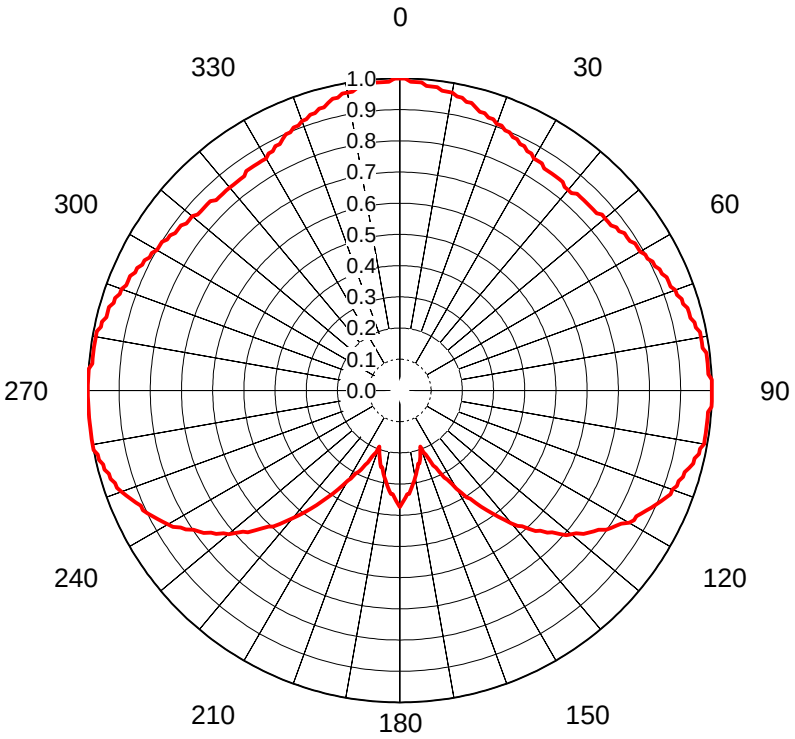


AZIMUTH PATTERN
Horizontal Polarization

Proposal No.	**C-70389**
Date	**17-Mar-17**
Call Letters	**WCET**
Channel	**17**
Frequency	**491 MHz**
Antenna Type	**TFU-22JTH/VP-R CT160 SP**
Gain	**1.52 (1.82dB)**
	Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.848	72	0.949	108	0.939	144	0.475	180	0.374	216	0.455	252	0.960	288	0.960	324	0.848
1	1.000	37	0.848	73	0.949	109	0.939	145	0.455	181	0.364	217	0.475	253	0.970	289	0.949	325	0.859
2	0.990	38	0.848	74	0.960	110	0.929	146	0.434	182	0.354	218	0.495	254	0.970	290	0.949	326	0.859
3	0.990	39	0.838	75	0.960	111	0.929	147	0.414	183	0.343	219	0.515	255	0.980	291	0.939	327	0.859
4	0.990	40	0.838	76	0.960	112	0.919	148	0.404	184	0.333	220	0.535	256	0.980	292	0.939	328	0.859
5	0.980	41	0.838	77	0.970	113	0.909	149	0.384	185	0.333	221	0.556	257	0.990	293	0.939	329	0.859
6	0.980	42	0.848	78	0.970	114	0.899	150	0.364	186	0.323	222	0.576	258	0.990	294	0.929	330	0.859
7	0.980	43	0.848	79	0.980	115	0.889	151	0.343	187	0.313	223	0.596	259	1.000	295	0.929	331	0.869
8	0.970	44	0.848	80	0.980	116	0.879	152	0.323	188	0.303	224	0.606	260	1.000	296	0.919	332	0.869
9	0.970	45	0.848	81	0.980	117	0.869	153	0.313	189	0.293	225	0.626	261	1.000	297	0.919	333	0.879
10	0.970	46	0.848	82	0.980	118	0.859	154	0.293	190	0.283	226	0.646	262	1.000	298	0.909	334	0.879
11	0.960	47	0.848	83	0.990	119	0.859	155	0.273	191	0.273	227	0.667	263	1.000	299	0.909	335	0.889
12	0.960	48	0.848	84	0.990	120	0.848	156	0.263	192	0.263	228	0.677	264	1.000	300	0.899	336	0.899
13	0.949	49	0.859	85	0.990	121	0.828	157	0.242	193	0.253	229	0.697	265	1.000	301	0.899	337	0.899
14	0.949	50	0.859	86	0.990	122	0.818	158	0.222	194	0.253	230	0.717	266	1.000	302	0.899	338	0.909
15	0.939	51	0.859	87	0.990	123	0.808	159	0.212	195	0.242	231	0.727	267	1.000	303	0.889	339	0.909
16	0.929	52	0.859	88	1.000	124	0.798	160	0.192	196	0.232	232	0.747	268	1.000	304	0.889	340	0.919
17	0.929	53	0.869	89	1.000	125	0.778	161	0.202	197	0.222	233	0.758	269	1.000	305	0.879	341	0.919
18	0.919	54	0.869	90	1.000	126	0.768	162	0.212	198	0.212	234	0.778	270	1.000	306	0.879	342	0.929
19	0.919	55	0.879	91	1.000	127	0.758	163	0.222	199	0.202	235	0.788	271	1.000	307	0.879	343	0.929
20	0.909	56	0.879	92	1.000	128	0.747	164	0.232	200	0.192	236	0.798	272	1.000	308	0.869	344	0.939
21	0.909	57	0.879	93	1.000	129	0.727	165	0.242	201	0.212	237	0.818	273	1.000	309	0.869	345	0.939
22	0.899	58	0.889	94	0.990	130	0.717	166	0.242	202	0.222	238	0.828	274	1.000	310	0.869	346	0.949
23	0.899	59	0.889	95	0.990	131	0.707	167	0.253	203	0.232	239	0.848	275	0.990	311	0.859	347	0.960
24	0.889	60	0.889	96	0.990	132	0.687	168	0.263	204	0.253	240	0.859	276	0.990	312	0.859	348	0.960
25	0.889	61	0.899	97	0.990	133	0.667	169	0.273	205	0.263	241	0.869	277	0.990	313	0.859	349	0.970
26	0.879	62	0.899	98	0.990	134	0.657	170	0.283	206	0.283	242	0.879	278	0.990	314	0.859	350	0.970
27	0.879	63	0.909	99	0.990	135	0.636	171	0.293	207	0.293	243	0.889	279	0.990	315	0.859	351	0.970
28	0.869	64	0.909	100	0.990	136	0.626	172	0.303	208	0.303	244	0.899	280	0.990	316	0.848	352	0.980
29	0.869	65	0.919	101	0.980	137	0.606	173	0.313	209	0.323	245	0.909	281	0.990	317	0.848	353	0.980
30	0.859	66	0.919	102	0.980	138	0.586	174	0.323	210	0.333	246	0.909	282	0.980	318	0.848	354	0.980
31	0.859	67	0.929	103	0.970	139	0.576	175	0.333	211	0.354	247	0.919	283	0.980	319	0.848	355	0.990
32	0.859	68	0.929	104	0.970	140	0.556	176	0.333	212	0.374	248	0.929	284	0.970	320	0.848	356	0.990
33	0.848	69	0.929	105	0.960	141	0.535	177	0.343	213	0.394	249	0.939	285	0.970	321	0.848	357	0.990
34	0.848	70	0.939	106	0.949	142	0.515	178	0.354	214	0.414	250	0.949	286	0.970	322	0.848	358	0.990
35	0.848	71	0.939	107	0.949	143	0.495	179	0.364	215	0.434	251	0.960	287	0.960	323	0.848	359	1.000

