

Exhibit 10 - Statement A  
**COMPLIANCE WITH SPECIAL OPERATING CONDITIONS**  
prepared for  
**New Northwest Broadcasters LLC**  
KUJ-FM Burbank, Washington  
Facility ID 77777  
Ch. 256C1 52 kW (DA-MAX) 385 m

New Northwest Broadcasters LLC (“*NNB*”) has completed the construction related to the KUJ-FM facility, as authorized in its construction permit (“CP” file number BMPH-20060410ADK). Upon review of the instant application by Commission’s staff, *NNB* requests program test authority and subsequent issuance of a license to cover the construction. This statement and associated exhibits are provided to demonstrate the compliance with the Special Operating Conditions on the CP and with §73.316(c)(2) of the Commissions Rules.

As required by **Special Operating Condition 1**, the antenna manufacturer’s proof-of-performance data and related exhibits, along with the manufacturer’s calculated RMS of the composite pattern, is supplied as **Attachment 1**. A review of the antenna proof-of-performance data confirms compliance with **Special Operating Condition 4**, which specifies that the antenna measured relative field strength not exceed, in any azimuth, that authorized by the instant Construction Permit or 3.8 kilowatts between the azimuths of 352 and 353 degrees true. Further, the proof-of-performance data demonstrates that the antenna pattern exceeds 85% of the authorized composite antenna pattern.

The installation engineer and surveyor statements are supplied as **Attachments 2 and 3**, respectively. These items will satisfy §73.316(c)(vii) and §73.316(c)(viii) and **Special Operating Conditions 3 and 2** respectively.

Pursuant to §73.316(c), a map is supplied as **Exhibit 10 - Figure 1**, which depicts the KUJ-FM 70 dBμ (principal community) contour resulting from the measured composite pattern and boundaries of Burbank, Washington, the station’s principal community. As demonstrated thereon, the facility as constructed complies with §73.316(c)(9), as the entire principal community is encompassed by the principal community contour. The KUJ-FM main studio, located in Kennewick, Washington, is also within the 70 dBμ (principal community) contour, satisfying §73.1125(a)(2) of the Rules.

Exhibit 10 - Statement A  
**SPECIAL OPERATING CONDITIONS**  
(page 2 of 2)

With respect to **Special Operating Conditions 6** and **7**, *NNB* will reduce power or cease operation as necessary to protect personnel from excessive levels of radiofrequency (“RF”) electromagnetic field. According to information provided by *NNB*, appropriately placed warning signs have been posted warning of RF exposure hazards. RF exposure measurements, included herein as **Exhibit 10 - Attachment 4**, show that publicly accessible areas do not exceed the FCC’s adopted General Population / Uncontrolled RF exposure guidelines.

S.O. 24908

Report of Test 6810-3R-DA

for

NEW NORTHWEST BROADCASTERS LLC

KUJ-FM 99.1 MHz BURBANK, WA

## **OBJECTIVE:**

The objective of this test was to demonstrate the directional characteristics of a 6810-3R-DA to meet the needs of KUJ-FM and to comply with the requirements of the FCC construction permit, file number BMPH-20060410ADK.

## **RESULTS:**

The measured azimuth pattern for the 6810-3R-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 BMPH-20060410ADK indicates that the Horizontal radiation component shall not exceed 52 kW at any azimuth and is restricted to the following values at the azimuths specified:

352 - 353 Degrees T: 3.8 kW

From Figure 1, the maximum radiation of the Horizontal component occurs at 180 Degrees T to 220 Degrees T. At the restricted azimuth of 352-353 Degrees T the Vertical component is 11.767 dB down from the maximum of 52 kW, or 3.46 kW.

The R.M.S. of the Horizontal component is 0.751. The total Horizontal power gain is 2.79. The R.M.S. of the Vertical component is 0.743. The total Vertical power gain is 2.735. See Figure 4 for calculations. The R.M.S. of the FCC composite pattern is 0.880. The R.M.S. of the measured composite pattern is 0.782. Eighty-five percent (85%) of the original authorized FCC composite pattern is 0.748. Therefore this pattern complies with the FCC requirement of 73.316(c)(2)(ix)(A).

**METHOD OF DIRECTIONALIZATION:**

One bay of the 6810-3R-DA was mounted on a tower of exact scale to the Valmont #48M tower at the KUJ-FM site. The spacing of the antenna to the tower was varied to achieve the vertical pattern shown in Figure 1. A horizontal parasitic element was placed directly under the bay. The position of this horizontal parasitic element was changed until the horizontal pattern shown in Figure 1 was achieved. See Figure 2 for mechanical details.

**METHOD OF MEASUREMENT:**

As allowed by the construction permit, file number BMPH-20060410ADK, a single level of the 6810-3R-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 9<sup>th</sup> 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 445.95 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:

