TECHNICAL EXHIBIT
APPLICATION FOR FM CONSTRUCTION PERMIT
FM BOOSTER
RADIO STATION KPKK(FM)
PROVO, UTAH

NOVEMBER 11, 2002

CH 268 0.15 KW (MAX-DA)

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Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for a new FM booster station to be located at Provo, Utah. The primary station will be KPKK(FM) on Channel 268C assigned to Oakley, Utah. This proposal seeks authorization for a new booster facility to serve the Provo area.

Proposed Transmitter Location

The directional transmitting antenna will be a circular-polarized NiCom directional antenna side-mounted on an existing tower. The manufacturer provided specifications for the antenna are provided in the Appendix.

The location is uniquely described by the following geographic coordinates:

40° 19′ 22″ North Latitude
111° 40′ 12″ West Longitude

A map showing the transmitter location is included herein as Figure 1. A sketch showing the proposed antenna and supporting structure is shown on Figure 2. This proposed KPKK(FM) booster transmitting facility will be diplexed into

the KWKD-FM American Fork and Provo, Utah booster antennas.[1] [2] Therefore, since the KWKD-FM and KPPK(FM) booster antennas will share the same antenna, there will obviously not be any pattern distortion issues.

Coverage Contours

Figure 3 is a map showing the proposed booster station's 60 dBu (1.0 mV/m) coverage contour encompassed by the primary station's (KPKK(FM), Channel 268C, Oakley, Utah) 60 dBu protected contour.[3] Eight equally spaced radials are used to define KPKK(FM) coverage contour. Since the proposed booster will employ a directional antenna, eight equally spaced radials were employed in the coverage contour calculation.

Allocation Study

The proposed booster facility appears to satisfy the protection requirements toward first adjacent channel stations as required by Section 74.1204(i) of the Commission's Rules as to all facilities.

[1] See FCC File Number: KWKD-FM booster authorizations BLFTB-20010725AFF and BLFTB-20010725AFH.
[2] KWKD-FM also has two auxiliary authorizations at the proposed transmitter site (BXPH-20010103ABR and BXPH-20001228ABF) using directional antennas. However, KWKD-FM does not intend to implement these facilities. Therefore, concern of the KWKD-FM directional auxiliary antenna pattern distortion is not warranted.
[3] The KMDG(FM) authorized facility, BMPH-20020314AAY, is used to define the primary station.

Radiofrequency Electromagnetic Field Exposure

Due to the emitters either proposed or presently located on the tower, and the short adiation center above ground level, the applicant will undertake a radiofrequency electromagnetic field exposure survey after construction to ensure that any areas at ground level that exceed the Commission's exposure guideline values are appropriately marked and fenced. The results of the survey will be provided with the application for license.

