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- An Employee-Owned Company -

Exhibit 9A

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S.O. 22758

Report of Test 6810-3R-SS-DA

for

WASHINGTON INTERSTATE BROADCASTING COMPANY

KUKN 94.5 MHZ KELSO, WA

OBJECTIVE:

The objective of this test was to demonstrate the directional characteristics of a 6810-3R-SS-DA to meet the needs of KUKN and to comply with the requirements of the FCC construction permit, file number BPH-20020227ACZ.

RESULTS:

The measured azimuth pattern for the 6810-3R-SS-DA is shown in Figure 1. Figure 1A shows the Tabulation of the Horizontal Polarization. Figure 1B shows the Tabulation of the Vertical Polarization. The calculated elevation pattern of the antenna is shown in Figure 3. Construction permit file number BPH-20020227ACZ indicates that the Horizontal radiation component shall not exceed 3.0 kW at any azimuth and is restricted to the following values at the azimuths specified:

350-0 Degrees T: 0.475 kW

From Figure 1, the maximum radiation of the Horizontal component occurs at 156 Degrees T to 226 Degrees T. At the restricted azimuth of 350-0 Degrees T the Horizontal component is 10.6 dB down from the maximum of 3.0 kW, or 0.261 kW.

The R.M.S. of the Horizontal component is 0.75. The total Horizontal power gain is 1.821. The R.M.S. of the Vertical component is 0.74. The total Vertical power gain is 1.783. See Figure Four for calculations. The R.M.S. of the FCC composite pattern is 0.88. Therefore this Pattern complies with the FCC requirement of 73.316(c)(2)(ix)(A).

METHOD OF DIRECTIONALIZATION:

One bay of the 6810-3R-SS-DA was mounted on an outrigged pole attached to a tower of exact scale to a Microflect 4 ft. face tower. The spacing of the antenna to the outrigged pole was varied to achieve both the horizontal and vertical patterns shown in Figure 1. See Figure 2 for mechanical details.

METHOD OF MEASUREMENT:

As allowed by the construction permit, file number BPH-20020227ACZ, a single level of the 6810-3R-SS-DA was set up on the Howell Laboratories scale model antenna pattern measuring range. A scale of 4.5:1 was used.

SUPERVISION:

Mr. Surette was graduated from Lowell Technological Institute, Lowell, Massachusetts in 1973 with the degree of Bachelor of Science in Electrical Engineering. He has been directly involved with design and development of broadcast antennas, filter systems and RF transmission components since 1974, as an RF Engineer for six years with the original Shively Labs in Raymond, ME and for a short period of time with Dielectric Communications. He is currently an Associate Member of the AFCCE and a Senior Member of IEEE. He has authored a chapter on filters and combining systems for the latest edition of the CRC Electronics Handbook and for the 9th Edition of the NAB Handbook.

EQUIPMENT:

The scale model pattern range consists of a wooden rotating pedestal equipped with a position indicator. The scale model bay is placed on the top of this pedestal and is used in the transmission mode at approximately 20 feet above ground level. The receiving corner reflector is spaced 50 feet away from the rotating pedestal at the same level above ground as the transmitting model. The transmitting and receiving signals are carried to a control building by means of RG-9/U double shielded coax cable.

The control building is equipped with:

Hewlett Packard Model 8753 Network Analyzer

PC Based Controller

Hewlett Packard 7550A Graphics Plotter

The test equipment is calibrated to ANSI/NCSL Z540-1-1994.

