

TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
FM BOOSTER  
RADIO STATION KPEB (FM)  
SALT LAKE CITY, UTAH

MARCH 31, 2004

CH 276    0.5 KW (MAX-DA)

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APPLICATION FOR FM CONSTRUCTION PERMIT  
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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 at Salt Lake City, Utah. The primary station is KPEB(FM) on Channel 276C assigned to Coalville, Utah.

Proposed Transmitter Location

The location is uniquely described by the following geographic coordinates:

40° 48' 27" North Latitude  
111° 53' 26" 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.

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 (KPEB(FM), Channel 276C, Coalville, Utah) 60 dBu protected contour.<sup>1</sup>

The appendix contains the information on the proposed Jampro directional antenna. This antenna is already being used by a licensed booster station for KEGA-FM and thus will be diplexed with KEGA-FM.

#### 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.

#### Radiofrequency Electromagnetic Field Exposure

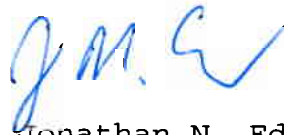
Due to the many emitters either proposed or presently located on the tower, the applicant will undertake a radiofrequency electromagnetic field exposure survey after construction to ensure that any areas at ground level that exceed the Commission's exposure guideline values are appropriately marked and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

When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency electromagnetic fields will not exceed the FCC guidelines.

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<sup>1</sup> The KPEB(FM) authorized facility, BMPH-20040204ABK, is used to define the primary station.

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.

