

NONIONIZING RADIATION COMPLIANCE
Erie 45 Media Association
Erie, PA

The proposed facilities will fully comply with the current FCC Standard with regard to human exposure to nonionizing radiation. The proposed antenna will be a Jampro JA/LS-BC-16 directional antenna that will be mounted at the 45.7 meter level on an existing 84 meter tower. Table 7.0 and Figure 7.0 present the vertical radiation pattern for the proposed antenna. Equation (2), found on Page 30 of Supplement A to FCC OET Bulletin No. 65, details the calculation technique used to determine the power density at the base of a TV broadcast tower. Using this vertical radiation pattern and assuming a maximum peak visual effective radiated power of 60 kilowatts and a maximum aural effective radiated power of 6.0 kilowatts, this equation predicts a worst case power density level at two meters above ground level of $14.5 \mu\text{W}/\text{cm}^2$, which will occur at a depression angle of 78° below horizontal. Since the permitted power density for uncontrolled exposure to nonionizing radiation on Channel 45 is $437.3 \mu\text{W}/\text{cm}^2$, this amounts to only 3.3% of the permitted level. Since this is less than 5% of the permitted level for uncontrolled exposure, the proposed facilities are excluded from environmental processing and need not be considered in conjunction with other co-located and nearby facilities to establish compliance with this exposure standard.

The applicant, in conjunction with other co-located and nearby facilities, will also take appropriate steps to insure that workers that must climb this tower will not be exposed to levels of nonionizing radiation that are in excess of the permitted level for controlled exposure. These steps will include the cessation of operation or a reduction in power, as appropriate, by the proposed facility and/or other co-located or nearby facilities when work becomes necessary on this tower in the areas where the total power density levels will be in excess of the permitted level for controlled exposure.

TABLE OF FIELD STRENGTH FOR : 16SLOT.ELV

INCREMENTAL DEGREES

	0	1	2	3	4	5	6	7	8	9
+	1.000	.877	.562	.185	.102	.216	.164	.026	.095	.130
-	1.000	.877	.562	.185	.102	.216	.164	.026	.095	.130
D -10	.076	.018	.084	.088	.034	.035	.074	.062	.012	.041
E -20	.064	.046	.001	.042	.057	.039	.002	.040	.054	.037
G -30	.000	.036	.051	.040	.008	.026	.047	.045	.022	.011
R -40	.038	.050	.040	.014	.018	.043	.052	.042	.018	.013
E -50	.040	.055	.054	.037	.010	.020	.046	.061	.064	.052
E -60	.030	.001	.028	.055	.074	.082	.080	.068	.046	.019
S -70	.012	.043	.075	.100	.125	.145	.154	.164	.170	.164
-80	.163	.159	.154	.147	.148	.139	.130	.120	.120	.110
-90	.100									

TABLE 7.0

VERTICAL RADIATION PATTERN

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Frequency: <MHz> 657.24

File Name:16SLOT.ELU

JAMPRO ANTENNAS INC.

Bays : 16

ELEVATION PATTERN

Spacing (Wavelength): 1.00

Model : SLOT

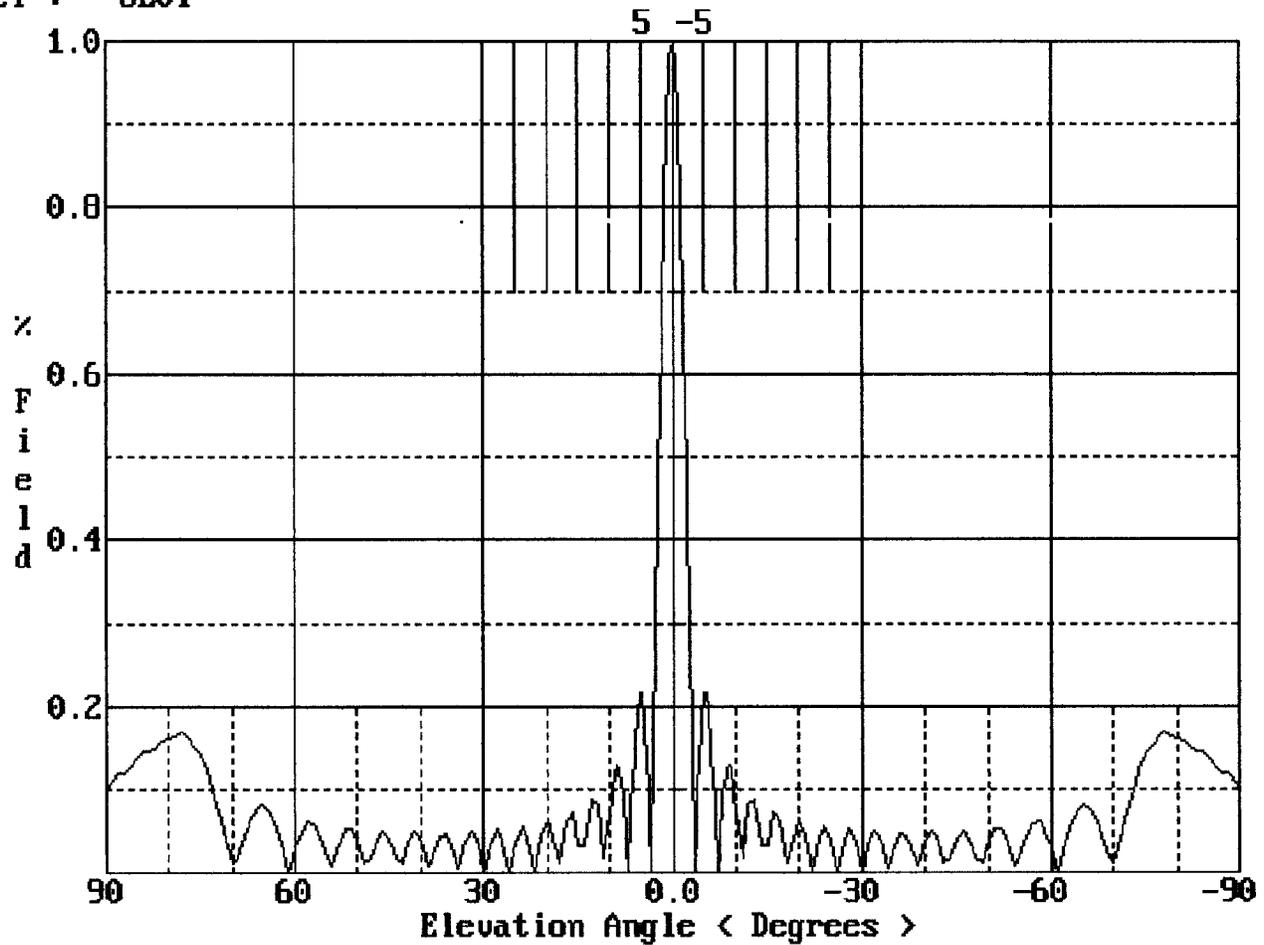


FIG. 7.0

VERTICAL RADIATION PATTERN

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