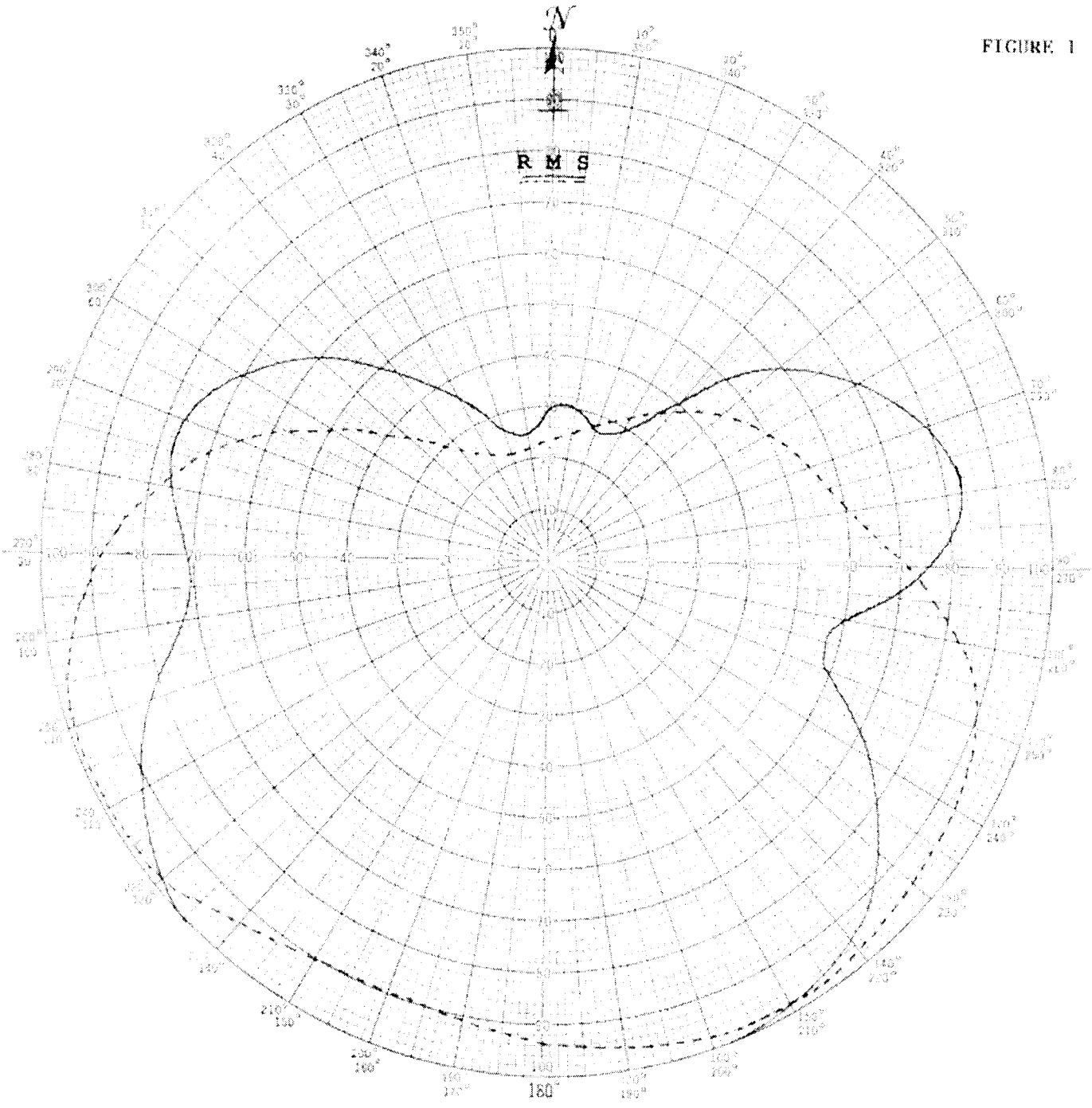
TEST PROCEDURES:

The corner reflector is mounted so that the horizontal and vertical azimuth patterns are measured independently by rotating the corner reflector by 90 degrees. The network analyzer was set to 425.25 MHz. Calibrated pads are used to check the linearity of the measuring system. For example, 6 dB padding yields a scale reading of 50 from an unpadded reading of 100 in voltage. From the recorded patterns, the R.M.S. values are calculated and recorded as shown in Figure 1.