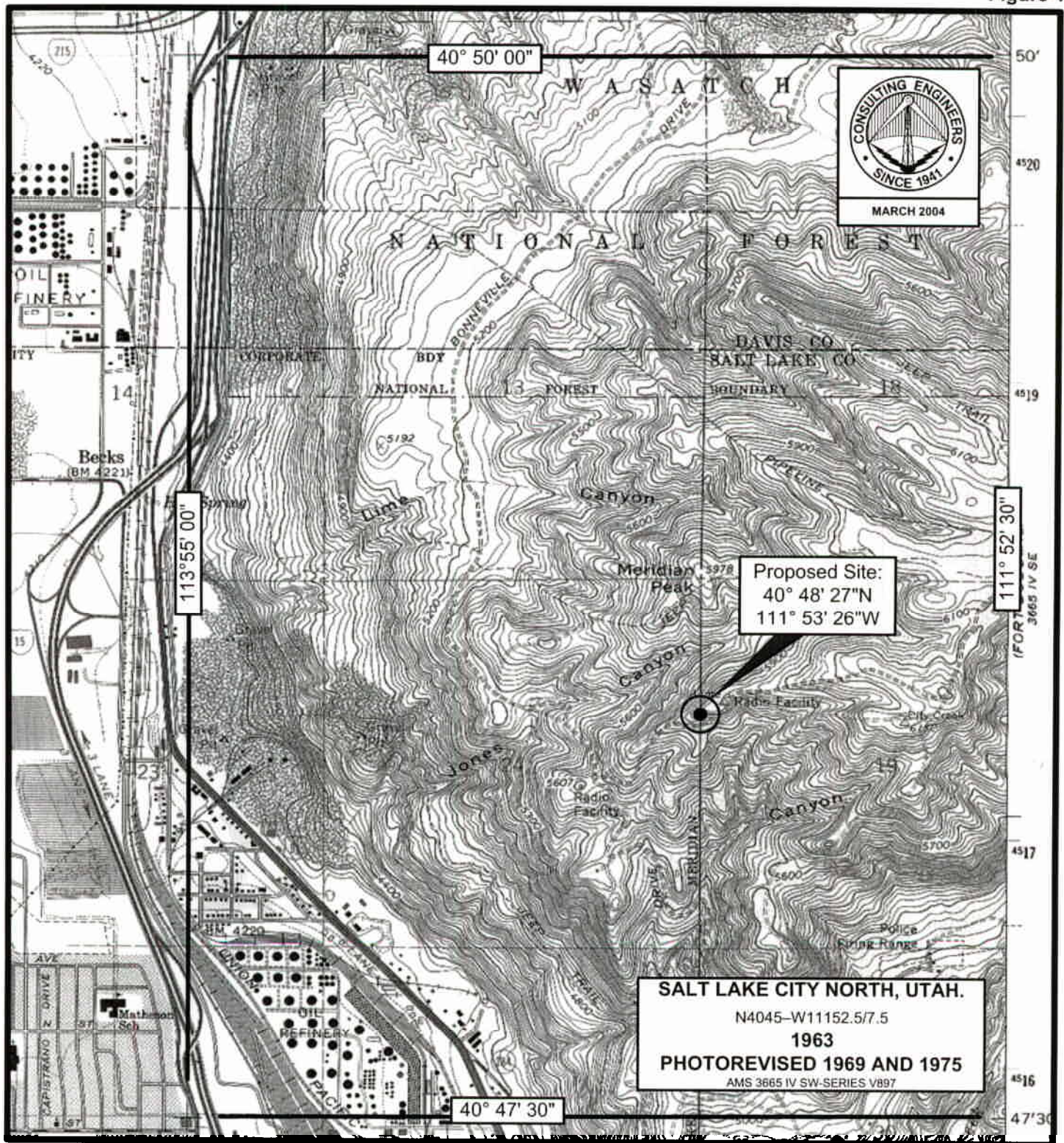


Jonathan N. Edwards

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Sarasota, Florida 34237  
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March 31, 2004

Figure 1



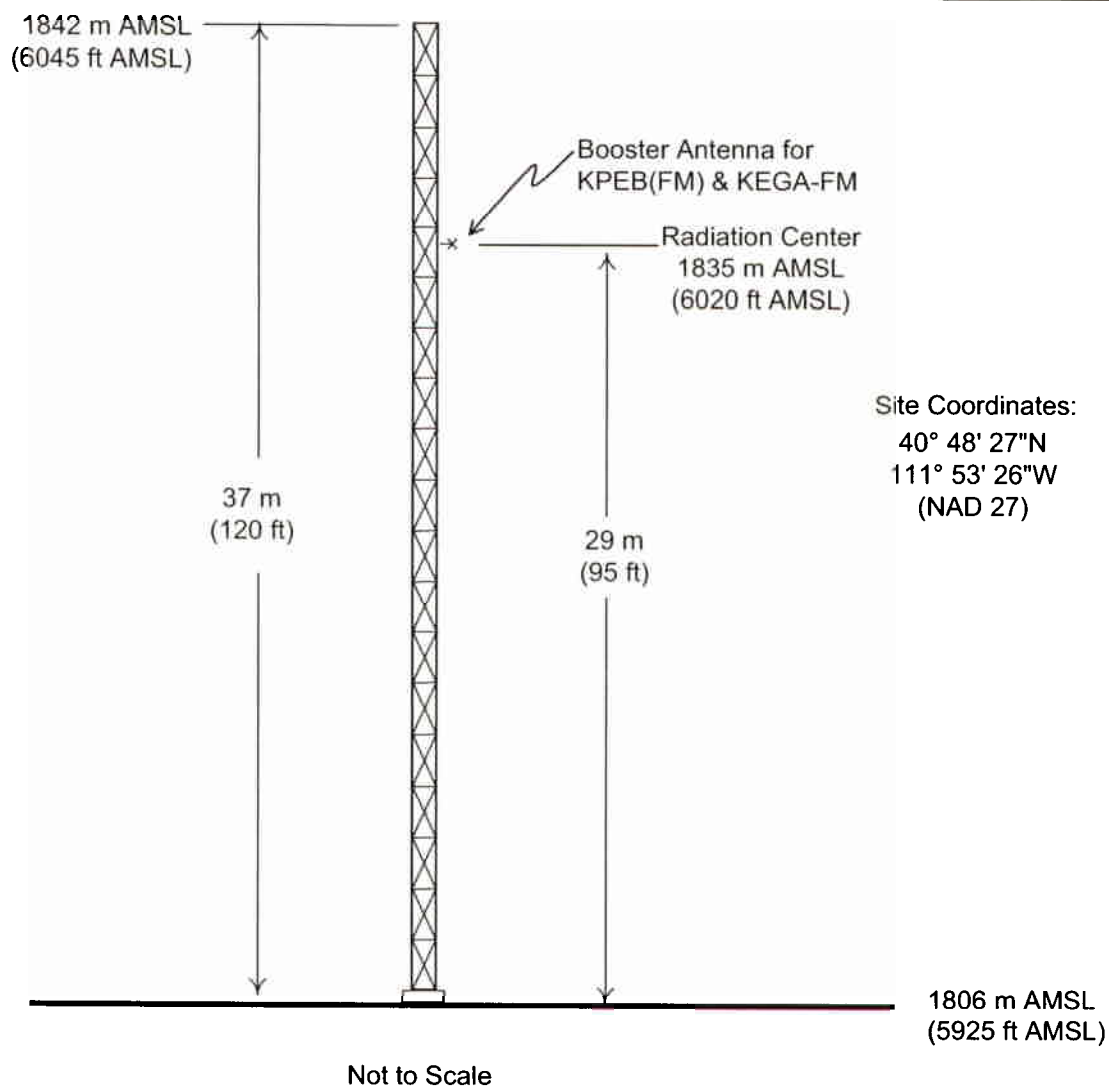
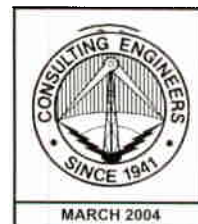
## PROPOSED TRANSMITTER LOCATION