Charles A. Cooper

November 11, 2002

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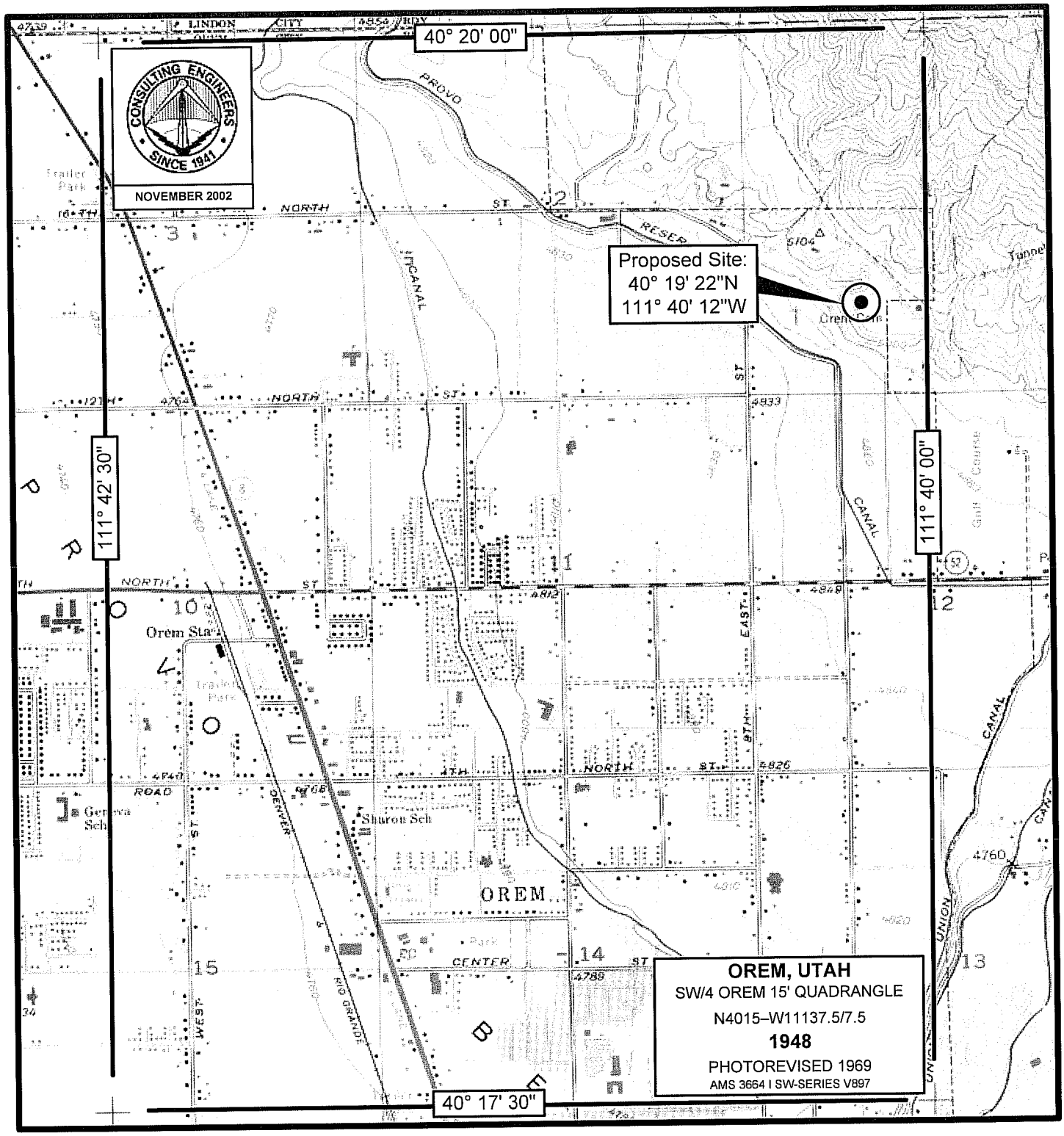

PROPOSED TRANSMITTER SITE

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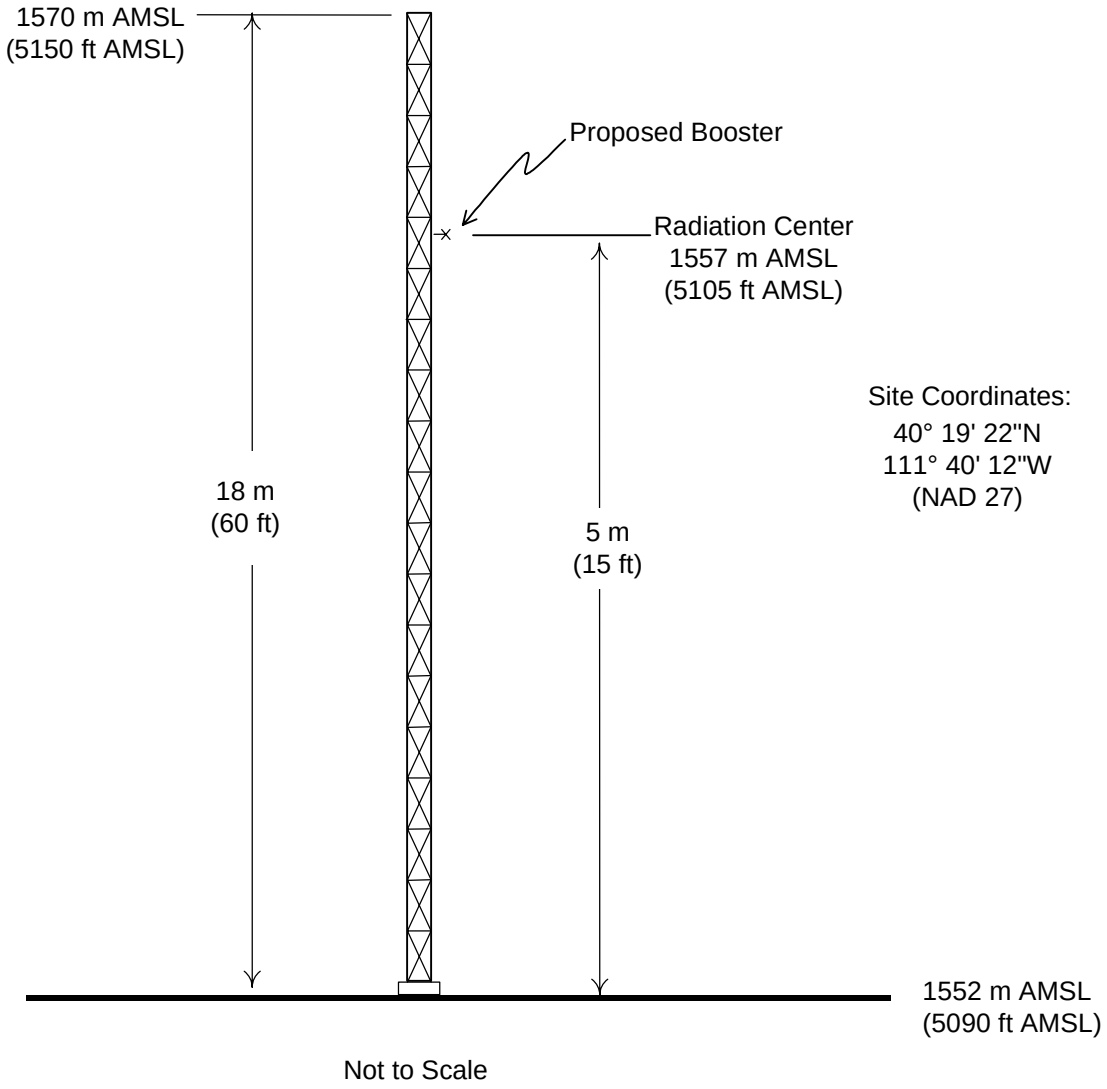
Figure 2