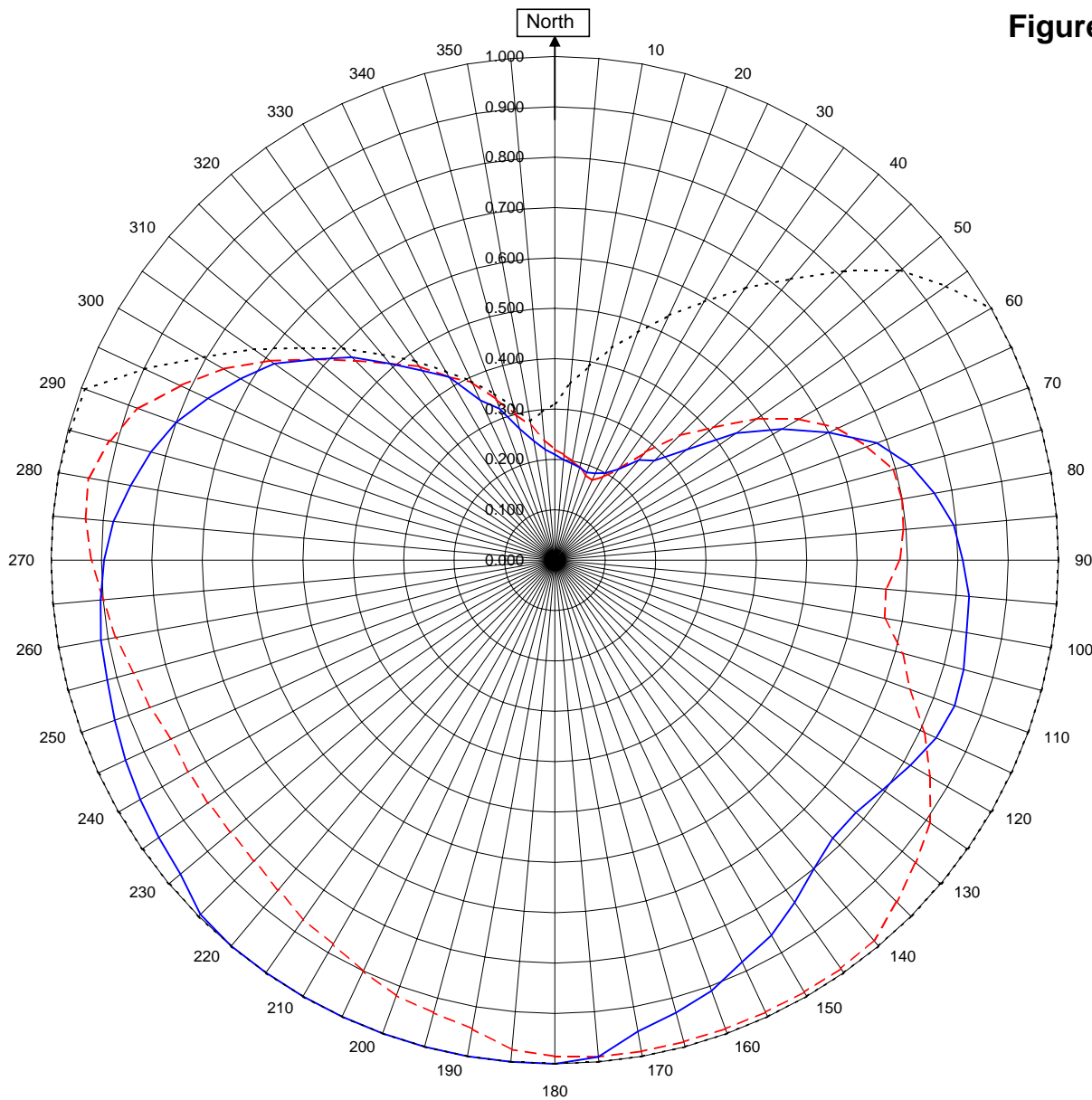


Robert A. Surette  
Director of Sales Engineering  
S/O 24908  
August 14, 2006

# Shively Labs

Shively Labs, a division of Howell Laboratories, Inc. Bridgton, ME (207)647-3327

Figure 1



## KUJ-FM Burbank, WA

24908  
August 14, 2006

Horizontal RMS	0.751	Frequency	99.1 / 445.95 mHz
Vertical RMS	0.743	Plot	Relative Field
H/V Composite RMS	0.782	Scale	4.5 : 1
FCC Composite RMS	0.880	See Figure 2 for Mechanical Details	

Antenna Model	6810-3R-DA
Pattern Type	Directional Azimuth