RADIO STATION KPEB(FM) BOOSTER  
SALT LAKE CITY, UTAH  
CH 276 0.5 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2

Registration Number: 1063696

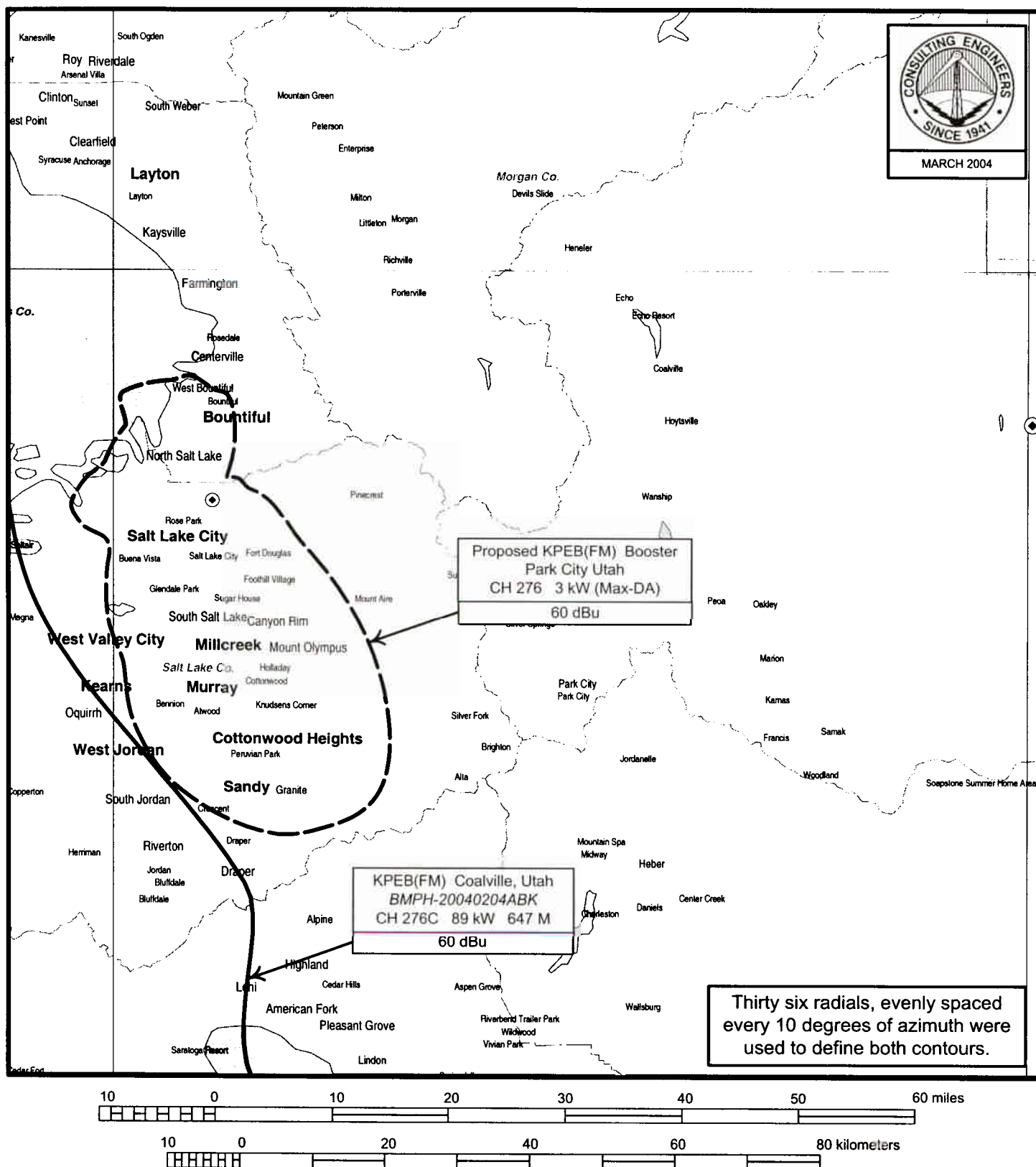


## PROPOSED ANTENNA AND SUPPORTING STRUCTURE

RADIO STATION KPEB(FM) BOOSTER  
SALT LAKE CITY, UTAH  
