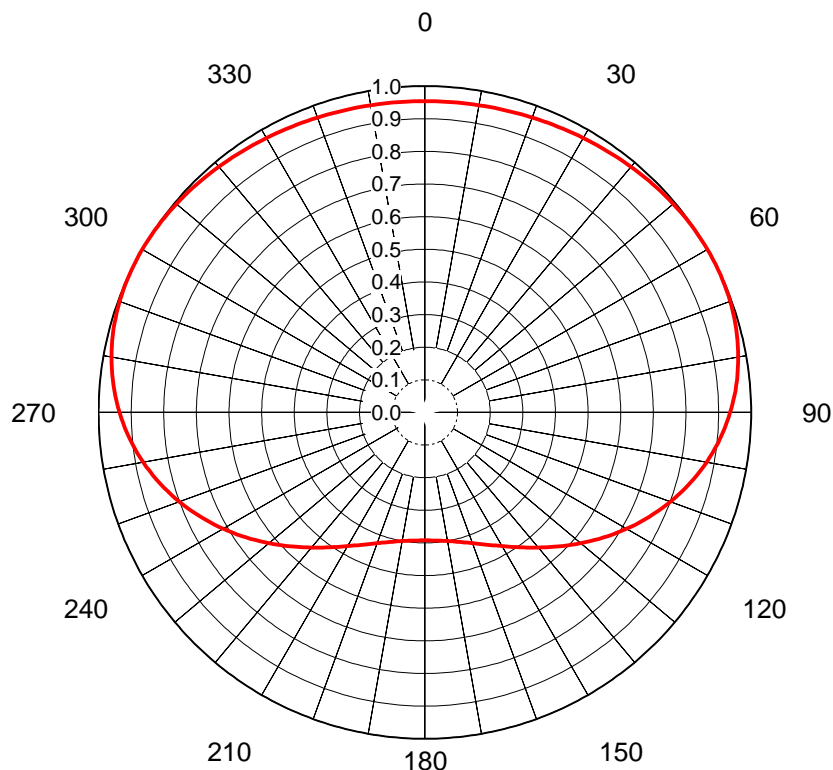


## AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-71032-1**  
 Date **10-Nov-17**  
 Call Letters **KFJX**  
 Channel **13**  
 Frequency **213 MHz**  
 Antenna Type **THV-8A13-R C145**  
 Gain **1.47 (1.67dB)**  
 Calculated