Figure 1a

Tabulation of Horizontal Azimuth Pattern  
KUJ-FM Burbank, WA

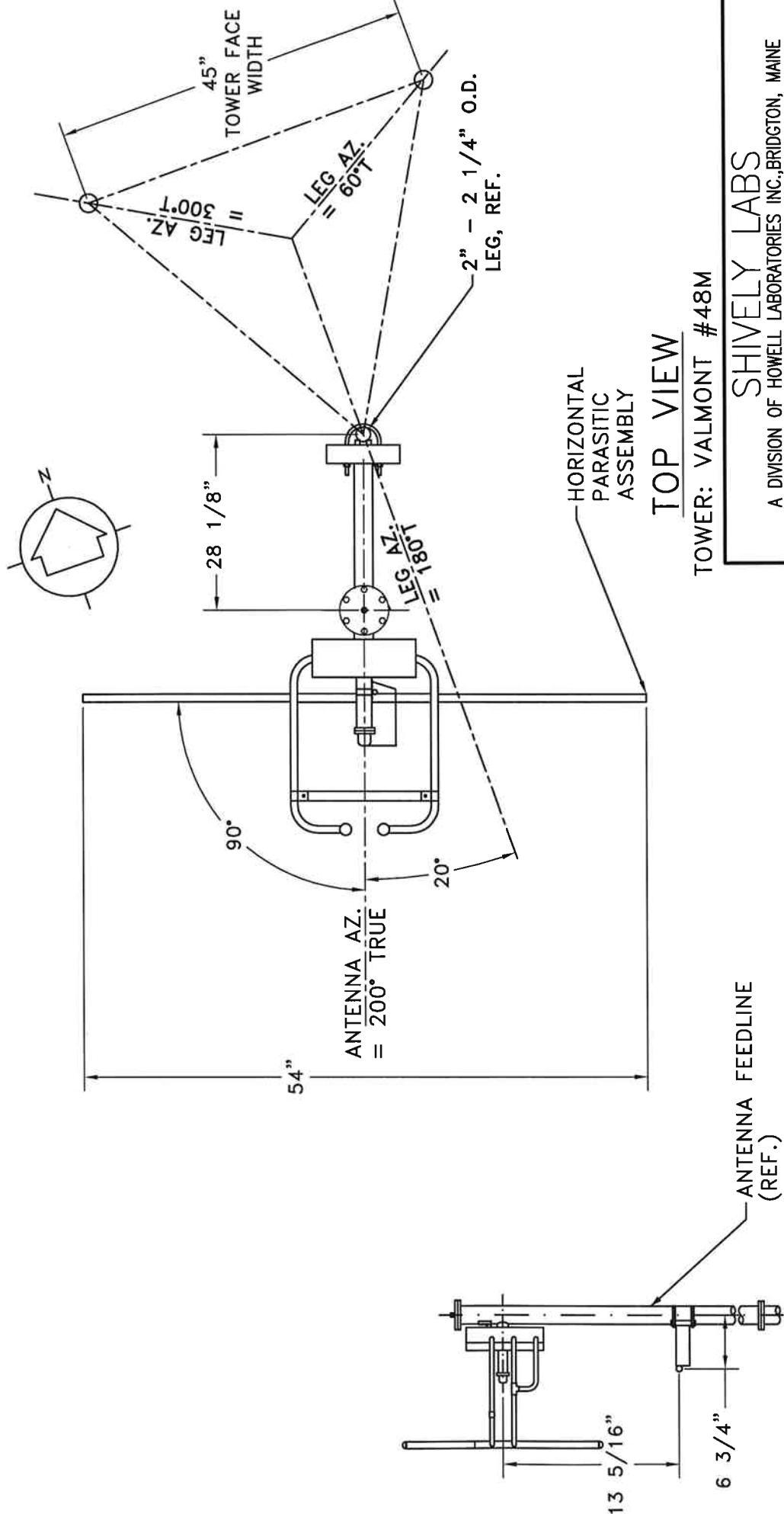
Azimuth	Rel Field	Azimuth	Rel Field
0	0.210	180	1.000
10	0.195	190	1.000
20	0.185	200	1.000
30	0.200	210	1.000
40	0.260	220	1.000
45	0.280	225	0.995
50	0.340	230	0.970
60	0.520	240	0.950
70	0.680	250	0.930
80	0.765	260	0.915
90	0.810	270	0.895
100	0.830	280	0.855
110	0.845	290	0.800
120	0.815	300	0.720
130	0.780	310	0.620
135	0.780	315	0.570
140	0.800	320	0.510
150	0.860	330	0.420
160	0.910	340	0.320
170	0.950	350	0.240