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Figure 3



## FCC PREDICTED COVERAGE CONTOURS

RADIO STATION KPEB(FM) BOOSTER  
SALT LAKE CITY, UTAH  
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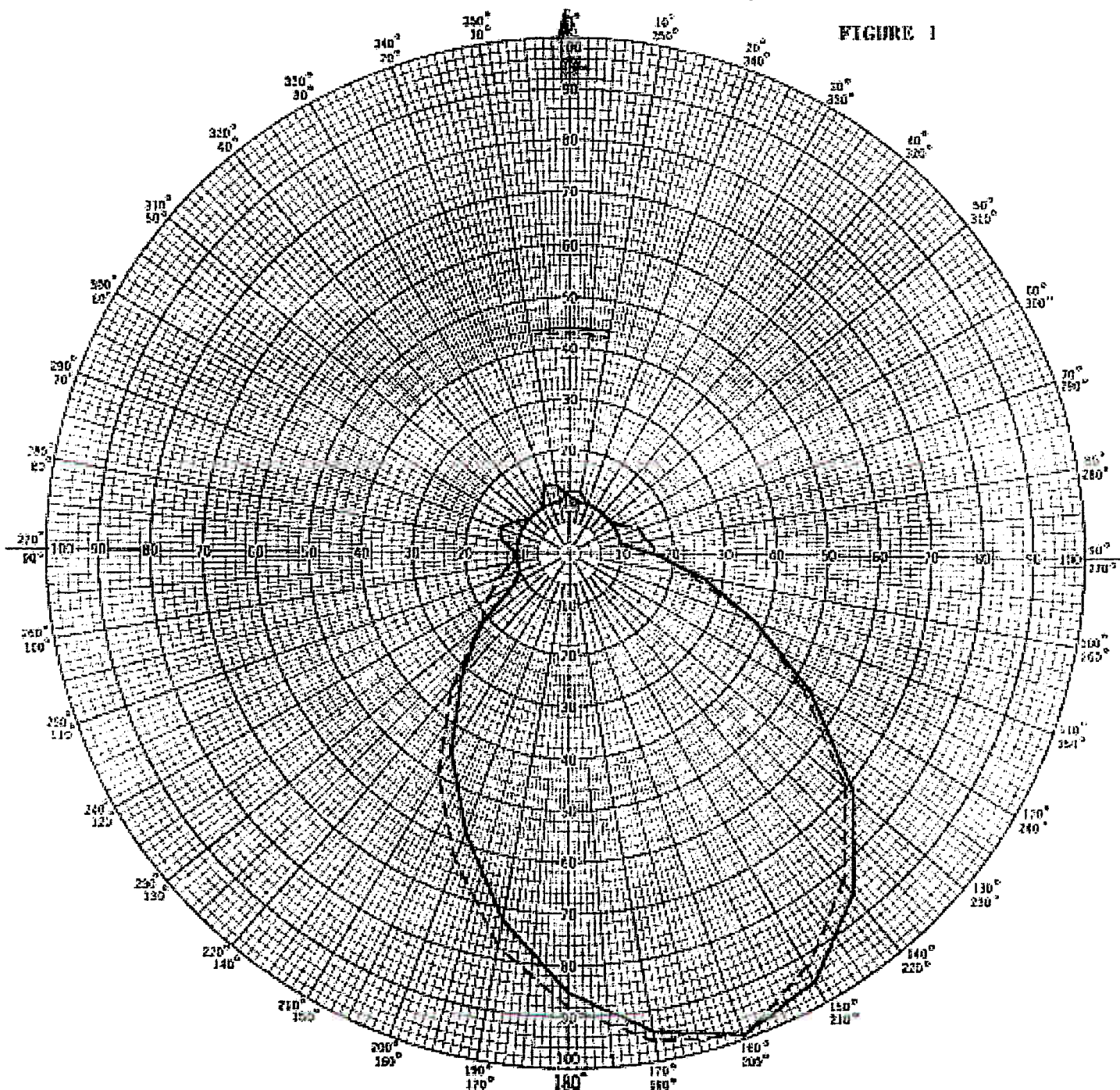
du Treil, Lundin & Rackley, Inc., Sarasota, Florida

