

Compliance with Special Operating Conditions

The Construction Permit contains several Special Operating Conditions, summarized as follows:

1. The permittee/licensee must cooperate with other site users to reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines. The permittee must provide the results of a complete proof-of-performance to establish the horizontal plane radiation patterns for both the horizontally and vertically polarized radiation components.
2. The permittee must submit the results of a complete proof-of-performance to establish the horizontal plane radiation patterns for both the horizontally and vertically polarized radiation components, based on tests done on an identical tower and antenna or exact scale tower and antenna.
3. The permittee must submit an affidavit that a qualified engineer oversaw the installation of the directional antenna system.
4. The permittee must provide a statement that the relative field strength of neither the measured horizontally nor vertically polarized radiation component exceeds, at any azimuth, the value indicated on the composite radiation pattern authorized by the construction permit.

EMF agrees to fully cooperate with other site users to reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines. Further, conditions two through four have been met, as documented in Exhibits C-1, C-2, and C-3.

Therefore, all Special Operating Conditions of the KLVK-FM Construction Permit (FCC File Number BMPED-20000831AHG) have been met.

Directional Antenna Proof-of-Performance

On the following pages is the data provided by ERI (the antenna manufacturer) showing the results of the complete proof-of-performance. This data includes:

- A description of the test procedure
- Antenna specifications
- Horizontal plane pattern (in both graphic and tabular forms)
- Vertical plane pattern
- A statement that the relative field strength of neither the measured horizontally nor vertically polarized radiation component exceeds, at any azimuth, the value indicated on the composite radiation pattern authorized by the construction permit.

ERI[®] Electronics Research, Inc.

Electronics Research, Inc. 7777 Gardner Rd. Chandler, In 47610 Phone (812) 925-6000 Fax (812) 925-4030 <http://www.eriinc.com/>

Directional Antenna System
For
KAZB, Coalinga, California

November 14, 2000

Electronics Research Inc. is providing a custom fabricated antenna system that is specially designed to meet the FCC requirements and the general needs of radio station KAZB.

The antenna is the ERI model P300-1BE-DA configuration. The vertically polarized system consists of one bay using one driven vertical dipole and three vertical parasitic elements. The antenna was tested on a 5 9/16" o.d. pole, which is the structure the station plans to use to support the array. All tests were performed on a frequency of 88.3 megahertz which is the center of the FM broadcast channel assigned to KAZB.

Pattern measurements were made on a sixty-acre antenna pattern range that is owned and operated by Electronics Research, Inc. The tests were performed under the direction of Thomas B. Silliman, president of Electronics Research, Inc. Mr. Silliman has the Bachelor of Electrical Engineering and the Master of Electrical Engineering degrees from Cornell University and is a registered professional engineer in the states of Indiana, Maryland and Minnesota.

DESCRIPTION OF THE TEST PROCEDURE

The test antenna consisted of the complete vertically polarized system with the associated vertical parasitic elements. The elements and brackets that were used in this test are electrically equivalent to those that will be supplied with the antenna. A section of 3 1/8 inch o.d. rigid coaxial line was used to feed the test antenna, and a section of 3 1/8 inch o.d. rigid outer conductor only was attached above the test antenna. The lines were properly grounded during all tests.

**Directional Antenna System
For
KAZB, Coalinga, California**

(Continued)

The power distribution and phase relationship to the antenna elements was adjusted in order to achieve the directional radiation patterns for both horizontal and vertical polarization components.

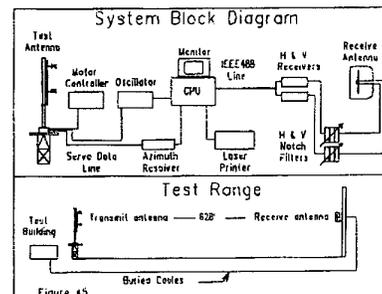
The proof-of-performance was accomplished using a 5 9/16" o.d. pole with identical dimension and configuration including all braces, ladders, conduits, coaxial lines and other appurtenances that are included in the actual aperture at which the antenna will be installed. The structure was erected vertically on a turntable mounted on a non-metallic building with the antenna centered vertically on the structure, making the center of radiation of the test approximately 30 feet above ground. The turntable is equipped with a motor drive and azimuth indicating mechanism, resolution of this azimuth measuring device is one-tenth of a degree.

