



Antenna Model: **TFU-24DSB-E/VP-R MT**

Proposal Number: **C-70472-3**
Date: **3-Jul-18**
Customer: **Nexstar**
Location: **Erie, PA**

Electrical Specifications

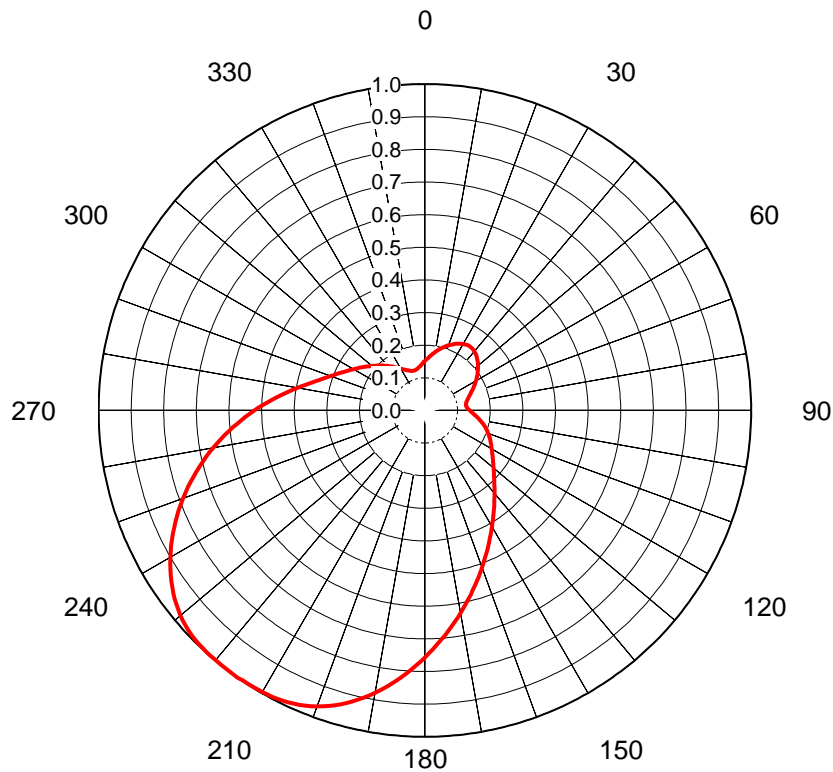
Polarization: **Elliptical** **NOTE: ANTENNA HAS MECHANICAL BEAM TILT**
Azimuth Pattern: **Directional**
Antenna Input: **6-1/8"** **75 Ohm** **EIA/DCA**
VSWR: **Channel** **1.08 : 1**
Bandwidth: **6 MHz**
Rated Input Power: **15 kW** **(11.76 dBk)** **Maximum combined average power**

Mechanical Specifications

Mounting: **Side Mounted**
Environmental Protection: **Full Radome**
Height: **49.6 ft (15.1m)**
Weight: **1005 lb (0.5t)** **Excludes Mounts**
Effective Projected Area: **82.7 ft² (7.7m²)** **TIA-222-G** **Basic Wind Speed: 89 m/h (143.2 km/h)**

Channel Specifications

	Call	CH	Freq	Hpol ERP	Vpol ERP	TPO	Peak Main Lobe Hpol Gain	Peak Main Lobe Vpol Gain	Peak at Horizontal Hpol Gain	Peak at Horizontal Vpol Gain
1	WFXP	26	545 MHz	930 kW (29.68 dBk)	233 kW (23.66 dBk)	16.5 kW (12.18 dBk)	69.48 (18.42dB)	17.37 (12.40dB)	10.62 (10.26dB)	2.66 (4.24dB)