Respectfully submitted by:

Robert A. Surette
Manager of RF Engineering
S/O 22758
December 20, 2002

FIGURE 1



Shively Labs

PROJECT NAME KUKN KELSO, WA

PROJECT NUMBER 22758 DATE 12/19/02

MODEL (X) FIELD SCALE ( ) FREQUENCY 425.25/94.5 MHz

POLARIZATION HORIZ (——); VERT (----)

CURVE PLOTTED IN VOLTAGE (X) POWER ( ) DB ( )

OBSERVER RAS

ANTENNA TYPE 6810-3R-SS-DA

PATTERN TYPE DIRECTIONAL AZIMUTH

REMARKS SEE FIGURE 2 FOR MECHANICAL DETAILS

Figure 1A

S/O 22758
TABULATION OF HORIZONTAL POLARIZATION
KUKN KELSO, WA

DEGREE	RELATIVE FIELD	DEGREE	RELATIVE FIELD
0	0.295	180	1.000
10	0.300	190	1.000
20	0.270	200	1.000
30	0.290	210	1.000
40	0.410	220	1.000
45	0.510	225	1.000
50	0.590	230	0.980
60	0.710	240	0.915
70	0.795	250	0.830
80	0.830	260	0.730
90	0.755	270	0.710
100	0.600	280	0.755
110	0.590	290	0.765
120	0.740	300	0.705
130	0.860	310	0.605
135	0.915	315	0.540
140	0.950	320	0.470
150	0.985	330	0.360
160	1.000	340	0.270
170	1.000	350	0.250

Figure 1B

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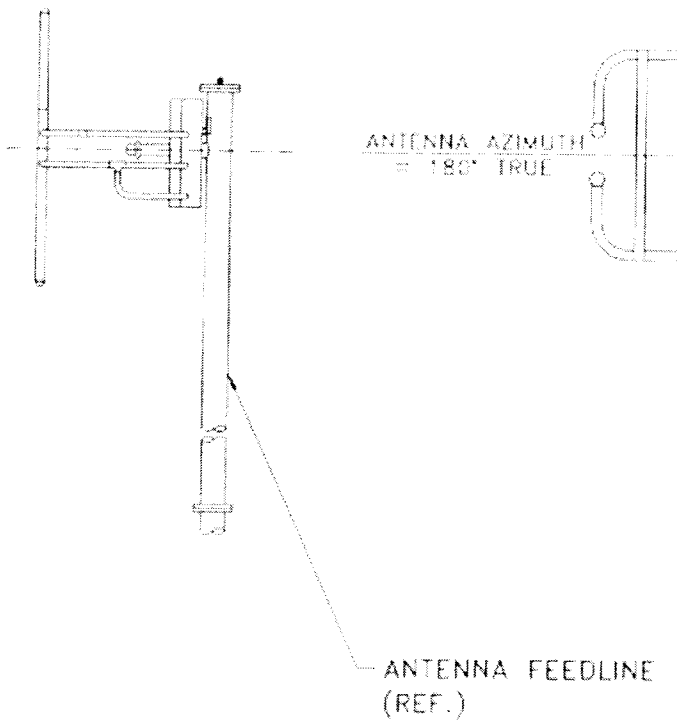
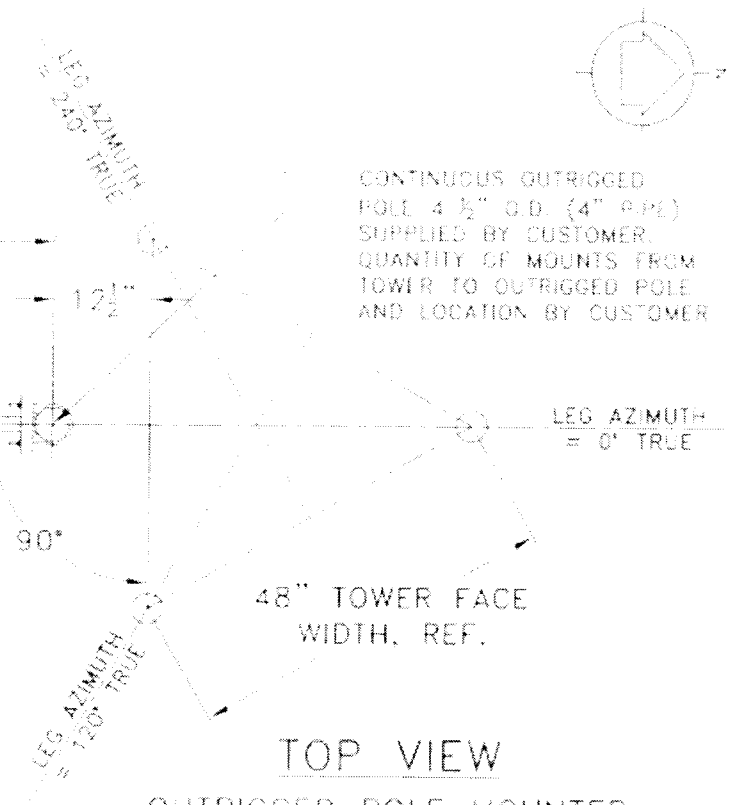
TABULATION OF VERTICAL POLARIZATION
KUKN KELSO, WA