The antenna under test was operated in the transmitting mode and fed from a Wavetek Model 3000 signal generator. The frequency of the signal source was set at 88.3 MHz and was constantly monitored by an Anritsu Model ML521B measuring receiver.

A broad-band vertical dipole system, located approximately 628 form the test antenna, was used to receive the emitted test signals. The dipole system was mounted at the same height above terrain as the center of the antenna under test. The signals received by the dipole system were fed to the test building by way of a buried Heliax cable to an Anritsu Model ML521B measuring receiver.

This data was interfaced to a Hewlett-Packard Laser Jet 4P printer by means of a pentium computer system. Relative field strength was plotted as a function of azimuth.

The measurements were performed by rotating the test antenna in a counter-clockwise direction and plotting the received signal on polar co-ordinated graph paper in a clockwise direction.



Directional Antenna System
For
KAZB, Coalinga, California

(Continued)

CONCLUSIONS

The vertically polarized system consists of one bay using one driven vertical dipole and three vertical parasitic elements. The power distribution and phase relationship will be fixed when antenna is manufactured. Proper maintenance of the elements should be all that is required to maintain the pattern in adjustment.

The P300-1BE-DA array is to be mounted on the 5 9/16" o.d. pole at a bearing of North 180 degrees East. Blue prints provided with the antenna will show the proper antenna orientation alignment. The antenna alignment procedure should be directed by a licensed surveyor as prescribed by the FCC.

Figure #1 represents the measured relative field value of the vertical component relative to azimuth. A calculated vertical plane relative field pattern is shown on Figure #3 attached. The power in the maximum will reach 1.4 kilowatts (1.461 dBk).

The power at North 350-360 degrees East does not exceed 0.055 kilowatts (-12.596 dBk).

The power at North 170-180 degrees East does not exceed 0.650 kilowatts (-1.871 dBk).

The RMS of the vertically polarized horizontal plane component does not exceed the RMS of the horizontally polarized horizontal plane component.

The composite horizontal and vertical maximum relative field pattern obtained from the measured data as shown on Figure #1 has an RMS that is greater than 85% of the filed composite pattern.

The clear vertical length of the structure required to support the antenna is 15 feet if the antenna is to be top mounted.

The directional antenna should not be mounted on the top of an antenna tower that includes a top-mounted platform larger than the cross-sectional area of the tower in the horizontal plane. No obstructions other than those that are specified by the blue prints supplied with the antenna are to be mounted within 75 ft. horizontally of the system.

Directional Antenna System
For
KAZB, Coalinga, California

(Continued)

The vertical distance to the nearest obstruction should be a minimum of 10 ft. from the directional antenna. Metallic guy wires should be a minimum distance of forty feet horizontally from the antenna.

The calculated maximum power gain of the vertical pattern as shown on Figure # 1 is 2.26 (3.541dB), which would require an input power of 0.6195 kilowatts. The input flange to the antenna is 1 5/8" female.

ELECTRONICS RESEARCH, INC.

Tom Schaeff / jc

1425 North Market Boulevard ♦ Sacramento California ♦ 95834

**Directional Antenna System
For
KAZB, Coalinga, California**

(Continued)

ANTENNA SPECIFICATIONS

Antenna Type:	P300-1BE-DA
Frequency:	88.3 MHz
Number of Bays:	1

MECHANICAL SPECIFICATIONS

Mounting:	Custom
System length:	8 ft 9 in
Aperture length required:	15 ft.
Orientation:	180° true
Input flange to the antenna	1 5/8 inch female

ELECTRICAL SPECIFICATIONS

(For directional use)

Maximum vertical ERP:	1.4 kW (1.461 dBk)
Vertical maximum power gain:	2.26 (3.541 dB)
Total input power:	0.6195 kW (-2.08 dBk)