with 3-1/8 in feed thru

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.954	36	0.978	72	0.993	108	0.817	144	0.511	180	0.392	216	0.511	252	0.817	288	0.993	324	0.978
1	0.954	37	0.979	73	0.991	109	0.809	145	0.504	181	0.392	217	0.518	253	0.825	289	0.994	325	0.977
2	0.954	38	0.980	74	0.989	110	0.801	146	0.498	182	0.392	218	0.526	254	0.833	290	0.995	326	0.976
3	0.954	39	0.982	75	0.988	111	0.792	147	0.491	183	0.393	219	0.533	255	0.841	291	0.996	327	0.974
4	0.954	40	0.983	76	0.985	112	0.784	148	0.485	184	0.393	220	0.541	256	0.848	292	0.997	328	0.973
5	0.954	41	0.984	77	0.983	113	0.775	149	0.479	185	0.394	221	0.548	257	0.856	293	0.998	329	0.972
6	0.955	42	0.985	78	0.981	114	0.767	150	0.473	186	0.395	222	0.556	258	0.863	294	0.999	330	0.971
7	0.955	43	0.986	79	0.978	115	0.758	151	0.467	187	0.396	223	0.564	259	0.870	295	0.999	331	0.970
8	0.955	44	0.988	80	0.975	116	0.749	152	0.462	188	0.397	224	0.572	260	0.877	296	1.000	332	0.969
9	0.956	45	0.989	81	0.972	117	0.740	153	0.457	189	0.399	225	0.581	261	0.884	297	1.000	333	0.968
10	0.956	46	0.990	82	0.969	118	0.731	154	0.452	190	0.400	226	0.589	262	0.890	298	1.000	334	0.967
11	0.956	47	0.991	83	0.966	119	0.722	155	0.447	191	0.402	227	0.597	263	0.897	299	1.000	335	0.966
12	0.957	48	0.992	84	0.962	120	0.713	156	0.442	192	0.404	228	0.606	264	0.903	300	1.000	336	0.965
13	0.957	49	0.993	85	0.958	121	0.704	157	0.438	193	0.406	229	0.615	265	0.909	301	1.000	337	0.964
14	0.958	50	0.994	86	0.954	122	0.695	158	0.434	194	0.408	230	0.623	266	0.915	302	0.999	338	0.963
15	0.958	51	0.995	87	0.950	123	0.686	159	0.430	195	0.411	231	0.632	267	0.920	303	0.999	339	0.963
16	0.959	52	0.996	88	0.945	124	0.677	160	0.426	196	0.414	232	0.641	268	0.926	304	0.998	340	0.962
17	0.960	53	0.996	89	0.941	125	0.668	161	0.423	197	0.416	233	0.650	269	0.931	305	0.998	341	0.961
18	0.960	54	0.997	90	0.936	126	0.659	162	0.420	198	0.420	234	0.659	270	0.936	306	0.997	342	0.960
19	0.961	55	0.998	91	0.931	127	0.650	163	0.416	199	0.423	235	0.668	271	0.941	307	0.996	343	0.960
20	0.962	56	0.998	92	0.926	128	0.641	164	0.414	200	0.426	236	0.677	272	0.945	308	0.996	344	0.959
21	0.963	57	0.999	93	0.920	129	0.632	165	0.411	201	0.430	237	0.686	273	0.950	309	0.995	345	0.958
22	0.963	58	0.999	94	0.915	130	0.623	166	0.408	202	0.434	238	0.695	274	0.954	310	0.994	346	0.958
23	0.964	59	1.000	95	0.909	131	0.615	167	0.406	203	0.438	239	0.704	275	0.958	311	0.993	347	0.957
24	0.965	60	1.000	96	0.903	132	0.606	168	0.404	204	0.442	240	0.713	276	0.962	312	0.992	348	0.957
25	0.966	61	1.000	97	0.897	133	0.597	169	0.402	205	0.447	241	0.722	277	0.966	313	0.991	349	0.956
26	0.967	62	1.000	98	0.890	134	0.589	170	0.400	206	0.452	242	0.731	278	0.969	314	0.990	350	0.956
27	0.968	63	1.000	99	0.884	135	0.581	171	0.399	207	0.457	243	0.740	279	0.972	315	0.989	351	0.956
28	0.969	64	1.000	100	0.877	136	0.572	172	0.397	208	0.462	244	0.749	280	0.975	316	0.988	352	0.955
29	0.970	65	0.999	101	0.870	137	0.564	173	0.396	209	0.467	245	0.758	281	0.978	317	0.986	353	0.955
30	0.971	66	0.999	102	0.863	138	0.556	174	0.395	210	0.473	246	0.767	282	0.981	318	0.985	354	0.955
31	0.972	67	0.998	103	0.856	139	0.548	175	0.394	211	0.479	247	0.775	283	0.983	319	0.984	355	0.954
32	0.973	68	0.997	104	0.848	140	0.541	176	0.393	212	0.485	248	0.784	284	0.985	320	0.983	356	0.954
33	0.974	69	0.996	105	0.841	141	0.533	177	0.393	213	0.491	249	0.792	285	0.988	321	0.982	357	0.954
34	0.976	70	0.995	106	0.833	142	0.526	178	0.392	214	0.498	250	0.801	286	0.989	322	0.980	358	0.954
35	0.977	71	0.994	107	0.825	143	0.518	179	0.392	215	0.504	251	0.809	287	0.991	323	0.979	359	0.954

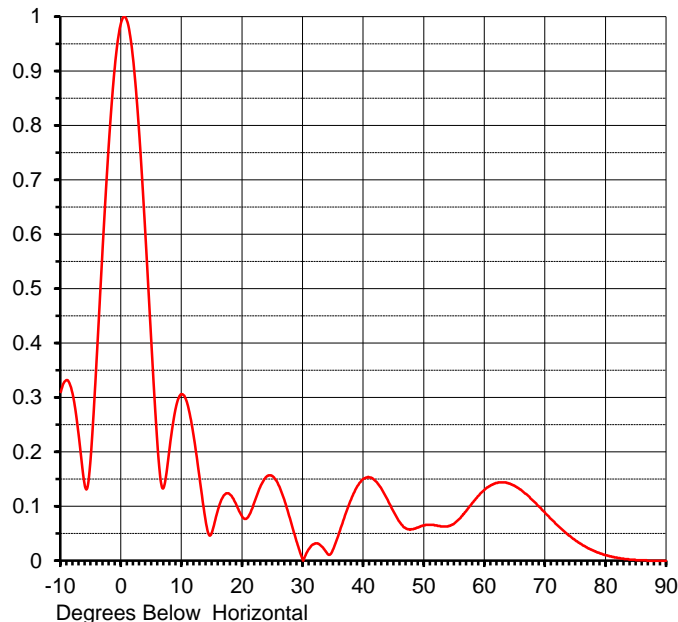
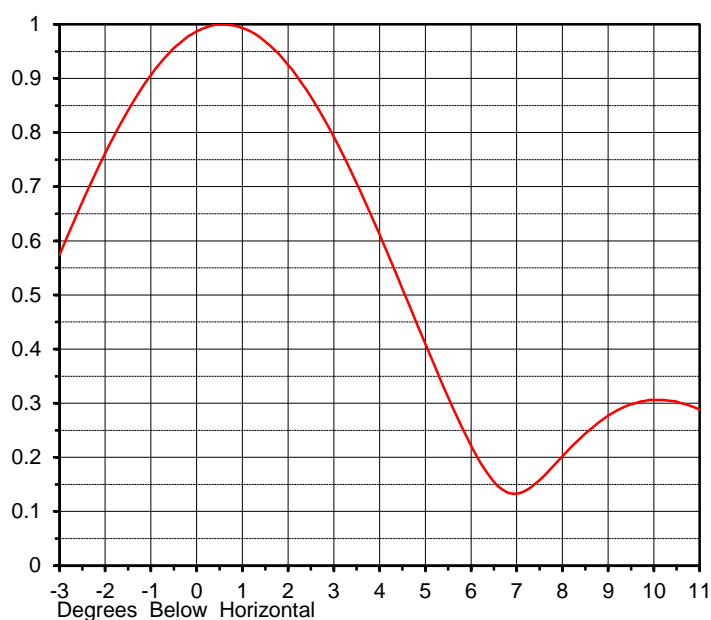
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## ELEVATION PATTERN

