6	0.360	28.0	0.062	48.5	0.152	69.0	0.090	89.5	0.033
1.6	0.987	9.8	0.350	28.5	0.080	49.0	0.160	69.5	0.087	90.0	0.033
1.8	0.983	10.0	0.329	29.0	0.097	49.5	0.166	70.0	0.083		
2.0	0.977	10.2	0.308	29.5	0.112	50.0	0.172	70.5	0.081		
2.2	0.971	10.4	0.287	30.0	0.125	50.5	0.178	71.0	0.079		

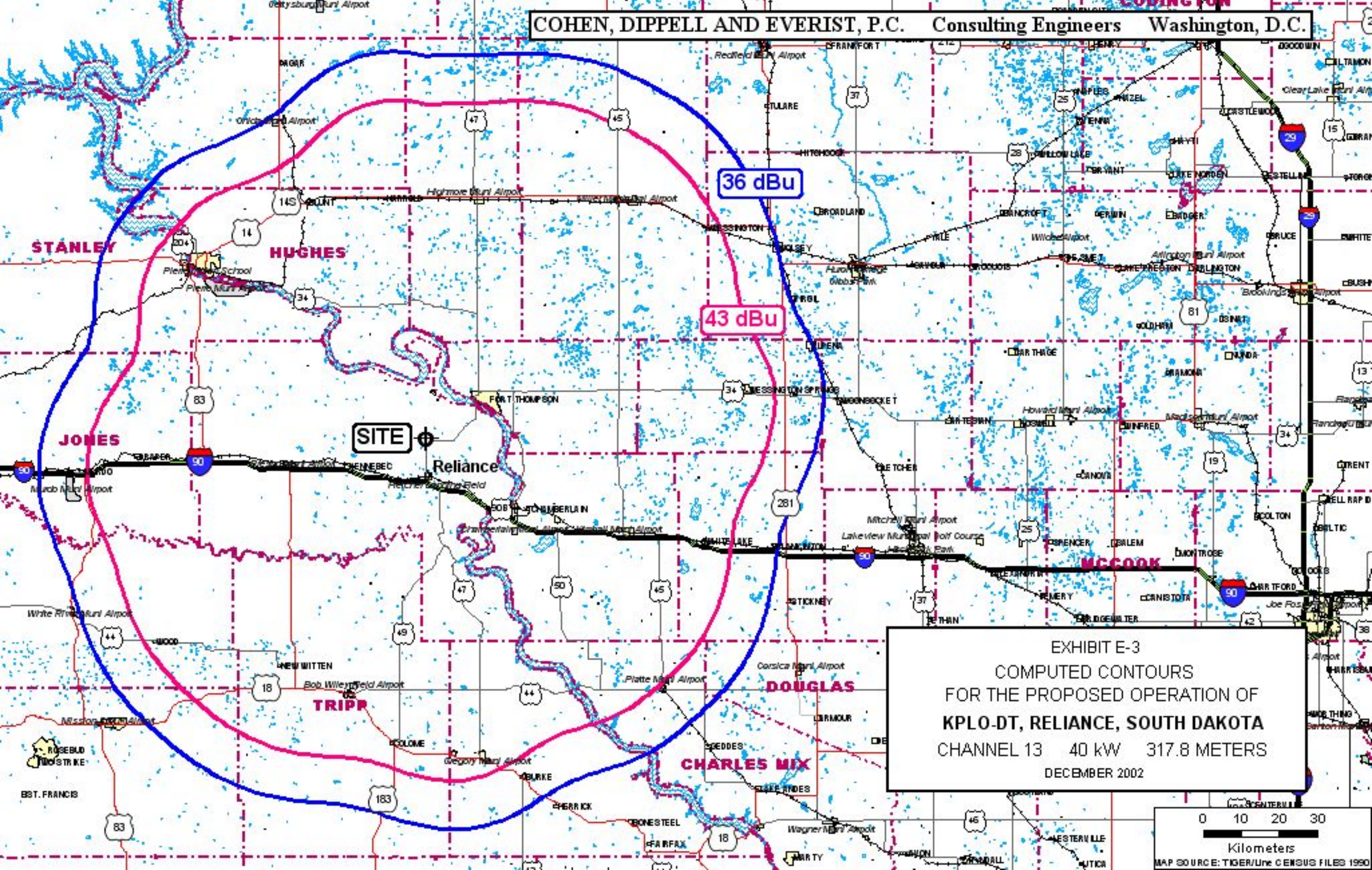


EXHIBIT E-3
COMPUTED CONTOURS
FOR THE PROPOSED OPERATION OF
KPLO-DT, RELIANCE, SOUTH DAKOTA
CHANNEL 13 40 kW 317.8 METERS
DECEMBER 2002

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

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).

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	Relationship to Applicant (e.g., Consulting Engineer)	
Signature	Date	
Mailing Address		
City	State or Country (if foreign address)	ZIP Code
Telephone Number (include area code)	E-Mail Address (if available)	

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).

SECTION III-D - DTV Engineering

Complete Questions 1-5 of the Certification Checklist and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Certification Checklist: A correct answer of "Yes" to all of the questions below will ensure an expeditious grant of a construction permit. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:

- (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
 - (b) It will operate from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
 - (c) It will operate with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. ☐ Yes ☐ No
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. ☐ Yes ☐ No

Applicant must **submit the Exhibit** called for in Item 13.

- ☐ Yes ☐ No
3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. ☐ Yes ☐ No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. ☐ Yes ☐ No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7. ☐ Yes ☐ No

SECTION III-D DTV Engineering

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: DTV _____ Analog TV, if any _____
2. Zone: ☐ I ☐ II ☐ III
3. Antenna Location Coordinates: (NAD 27)
- _____ ° _____ ' _____ " ☐ N ☐ S Latitude
_____ ° _____ ' _____ " ☐ E ☐ W Longitude
4. Antenna Structure Registration Number: _____
- ☐ Not applicable ☐ FAA Notification Filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level: _____ meters
6. Overall Tower Height Above Ground Level: _____ meters
7. Height of Radiation Center Above Ground Level: _____ meters
8. Height of Radiation Center Above Average Terrain: _____ meters
9. Maximum Effective Radiated Power (average power): _____ kW
10. Antenna Specifications:
- a.

Manufacturer	Model
--------------	-------
- b. Electrical Beam Tilt: _____ degrees ☐ Not Applicable
- c. Mechanical Beam _____ degrees toward azimuth _____ degrees True ☐ Not Applicable
- Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). Exhibit No.
- d. Polarization: ☐ Horizontal ☐ Circular ☐ Elliptical

TECH BOX

e. Directional Antenna Relative Field Values: ☐ Not applicable (Nondirectional)

Rotation: _____ ° ☐ No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the interference protection provisions of 47 C.F.R. Section 73.623(a)? (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") ☐ Yes ☐ No

If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

Exhibit No.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefor. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

- a. If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, 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.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.