Educational Media Foundation

Exhibit C-1

1425 North Market Boulevard ♦ Sacramento California ♦ 95834



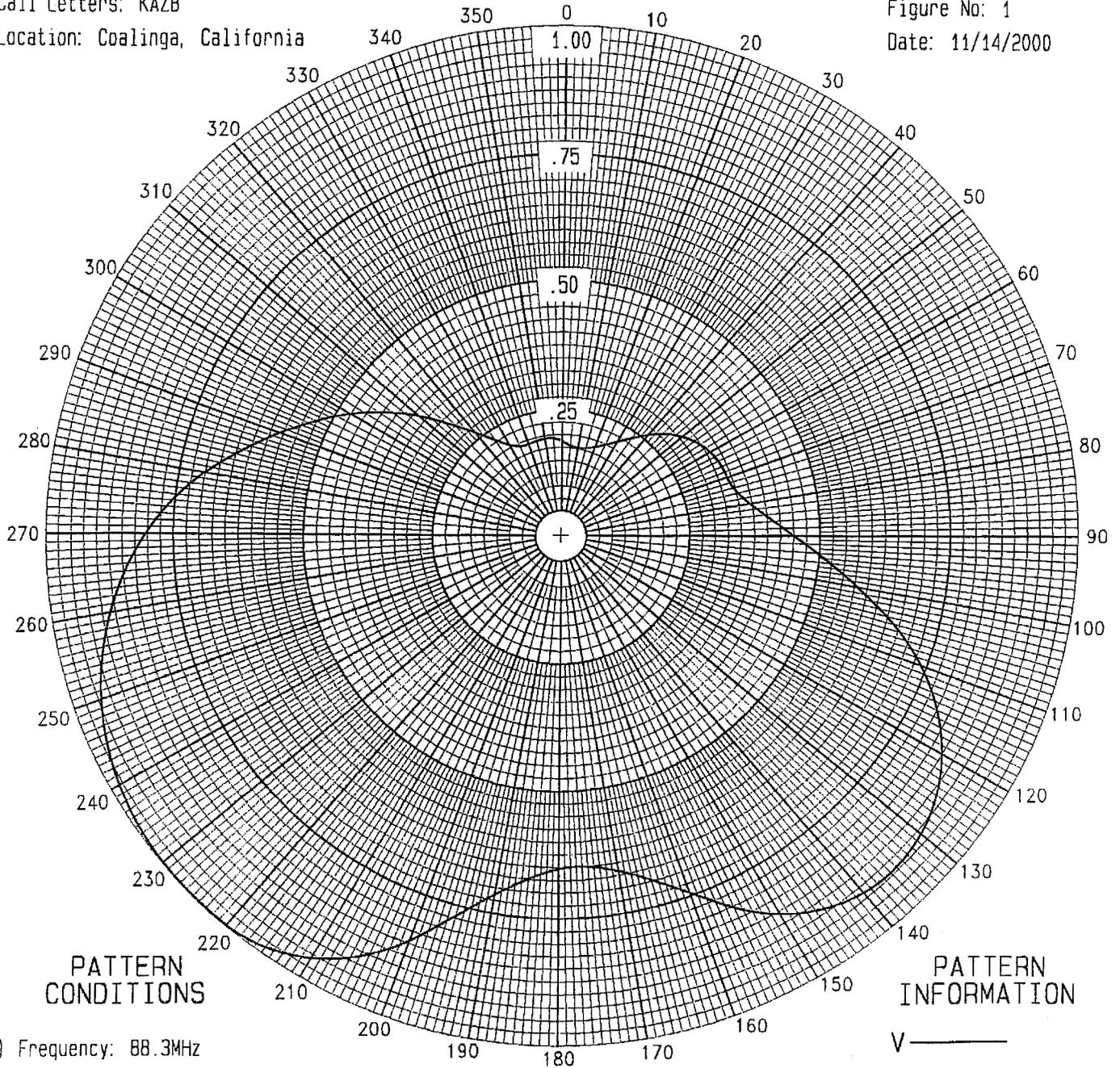
HORIZONTAL PLANE RELATIVE FIELD VERTICAL PATTERN

Call Letters: KAZB

Location: Coalinga, California

Figure No: 1

Date: 11/14/2000



- PATTERN CONDITIONS
- 1) Frequency: 88.3MHz
 - 2) Antenna Type: P300-1BE-DA
 - 3) Antenna Orientation: North 180 Deg. East
 - 4) Antenna Mounting: Custom
 - 5) Tower Type: 5 9/16" o.d. pole
 - 6) Comments: Measured pattern of the vertical component.