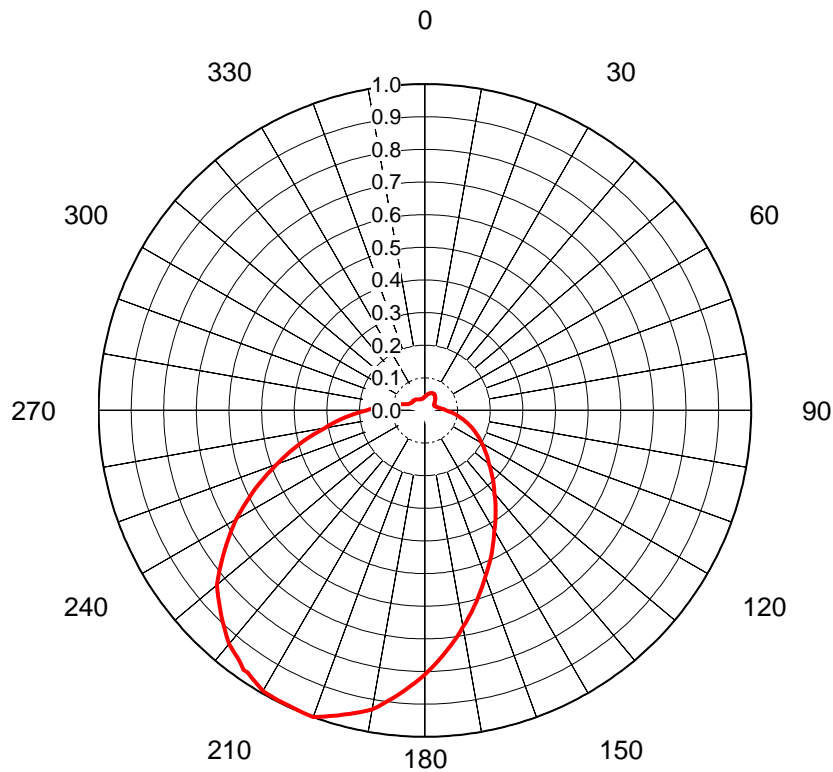
AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No. **C-70472-3**
 Date **3-Jul-18**
 Call Letters **WFXP**
 Channel **26**
 Frequency **545 MHz**
 Antenna Type **TFU-24DSB-E/VP-R MT**
 Gain **3.87 (5.88dB)**
 Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.151	36	0.240	72	0.143	108	0.201	144	0.361	180	0.757	216	0.999	252	0.764	288	0.322	324	0.165
1	0.154	37	0.239	73	0.141	109	0.204	145	0.369	181	0.770	217	0.999	253	0.751	289	0.315	325	0.162
2	0.157	38	0.239	74	0.138	110	0.207	146	0.377	182	0.783	218	0.999	254	0.738	290	0.308	326	0.159
3	0.160	39	0.238	75	0.136	111	0.210	147	0.385	183	0.795	219	0.999	255	0.725	291	0.301	327	0.156
4	0.163	40	0.236	76	0.134	112	0.213	148	0.394	184	0.808	220	0.998	256	0.712	292	0.295	328	0.153
5	0.166	41	0.235	77	0.132	113	0.216	149	0.402	185	0.820	221	0.998	257	0.699	293	0.289	329	0.151
6	0.169	42	0.233	78	0.131	114	0.219	150	0.411	186	0.833	222	0.998	258	0.685	294	0.283	330	0.148
7	0.172	43	0.231	79	0.129	115	0.222	151	0.420	187	0.845	223	0.997	259	0.672	295	0.277	331	0.146
8	0.175	44	0.229	80	0.128	116	0.225	152	0.430	188	0.856	224	0.996	260	0.659	296	0.272	332	0.143
9	0.179	45	0.226	81	0.128	117	0.228	153	0.439	189	0.868	225	0.995	261	0.645	297	0.267	333	0.141
10	0.182	46	0.224	82	0.127	118	0.231	154	0.449	190	0.879	226	0.993	262	0.631	298	0.262	334	0.139
11	0.185	47	0.221	83	0.127	119	0.234	155	0.459	191	0.890	227	0.990	263	0.618	299	0.257	335	0.137
12	0.188	48	0.219	84	0.127	120	0.237	156	0.469	192	0.900	228	0.986	264	0.604	300	0.253	336	0.135
13	0.191	49	0.216	85	0.128	121	0.240	157	0.480	193	0.910	229	0.982	265	0.590	301	0.248	337	0.133
14	0.194	50	0.213	86	0.129	122	0.243	158	0.490	194	0.919	230	0.978	266	0.577	302	0.244	338	0.132
15	0.198	51	0.210	87	0.131	123	0.247	159	0.501	195	0.928	231	0.972	267	0.563	303	0.240	339	0.130
16	0.201	52	0.207	88	0.133	124	0.250	160	0.512	196	0.937	232	0.966	268	0.549	304	0.235	340	0.129
17	0.204	53	0.204	89	0.135	125	0.254	161	0.523	197	0.945	233	0.960	269	0.536	305	0.231	341	0.128
18	0.207	54	0.200	90	0.137	126	0.258	162	0.535	198	0.952	234	0.953	270	0.522	306	0.227	342	0.128
19	0.210	55	0.197	91	0.140	127	0.262	163	0.546	199	0.959	235	0.945	271	0.509	307	0.223	343	0.127
20	0.212	56	0.194	92	0.143	128	0.266	164	0.558	200	0.965	236	0.937	272	0.495	308	0.220	344	0.127
21	0.215	57	0.191	93	0.146	129	0.270	165	0.570	201	0.971	237	0.929	273	0.482	309	0.216	345	0.127
22	0.218	58	0.187	94	0.149	130	0.275	166	0.581	202	0.976	238	0.920	274	0.469	310	0.212	346	0.127
23	0.220	59	0.184	95	0.153	131	0.279	167	0.593	203	0.980	239	0.910	275	0.457	311	0.209	347	0.127
24	0.223	60	0.181	96	0.156	132	0.284	168	0.606	204	0.984	240	0.901	276	0.444	312	0.205	348	0.128
25	0.225	61	0.177	97	0.160	133	0.289	169	0.618	205	0.988	241	0.891	277	0.432	313	0.202	349	0.129
26	0.227	62	0.174	98	0.164	134	0.295	170	0.630	206	0.991	242	0.880	278	0.420	314	0.198	350	0.130
27	0.229	63	0.171	99	0.168	135	0.301	171	0.643	207	0.993	243	0.870	279	0.408	315	0.195	351	0.131
28	0.231	64	0.167	100	0.172	136	0.306	172	0.655	208	0.995	244	0.859	280	0.397	316	0.191	352	0.133
29	0.233	65	0.164	101	0.175	137	0.312	173	0.668	209	0.996	245	0.848	281	0.386	317	0.188	353	0.135
30	0.235	66	0.161	102	0.179	138	0.319	174	0.680	210	0.996	246	0.836	282	0.375	318	0.185	354	0.137
31	0.236	67	0.158	103	0.183	139	0.325	175	0.693	211	0.997	247	0.825	283	0.365	319	0.181	355	0.139
32	0.238	68	0.155	104	0.187	140	0.332	176	0.706	212	0.997	248	0.813	284	0.356	320	0.178	356	0.141
33	0.239	69	0.152	105	0.190	141	0.339	177	0.719	213	0.998	249	0.801	285	0.346	321	0.175	357	0.143
34	0.239	70	0.149	106	0.194	142	0.346	178	0.731	214	0.998	250	0.789	286	0.338	322	0.172	358	0.146
35	0.240	71	0.146	107	0.197	143	0.354	179	0.744	215	1.000	251	0.776	287	0.330	323	0.168	359	0.149

