

EXHIBIT 17
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NONIONIZING RADIATION COMPLIANCE
Evangelistic Alaska Missionary Fellowship, Inc.
Dot Lake, AK

The proposed K296DU facilities will fully comply with the current FCC Standard with regard to human exposure to nonionizing radiation. The proposed facilities will utilize two stacked Kathrein/Scala HDCA-5H series horizontally polarized yagi directional antennas that will be mounted at the 19.8 meter level on an existing 22.9 meter tower and operate with a maximum horizontally polarized effective radiated power of 0.16 kilowatts.

Table 17.0 and Figure 17.0 present the vertical radiation pattern for this antenna, which was supplied by the manufacturer. Power density calculations were conducted for this antenna system using this vertical radiation pattern data and Equation (9), found on Page 22 of FCC OET Bulletin 65. These calculations determined that the worst case predicted power density at two meters above ground level for these proposed facilities will be $0.91 \mu\text{W}/\text{cm}^2$, which will occur at a horizontal distance of 48.9 meters from the base of this tower. Since the permitted power density in the FM band is $200 \mu\text{W}/\text{cm}^2$, this amounts to only 0.46% of the permitted level for uncontrolled exposure. Since this is less than 5% of the permitted level, the proposed facilities are excluded from environmental processing under this standard and need not be considered in conjunction with any other co-located or nearby facilities in evaluating uncontrolled exposure compliance with this standard.

The applicant will take appropriate steps to insure that workers that must be on 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 with this antenna system or a reduction in power, as appropriate, when work becomes necessary in areas on this tower where the power density levels are in excess of the permitted level for controlled exposure.

TABLE 17.0

K296DU VERTICAL RADIATION PATTERN



KATHREIN
SCALA DIVISION

Evangelistic Alaska Missionary
Fellowship, Inc.
Dot Lake, AK

Two HDCA-5/HRM five element Yagis

Vertical Stacked 0.67 wavelength

Frequency: 105.1 MHz (CH 286)

Vertical plane Pattern

Gain: 10.0 dBd (x 10.0)