VERTICAL

RMS .6483
Maximum: 1 @ 220°
Minimum: .1758 @ 10°

Educational Media Foundation

Exhibit C-1

1425 North Market Boulevard ♦ Sacramento California ♦ 95834

ERI Horizontal Plane Relative Field & dBk List

Radio Station KAZB
List For Figure# 1

Frequency: 88.3MHz
Date 11/14/2000

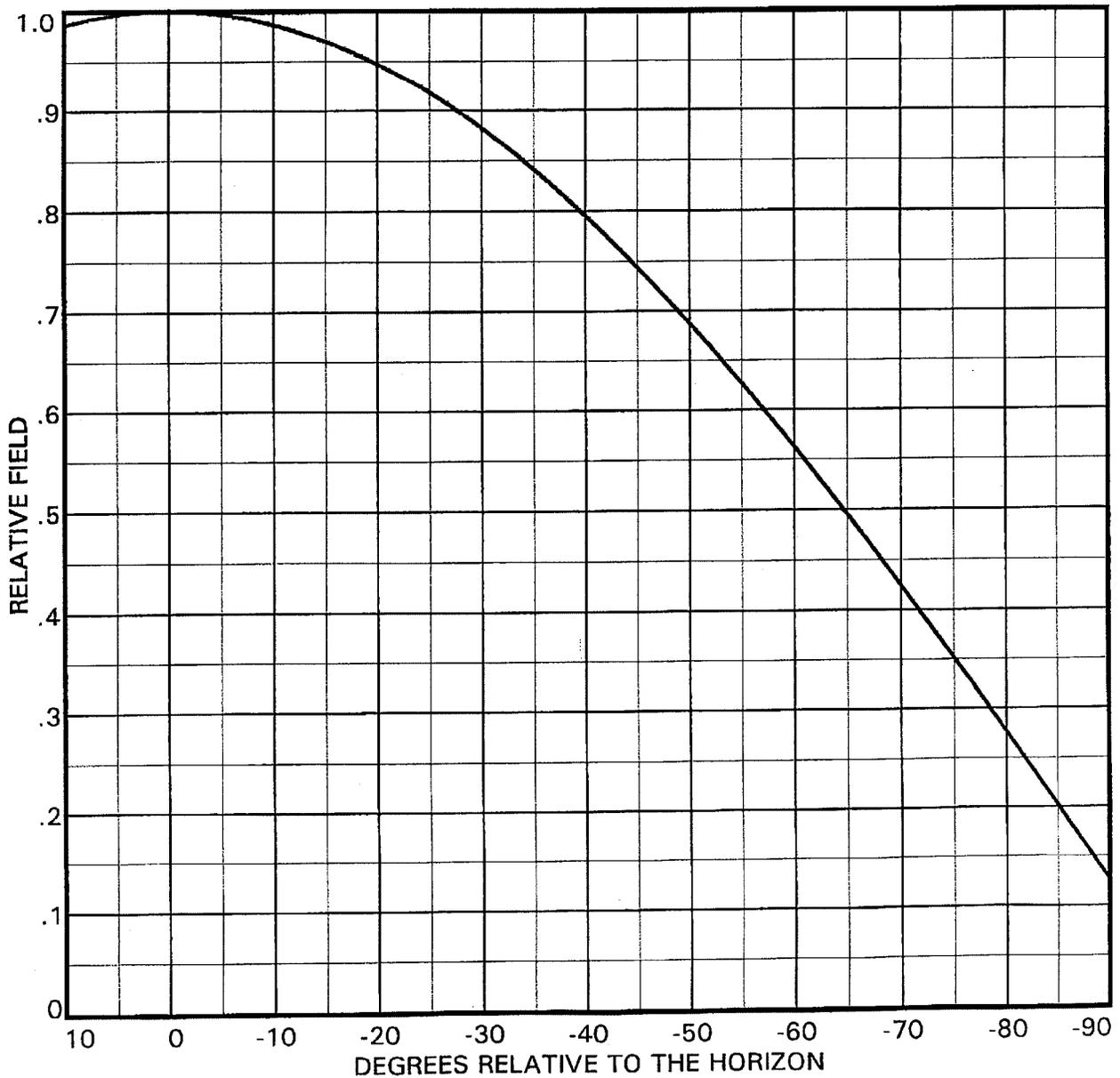
AZIMUTH	RELATIVE FIELD	dBk	POWER kW	POLARIZATION	AZIMUTH	RELATIVE FIELD	dBk	POWER kW	POLARIZATION
0°	0.186	-13.135	0.049	VERTICAL	180°	0.655	-2.210	0.601	VERTICAL
5°	0.179	-13.496	0.045	VERTICAL	185°	0.677	-1.927	0.642	VERTICAL
10°	0.176	-13.639	0.043	VERTICAL	190°	0.717	-1.433	0.719	VERTICAL
15°	0.178	-13.508	0.045	VERTICAL	195°	0.774	-0.760	0.840	VERTICAL
20°	0.186	-13.168	0.048	VERTICAL	200°	0.848	0.034	1.008	VERTICAL
25°	0.197	-12.642	0.054	VERTICAL	205°	0.913	0.675	1.168	VERTICAL
30°	0.213	-11.963	0.064	VERTICAL	210°	0.960	1.110	1.291	VERTICAL
35°	0.234	-11.166	0.076	VERTICAL	215°	0.989	1.367	1.370	VERTICAL
40°	0.259	-10.285	0.094	VERTICAL	220°	1.000	1.461	1.400	VERTICAL
45°	0.284	-9.485	0.113	VERTICAL	225°	1.000	1.461	1.400	VERTICAL
50°	0.304	-8.879	0.129	VERTICAL	230°	0.999	1.456	1.398	VERTICAL
55°	0.320	-8.433	0.143	VERTICAL	235°	0.994	1.408	1.383	VERTICAL
60°	0.332	-8.124	0.154	VERTICAL	240°	0.983	1.313	1.353	VERTICAL
65°	0.339	-7.939	0.161	VERTICAL	245°	0.967	1.168	1.309	VERTICAL
70°	0.342	-7.871	0.163	VERTICAL	250°	0.945	0.971	1.251	VERTICAL
