

## **Clearance to WALR-FM**

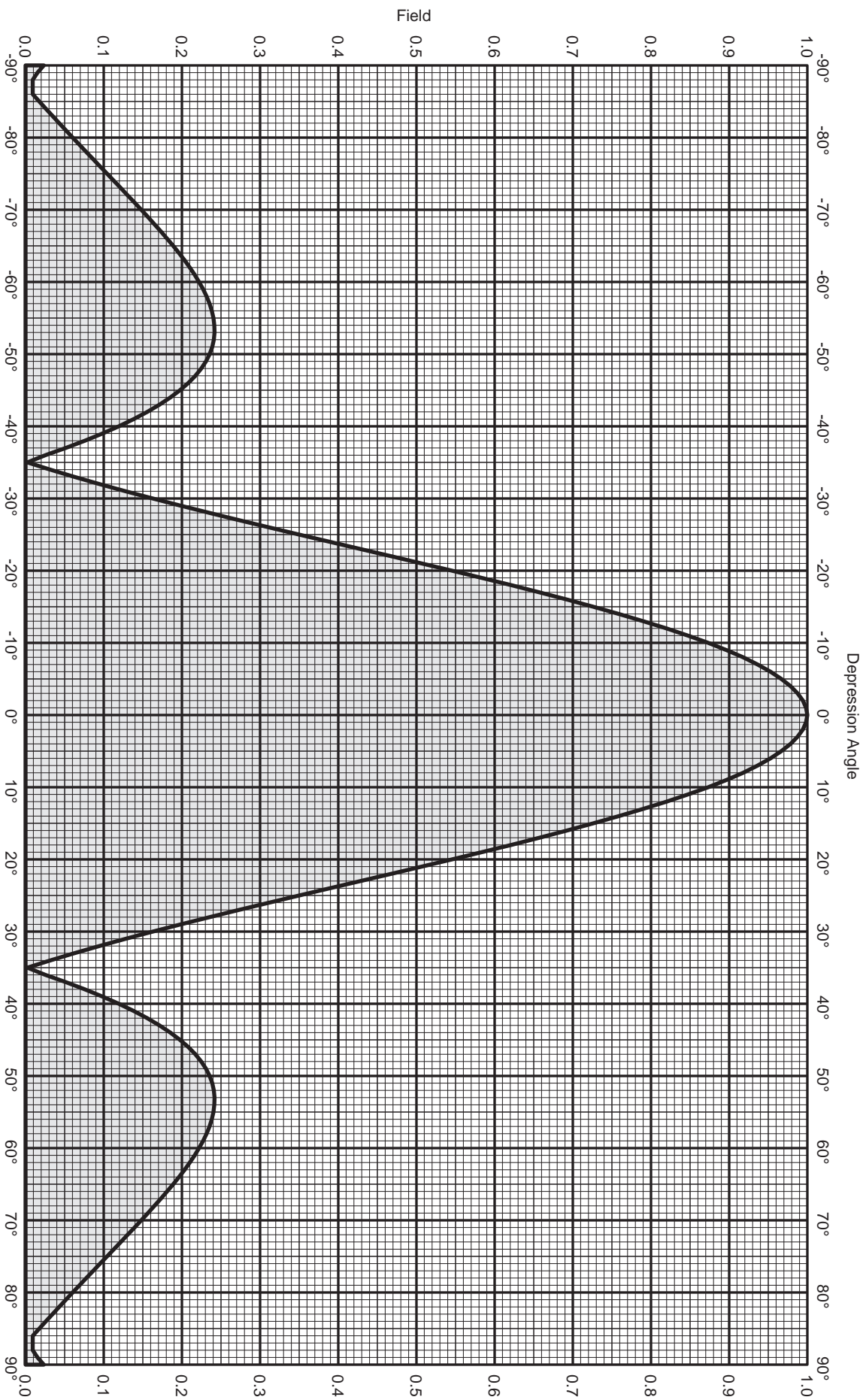
**This instant translator application clears all allocation constraints of Section 74.1204. On first glance, it appears that interference is created to WALR-FM (License), Greenville, GA and WALR-FM (CP), Palmetto, GA. However, Section 74.1204(d) instructs us:**

*“In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.”*

**WALR-FM (Licensed) places 77.4 dBu over the proposed translator site. Adding the 40 dBu U/D ratio to the 77.4 dBu signal produces an interfering contour of 117.4 dBu. This interfering contour extends a distance of 149.2 meters in the main lobe of the signal. The antenna that is being proposed is a Kathrein-Scala FMVMP-2 antenna. This antenna significantly focuses the 117.4 dBu interfering contour over the heads of any nearby resident. Please see the drawing that follows. The nearest the 117.4 dBu interfering contour comes to the ground is 30.5 meters. This occurs at a distance of 110.2 meters from the tower base. This is generated by the 14 degree azimuth of the antenna. Therefore, the interfering contour does not touch the ground and cannot be received by any listener.**