Figure 1b

Tabulation of Vertical Azimuth Pattern  
KUJ-FM Burbank, WA

Azimuth	Rel Field	Azimuth	Rel Field
0	0.220	180	0.985
10	0.200	190	0.945
20	0.180	200	0.920
30	0.190	210	0.880
40	0.280	220	0.855
45	0.350	225	0.845
50	0.410	230	0.840
60	0.560	240	0.840
70	0.660	250	0.855
80	0.700	260	0.885
90	0.685	270	0.920
100	0.665	280	0.940
110	0.750	290	0.880
120	0.860	300	0.760
130	0.935	310	0.620
135	0.960	315	0.560
140	0.985	320	0.510
150	0.990	330	0.420
160	0.990	340	0.340
170	0.990	350	0.270





SHIVELY LABS			
A DIVISION OF HOWELL LABORATORIES INC., BRIDGTON, MAINE			
SHOP ORDER:	FREQUENCY:	SCALE:	DRAWN BY:
24908	99.1	N.T.S.	ASP
TITLE:		APPROVED BY:	
MODEL-6810-3R-DIRECTIONAL ANTENNA		DAB	
DATE:	FIGURE 2		
7/24/06			

TOWER: VALMONT #48M

TOP VIEW

SIDE VIEW

Antenna Mfg.: Shively Labs  
Antenna Type: 6810-3R-DA

Date: 8/14/2006

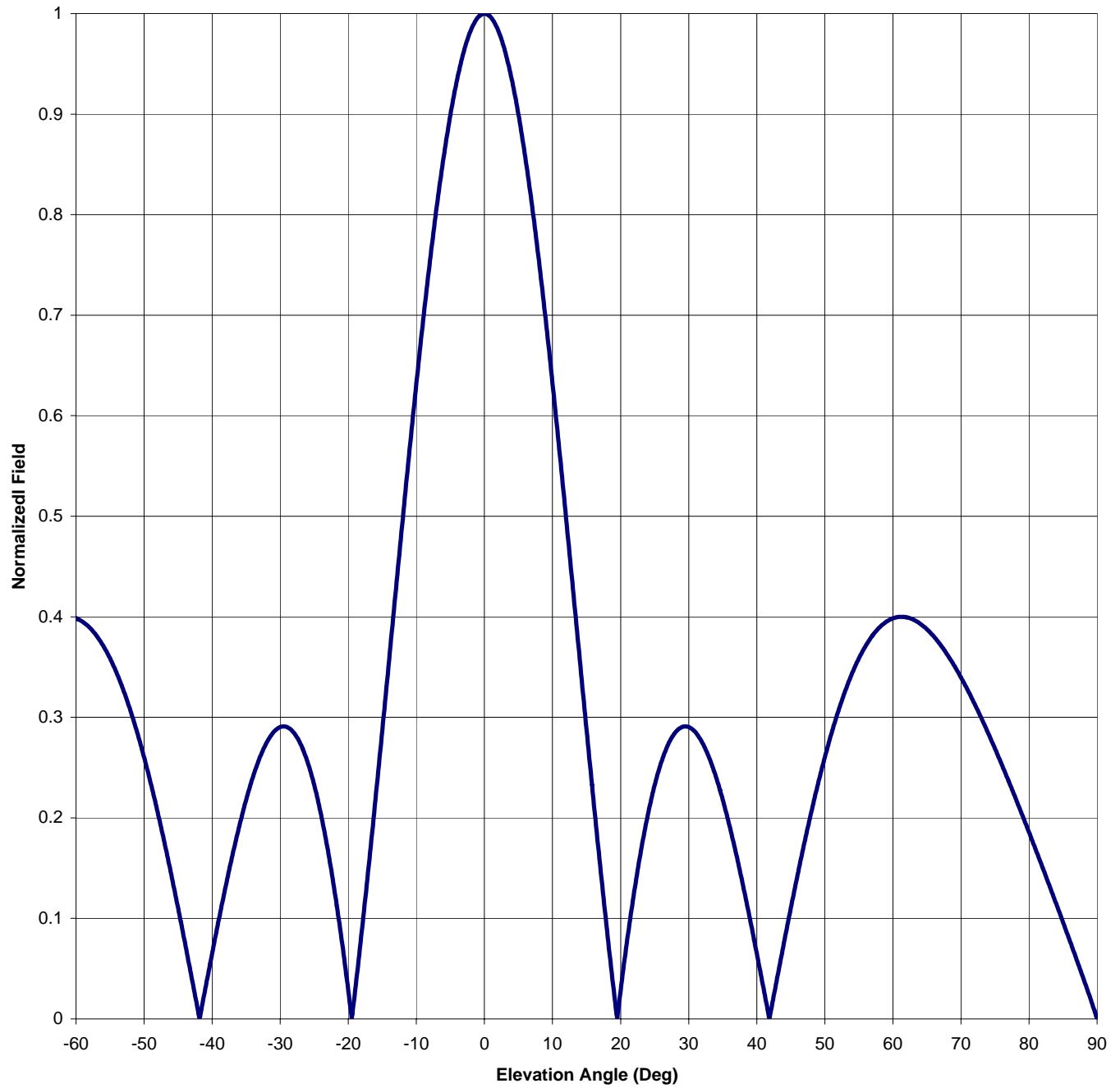
Station: KUJ

Frequency: 99.1

Channel #: 256

Figure: 3

Beam Tilt	0	
Gain (Max)	2.790	4.456 dB
Gain (Horizon)	2.790	4.456 dB



Antenna Mfg.: Shively Labs

Date: 8/14/2006

Antenna Type: 6810-3R-DA

Station: KUJ

Beam Tilt 0

Frequency: 99.1

Gain (Max) 2.790

4.456 dB

Channel #: 256

Gain (Horizon) 2.790

4.456 dB

Figure: 3

Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field
-90	0.000	-44	0.076	0	1.000	46	0.143
-89	0.021	-43	0.041	1	0.996	47	0.175
-88	0.040	-42	0.005	2	0.983	48	0.205
-87	0.059	-41	0.030	3	0.963	49	0.234
-86	0.078	-40	0.065	4	0.935	50	0.260
-85	0.096	-39	0.099	5	0.899	51	0.285
-84	0.114	-38	0.132	6	0.857	52	0.307
-83	0.132	-37	0.163	7	0.808	53	0.326
-82	0.150	-36	0.192	8	0.754	54	0.344
-81	0.168	-35	0.218	9	0.695	55	0.359
-80	0.186	-34	0.241	10	0.632	56	0.371
-79	0.203	-33	0.260	11	0.566	57	0.381
-78	0.220	-32	0.275	12	0.498	58	0.389
-77	0.237	-31	0.285	13	0.428	59	0.395
-76	0.253	-30	0.290	14	0.358	60	0.398
-75	0.269	-29	0.290	15	0.288	61	0.400
-74	0.284	-28	0.285	16	0.219	62	0.399
-73	0.299	-27	0.273	17	0.152	63	0.397
-72	0.313	-26	0.256	18	0.088	64	0.393
-71	0.327	-25	0.232	19	0.028	65	0.388
-70	0.340	-24	0.203	20	0.028	66	0.380
-69	0.352	-23	0.168	21	0.080	67	0.372
-68	0.362	-22	0.126	22	0.126	68	0.362
-67	0.372	-21	0.080	23	0.168	69	0.352
-66	0.380	-20	0.028	24	0.203	70	0.340
-65	0.388	-19	0.028	25	0.232	71	0.327
-64	0.393	-18	0.088	26	0.256	72	0.313
-63	0.397	-17	0.152	27	0.273	73	0.299
-62	0.399	-16	0.219	28	0.285	74	0.284
-61	0.400	-15	0.288	29	0.290	75	0.269
-60	0.398	-14	0.358	30	0.290	76	0.253
-59	0.395	-13	0.428	31	0.285	77	0.237
-58	0.389	-12	0.498	32	0.275	78	0.220
-57	0.381	-11	0.566	33	0.260	79	0.203
-56	0.371	-10	0.632	34	0.241	80	0.186
-55	0.359	-9	0.695	35	0.218	81	0.168
-54	0.344	-8	0.754	36	0.192	82	0.150
-53	0.326	-7	0.808	37	0.163	83	0.132
-52	0.307	-6	0.857	38	0.132	84	0.114
-51	0.285	-5	0.899	39	0.099	85	0.096
-50	0.260	-4	0.935	40	0.065	86	0.078
-49	0.234	-3	0.963	41	0.030	87	0.059
-48	0.205	-2	0.983	42	0.005	88	0.040
-47	0.175	-1	0.996	43	0.041	89	0.021
-46	0.143	0	1.000	44	0.076	90	0.000
-45	0.110			45	0.110		

## VALIDATION OF TOTAL POWER GAIN CALCULATION

KUJ

MODEL 6810-3R-SS-DA

Elevation Gain of Antenna 1.557

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

Horizontal RMS value divided by the Vertical RMS value equals the Horiz. - Vert. Ratio