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

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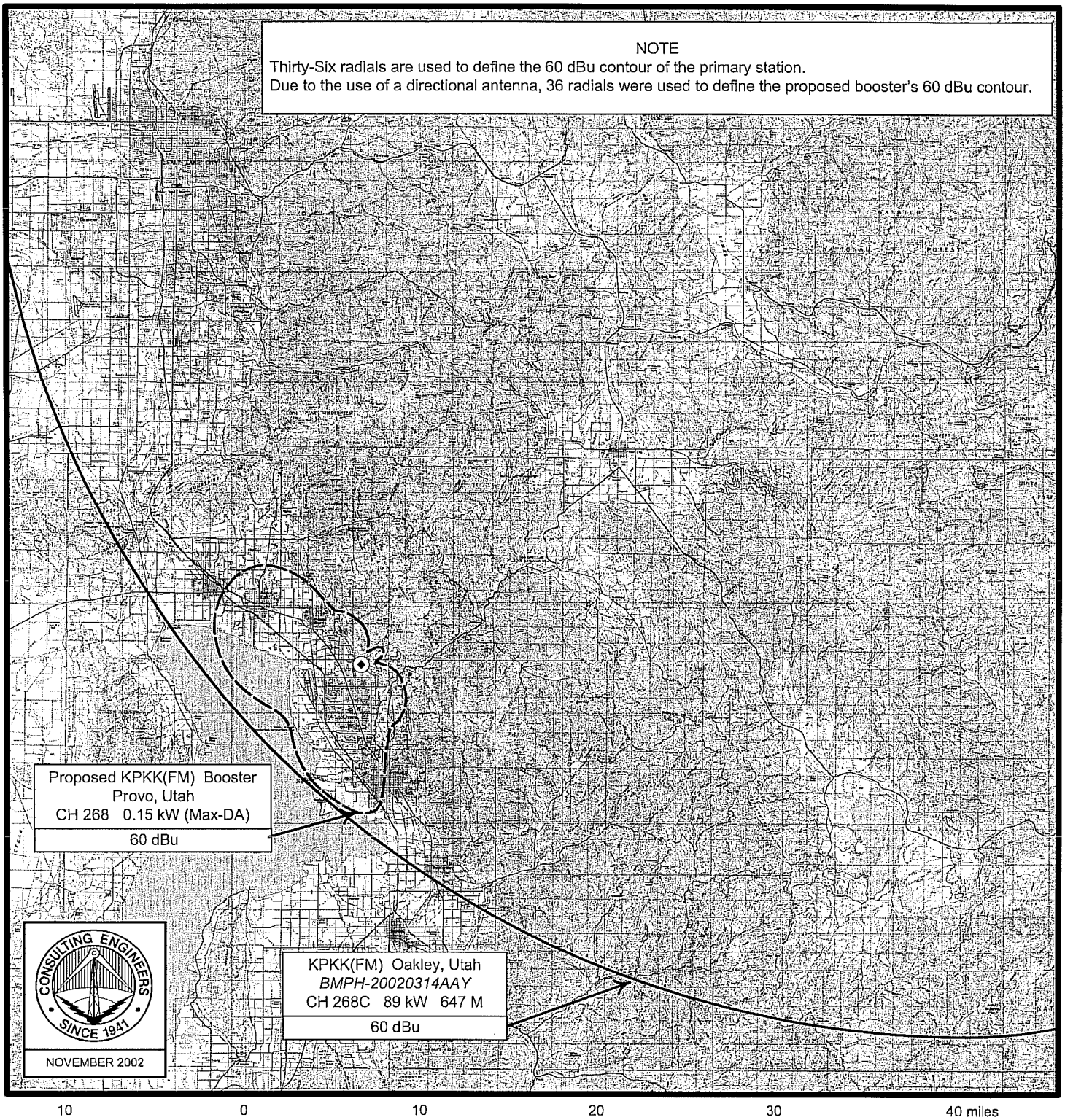