Proposal No. **C-71032-1**  
 Date **10-Nov-17**  
 Call Letters **KFJX**  
 Channel **13**  
 Frequency **213 MHz**  
 Antenna Type **THV-8A13-R C145**

RMS Directivity at Main Lobe **8.5 ( 9.29 dB )**  
 RMS Directivity at Horizontal **8.3 ( 9.19 dB )**  
**Calculated**

Beam Tilt **0.50 deg**  
 Pattern Number **08V085050**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.310	10.0	0.306	30.0	0.000	50.0	0.065	70.0	0.087
-9.0	0.332	11.0	0.284	31.0	0.022	51.0	0.066	71.0	0.076
-8.0	0.304	12.0	0.224	32.0	0.032	52.0	0.065	72.0	0.065
-7.0	0.226	13.0	0.144	33.0	0.027	53.0	0.063	73.0	0.055
-6.0	0.136	14.0	0.067	34.0	0.013	54.0	0.064	74.0	0.046
-5.0	0.200	15.0	0.054	35.0	0.022	55.0	0.069	75.0	0.037
-4.0	0.388	16.0	0.096	36.0	0.053	56.0	0.079	76.0	0.030
-3.0	0.594	17.0	0.121	37.0	0.086	57.0	0.093	77.0	0.023
-2.0	0.779	18.0	0.121	38.0	0.115	58.0	0.107	78.0	0.018
-1.0	0.918	19.0	0.102	39.0	0.138	59.0	0.120	79.0	0.014
0.0	0.991	20.0	0.080	40.0	0.151	60.0	0.131	80.0	0.010
1.0	0.990	21.0	0.082	41.0	0.153	61.0	0.139	81.0	0.007
2.0	0.915	22.0	0.109	42.0	0.146	62.0	0.143	82.0	0.005
3.0	0.776	23.0	0.138	43.0	0.131	63.0	0.144	83.0	0.003
4.0	0.592	24.0	0.155	44.0	0.111	64.0	0.142	84.0	0.002
5.0	0.390	25.0	0.155	45.0	0.089	65.0	0.137	85.0	0.001
6.0	0.206	26.0	0.138	46.0	0.070	66.0	0.130	86.0	0.001
7.0	0.135	27.0	0.108	47.0	0.059	67.0	0.121	87.0	0.000
8.0	0.211	28.0	0.071	48.0	0.058	68.0	0.110	88.0	0.000
9.0	0.282	29.0	0.033	49.0	0.061	69.0	0.099	89.0	0.000
								90.0	0.000

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## Summary

Proposal No. **C-71032-1**  
Date **10-Nov-17**  
Call Letters **KFJX**  
Channel **13**  
Frequency **213 MHz**  
Antenna Type **THV-8A13-R C145**

## Antenna

	Hpol	Vpol
ERP:	<b>62.9 kW ( 17.99 dBk )</b>	<b>33.9 kW ( 15.30 dBk )</b>
Peak Gain*	8.79 ( 9.44 dB )	4.73 ( 6.75 dB )

**Antenna Input Power** **7.16 kW ( 8.55 dBk )**

## Transmission Line

Type:	<b>Rigid</b>	Attenuation:	<b>( 1.88 dB )</b>
Size:	<b>3-1/8"</b>	Efficiency:	<b>64.9%</b>
Impedance:	<b>50 Ohm</b>		
Length:	<b>1300 ft</b>	<b>396.2 m</b>	

## Transmitter Output

**11.0 kW ( 10.43 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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