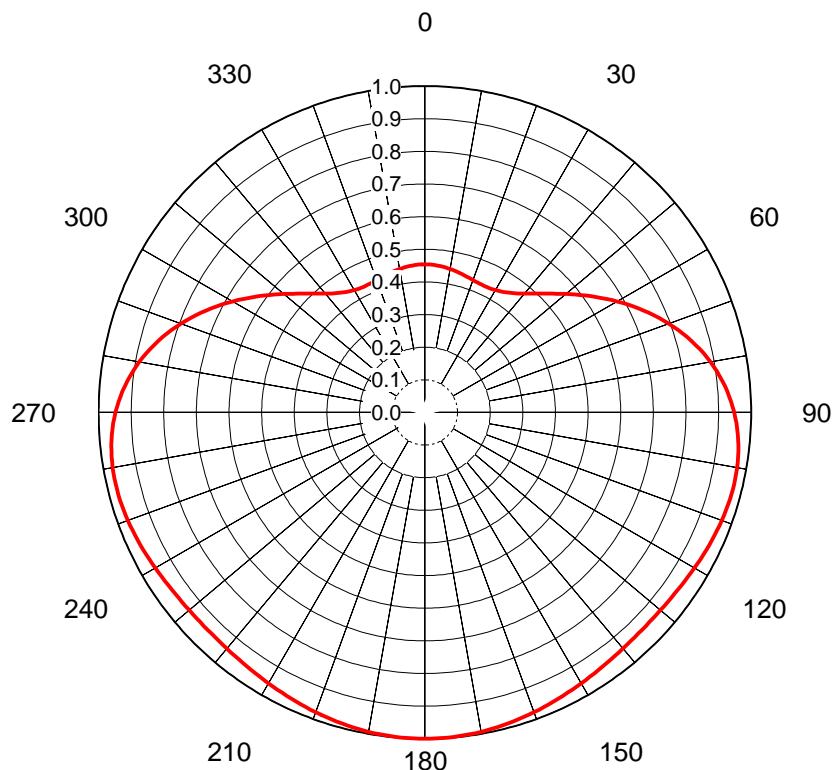


AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-71033-1**
 Date **21-Nov-17**
 Call Letters **KOAM**
 Channel **7**
 Frequency **177 MHz**
 Antenna Type **THV-10A7/VP-R C140**
 Gain **1.51 (1.78dB)**
 Calculated