DEGREE	RELATIVE FIELD	DEGREE	RELATIVE FIELD
0	0.230	180	0.940
10	0.250	190	0.910
20	0.280	200	0.900
30	0.325	210	0.900
40	0.380	220	0.930
45	0.415	225	0.955
50	0.445	230	0.980
60	0.500	240	0.990
70	0.550	250	0.990
80	0.605	260	0.950
90	0.715	270	0.880
100	0.825	280	0.780
110	0.900	290	0.650
120	0.940	300	0.500
130	0.955	310	0.360
135	0.960	315	0.320
140	0.970	320	0.280
150	0.980	330	0.230
160	0.980	340	0.220
170	0.955	350	0.220



ANTENNA FEEDLINE
(REF.)

SIDE VIEW



TOP VIEW

OUTRIGGED POLE MOUNTED
FROM FACE OF VALMONT
MICROFLECT TOWER

SHIVELY LABS
A DIVISION OF HOWELL LABORATORIES INC., BRIDGTON, MAINE

SHOP ORDER	FREQUENCY	SCALE	DRAWN BY: WS
22758	94.5 MHz.	N.T.S.	APPROVED BY:

TITLE: MODEL-6810-3R-SS-DIRECTIONAL ANTENNA

DATE: 12/13/02

FIGURE 2

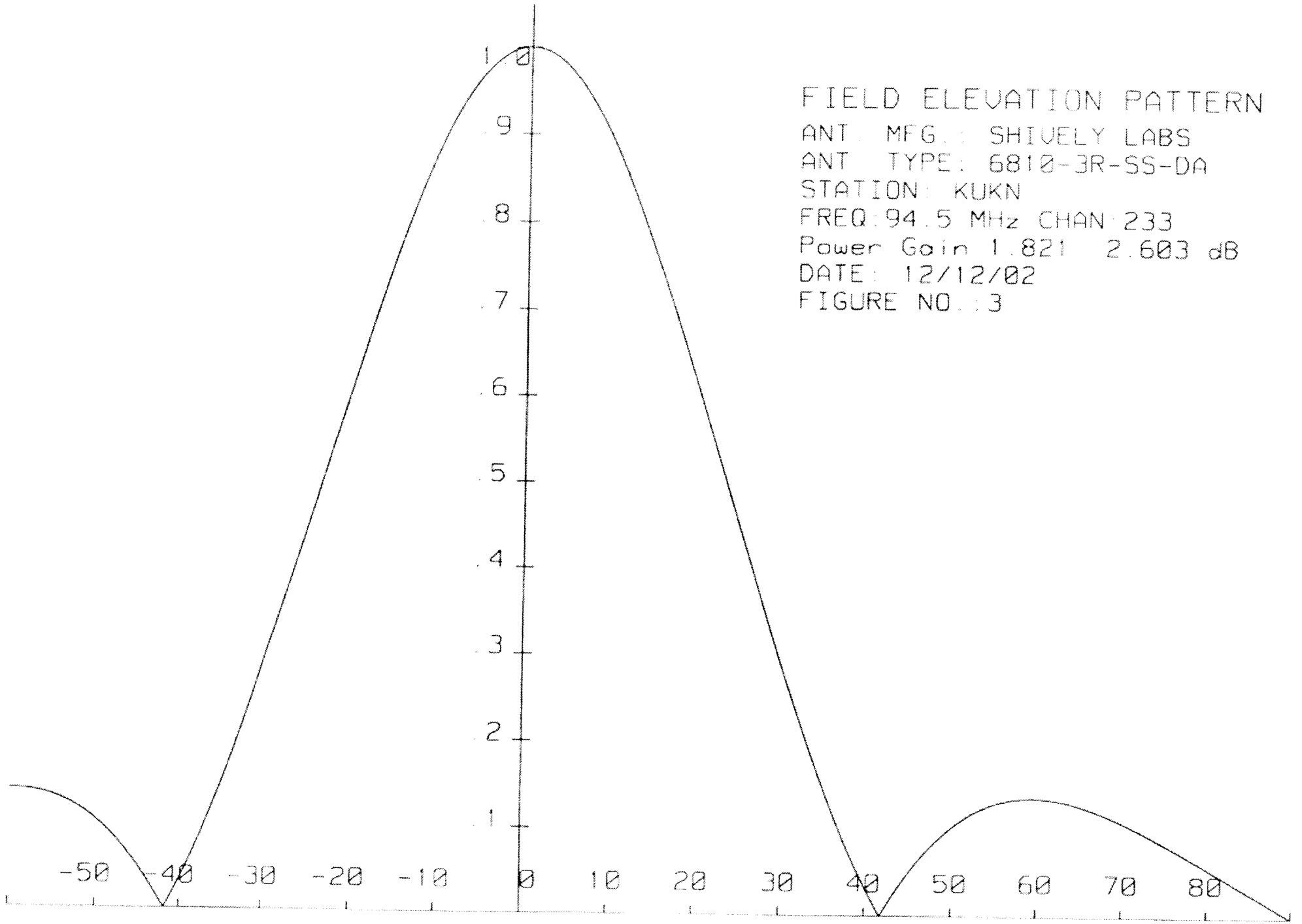

FIELD ELEVATION PATTERN
ANT. MFG.: SHIVELY LABS
ANT. TYPE: 6810-3R-SS-DA
STATION: KUKN
FREQ: 94.5 MHz CHAN 233
Power Gain 1.821 2.603 dB
DATE: 12/12/02
FIGURE NO.: 3
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.1
-50
-40
-30
-20
-10
0
10
20
30
40
50
60
70
80

FIGURE 4

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VALIDATION OF GAIN CALCULATION

