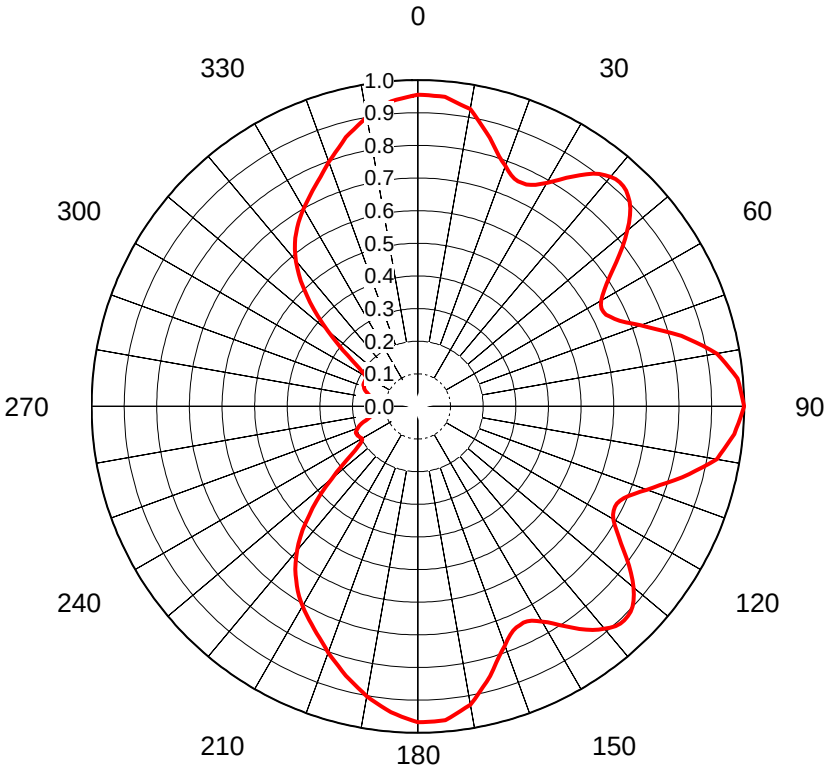


AZIMUTH PATTERN
Horizontal Polarization

Proposal No.	**C-01271a**
Date	**4-Jan-19**
Call Letters	
Channel	**31**
Frequency	**575 MHz**
Antenna Type	**TUA-C3-12/36U-1-S**
Gain	**1.92 (2.84dB)**
	Calculated