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.454	36	0.452	72	0.817	108	0.971	144	0.949	180	1.000	216	0.949	252	0.971	288	0.817	324	0.452
1	0.454	37	0.458	73	0.827	109	0.970	145	0.950	181	1.000	217	0.948	253	0.971	289	0.806	325	0.448
2	0.454	38	0.463	74	0.837	110	0.969	146	0.952	182	1.000	218	0.946	254	0.972	290	0.796	326	0.444
3	0.453	39	0.469	75	0.846	111	0.967	147	0.953	183	0.999	219	0.945	255	0.972	291	0.785	327	0.441
4	0.453	40	0.475	76	0.855	112	0.966	148	0.955	184	0.999	220	0.944	256	0.973	292	0.774	328	0.437
5	0.452	41	0.483	77	0.864	113	0.965	149	0.957	185	0.998	221	0.944	257	0.973	293	0.762	329	0.435
6	0.451	42	0.490	78	0.873	114	0.963	150	0.958	186	0.998	222	0.943	258	0.973	294	0.751	330	0.433
7	0.450	43	0.498	79	0.881	115	0.962	151	0.960	187	0.997	223	0.942	259	0.972	295	0.740	331	0.431
8	0.449	44	0.506	80	0.889	116	0.960	152	0.962	188	0.996	224	0.942	260	0.972	296	0.728	332	0.430
9	0.448	45	0.515	81	0.896	117	0.958	153	0.964	189	0.995	225	0.942	261	0.971	297	0.716	333	0.429
10	0.446	46	0.524	82	0.904	118	0.957	154	0.966	190	0.994	226	0.942	262	0.969	298	0.704	334	0.428
11	0.445	47	0.534	83	0.910	119	0.955	155	0.968	191	0.993	227	0.942	263	0.968	299	0.692	335	0.428
12	0.443	48	0.544	84	0.917	120	0.954	156	0.970	192	0.991	228	0.942	264	0.966	300	0.680	336	0.429
13	0.442	49	0.554	85	0.923	121	0.952	157	0.972	193	0.990	229	0.942	265	0.964	301	0.668	337	0.429
14	0.440	50	0.565	86	0.929	122	0.951	158	0.974	194	0.988	230	0.943	266	0.961	302	0.656	338	0.430
15	0.439	51	0.576	87	0.934	123	0.950	159	0.976	195	0.987	231	0.943	267	0.958	303	0.644	339	0.431
16	0.437	52	0.586	88	0.939	124	0.948	160	0.978	196	0.985	232	0.944	268	0.955	304	0.633	340	0.432
17	0.436	53	0.598	89	0.944	125	0.947	161	0.980	197	0.983	233	0.945	269	0.952	305	0.621	341	0.433
18	0.434	54	0.609	90	0.948	126	0.946	162	0.982	198	0.982	234	0.946	270	0.948	306	0.609	342	0.434
19	0.433	55	0.621	91	0.952	127	0.945	163	0.983	199	0.980	235	0.947	271	0.944	307	0.598	343	0.436
20	0.432	56	0.633	92	0.955	128	0.944	164	0.985	200	0.978	236	0.948	272	0.939	308	0.586	344	0.437
21	0.431	57	0.644	93	0.958	129	0.943	165	0.987	201	0.976	237	0.950	273	0.934	309	0.576	345	0.439
22	0.430	58	0.656	94	0.961	130	0.943	166	0.988	202	0.974	238	0.951	274	0.929	310	0.565	346	0.440
23	0.429	59	0.668	95	0.964	131	0.942	167	0.990	203	0.972	239	0.952	275	0.923	311	0.554	347	0.442
24	0.429	60	0.680	96	0.966	132	0.942	168	0.991	204	0.970	240	0.954	276	0.917	312	0.544	348	0.443
25	0.428	61	0.692	97	0.968	133	0.942	169	0.993	205	0.968	241	0.955	277	0.910	313	0.534	349	0.445
26	0.428	62	0.704	98	0.969	134	0.942	170	0.994	206	0.966	242	0.957	278	0.904	314	0.524	350	0.446
27	0.429	63	0.716	99	0.971	135	0.942	171	0.995	207	0.964	243	0.958	279	0.896	315	0.515	351	0.448
28	0.430	64	0.728	100	0.972	136	0.942	172	0.996	208	0.962	244	0.960	280	0.889	316	0.506	352	0.449
29	0.431	65	0.740	101	0.972	137	0.942	173	0.997	209	0.960	245	0.962	281	0.881	317	0.498	353	0.450
30	0.433	66	0.751	102	0.973	138	0.943	174	0.998	210	0.958	246	0.963	282	0.873	318	0.490	354	0.451
31	0.435	67	0.762	103	0.973	139	0.944	175	0.998	211	0.957	247	0.965	283	0.864	319	0.483	355	0.452
32	0.437	68	0.774	104	0.973	140	0.944	176	0.999	212	0.955	248	0.966	284	0.855	320	0.475	356	0.453
33	0.441	69	0.785	105	0.972	141	0.945	177	0.999	213	0.953	249	0.967	285	0.846	321	0.469	357	0.453
34	0.444	70	0.796	106	0.972	142	0.946	178	1.000	214	0.952	250	0.969	286	0.837	322	0.463	358	0.454
35	0.448	71	0.806	107	0.971	143	0.948	179	1.000	215	0.950	251	0.970	287	0.827	323	0.458	359	0.454

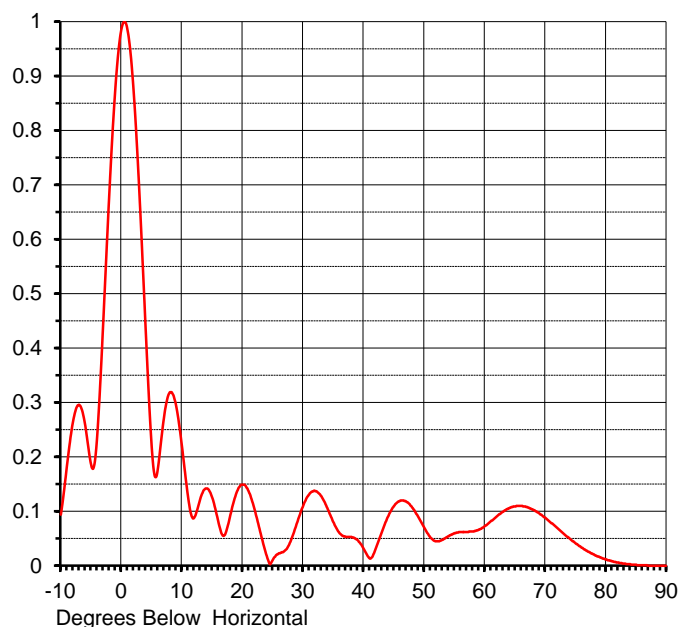
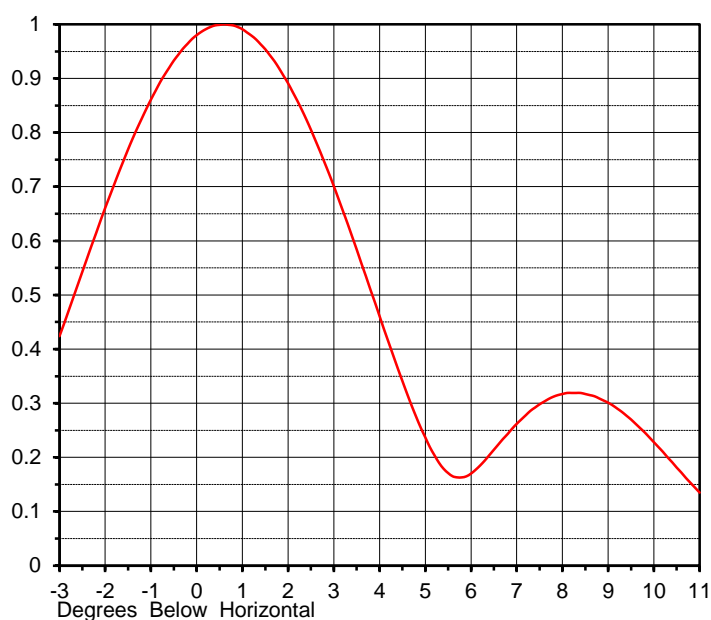
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ELEVATION PATTERN