H RMS 0.751 V RMS 0.743 H/V Ratio 1.011

Elevation Gain of Horizontal Component 1.574

Elevation Gain of Vertical Component 1.540

Horizontal Azimuth Gain equals 1/(RMS)SQ. 1.773

Vertical Azimuth Gain equals 1/(RMS/Max Vert)SQ. 1.775

Max. Vertical 0.99

**\*Total Horizontal Power Gain is the Elevation Gain Times the Azimuth Gain**

Total Horizontal Power Gain = 2.790

**\*Total Vertical Power Gain is the Elevation Gain Times the Azimuth Gain**

Total Vertical Power Gain = 2.735

=====

ERP divided by Horizontal Power Gain equals Antenna Input Power

52 KW ERP Equals 18.636 KW Antenna Input Power

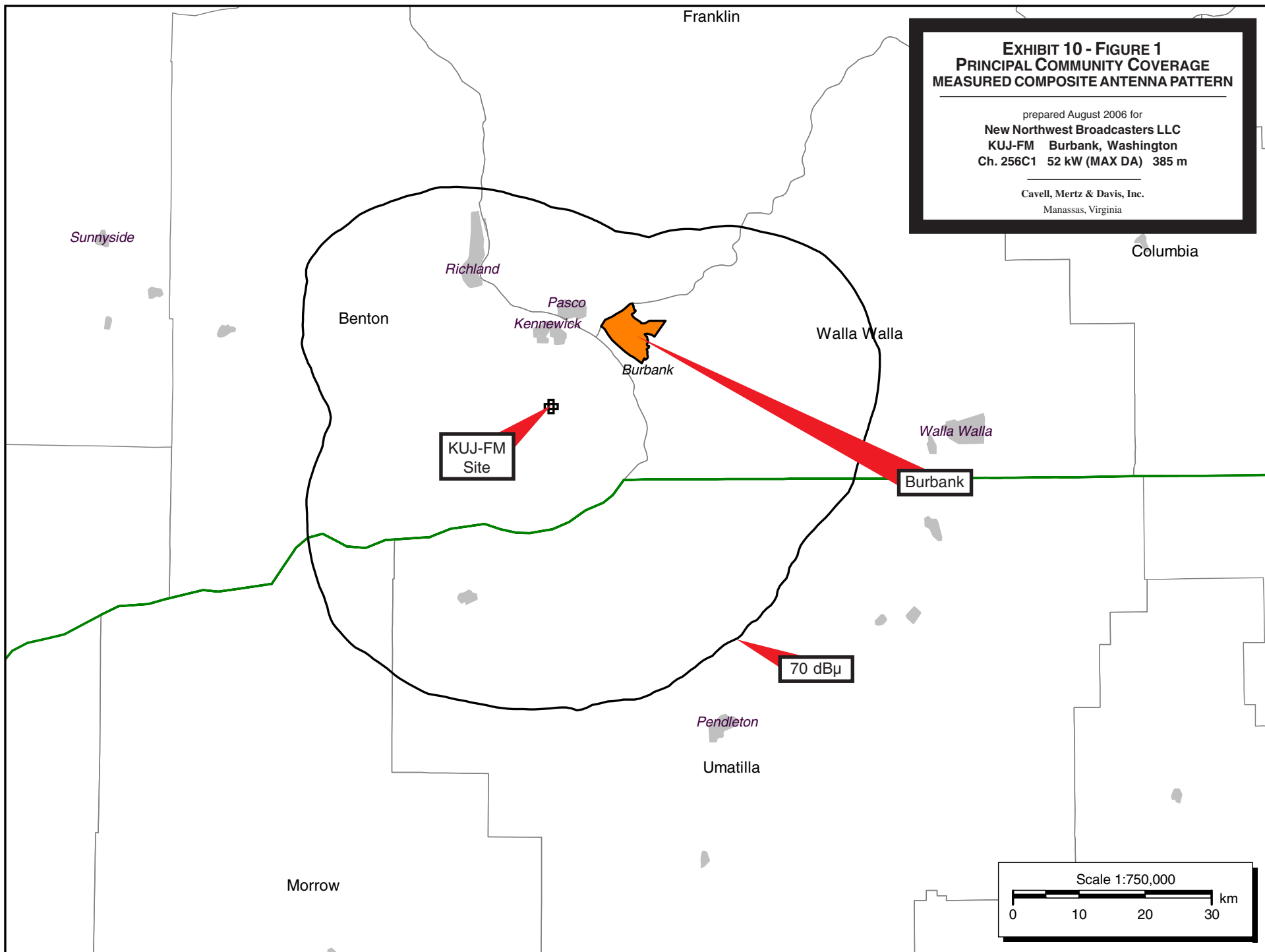
Antenna Input Power times Vertical Power Gain equals Vertical ERP

18.636 KW Times 2.735 KW Equals 50.965 KW ERP

Maximum Value of the Vertical Component squared times the Maximum ERP equals the Vertical ERP

0.99 Equals 50.965 KW Vertical ERP

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



# **BOYD BROADCAST TECHNICAL SERVICES**

21818 SW Columbia Circle

Tualatin, OR 97062

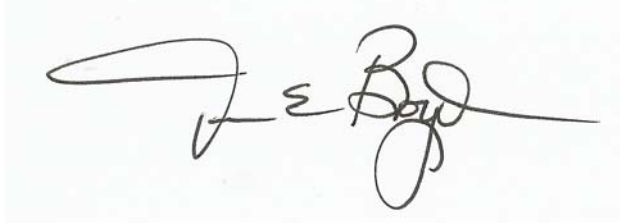
(503) 692-6074

August 4, 2006

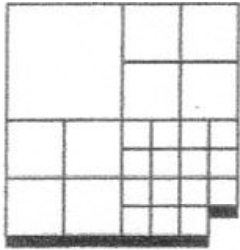
I hereby certify, pursuant to Special Operating Condition Number 3 for KUJ-FM Construction Permit BMPH-20060410ADK, that installation of the directional antenna system for KUJ-FM was overseen by me and the antenna was installed pursuant to instructions supplied by the antenna manufacturer Shively Labs.

I am the owner of Boyd Broadcast Technical Services. I have been engaged in education and commercial radio broadcast engineering projects in Oregon, Washington and Idaho since January of 1965. Many of these projects involved the supervision of construction of FM directional antenna facilities.

I hold FCC General Radiotelephone Certificate # PG-13-6198.

A handwritten signature in black ink, appearing to read "J E Boyd", with a long horizontal flourish extending to the right.