FCC PREDICTED COVERAGE CONTOURS

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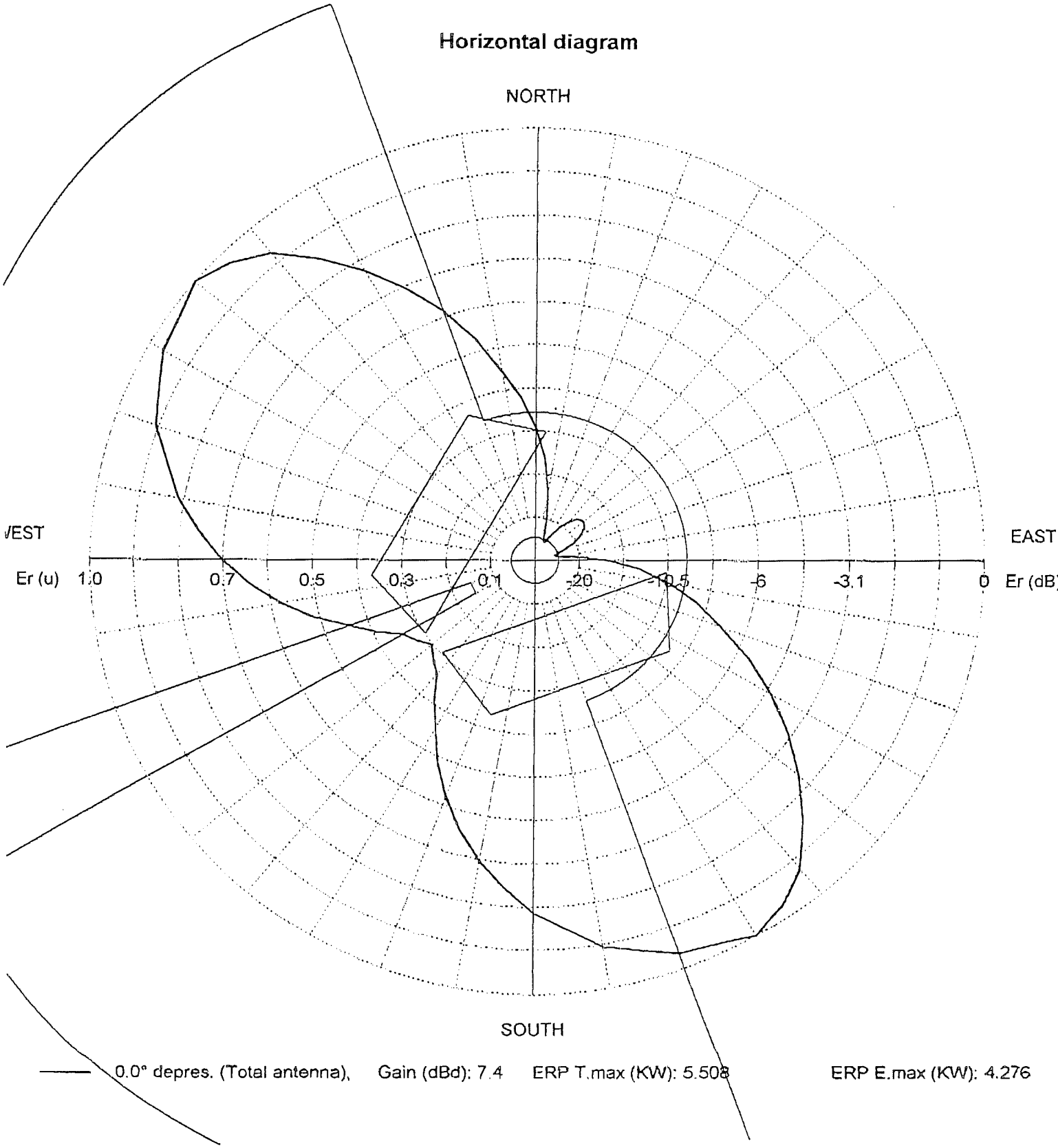
APPENDIX A

