

## AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70196**  
 Date **20-Jun-17**  
 Call Letters **KAVU**  
 Channel **20**  
 Frequency **509 MHz**  
 Antenna Type **TUA-O4SP-14/155H-1-T-R**  
 Gain **1.43 (1.56dB)**  
 Calculated  
 Circularity **+/- 3.0 dB**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.850	36	0.715	72	0.737	108	0.903	144	0.912	180	0.897	216	0.691	252	0.836	288	0.958
1	0.860	37	0.718	73	0.734	109	0.895	145	0.912	181	0.910	217	0.684	253	0.836	289	0.951
2	0.865	38	0.723	74	0.733	110	0.888	146	0.910	182	0.915	218	0.680	254	0.838	290	0.943
3	0.870	39	0.730	75	0.734	111	0.882	147	0.906	183	0.921	219	0.679	255	0.841	291	0.937
4	0.875	40	0.738	76	0.738	112	0.866	148	0.900	184	0.927	220	0.680	256	0.847	292	0.926
5	0.881	41	0.747	77	0.743	113	0.851	149	0.893	185	0.934	221	0.684	257	0.852	293	0.915
6	0.887	42	0.757	78	0.751	114	0.837	150	0.883	186	0.940	222	0.689	258	0.859	294	0.906
7	0.888	43	0.768	79	0.760	115	0.825	151	0.872	187	0.943	223	0.696	259	0.867	295	0.898
8	0.890	44	0.780	80	0.772	116	0.814	152	0.859	188	0.946	224	0.705	260	0.878	296	0.892
9	0.892	45	0.792	81	0.786	117	0.801	153	0.845	189	0.948	225	0.716	261	0.890	297	0.883
10	0.894	46	0.803	82	0.796	118	0.790	154	0.831	190	0.951	226	0.729	262	0.899	298	0.876
11	0.897	47	0.816	83	0.809	119	0.781	155	0.816	191	0.954	227	0.743	263	0.910	299	0.871
12	0.889	48	0.828	84	0.823	120	0.774	156	0.801	192	0.949	228	0.758	264	0.921	300	0.866
13	0.884	49	0.839	85	0.838	121	0.770	157	0.787	193	0.944	229	0.774	265	0.935	301	0.864
14	0.878	50	0.849	86	0.855	122	0.763	158	0.774	194	0.940	230	0.789	266	0.949	302	0.858
15	0.874	51	0.856	87	0.864	123	0.758	159	0.762	195	0.936	231	0.803	267	0.955	303	0.854
16	0.869	52	0.864	88	0.874	124	0.755	160	0.752	196	0.932	232	0.817	268	0.961	304	0.850
17	0.860	53	0.870	89	0.884	125	0.755	161	0.743	197	0.925	233	0.830	269	0.968	305	0.848
18	0.852	54	0.874	90	0.896	126	0.756	162	0.736	198	0.919	234	0.842	270	0.976	306	0.846
19	0.845	55	0.875	91	0.908	127	0.760	163	0.731	199	0.914	235	0.852	271	0.985	307	0.846
20	0.839	56	0.875	92	0.913	128	0.766	164	0.728	200	0.910	236	0.861	272	0.986	308	0.847
21	0.834	57	0.872	93	0.919	129	0.774	165	0.728	201	0.907	237	0.865	273	0.988	309	0.848
22	0.820	58	0.868	94	0.924	130	0.783	166	0.731	202	0.891	238	0.869	274	0.990	310	0.850
23	0.807	59	0.861	95	0.931	131	0.793	167	0.736	203	0.875	239	0.870	275	0.992	311	0.851
24	0.794	60	0.853	96	0.937	132	0.804	168	0.743	204	0.859	240	0.870	276	0.995	312	0.853
25	0.783	61	0.843	97	0.939	133	0.815	169	0.752	205	0.844	241	0.868	277	0.995	313	0.855
26	0.772	62	0.833	98	0.940	134	0.827	170	0.764	206	0.829	242	0.865	278	0.996	314	0.857
27	0.761	63	0.821	99	0.942	135	0.838	171	0.778	207	0.811	243	0.862	279	0.997	315	0.858
28	0.751	64	0.809	100	0.944	136	0.850	172	0.789	208	0.795	244	0.858	280	0.999	316	0.857
29	0.742	65	0.797	101	0.946	137	0.862	173	0.802	209	0.779	245	0.853	281	1.000	317	0.857
30	0.736	66	0.785	102	0.941	138	0.873	174	0.817	210	0.765	246	0.848	282	0.995	318	0.856
31	0.731	67	0.774	103	0.936	139	0.883	175	0.833	211	0.752	247	0.845	283	0.989	319	0.853
32	0.724	68	0.764	104	0.930	140	0.891	176	0.850	212	0.736	248	0.841	284	0.985	320	0.849
33	0.719	69	0.755	105	0.926	141	0.898	177	0.861	213	0.722	249	0.838	285	0.980	321	0.843
34	0.716	70	0.747	106	0.921	142	0.905	178	0.873	214	0.710	250	0.837	286	0.977	322	0.837
35	0.715	71	0.742	107	0.911	143	0.909	179	0.885	215	0.699	251	0.836	287	0.967	323	0.829