James E. Boyd  
Boyd Broadcast Technical Services  
21818 SW Columbia Circle  
Tualatin, OR 97062  
(503) 692-6074 Office  
(503) 703-8360 Mobile  
Email: [bbts@easystreet.com](mailto:bbts@easystreet.com)



# PERMIT SURVEYING, INC.

2245 Robertson Drive  
Richland, Washington 99354  
(509) 375-4123 Office • FAX, (509) 371-0999  
dan@permitsurveying.com

AUG. 8, 2006

NEW NORTHWEST BROADCASTERS LLC  
ATTN: JOHN McDANIEL  
1011 WESTERN AVE., SUITE 920  
SEATTLE, WA 98104

RE: ORIENTATION CERTIFICATION  
FACILITY ID: 77777  
CALL SIGN: KUJ-FM  
FCC PERMIT NO. BMPH-20060410ADK

DEAR MR. JOHN McDANIEL AND INTERESTED PARTIES;

I HEREBY CERTIFY BY THIS LETTER, THAT THE KUJ TRANSMITTER SITE, LOCATED IN THE VICINITY OF JUMP OFF JOE, SOUTHERLY OF KENNEWICK, WASHINGTON, BEARS 200 DEGREES NORTH AZIMUTH FROM TRUE NORTH.

THE CENTER OF RADIATION OF THE NEW ANTENNA IS AT AN ELEVATION OF 2305 FEET ABOVE MEAN SEA LEVEL (AMSL). ANTENNA ORIENTATION WAS DERIVED FROM GPS OBSERVATIONS ON AUGUST 1, 2006, AND VISUAL INSPECTION OF THE INSTALLED ANTENNA BAYS ON AUGUST 7, 2006.

SINCERELY,

BRIANNA J. BUETTNER,  
WASHINGTON PLS #41955  
PROJECT SURVEYOR,  
PERMIT SURVEYING, INC

THIS IS TO CERTIFY THAT ON THIS FOURTH DAY OF AUGUST, 2006, A.D. PERSONALLY APPEARED BEFORE ME, BRIANNA J. BUETTNER P.L.S., UNDER OATH STATED THAT SHE EXECUTED THE FOREGOING SIGNATURE AND ACKNOWLEDGED TO ME THAT SHE SIGNED THE SAME AS HER VOLUNTARY ACT AND DEED.

IN WITNESS THEREOF I HAVE SET MY HAND AND OFFICIAL SEAL THE DAY AND YEAR FIRST ABOVE WRITTEN.

NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON  
RESIDING IN: BENTON COUNTY.  
MY COMMISSION EXPIRES: 05/01/2008



# **Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields**

**KEGX/KUJ-FM  
Shared Transmitter Site  
Near Kennewick, Washington**

**Report of Measurements & Conclusions  
August 17, 2006**



This report details radio frequency radiation (RFR) measurements made on August 17<sup>th</sup>, 2006, at the common transmitter site for KEGX and KUJ-FM near Kennewick, Washington. The measurements detailed herein were made by James Boyd of Boyd Broadcast Technical Services.

The measurement equipment used consists of a Narda Microwave model 8718B RFR meter (SN: 7127) with a model A8722D E-Field probe (SN: 09014). The E-Field probe is broadband with frequency coverage of 300 kHz to 50 GHz. The instrument set was calibrated in July of 2006.

The A8722D probe used is a “shaped” probe, meaning that the response to radiofrequency fields follows the 1997 FCC Limits for Maximum Permissible Exposure (MPE) for Occupational/Controlled Exposure, resulting in a display on the 8718B meter of percentage of MPE. Because of the frequencies in use at this site, the MPE for General Population/Uncontrolled Exposure limit is one-fifth or 20% of the Occupational/Controlled Exposure limit. Readings in areas where access is available to the General Population (Uncontrolled), were multiplied by a factor of 5. The FCC Limits for Maximum Permissible Exposure curve is shown on page 9. A picture of the test equipment used is shown on page 10.

Measurement techniques used are consistent with generally accepted practices. Steps and procedures used in making these measurements are similar to those printed in Section 3 of OET Bulletin 65, Edition 97-01, August 1997, published by the FCC Office of Engineering and Technology.

Two FM broadcast antennas are mounted on the single tower at this site. A single building houses all transmitter equipment. The building and tower are surrounded by a fence with a locked entry gate. All guy anchors are fenced.

At the time of the measurements, all stations were believed to be operating with licensed facilities and power levels.

Here are important discoveries made during this survey:

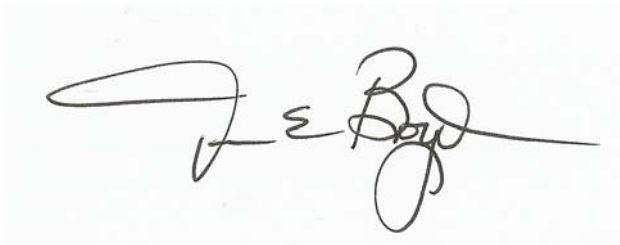
1. **No** areas outside the fenced building and tower compound exceed General Population/Uncontrolled MPE levels. Highest level observed was in a parking area to the west of the transmitter compound. A small area (approximately 4 square meters in size) measured 54.65 % of the General Population/Uncontrolled MPE level, spatially averaged.
2. **No** areas inside the fenced compound and building exceed Occupational/Controlled MPE levels. Highest level observed was 21.5% Occupational/Controlled MPE level at the base of the tower. 4.293% of the Occupational/Controlled MPE level was observed in the transmitter building.

Measurements were made in the building and inside the fenced compound surrounding the tower and building. Measurements were made outside the compound by walking the perimeter fence and by walking radially away from the fence (and the tower as the center of the radius) in eight compass directions. Guy anchors were checked up to the fences that surround them. Data for all of these measurements is tabulated on page 3.

A drawing of the site is shown on page 4. A topographical map showing the location of the transmitter site is on page 5. Pictures of the transmitter site are on pages 6, 7 and 8.

The data conclusively shows workers in the building and the general public outside of the fenced compound are safe at all times. Tower work, of course, requires shut down of the facilities.

All measurements were made by me. I am an experienced radio broadcast engineer. I have experience making these measurements. My technical qualifications are a matter of record with the Federal Communications Commission.

A handwritten signature in dark ink, appearing to read "J E Boyd", with a long horizontal line extending to the right.