Horizontal Polarization

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.117	-18.63	-8.63	0.14	-45	0.041	-27.69	-17.69	0.02
-89	0.116	-18.68	-8.68	0.14	-44	0.056	-24.96	-14.96	0.03
-88	0.116	-18.74	-8.74	0.13	-43	0.073	-22.74	-12.74	0.05
-87	0.115	-18.81	-8.81	0.13	-42	0.091	-20.86	-10.86	0.08
-86	0.114	-18.89	-8.89	0.13	-41	0.110	-19.21	-9.21	0.12
-85	0.112	-18.98	-8.98	0.13	-40	0.130	-17.74	-7.74	0.17
-84	0.110	-19.17	-9.17	0.12	-39	0.151	-16.44	-6.44	0.23
-83	0.108	-19.37	-9.37	0.12	-38	0.173	-15.26	-5.26	0.30
-82	0.105	-19.58	-9.58	0.11	-37	0.196	-14.16	-4.16	0.38
-81	0.102	-19.81	-9.81	0.10	-36	0.220	-13.15	-3.15	0.48
-80	0.099	-20.05	-10.05	0.10	-35	0.245	-12.20	-2.20	0.60
-79	0.097	-20.24	-10.24	0.09	-34	0.271	-11.34	-1.34	0.73
-78	0.095	-20.44	-10.44	0.09	-33	0.297	-10.54	-0.54	0.88
-77	0.093	-20.66	-10.66	0.09	-32	0.325	-9.77	0.23	1.05
-76	0.090	-20.90	-10.90	0.08	-31	0.353	-9.05	0.95	1.24
-75	0.088	-21.15	-11.15	0.08	-30	0.382	-8.37	1.63	1.46
-74	0.085	-21.38	-11.38	0.07	-29	0.410	-7.74	2.26	1.68
-73	0.083	-21.62	-11.62	0.07	-28	0.439	-7.15	2.85	1.93
-72	0.080	-21.89	-11.89	0.06	-27	0.469	-6.58	3.42	2.20
-71	0.078	-22.17	-12.17	0.06	-26	0.499	-6.04	3.96	2.49
-70	0.075	-22.47	-12.47	0.06	-25	0.529	-5.53	4.47	2.80
-69	0.073	-22.69	-12.69	0.05	-24	0.558	-5.06	4.94	3.12
-68	0.071	-22.93	-12.93	0.05	-23	0.588	-4.61	5.39	3.46
-67	0.069	-23.20	-13.20	0.05	-22	0.618	-4.19	5.81	3.81
-66	0.067	-23.49	-13.49	0.04	-21	0.647	-3.78	6.22	4.19
-65	0.064	-23.82	-13.82	0.04	-20	0.677	-3.39	6.61	4.58
-64	0.065	-23.74	-13.74	0.04	-19	0.704	-3.05	6.95	4.96
-63	0.065	-23.73	-13.73	0.04	-18	0.731	-2.72	7.28	5.34
-62	0.065	-23.78	-13.78	0.04	-17	0.758	-2.41	7.59	5.74
-61	0.064	-23.91	-13.91	0.04	-16	0.784	-2.12	7.88	6.14
-60	0.062	-24.10	-14.10	0.04	-15	0.809	-1.84	8.16	6.55
-59	0.061	-24.27	-14.27	0.04	-14	0.832	-1.60	8.40	6.92
-58	0.059	-24.54	-14.54	0.04	-13	0.853	-1.38	8.62	7.28
-57	0.057	-24.93	-14.93	0.03	-12	0.874	-1.17	8.83	7.63
-56	0.053	-25.45	-15.45	0.03	-11	0.893	-0.98	9.02	7.98
-55	0.049	-26.15	-16.15	0.02	-10	0.912	-0.80	9.20	8.32
-54	0.045	-27.01	-17.01	0.02	-9	0.927	-0.66	9.34	8.59
-53	0.039	-28.16	-18.16	0.02	-8	0.940	-0.54	9.46	8.84
-52	0.033	-29.73	-19.73	0.01	-7	0.952	-0.42	9.58	9.07
-51	0.025	-31.97	-21.97	0.01	-6	0.963	-0.32	9.68	9.28
-50	0.017	-35.48	-25.48	0.00	-5	0.973	-0.23	9.77	9.47
-49	0.010	-40.00	-30.00	0.00	-4	0.981	-0.16	9.84	9.63
-48	0.010	-40.00	-30.00	0.00	-3	0.988	-0.11	9.89	9.76
-47	0.015	-36.75	-26.75	0.00	-2	0.993	-0.06	9.94	9.87
-46	0.027	-31.27	-21.27	0.01	-1	0.997	-0.02	9.98	9.95
					0	1.000	0.00	10.00	10.00

TABLE 17.0 (Cont'd)



Two HDCA-5/HRM five element Yagis

Frequency: 105.1 MHz (CH 286)