**WALR (CP) places 80.1 dBu over the proposed translator site. Adding the 40 dBu U/D ratio to the 80.1 dBu signal produces an interfering contour of 120.1 dBu. This interfering contour extends a distance of 110.2 meters from the antenna. Since the CP contour is smaller and stays nearer the antenna than the interfering contour illustrated above with the WALR-FM licensed site, no further analysis was conducted using the CP site.**

**In conclusion, based on the foregoing explanation showing that no persons will receive interference, it is thought this application is in compliance with Section 74.1204 using Section 74.1204(d).**



FMVMP-2

FM

**KATHREIN**

USA

Maximum gain: 3.5 dBd

Vertical polarization

Vertical plane pattern

# FMVMP-2\_FM\_V-pol\_E1

FMVMP-2

FM

Maximum gain: 3.5 dBd

Vertical polarization

Vertical plane pattern

Angle	Rel.Field	Rel.dB	dBd	PwrMult
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-90	0.023	-32.64	-29.14	0.00
-89	0.015	-36.31	-32.81	0.00
-88	0.010	-40.00	-36.50	0.00
-87	0.010	-40.00	-36.50	0.00
-86	0.010	-40.00	-36.50	0.00
-85	0.018	-35.09	-31.59	0.00
-84	0.026	-31.71	-28.21	0.00
-83	0.035	-29.24	-25.74	0.00
-82	0.043	-27.33	-23.83	0.00
-81	0.052	-25.74	-22.24	0.01
-80	0.060	-24.40	-20.90	0.01
-79	0.069	-23.22	-19.72	0.01
-78	0.078	-22.19	-18.69	0.01
-77	0.087	-21.25	-17.75	0.02
-76	0.095	-20.42	-16.92	0.02
-75	0.104	-19.64	-16.14	0.02
-74	0.113	-18.93	-15.43	0.03
-73	0.122	-18.28	-14.78	0.03
-72	0.131	-17.68	-14.18	0.04
-71	0.139	-17.11	-13.61	0.04
-70	0.148	-16.59	-13.09	0.05
-69	0.157	-16.11	-12.61	0.05
-68	0.165	-15.66	-12.16	0.06
-67	0.173	-15.23	-11.73	0.07
-66	0.181	-14.85	-11.35	0.07
-65	0.189	-14.47	-10.97	0.08
-64	0.196	-14.14	-10.64	0.09
-63	0.204	-13.83	-10.33	0.09
-62	0.210	-13.55	-10.05	0.10
-61	0.216	-13.30	-9.80	0.10
-60	0.222	-13.08	-9.58	0.11
-59	0.227	-12.87	-9.37	0.12
-58	0.232	-12.71	-9.21	0.12
-57	0.235	-12.57	-9.07	0.12
-56	0.238	-12.46	-8.96	0.13

	FMVMP-2_FM_V-pol_E1			
-55	0.240	-12.38	-8.88	0.13
-54	0.241	-12.34	-8.84	0.13
-53	0.242	-12.33	-8.83	0.13
-52	0.241	-12.37	-8.87	0.13
-51	0.239	-12.44	-8.94	0.13
-50	0.235	-12.56	-9.06	0.12
-49	0.231	-12.74	-9.24	0.12
-48	0.225	-12.97	-9.47	0.11
-47	0.217	-13.26	-9.76	0.11
-46	0.208	-13.63	-10.13	0.10
-45	0.198	-14.09	-10.59	0.09
-44	0.185	-14.64	-11.14	0.08
-43	0.171	-15.32	-11.82	0.07
-42	0.156	-16.15	-12.65	0.05
-41	0.138	-17.18	-13.68	0.04
-40	0.119	-18.47	-14.97	0.03
-39	0.098	-20.14	-16.64	0.02
-38	0.076	-22.41	-18.91	0.01
-37	0.051	-25.78	-22.28	0.01
-36	0.025	-31.91	-28.41	0.00
-35	0.010	-40.00	-36.50	0.00
-34	0.032	-30.02	-26.52	0.00
-33	0.062	-24.11	-20.61	0.01
-32	0.094	-20.49	-16.99	0.02
-31	0.128	-17.86	-14.36	0.04
-30	0.163	-15.77	-12.27	0.06
-29	0.199	-14.04	-10.54	0.09
-28	0.235	-12.56	-9.06	0.12
-27	0.273	-11.28	-7.78	0.17
-26	0.311	-10.14	-6.64	0.22
-25	0.350	-9.12	-5.62	0.27
-24	0.389	-8.20	-4.70	0.34
-23	0.428	-7.36	-3.86	0.41
-22	0.468	-6.60	-3.10	0.49
-21	0.507	-5.91	-2.41	0.57
-20	0.545	-5.26	-1.76	0.67
-19	0.584	-4.68	-1.18	0.76
-18	0.621	-4.14	-0.64	0.86
-17	0.657	-3.65	-0.15	0.97
-16	0.693	-3.19	0.31	1.07
-15	0.726	-2.78	0.72	1.18
-14	0.759	-2.40	1.10	1.29
-13	0.790	-2.05	1.45	1.40
-12	0.820	-1.73	1.77	1.50
-11	0.847	-1.44	2.06	1.61
-10	0.873	-1.18	2.32	1.71
-9	0.896	-0.95	2.55	1.80
-8	0.918	-0.74	2.76	1.89