MANUFACTURER DIRECTIONAL ANTENNA SPECIFICATIONS

TX station: KPKK

Site name: UTAH

Frequency: 101.50 MHz



0.0° depres. (Total antenna), Gain (dBd): 7.4 ERP T.max (KW): 5.508 ERP E.max (KW): 4.276

TX station: KPKK

Site name: UTAH

Frequency: 101.50 MHz

Horizontal diagram at 0.0° depres. (Total antenna)

Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)
0.0	30.7	0.40	120.0	61.3	1.61	240.0	34.2	0.50
10.0	16.0	0.11	130.0	77.2	2.55	250.0	44.3	0.84
20.0	5.0	0.01	140.0	92.6	3.66	260.0	57.8	1.43
30.0	6.3	0.02	150.0	100.0	4.27	270.0	70.2	2.11
40.0	11.8	0.06	160.0	96.5	3.98	280.0	81.3	2.83
50.0	14.1	0.09	170.0	90.6	3.51	290.0	90.6	3.51
60.0	11.7	0.06	180.0	81.4	2.83	300.0	96.6	3.99
70.0	6.2	0.02	190.0	70.4	2.12	310.0	100.0	4.28
80.0	5.1	0.01	200.0	57.9	1.43	320.0	92.6	3.66
90.0	16.1	0.11	210.0	44.3	0.84	330.0	77.2	2.55
100.0	30.7	0.40	220.0	34.2	0.50	340.0	61.3	1.61
110.0	44.3	0.84	230.0	30.3	0.39	350.0	44.3	0.84

TX station: KPKK

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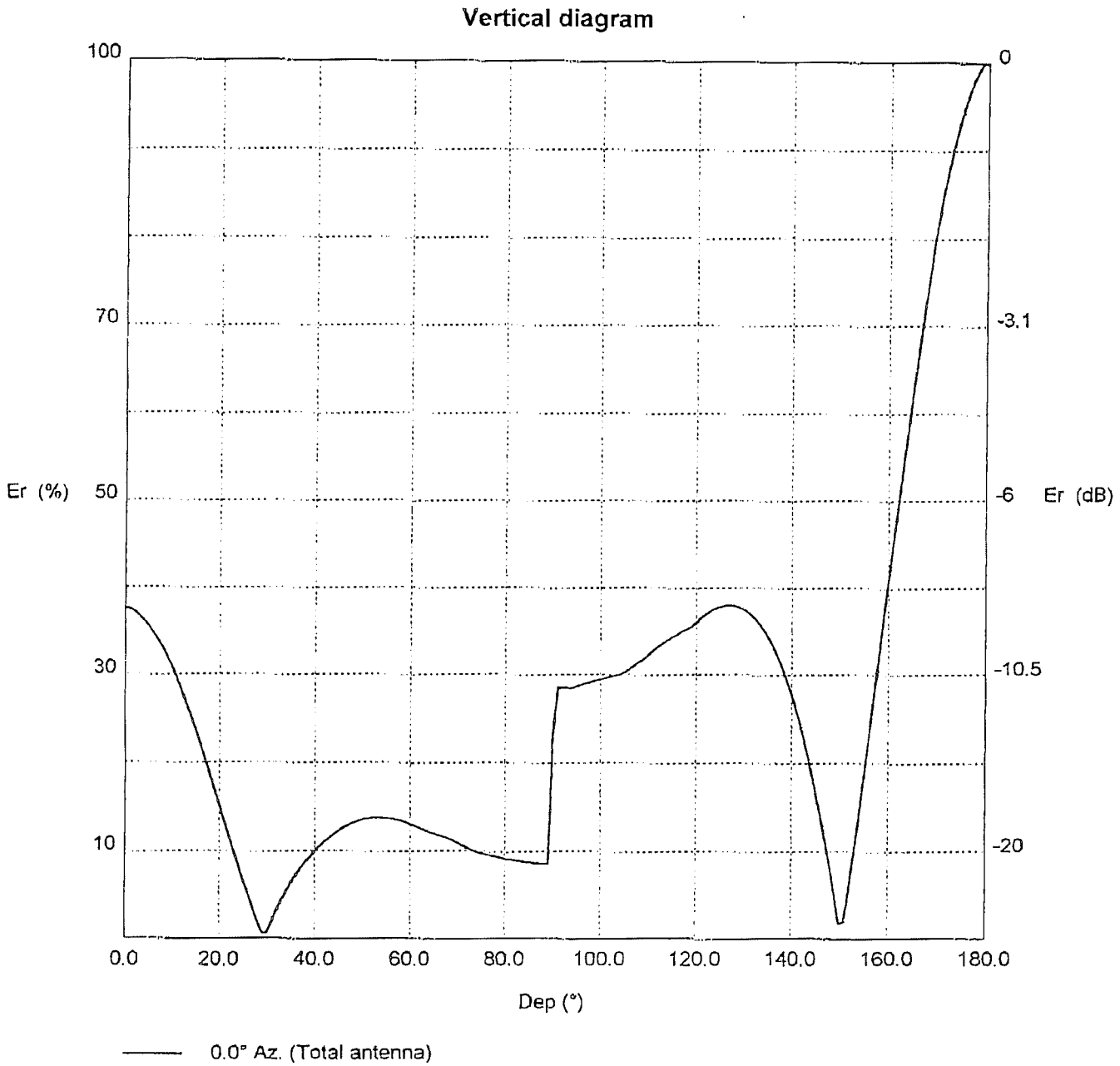