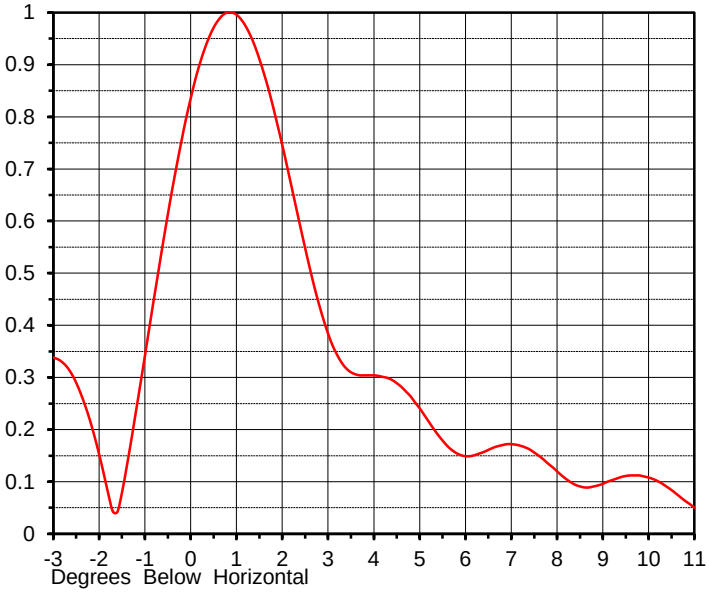
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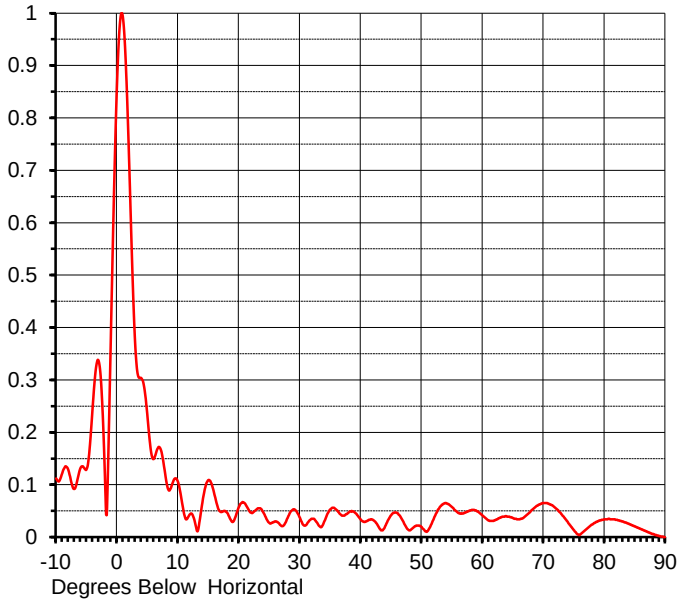
ELEVATION PATTERN