KUKN KELSO, WA

MODEL 6810-3R-SS-DA

Elevation Gain of 6810-3R-SS-DA equals 1.01

The RMS values are calculated utilizing the data of a planimeter.

Horizontal RMS divided by Vertical RMS equals
$0.75 \div 0.74 = 1.014$

Elevation Gain of Horizontal Component equals
$1.01 \times 1.014 = 1.024$

Elevation Gain of Vertical Component equals
$1.01 \times 0.986 = 0.996$

Horizontal Azimuth Gain equals $1/(RMS)^2$
$1/(0.75)^2 = 1.778$

Vertical Azimuth Gain equals $1/(RMS \div Max\ Vert)^2$
$1/(0.74 \div 0.99)^2 = 1.790$

* **Total Horizontal Gain is Elevation Gain times Azimuth Gain**
  $1.024 \times 1.778 = 1.821$

* **Total Vertical Gain is Elevation Gain times Azimuth Gain**
  $0.996 \times 1.790 = 1.783$

ERP divided by Horizontal Gain equals Antenna Input Power
$3.0\ kW \div 1.821 = 1.647\ kW$

Antenna Input Power times Vertical Gain equals Vertical ERP
$1.647 \times 1.783 = 2.937\ kW$

Maximum Value of the Vertical Component squared times the Maximum ERP equals the Vertical ERP
$(0.99)^2 \times 3.0\ kW = 2.940\ kW$

NOTE: Calculating the ERP of the Vertical Component by two methods validates the total antenna gain calculations