75°	0.349	-7.676	0.171	VERTICAL	255°	0.918	0.718	1.180	VERTICAL
80°	0.370	-7.176	0.192	VERTICAL	260°	0.885	0.404	1.098	VERTICAL
85°	0.404	-6.420	0.228	VERTICAL	265°	0.847	0.024	1.005	VERTICAL
90°	0.450	-5.472	0.284	VERTICAL	270°	0.804	-0.433	0.905	VERTICAL
95°	0.510	-4.393	0.364	VERTICAL	275°	0.755	-0.977	0.799	VERTICAL
100°	0.582	-3.239	0.474	VERTICAL	280°	0.700	-1.636	0.686	VERTICAL
105°	0.665	-2.077	0.620	VERTICAL	285°	0.639	-2.432	0.571	VERTICAL
110°	0.740	-1.149	0.767	VERTICAL	290°	0.582	-3.240	0.474	VERTICAL
115°	0.802	-0.450	0.902	VERTICAL	295°	0.527	-4.104	0.389	VERTICAL
120°	0.852	0.066	1.015	VERTICAL	300°	0.474	-5.019	0.315	VERTICAL
125°	0.888	0.428	1.104	VERTICAL	305°	0.419	-6.095	0.246	VERTICAL
130°	0.911	0.653	1.162	VERTICAL	310°	0.364	-7.317	0.185	VERTICAL
135°	0.921	0.751	1.189	VERTICAL	315°	0.308	-8.754	0.133	VERTICAL
140°	0.916	0.698	1.174	VERTICAL	320°	0.264	-10.119	0.097	VERTICAL
145°	0.894	0.491	1.120	VERTICAL	325°	0.229	-11.324	0.074	VERTICAL
150°	0.857	0.125	1.029	VERTICAL	330°	0.206	-12.262	0.059	VERTICAL
155°	0.805	-0.421	0.908	VERTICAL	335°	0.193	-12.820	0.052	VERTICAL
160°	0.745	-1.095	0.777	VERTICAL	340°	0.191	-12.930	0.051	VERTICAL
165°	0.699	-1.650	0.684	VERTICAL	345°	0.192	-12.875	0.052	VERTICAL
170°	0.668	-2.040	0.625	VERTICAL	350°	0.193	-12.821	0.052	VERTICAL
175°	0.653	-2.243	0.597	VERTICAL	355°	0.192	-12.867	0.052	VERTICAL