TX station: KPKK

Site name: UTAH

Frequency: 101.50 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
0.0	37.6	0.40	60.0	13.1	0.05	120.0	36.1	0.37
2.0	37.2	0.39	62.0	12.7	0.05	122.0	37.0	0.39
4.0	36.2	0.37	64.0	12.2	0.04	124.0	37.6	0.40
6.0	34.7	0.34	66.0	11.8	0.04	126.0	38.0	0.41
8.0	32.9	0.31	68.0	11.5	0.04	128.0	38.0	0.41
10.0	30.7	0.27	70.0	11.0	0.03	130.0	37.5	0.40
12.0	28.0	0.22	72.0	10.5	0.03	132.0	36.7	0.38
14.0	25.1	0.18	74.0	9.9	0.03	134.0	35.3	0.35
16.0	21.9	0.14	76.0	9.6	0.03	136.0	33.4	0.32
18.0	18.7	0.10	78.0	9.4	0.03	138.0	30.8	0.27
20.0	15.3	0.07	80.0	9.2	0.02	140.0	27.8	0.22
22.0	11.8	0.04	82.0	9.0	0.02	142.0	24.0	0.16
24.0	8.4	0.02	84.0	8.8	0.02	144.0	19.6	0.11
26.0	5.1	0.01	86.0	8.7	0.02	146.0	14.4	0.06
28.0	2.1	0.00	88.0	8.6	0.02	148.0	8.5	0.02
30.0	0.7	0.00	90.0	23.1	0.15	150.0	1.8	0.00
32.0	3.1	0.00	92.0	28.5	0.23	152.0	5.7	0.01
34.0	5.3	0.01	94.0	28.4	0.23	154.0	13.7	0.05
36.0	7.2	0.01	96.0	28.8	0.24	156.0	22.4	0.14
38.0	8.7	0.02	98.0	29.1	0.24	158.0	31.6	0.28
40.0	10.0	0.03	100.0	29.4	0.25	160.0	40.8	0.47
42.0	11.1	0.04	102.0	29.7	0.25	162.0	49.6	0.70
44.0	12.0	0.04	104.0	30.0	0.26	164.0	58.3	0.97
46.0	12.7	0.05	106.0	30.7	0.27	166.0	66.9	1.27
48.0	13.3	0.05	108.0	31.4	0.28	168.0	75.1	1.61
50.0	13.7	0.05	110.0	32.3	0.30	170.0	82.3	1.93
52.0	13.8	0.05	112.0	33.2	0.31	172.0	88.0	2.21
54.0	13.9	0.05	114.0	34.0	0.33	174.0	92.8	2.45
56.0	13.8	0.05	116.0	34.6	0.34	176.0	96.5	2.65
58.0	13.5	0.05	118.0	35.3	0.35	178.0	99.1	2.80