James E. Boyd  
General Radiotelephone License # PG-13-6198  
Boyd Broadcast Technical Services  
21818 SW Columbia Circle  
Tualatin, OR 97062  
(503) 692-6074

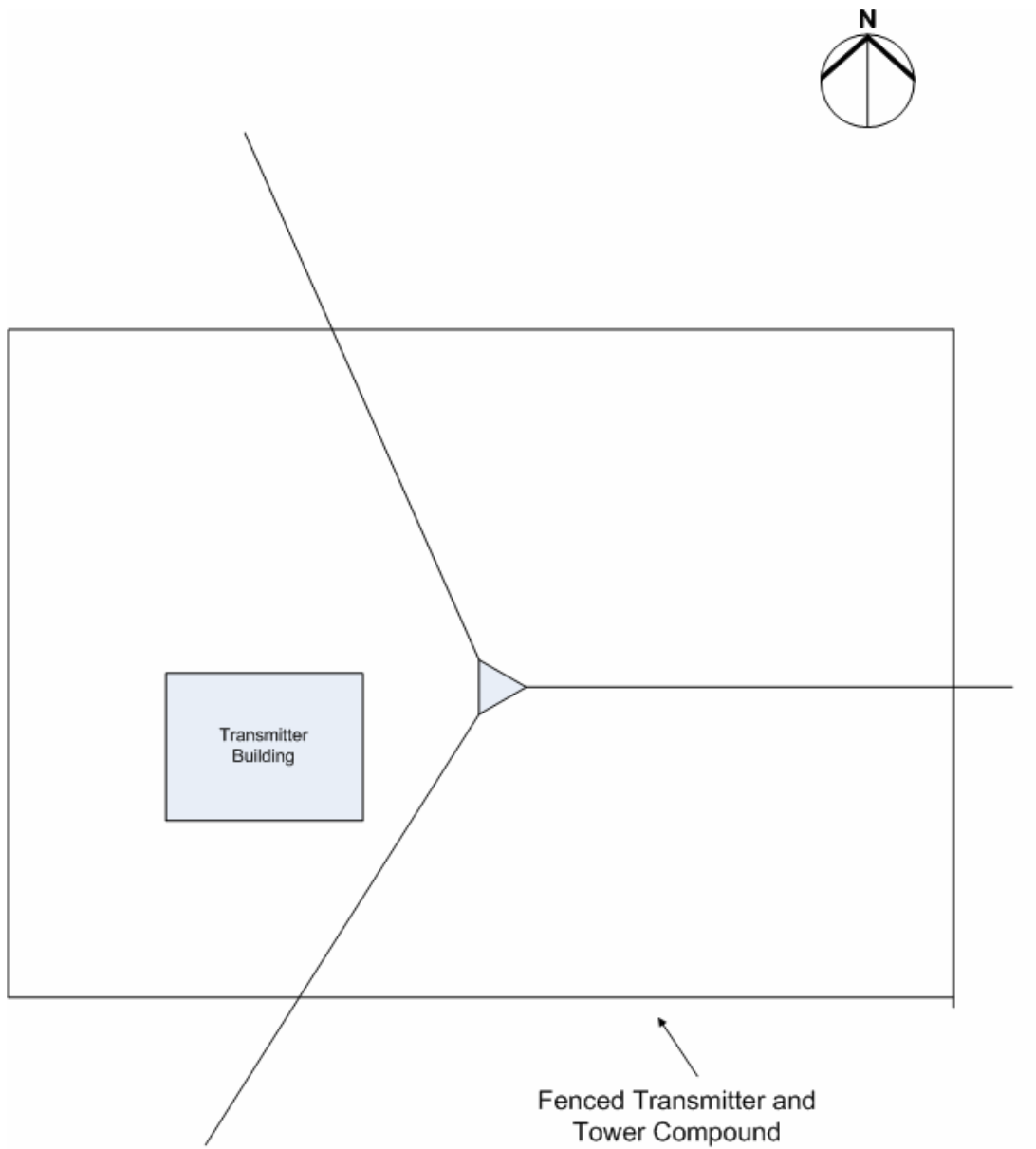
## **Tabulation of Measured Data**

4.293%	In Transmitter Building <sup>1</sup>
21.5%	Inside Fenced Compound <sup>1</sup>
48.935%	Outside of north perimeter fence <sup>2</sup>
40.215%	Outside of east perimeter fence <sup>2</sup>
54%	Outside of south perimeter fence <sup>2</sup>
78.8%	Outside of west perimeter fence <sup>2</sup>
56.05%	Radially to the north <sup>2</sup>
40.59%	Radially to the northeast <sup>2</sup>
52.65%	Radially to the east <sup>2</sup>
46.5%	Radially to the southeast <sup>2</sup>
46.55%	Radially to the south <sup>2</sup>
91.3%	Radially to the southwest <sup>2</sup>
54.65%	Radially to the west <sup>3</sup>
66.45%	Radially to the northwest <sup>2</sup>
≤80%	All guy anchors at the fence surrounding each anchor <sup>2</sup>