CITY OF LICENSE: Coalinga, California
MOUNTING STRUCTURE: 5 9/16" o.d. pole
ANTENNA TYPE: P300-1BE-DA NUMBER OF BAYS:1
ENVELOPE MAXIMUM RELATIVE FIELD=1.0000 AZIMUTH=220°
ENVELOPE MINIMUM RELATIVE FIELD=0.1758 AZIMUTH= 10°
ENVELOPE RMS= .6483
MAXIMUM VERTICAL E.R.P.= 1.400kW
ENVELOPE POWER INPUT= 0.6195kW
ENVELOPE VERTICAL POWER GAIN OF THE COMPLETE ARRAY= 2.260(3.541dB)
ANTENNA ORIENTATION: North 180 degrees East
REFERENCE: KAZB2V.PAT

THEORETICAL VERTICAL PLANE RELATIVE FIELD PATTERN

FIGURE # 3
Coalinga, California
KAZB
88.3MHz
1 BAY P300-1BE-DA ANTENNA

November 14, 2000
0 DEGREE BEAM TILT
0 PERCENT FIRST NULL FILL
0 PERCENT SECOND NULL FILL



STATE OF CALIFORNIA
County of Monterey

AFFIDAVIT

I, Richard S. Bushell, do affirm that:

1. I have been engaged in the engineering and installation of broadcast facilities and preparation of broadcast applications since 1977.
2. That I possess an Associate of Arts degree in Radio and Television Telecommunications.
3. That I directed the installation of station KLVK-FM for the Educational Media Foundation, Inc., and that the station was constructed in accordance with all equipment manufacture's instructions, the specifications of the applicable Federal Communications Commission Construction Permit, and the Commission's Rules and Regulations.
4. I further declare, under penalty of perjury, that the statements contained herein are true and correct to the best of my knowledge.



RICHARD S. BUSHELL
Dayspring Communications
December 19, 2000

Educational Media Foundation

Exhibit C-2

1425 North Market Boulevard ♦ Sacramento California ♦ 95834



ALAN G. MILLER, PRES.

MONTEREY COUNTY SURVEYORS, INC.

235 Salinas Street

(831) 424-1984

Salinas, CA 93901

Fax (831) 424-4099

general@montereycountysurveyors.com

I, Alan G. Miller, Licensed Land Surveyor by the State of California hereby state that on December 18, 2000, a survey was made under my direction for the installation of the directional FM antenna for KLVK, on San Benito Mountain, Coalinga, California. I found that the antenna mount has been installed in accordance with the manufacturer's instructions, per letter dated November 14, 2000 from Electronics Research, Inc. to Skip Bushell, in that it is oriented at a true azimuth of 180°.

A handwritten signature in black ink that reads 'Alan G. Miller'.

Alan G. Miller
Licensed Land Surveyor No. 3880
December 19, 2000



Compliance with 73.1620(a)(2)

Per 47 C.F.R. 73.1620(a)(2), the permittee may operate using the directional antenna at 50% of the authorized effective radiated power ("ERP") while awaiting Program Test Authority. Educational Media Foundation is operating the facility with the following parameters until Program Test Authority is granted:

- TPO = 0.368 kilowatts
- ERP = 0.700 kilowatts

Once Program Test Authority is granted, the TPO and ERP will be raised to their final values of 0.737 kilowatts and 1.4 kilowatts, respectively.