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AZIMUTH PATTERN Horizontal Polarization

Mechanical Tilt

Proposal No. **C-70472-3**
 Date **3-Jul-18**
 Call Letters **WFXP**
 Channel **26**
 Frequency **545 MHz**
 Antenna Type **TFU-24DSB-E/VP-R MT**
 Gain **5.09 (7.07dB)**
 Calculated

Mechanical tilt 1.2 deg at 355

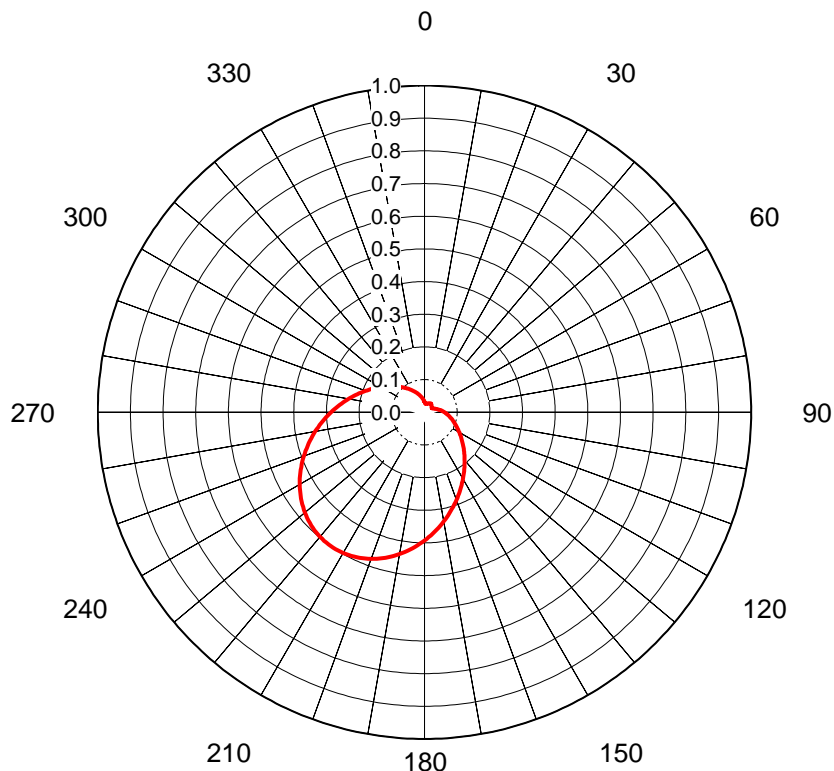
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.042	36	0.053	72	0.037	108	0.143	144	0.369	180	0.810	216	0.960	252	0.449	288	0.062	324	0.042
1	0.043	37	0.052	73	0.038	109	0.148	145	0.379	181	0.822	217	0.952	253	0.432	289	0.059	325	0.042
2	0.044	38	0.052	74	0.039	110	0.153	146	0.388	182	0.834	218	0.946	254	0.415	290	0.055	326	0.041
3	0.044	39	0.051	75	0.040	111	0.158	147	0.398	183	0.846	219	0.940	255	0.398	291	0.054	327	0.041
4	0.045	40	0.050	76	0.040	112	0.163	148	0.407	184	0.858	220	0.934	256	0.380	292	0.053	328	0.040
5	0.046	41	0.049	77	0.041	113	0.167	149	0.417	185	0.871	221	0.924	257	0.363	293	0.053	329	0.040
6	0.047	42	0.048	78	0.042	114	0.172	150	0.426	186	0.883	222	0.914	258	0.346	294	0.052	330	0.039
7	0.048	43	0.047	79	0.043	115	0.177	151	0.438	187	0.895	223	0.903	259	0.329	295	0.051	331	0.039
8	0.048	44	0.046	80	0.044	116	0.182	152	0.449	188	0.907	224	0.893	260	0.312	296	0.050	332	0.038
9	0.049	45	0.045	81	0.046	117	0.187	153	0.461	189	0.919	225	0.883	261	0.299	297	0.049	333	0.038
10	0.050	46	0.043	82	0.048	118	0.191	154	0.472	190	0.931	226	0.873	262	0.285	298	0.049	334	0.038
11	0.051	47	0.042	83	0.050	119	0.196	155	0.484	191	0.938	227	0.863	263	0.272	299	0.048	335	0.038
12	0.051	48	0.041	84	0.052	120	0.201	156	0.496	192	0.945	228	0.852	264	0.258	300	0.047	336	0.037
13	0.052	49	0.040	85	0.055	121	0.207	157	0.507	193	0.952	229	0.842	265	0.245	301	0.047	337	0.037
14	0.053	50	0.039	86	0.057	122	0.212	158	0.519	194	0.959	230	0.832	266	0.232	302	0.047	338	0.037
15	0.054	51	0.038	87	0.059	123	0.218	159	0.530	195	0.966	231	0.816	267	0.218	303	0.047	339	0.036