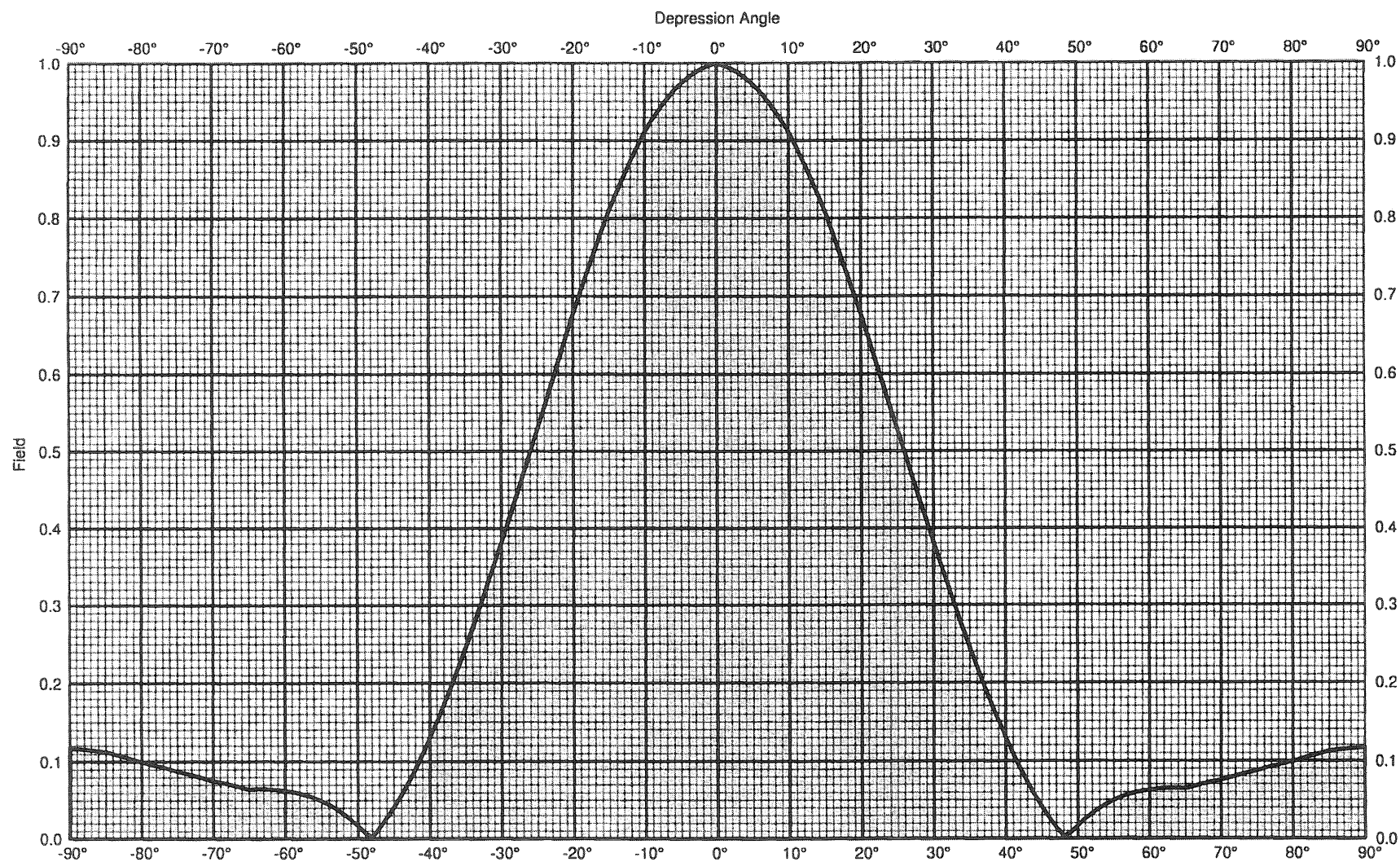
Gain: 10.0 dBd (x 10.0)