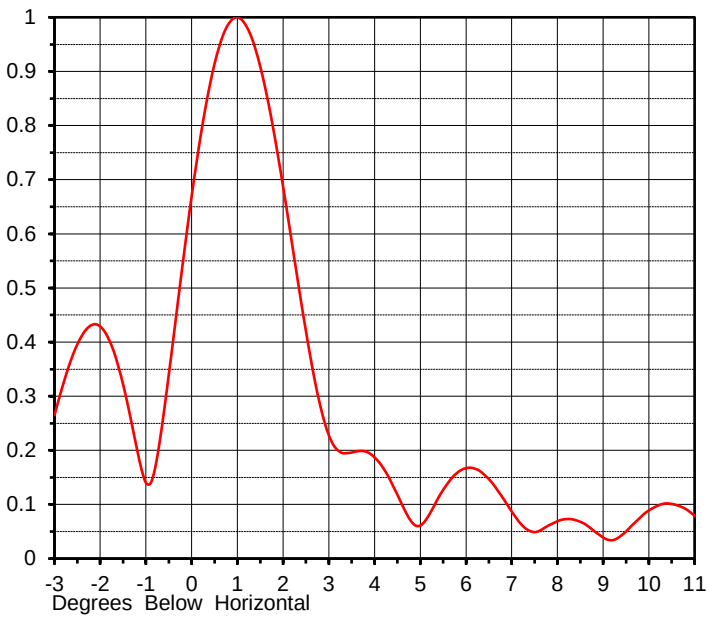
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.955	36	0.880	72	0.767	108	0.780	144	0.843	180	0.968	216	0.638	252	0.187	288	0.172	324	0.638
1	0.955	37	0.893	73	0.789	109	0.763	145	0.828	181	0.962	217	0.624	253	0.181	289	0.174	325	0.650
2	0.954	38	0.904	74	0.812	110	0.748	146	0.813	182	0.957	218	0.609	254	0.173	290	0.176	326	0.661
3	0.953	39	0.912	75	0.836	111	0.730	147	0.799	183	0.952	219	0.593	255	0.165	291	0.178	327	0.672
4	0.953	40	0.918	76	0.855	112	0.715	148	0.785	184	0.946	220	0.575	256	0.159	292	0.180	328	0.682
5	0.952	41	0.923	77	0.874	113	0.702	149	0.772	185	0.941	221	0.557	257	0.152	293	0.180	329	0.691
6	0.946	42	0.925	78	0.893	114	0.692	150	0.761	186	0.933	222	0.538	258	0.146	294	0.180	330	0.700
7	0.940	43	0.924	79	0.912	115	0.684	151	0.751	187	0.925	223	0.517	259	0.140	295	0.180	331	0.709
8	0.935	44	0.919	80	0.931	116	0.679	152	0.744	188	0.917	224	0.495	260	0.134	296	0.180	332	0.718
9	0.930	45	0.911	81	0.941	117	0.677	153	0.739	189	0.910	225	0.471	261	0.131	297	0.180	333	0.726
10	0.926	46	0.902	82	0.952	118	0.679	154	0.737	190	0.902	226	0.448	262	0.128	298	0.181	334	0.736
11	0.910	47	0.890	83	0.962	119	0.684	155	0.739	191	0.892	227	0.424	263	0.125	299	0.182	335	0.745
12	0.895	48	0.875	84	0.973	120	0.692	156	0.741	192	0.882	228	0.398	264	0.122	300	0.185	336	0.754
13	0.880	49	0.857	85	0.984	121	0.704	157	0.747	193	0.872	229	0.372	265	0.118	301	0.192	337	0.764
14	0.866	50	0.837	86	0.987	122	0.718	158	0.755	194	0.863	230	0.345	266	0.119	302	0.202	338	0.775
15	0.853	51	0.817	87	0.990	123	0.734	159	0.766	195	0.854	231	0.320	267	0.119	303	0.214	339	0.786
16	0.836	52	0.796	88	0.993	124	0.751	160	0.781	196	0.843	232	0.297	268	0.120	304	0.229	340	0.798
17	0.820	53	0.774	89	0.997	125	0.769	161	0.792	197	0.832	233	0.274	269	0.120	305	0.245	341	0.808
18	0.806	54	0.751	90	1.000	126	0.790	162	0.806	198	0.822	234	0.253	270	0.120	306	0.266	342	0.818
19	0.794	55	0.729	91	0.995	127	0.810	163	0.821	199	0.812	235	0.234	271	0.123	307	0.288	343	0.829
20	0.785	56	0.709	92	0.989	128	0.829	164	0.838	200	0.803	236	0.221	272	0.125	308	0.312	344	0.841
21	0.773	57	0.690	93	0.984	129	0.847	165	0.856	201	0.792	237	0.210	273	0.126	309	0.336	345	0.854
22	0.764	58	0.674	94	0.979	130	0.863	166	0.869	202	0.781	238	0.203	274	0.128	310	0.360	346	0.863
23	0.758	59	0.660	95	0.973	131	0.878	167	0.884	203	0.771	239	0.199	275	0.130	311	0.386	347	0.872
24	0.755	60	0.649	96	0.964	132	0.890	168	0.898	204	0.762	240	0.197	276	0.132	312	0.412	348	0.881
25	0.755	61	0.642	97	0.955	133	0.899	169	0.913	205	0.752	241	0.198	277	0.134	313	0.437	349	0.891
26	0.757	62	0.638	98	0.946	134	0.906	170	0.928	206	0.743	242	0.201	278	0.136	314	0.460	350	0.901
27	0.762	63	0.638	99	0.938	135	0.909	171	0.935	207	0.734	243	0.203	279	0.137	315	0.482	351	0.908
28	0.770	64	0.642	100	0.931	136	0.911	172	0.943	208	0.725	244	0.205	280	0.137	316	0.505	352	0.916
29	0.779	65	0.650	101	0.912	137	0.910	173	0.950	209	0.716	245	0.206	281	0.142	317	0.526	353	0.923
30	0.791	66	0.660	102	0.894	138	0.906	174	0.958	210	0.706	246	0.207	282	0.148	318	0.546	354	0.931
31	0.805	67	0.673	103	0.875	139	0.899	175	0.965	211	0.696	247	0.206	283	0.152	319	0.564	355	0.939
32	0.820	68	0.688	104	0.857	140	0.889	176	0.966	212	0.686	248	0.204	284	0.157	320	0.581	356	0.942
33	0.835	69	0.707	105	0.839	141	0.880	177	0.966	213	0.675	249	0.201	285	0.161	321	0.597	357	0.945
34	0.850	70	0.728	106	0.818	142	0.869	178	0.967	214	0.663	250	0.196	286	0.165	322	0.612	358	0.949
35	0.865	71	0.746	107	0.799	143	0.856	179	0.967	215	0.650	251	0.192	287	0.169	323	0.626	359	0.952