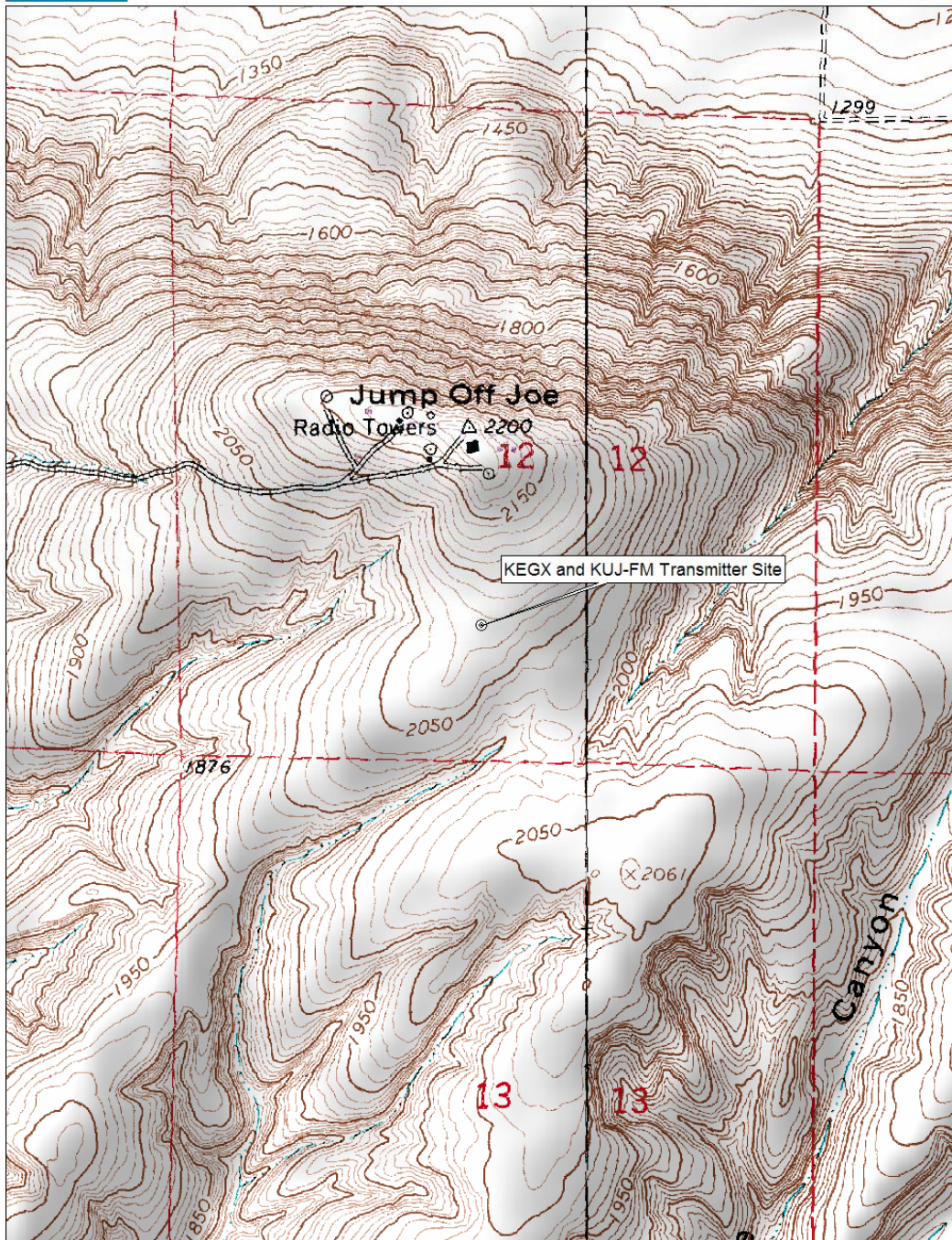
<sup>1</sup> Percent of Occupational/Controlled MPE Level, Peak

<sup>2</sup> Percent of General Population/Uncontrolled MPE Level, Peak

<sup>3</sup> Percent of General Population/Uncontrolled MPE Level, Spatially Averaged



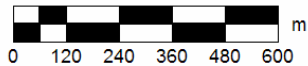
KEGX/KUJ-FM  
Transmitter Site



Data use subject to license.

© 2004 DeLorme. XMap® 4.5.

www.delorme.com



Data Zoom 14-0

### USGS Topographical Map of KEGX/KUJ-FM Transmitter Site





View of fenced building and tower.



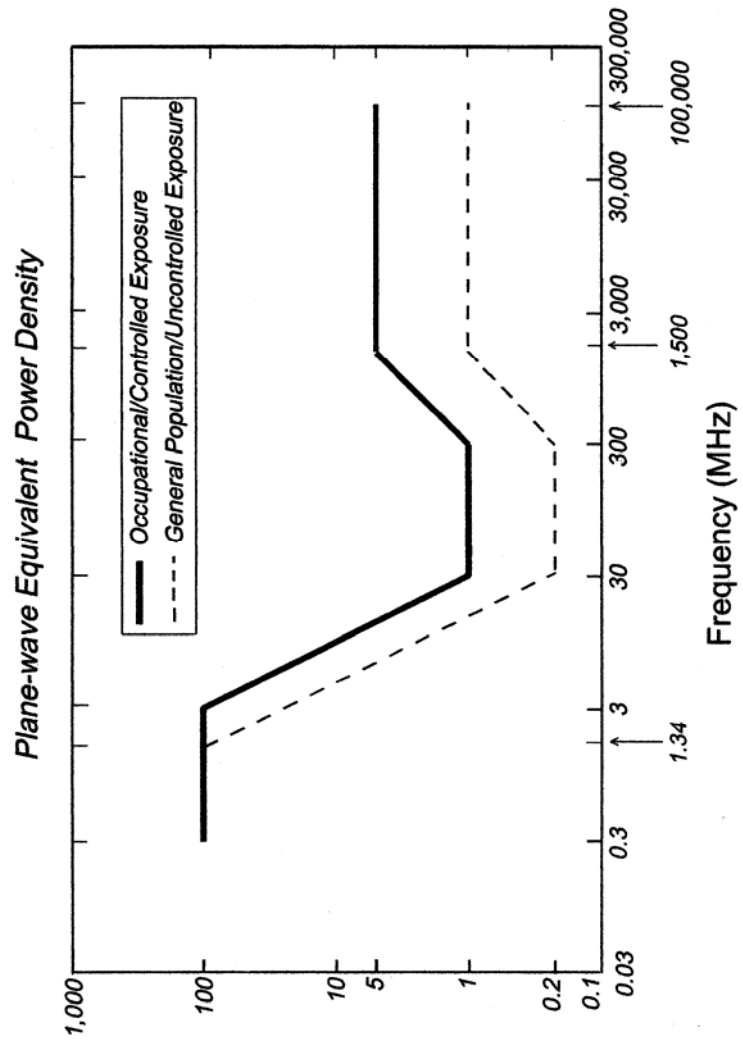
View of KUJ-FM Antenna



Picture of KEGX Antenna



**Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)**





Narda Test Equipment