16	0.054	52	0.038	88	0.061	124	0.223	160	0.542	196	0.972	232	0.799	268	0.205	304	0.047	340	0.036
17	0.055	53	0.037	89	0.063	125	0.229	161	0.555	197	0.979	233	0.783	269	0.191	305	0.047	341	0.036
18	0.056	54	0.036	90	0.065	126	0.235	162	0.568	198	0.986	234	0.766	270	0.178	306	0.046	342	0.036
19	0.056	55	0.036	91	0.069	127	0.240	163	0.582	199	0.993	235	0.750	271	0.169	307	0.046	343	0.036
20	0.057	56	0.035	92	0.073	128	0.246	164	0.595	200	1.000	236	0.734	272	0.161	308	0.046	344	0.036
21	0.057	57	0.034	93	0.077	129	0.251	165	0.608	201	0.999	237	0.717	273	0.152	309	0.046	345	0.037
22	0.057	58	0.033	94	0.081	130	0.257	166	0.621	202	0.999	238	0.701	274	0.144	310	0.046	346	0.037
23	0.057	59	0.033	95	0.085	131	0.264	167	0.634	203	0.998	239	0.684	275	0.135	311	0.046	347	0.037
24	0.057	60	0.032	96	0.089	132	0.272	168	0.648	204	0.997	240	0.668	276	0.126	312	0.046	348	0.037
25	0.058	61	0.032	97	0.093	133	0.279	169	0.661	205	0.997	241	0.650	277	0.118	313	0.045	349	0.037
26	0.058	62	0.033	98	0.097	134	0.287	170	0.674	206	0.996	242	0.631	278	0.109	314	0.045	350	0.037
27	0.058	63	0.033	99	0.101	135	0.294	171	0.688	207	0.995	243	0.613	279	0.101	315	0.045	351	0.038
28	0.058	64	0.033	100	0.105	136	0.301	172	0.701	208	0.994	244	0.594	280	0.092	316	0.045	352	0.038
29	0.058	65	0.034	101	0.110	137	0.309	173	0.715	209	0.994	245	0.576	281	0.088	317	0.045	353	0.039
30	0.058	66	0.034	102	0.115	138	0.316	174	0.728	210	0.993	246	0.557	282	0.085	318	0.044	354	0.039
31	0.057	67	0.034	103	0.119	139	0.324	175	0.742	211	0.987	247	0.539	283	0.081	319	0.044	355	0.040
32	0.056	68	0.034	104	0.124	140	0.331	176	0.756	212	0.981	248	0.520	284	0.077	320	0.044	356	0.040
33	0.056	69	0.035	105	0.129	141	0.341	177	0.769	213	0.975	249	0.502	285	0.074	321	0.044	357	0.041
34	0.055	70	0.035	106	0.134	142	0.350	178	0.783	214	0.969	250	0.483	286	0.070	322	0.043	358	0.041
35	0.054	71	0.036	107	0.139	143	0.360	179	0.796	215	0.970	251	0.466	287	0.066	323	0.043	359	0.042