Proposal No. **C-71033-1**
 Date **21-Nov-17**
 Call Letters **KOAM**
 Channel **7**
 Frequency **177 MHz**
 Antenna Type **THV-10A7/VP-R C140**

RMS Directivity at Main Lobe **10.4 (10.17 dB)**
 RMS Directivity at Horizontal **10.1 (10.04 dB)**
Calculated

Beam Tilt **0.50 deg**
 Pattern Number **10V104050**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.094	10.0	0.219	30.0	0.110	50.0	0.070	70.0	0.088
-9.0	0.183	11.0	0.127	31.0	0.131	51.0	0.052	71.0	0.078
-8.0	0.264	12.0	0.088	32.0	0.137	52.0	0.045	72.0	0.069
-7.0	0.296	13.0	0.122	33.0	0.128	53.0	0.048	73.0	0.059
-6.0	0.260	14.0	0.142	34.0	0.106	54.0	0.054	74.0	0.050
-5.0	0.186	15.0	0.125	35.0	0.080	55.0	0.060	75.0	0.041
-4.0	0.238	16.0	0.081	36.0	0.060	56.0	0.062	76.0	0.033
-3.0	0.447	17.0	0.056	37.0	0.053	57.0	0.062	77.0	0.026
-2.0	0.683	18.0	0.094	38.0	0.053	58.0	0.063	78.0	0.021
-1.0	0.877	19.0	0.134	39.0	0.047	59.0	0.066	79.0	0.016
0.0	0.986	20.0	0.149	40.0	0.031	60.0	0.073	80.0	0.012
1.0	0.985	21.0	0.137	41.0	0.014	61.0	0.082	81.0	0.008
2.0	0.875	22.0	0.103	42.0	0.032	62.0	0.091	82.0	0.006
3.0	0.678	23.0	0.059	43.0	0.062	63.0	0.099	83.0	0.004
4.0	0.436	24.0	0.018	44.0	0.090	64.0	0.106	84.0	0.003
5.0	0.219	25.0	0.011	45.0	0.110	65.0	0.109	85.0	0.002
6.0	0.177	26.0	0.023	46.0	0.119	66.0	0.110	86.0	0.001
7.0	0.270	27.0	0.028	47.0	0.118	67.0	0.108	87.0	0.000
8.0	0.319	28.0	0.047	48.0	0.107	68.0	0.103	88.0	0.000
9.0	0.296	29.0	0.079	49.0	0.090	69.0	0.096	89.0	0.000
								90.0	0.000

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Summary

Proposal No.	C-71033-1
Date	21-Nov-17
Call Letters	KOAM
Channel	7
Frequency	177 MHz
Antenna Type	THV-10A7/VP-R C140

Antenna

	Hpol	Vpol
ERP:	98.8 kW (19.95 dBk)	53.2 kW (17.26 dBk)
Peak Gain*	11.66 (10.67 dB)	6.28 (7.98 dB)

Antenna Input Power

8.47 kW (9.28 dBk)

Transmission Line

Type:	Rigid	Attenuation:	(1.70 dB)
Size:	3-1/8"	Efficiency:	67.6%
Impedance:	50 Ohm		
Length:	1300 ft	396.2 m	

Transmitter Output

12.5 kW (10.98 dBk)

Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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