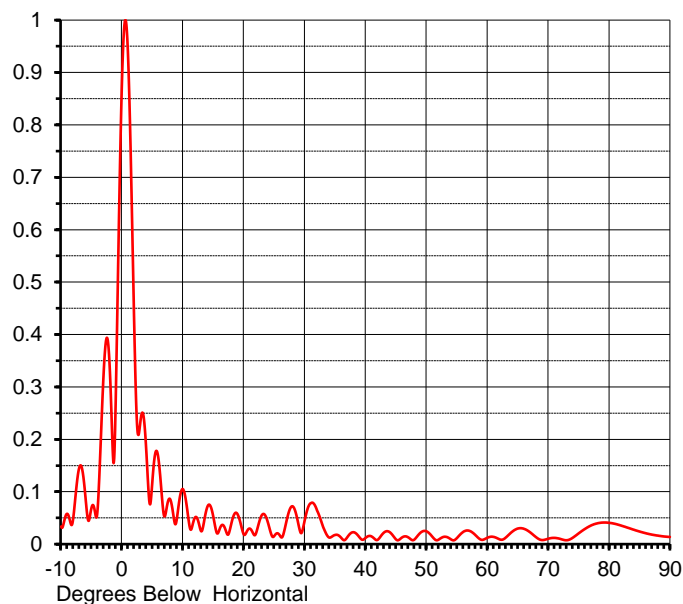
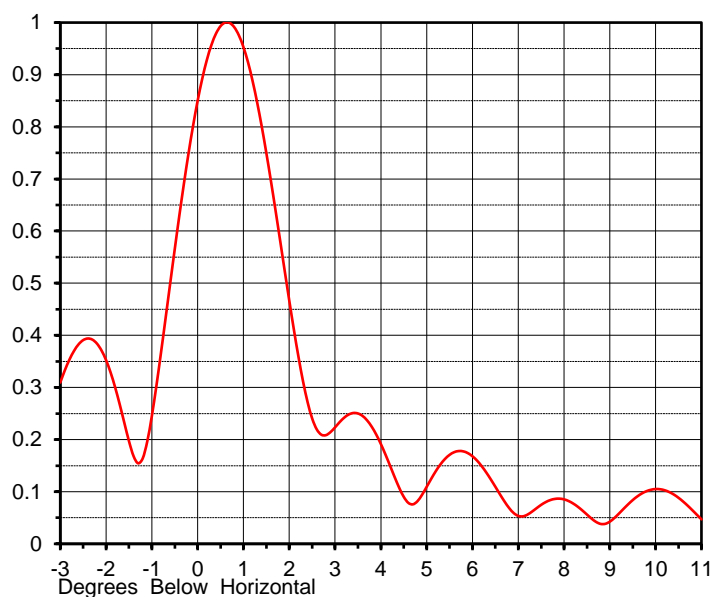
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## ELEVATION PATTERN

Proposal No. **C-70196**  
 Date **20-Jun-17**  
 Call Letters **KAVU**  
 Channel **20**  
 Frequency **509 MHz**  
 Antenna Type **TUA-O4SP-14/155H-1-T-R**