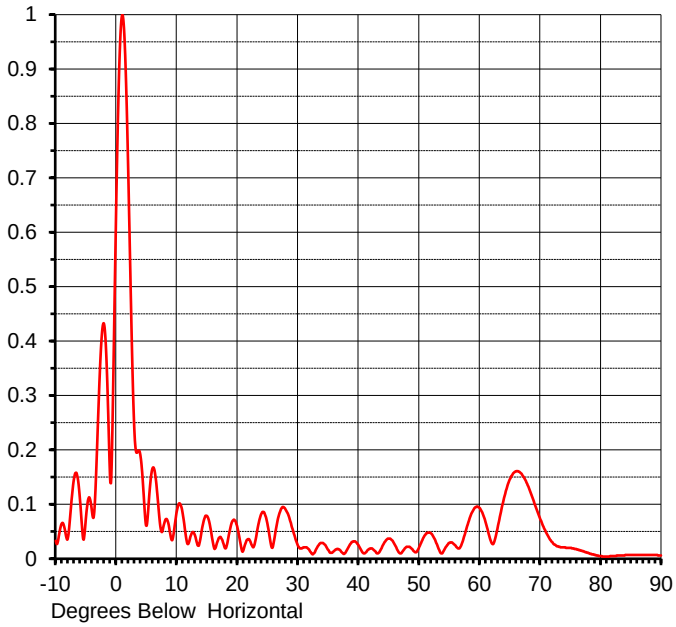
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ELEVATION PATTERN

Proposal No.	**C-01271a**
Date	**4-Jan-19**
Call Letters	
Channel	**31**
Frequency	**575 MHz**
Antenna Type	**TUA-C3-12/36U-1-S**

RMS Directivity at Main Lobe	**21.7 (13.36 dB)**	Beam Tilt	**1.00 deg**
RMS Directivity at Horizontal	**9.7 (9.87 dB)**	Pattern Number	**12U217100**
	Calculated		





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.033	10.0	0.089	30.0	0.023	50.0	0.022	70.0	0.072
-9.0	0.065	11.0	0.079	31.0	0.021	51.0	0.044	71.0	0.047
-8.0	0.039	12.0	0.031	32.0	0.013	52.0	0.046	72.0	0.030
-7.0	0.147	13.0	0.042	33.0	0.018	53.0	0.024	73.0	0.022
-6.0	0.107	14.0	0.046	34.0	0.029	54.0	0.014	74.0	0.021
-5.0	0.079	15.0	0.078	35.0	0.016	55.0	0.029	75.0	0.020
-4.0	0.084	16.0	0.026	36.0	0.015	56.0	0.024	76.0	0.017
-3.0	0.265	17.0	0.039	37.0	0.015	57.0	0.027	77.0	0.014
-2.0	0.429	18.0	0.019	38.0	0.015	58.0	0.063	78.0	0.010
-1.0	0.140	19.0	0.065	39.0	0.031	59.0	0.091	79.0	0.007
0.0	0.670	20.0	0.056	40.0	0.024	60.0	0.093	80.0	0.005
1.0	1.000	21.0	0.017	41.0	0.010	61.0	0.065	81.0	0.004
2.0	0.687	22.0	0.034	42.0	0.019	62.0	0.028	82.0	0.005
3.0	0.228	23.0	0.036	43.0	0.010	63.0	0.061	83.0	0.006
4.0	0.187	24.0	0.084	44.0	0.025	64.0	0.112	84.0	0.007
5.0	0.061	25.0	0.060	45.0	0.037	65.0	0.147	85.0	0.007
6.0	0.167	26.0	0.032	46.0	0.025	66.0	0.161	86.0	0.007
7.0	0.087	27.0	0.086	47.0	0.010	67.0	0.154	87.0	0.007
8.0	0.069	28.0	0.089	48.0	0.022	68.0	0.133	88.0	0.007
9.0	0.039	29.0	0.057	49.0	0.015	69.0	0.102	89.0	0.007
								90.0	0.006

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Summary

Proposal No.	**C-01271a**
Date	**4-Jan-19**
Call Letters	
Channel	**31**
Frequency	**575 MHz**
Antenna Type	**TUA-C3-12/36U-1-S**

Antenna

	Hpol	
ERP:	**1,000 kW**	**(30.00 dBk)**
Peak Gain*	41.69	(16.20 dB)

Antenna Input Power

24.0 kW **(13.80 dBk)**

Transmission Line

Type:	**Rigid**	Attenuation:		**(0.78 dB)**
Size:	**8-3/16"**	Efficiency:	**83.5%**	
Impedance:	**75 Ohm**			
Length:	**900 ft**	**274.3 m**		

Transmitter Output

28.7 kW **(14.58 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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