Proposal No.	**C-70389**
Date	**17-Mar-17**
Call Letters	**WCET**
Channel	**17**
Frequency	**491 MHz**
Antenna Type	**TFU-22JTH/VP-R CT160 S P**

RMS Directivity at Main Lobe	**20.0 (13.01 dB)**	Beam Tilt	**0.75 deg**
RMS Directivity at Horizontal	**13.9 (11.43 dB)**	Pattern Number	**22J200075**

Calculated





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.112	10.0	0.105	30.0	0.037	50.0	0.019	70.0	0.065
-9.0	0.122	11.0	0.044	31.0	0.023	51.0	0.012	71.0	0.063
-8.0	0.128	12.0	0.044	32.0	0.035	52.0	0.036	72.0	0.055
-7.0	0.092	13.0	0.017	33.0	0.024	53.0	0.058	73.0	0.043
-6.0	0.132	14.0	0.066	34.0	0.030	54.0	0.065	74.0	0.028
-5.0	0.130	15.0	0.109	35.0	0.053	55.0	0.057	75.0	0.013
-4.0	0.250	16.0	0.080	36.0	0.052	56.0	0.046	76.0	0.005
-3.0	0.335	17.0	0.048	37.0	0.041	57.0	0.046	77.0	0.015
-2.0	0.116	18.0	0.047	38.0	0.047	58.0	0.051	78.0	0.024
-1.0	0.397	19.0	0.029	39.0	0.047	59.0	0.050	79.0	0.031
0.0	0.871	20.0	0.058	40.0	0.033	60.0	0.041	80.0	0.034
1.0	0.987	21.0	0.064	41.0	0.031	61.0	0.032	81.0	0.034
2.0	0.707	22.0	0.047	42.0	0.033	62.0	0.032	82.0	0.033
3.0	0.361	23.0	0.054	43.0	0.018	63.0	0.038	83.0	0.030
4.0	0.303	24.0	0.047	44.0	0.021	64.0	0.039	84.0	0.025
5.0	0.228	25.0	0.027	45.0	0.042	65.0	0.036	85.0	0.020
6.0	0.149	26.0	0.030	46.0	0.046	66.0	0.034	86.0	0.015
7.0	0.171	27.0	0.021	47.0	0.029	67.0	0.040	87.0	0.010
8.0	0.112	28.0	0.037	48.0	0.013	68.0	0.051	88.0	0.006
9.0	0.100	29.0	0.053	49.0	0.021	69.0	0.060	89.0	0.002
								90.0	0.000

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WCET (Cincinnati, OH) Proposed Ch. 17 Facility

Parameters:		Maxima:	
ERP:	274.0 kW	N000E	24.38 dBk
RCAMSL:	583.8 m	N090E	24.38 dBk
HAAT:	325.0 m	N260E	24.38 dBk
		N270E	24.38 dBk
		Minima:	
		N160E	10.04 dBk
		N200E	10.04 dBk

Directional Antenna dBk Table

Bearing	Pattern Azimuth	Relative Field	ERP (dBk)	Distance to Noise-Limited Contour (km)
N000E	0	1.000	24.38	90.6
	10	0.970	24.11	
	20	0.909	23.55	
	30	0.859	23.06	
	40	0.838	22.84	
N045E	45	0.848	22.95	88.5
	50	0.859	23.06	
	60	0.889	23.36	
	70	0.939	23.83	
	80	0.980	24.20	
N090E	90	1.000	24.38	95.4
	100	0.990	24.29	
	110	0.929	23.74	
	120	0.848	22.95	
	130	0.717	21.49	
N135E	135	0.636	20.45	87.1
	140	0.556	19.28	
	150	0.364	15.60	
	160	0.192	10.04	
	170	0.283	13.41	
N180E	180	0.374	15.83	78.5
	190	0.283	13.41	
	200	0.192	10.04	
	210	0.333	14.83	
	220	0.535	18.94	
N225E	225	0.626	20.31	83.7
	230	0.717	21.49	
	240	0.859	23.06	
	250	0.949	23.92	
	260	1.000	24.38	
N270E	270	1.000	24.38	90.2
	280	0.990	24.29	
	290	0.949	23.92	
	300	0.899	23.45	
	310	0.869	23.16	
N315E	315	0.859	23.06	86.2
	320	0.848	22.95	
	330	0.859	23.06	
	340	0.919	23.64	
	350	0.970	24.11	