RMS Directivity at Main Lobe **26.0 ( 14.15 dB )**  
 RMS Directivity at Horizontal **20.7 ( 13.16 dB )**  
**Calculated**

Beam Tilt **0.50 deg**  
 Pattern Number **14U260050**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.034	10.0	0.105	30.0	0.047	50.0	0.024	70.0	0.010
-9.0	0.058	11.0	0.039	31.0	0.078	51.0	0.013	71.0	0.012
-8.0	0.052	12.0	0.051	32.0	0.064	52.0	0.009	72.0	0.010
-7.0	0.147	13.0	0.024	33.0	0.032	53.0	0.014	73.0	0.007
-6.0	0.088	14.0	0.071	34.0	0.013	54.0	0.009	74.0	0.013
-5.0	0.070	15.0	0.050	35.0	0.018	55.0	0.012	75.0	0.021
-4.0	0.070	16.0	0.029	36.0	0.012	56.0	0.023	76.0	0.029
-3.0	0.333	17.0	0.026	37.0	0.014	57.0	0.025	77.0	0.036
-2.0	0.328	18.0	0.043	38.0	0.023	58.0	0.017	78.0	0.040
-1.0	0.304	19.0	0.056	39.0	0.012	59.0	0.008	79.0	0.041
0.0	0.892	20.0	0.018	40.0	0.012	60.0	0.012	80.0	0.041
1.0	0.924	21.0	0.029	41.0	0.014	61.0	0.014	81.0	0.038
2.0	0.411	22.0	0.022	42.0	0.009	62.0	0.009	82.0	0.035
3.0	0.234	23.0	0.056	43.0	0.022	63.0	0.013	83.0	0.031
4.0	0.171	24.0	0.038	44.0	0.022	64.0	0.023	84.0	0.027
5.0	0.125	25.0	0.016	45.0	0.009	65.0	0.030	85.0	0.024
6.0	0.160	26.0	0.014	46.0	0.013	66.0	0.029	86.0	0.021
7.0	0.053	27.0	0.045	47.0	0.013	67.0	0.022	87.0	0.018
8.0	0.082	28.0	0.072	48.0	0.009	68.0	0.013	88.0	0.016
9.0	0.050	29.0	0.034	49.0	0.022	69.0	0.008	89.0	0.014
								90.0	0.014

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## KAVU (Victoria, TX) Proposed Ch. 20 Facility

**Parameters:**

ERP: 1000.0 kW

RCAMSL: 351.3 m

HAAT: 312.0 m

**Maxima:**

N281E 30 dBk

**Minima:**

N330E 25.36 dBk

### Directional Antenna dBk Table

Bearing	Pattern Azimuth	Relative Field	ERP (dBk)	Distance to Noise-Limited Contour (km)
N000E	0	0.897	29.06	98.0
	10	0.834	28.42	
	20	0.731	27.28	
	30	0.747	27.47	
	40	0.856	28.65	
N045E	45	0.875	28.84	97.6
	50	0.843	28.52	
	60	0.742	27.41	
	70	0.786	27.91	
N090E	80	0.908	29.16	100.6
	90	0.946	29.52	
	100	0.882	28.91	
	110	0.770	27.73	
N135E	120	0.793	27.99	99.7
	130	0.898	29.07	
	135	0.910	29.18	
	140	0.872	28.81	
N180E	150	0.743	27.42	100.1
	160	0.778	27.82	
	170	0.910	29.18	
	180	0.954	29.59	
N225E	190	0.907	29.15	96.1
	200	0.752	27.52	
	210	0.684	26.70	
	220	0.803	28.09	
N270E	225	0.861	28.70	100.3
	230	0.868	28.77	
	240	0.836	28.44	
	250	0.890	28.99	
N315E	260	0.985	29.87	96.6
	270	1.000	30.00	
	280	0.937	29.43	
	281	0.926	29.33	
	290	0.864	28.73	
	300	0.851	28.60	
	310	0.843	28.52	
	315	0.795	28.01	
	320	0.706	26.98	
	330	0.586	25.36	
	340	0.710	27.03	
	350	0.860	28.69	