## APPENDIX A

### MANUFACTURER DIRECTIONAL ANTENNA SPECIFICATIONS

Referenced to 340° True

FIGURE 1



Reference to 340° True

**Shively Labs**

PROJECT NAME KPKK SALT LAKE CITY, UT  
 PROJECT NUMBER B00785 DATE 09/12/02  
 MODEL ( ☒ ) FULL SCALE ( ) FREQUENCY MULTI  
 POLARIZATION HORT VERT  
 CURVE PLOTTED IN: VOLTAGE ( ☒ ) POWER ( ) DB ( )  
 OBSERVER RAS

ANTENNA TYPE 6014-1/1  
 PATTERN TYPE HORIZONTAL AZIMUTH  
 REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Figure 1A

TABULATION OF HORIZONTAL POLARIZATION  
B00785 Shively Labs Model 6014-1/1

DEGREE	RELATIVE FIELD	DEGREE	RELATIVE FIELD
0	0.110	180	0.860
10	0.100	190	0.730
20	0.100	200	0.580
30	0.100	210	0.450
40	0.100	220	0.320
45	0.100	225	0.270
50	0.100	230	0.220
60	0.100	240	0.120
70	0.100	250	0.100
80	0.100	260	0.100
90	0.160	270	0.100
100	0.260	280	0.130
110	0.380	290	0.140
120	0.540	300	0.120
130	0.720	310	0.100
135	0.780	315	0.100
140	0.860	320	0.100
150	0.960	330	0.100
160	1.000	340	0.140
170	0.950	350	0.130

Rotate 340°

Figure 1B

TABULATION OF VERTICAL POLARIZATION  
B00785 Shively Labs Model 6014-1/1

DEGREE	RELATIVE FIELD	DEGREE	RELATIVE FIELD
0	0.120	180	0.890
10	0.120	190	0.780
20	0.100	200	0.640
30	0.100	210	0.500
40	0.100	220	0.350
45	0.100	225	0.275
50	0.100	230	0.220
60	0.110	240	0.180
70	0.140	250	0.140
80	0.150	260	0.110
90	0.170	270	0.100
100	0.240	280	0.100
110	0.380	290	0.100
120	0.520	300	0.100
130	0.700	310	0.100
135	0.755	315	0.100
140	0.830	320	0.100
150	0.930	330	0.100
160	1.000	340	0.100
170	0.970	350	0.100

Rotate 340°