	FMVMP-2_FM_V-pol_E1			
-7	0.936	-0.57	2.93	1.96
-6	0.953	-0.42	3.08	2.03
-5	0.967	-0.29	3.21	2.09
-4	0.978	-0.19	3.31	2.14
-3	0.988	-0.11	3.39	2.18
-2	0.994	-0.05	3.45	2.21
-1	0.998	-0.01	3.49	2.23
0	1.000	0.00	3.50	2.24
1	0.998	-0.01	3.49	2.23
2	0.994	-0.05	3.45	2.21
3	0.988	-0.11	3.39	2.18
4	0.978	-0.19	3.31	2.14
5	0.967	-0.29	3.21	2.09
6	0.953	-0.42	3.08	2.03
7	0.936	-0.57	2.93	1.96
8	0.918	-0.74	2.76	1.89
9	0.896	-0.95	2.55	1.80
10	0.873	-1.18	2.32	1.71
11	0.847	-1.44	2.06	1.61
12	0.820	-1.73	1.77	1.50
13	0.790	-2.05	1.45	1.40
14	0.759	-2.40	1.10	1.29
15	0.726	-2.78	0.72	1.18
16	0.693	-3.19	0.31	1.07
17	0.657	-3.65	-0.15	0.97
18	0.621	-4.14	-0.64	0.86
19	0.584	-4.68	-1.18	0.76
20	0.545	-5.26	-1.76	0.67
21	0.507	-5.91	-2.41	0.57
22	0.468	-6.60	-3.10	0.49
23	0.428	-7.36	-3.86	0.41
24	0.389	-8.20	-4.70	0.34
25	0.350	-9.12	-5.62	0.27
26	0.311	-10.14	-6.64	0.22
27	0.273	-11.28	-7.78	0.17
28	0.235	-12.56	-9.06	0.12
29	0.199	-14.04	-10.54	0.09
30	0.163	-15.77	-12.27	0.06
31	0.128	-17.86	-14.36	0.04
32	0.095	-20.49	-16.99	0.02
33	0.062	-24.11	-20.61	0.01
34	0.032	-30.02	-26.52	0.00
35	0.010	-40.00	-36.50	0.00
36	0.025	-31.91	-28.41	0.00
37	0.051	-25.78	-22.28	0.01
38	0.076	-22.41	-18.91	0.01
39	0.098	-20.14	-16.64	0.02
40	0.119	-18.47	-14.97	0.03

		FMVMP-2_FM_V-pol_E1		
41	0.138	-17.18	-13.68	0.04
42	0.156	-16.15	-12.65	0.05
43	0.171	-15.32	-11.82	0.07
44	0.185	-14.64	-11.14	0.08
45	0.198	-14.09	-10.59	0.09
46	0.208	-13.63	-10.13	0.10
47	0.217	-13.26	-9.76	0.11
48	0.225	-12.97	-9.47	0.11
49	0.231	-12.74	-9.24	0.12
50	0.235	-12.56	-9.06	0.12
51	0.239	-12.44	-8.94	0.13
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53	0.242	-12.33	-8.83	0.13
54	0.241	-12.34	-8.84	0.13
55	0.240	-12.38	-8.88	0.13
56	0.238	-12.46	-8.96	0.13
57	0.235	-12.57	-9.07	0.12
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59	0.227	-12.87	-9.37	0.12
60	0.222	-13.08	-9.58	0.11
61	0.216	-13.30	-9.80	0.10
62	0.210	-13.55	-10.05	0.10
63	0.204	-13.83	-10.33	0.09
64	0.196	-14.14	-10.64	0.09
65	0.189	-14.47	-10.97	0.08
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67	0.173	-15.23	-11.73	0.07
68	0.165	-15.66	-12.16	0.06
69	0.157	-16.11	-12.61	0.05
70	0.148	-16.59	-13.09	0.05
71	0.139	-17.11	-13.61	0.04
72	0.131	-17.69	-14.19	0.04
73	0.122	-18.28	-14.78	0.03
74	0.113	-18.93	-15.43	0.03
75	0.104	-19.64	-16.14	0.02
76	0.095	-20.42	-16.92	0.02
77	0.087	-21.25	-17.75	0.02
78	0.078	-22.19	-18.69	0.01
79	0.069	-23.22	-19.72	0.01
80	0.060	-24.40	-20.90	0.01
81	0.052	-25.74	-22.24	0.01
82	0.043	-27.33	-23.83	0.00
83	0.035	-29.24	-25.74	0.00
84	0.026	-31.71	-28.21	0.00
85	0.018	-35.09	-31.59	0.00
86	0.010	-40.00	-36.50	0.00
87	0.010	-40.00	-36.50	0.00
88	0.010	-40.00	-36.50	0.00

		FMVMP-2_FM_V-pol_E1			
89	0.015	-36.31	-32.81	0.00	
90	0.023	-32.64	-29.14	0.00	

# 117.4 dBu Interference Kathrein-Scala 2-Bay FMVMP