Horizontal Polarization

Vertical Stacked 0.67 wavelength

Vertical plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	10.00	10.00	45	0.041	-27.69	-17.69	0.02
1	0.997	-0.02	9.98	9.95	46	0.027	-31.27	-21.27	0.01
2	0.993	-0.06	9.94	9.87	47	0.015	-36.75	-26.75	0.00
3	0.988	-0.11	9.89	9.76	48	0.010	-40.00	-30.00	0.00
4	0.981	-0.16	9.84	9.63	49	0.010	-40.00	-30.00	0.00
5	0.973	-0.23	9.77	9.47	50	0.017	-35.48	-25.48	0.00
6	0.964	-0.32	9.68	9.28	51	0.025	-31.97	-21.97	0.01
7	0.952	-0.42	9.58	9.07	52	0.033	-29.73	-19.73	0.01
8	0.940	-0.54	9.46	8.84	53	0.039	-28.16	-18.16	0.02
9	0.927	-0.66	9.34	8.59	54	0.045	-27.01	-17.01	0.02
10	0.912	-0.80	9.20	8.32	55	0.049	-26.15	-16.15	0.02
11	0.893	-0.98	9.02	7.98	56	0.053	-25.45	-15.45	0.03
12	0.874	-1.17	8.83	7.63	57	0.057	-24.93	-14.93	0.03
13	0.853	-1.38	8.62	7.28	58	0.059	-24.54	-14.54	0.04
14	0.832	-1.60	8.40	6.92	59	0.061	-24.27	-14.27	0.04
15	0.809	-1.84	8.16	6.55	60	0.062	-24.10	-14.10	0.04
16	0.784	-2.12	7.88	6.14	61	0.064	-23.91	-13.91	0.04
17	0.758	-2.41	7.59	5.74	62	0.065	-23.78	-13.78	0.04
18	0.731	-2.72	7.28	5.34	63	0.065	-23.73	-13.73	0.04
19	0.704	-3.05	6.95	4.96	64	0.065	-23.74	-13.74	0.04
20	0.677	-3.39	6.61	4.58	65	0.064	-23.82	-13.82	0.04
21	0.647	-3.78	6.22	4.19	66	0.067	-23.49	-13.49	0.04
22	0.618	-4.19	5.81	3.81	67	0.069	-23.20	-13.20	0.05
23	0.588	-4.61	5.39	3.46	68	0.071	-22.93	-12.93	0.05
24	0.558	-5.06	4.94	3.12	69	0.073	-22.69	-12.69	0.05
25	0.529	-5.53	4.47	2.80	70	0.075	-22.47	-12.47	0.06
26	0.499	-6.04	3.96	2.49	71	0.078	-22.17	-12.17	0.06
27	0.469	-6.58	3.42	2.20	72	0.080	-21.89	-11.89	0.06
28	0.439	-7.15	2.85	1.93	73	0.083	-21.62	-11.62	0.07
29	0.410	-7.74	2.26	1.68	74	0.085	-21.38	-11.38	0.07
30	0.382	-8.37	1.63	1.46	75	0.088	-21.15	-11.15	0.08
31	0.353	-9.05	0.95	1.24	76	0.090	-20.90	-10.90	0.08
32	0.325	-9.77	0.23	1.05	77	0.093	-20.66	-10.66	0.09
33	0.297	-10.54	-0.54	0.88	78	0.095	-20.44	-10.44	0.09
34	0.271	-11.34	-1.34	0.73	79	0.097	-20.24	-10.24	0.09
35	0.245	-12.20	-2.20	0.60	80	0.099	-20.05	-10.05	0.10
36	0.220	-13.15	-3.15	0.48	81	0.102	-19.81	-9.81	0.10
37	0.196	-14.16	-4.16	0.38	82	0.105	-19.58	-9.58	0.11
38	0.173	-15.26	-5.26	0.30	83	0.108	-19.37	-9.37	0.12
39	0.151	-16.44	-6.44	0.23	84	0.110	-19.17	-9.17	0.12
40	0.130	-17.74	-7.74	0.17	85	0.112	-18.98	-8.98	0.13
41	0.110	-19.21	-9.21	0.12	86	0.114	-18.89	-8.89	0.13
42	0.091	-20.86	-10.86	0.08	87	0.115	-18.81	-8.81	0.13
43	0.073	-22.74	-12.74	0.05	88	0.116	-18.74	-8.74	0.13
44	0.056	-24.96	-14.96	0.03	89	0.116	-18.68	-8.68	0.14
					90	0.117	-18.63	-8.63	0.14



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Two HDCA-5/HRM five element Yagis
 Frequency: 105.1 MHz (CH 286)
 Gain: 10.0 dBd (x 10.0)
 Horizontal Polarization

Vertical Stacked 0.67 wavelength
 Vertical plane Pattern

FIG. 17.0

K296DU VERTICAL RADIATION PATTERN

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 Dot Lake, AK