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AZIMUTH PATTERN Vertical Polarization

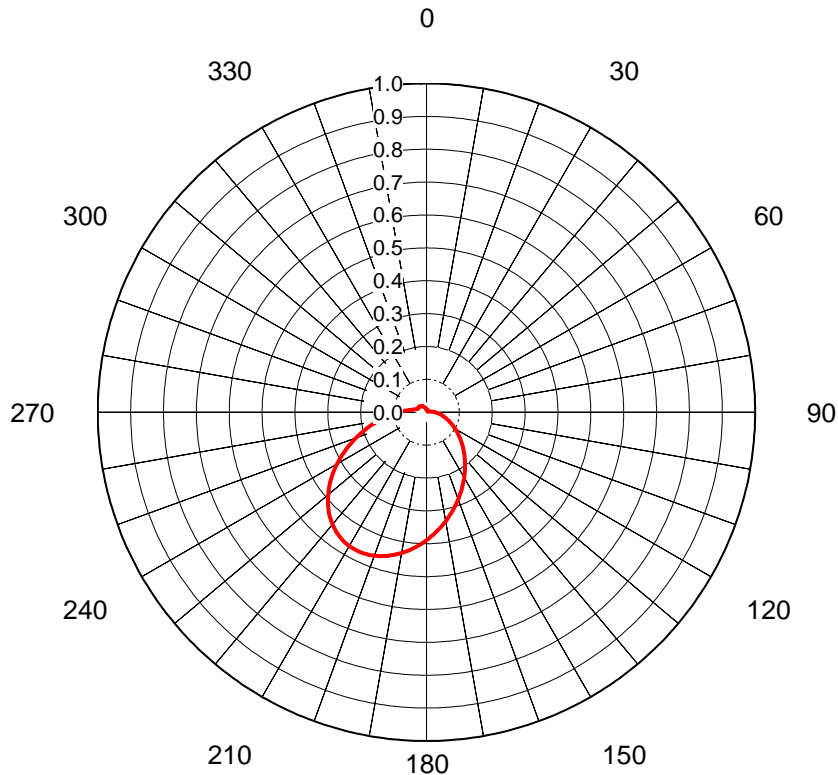
In Free Space

Proposal No. **C-70472-3**
Date **3-Jul-18**
Call Letters **WFXP**
Channel **26**
Frequency **545 MHz**
Antenna Type **TFU-24DSB-E/VP-R MT**
Gain **3.82 (5.82dB)**
Calculated



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.032	36	0.033	72	0.035	108	0.094	144	0.208	180	0.393	216	0.500	252	0.382	288	0.200
1	0.031	37	0.033	73	0.036	109	0.096	145	0.213	181	0.398	217	0.500	253	0.377	289	0.196
2	0.030	38	0.032	74	0.037	110	0.099	146	0.217	182	0.403	218	0.499	254	0.372	290	0.192
3	0.030	39	0.032	75	0.038	111	0.101	147	0.222	183	0.408	219	0.498	255	0.367	291	0.187
4	0.029	40	0.032	76	0.040	112	0.103	148	0.226	184	0.413	220	0.497	256	0.361	292	0.183
5	0.028	41	0.032	77	0.041	113	0.105	149	0.231	185	0.418	221	0.496	257	0.356	293	0.180
6	0.027	42	0.032	78	0.043	114	0.108	150	0.236	186	0.423	222	0.495	258	0.350	294	0.176
7	0.027	43	0.031	79	0.044	115	0.110	151	0.241	187	0.427	223	0.493	259	0.345	295	0.172
8	0.027	44	0.031	80	0.046	116	0.113	152	0.245	188	0.432	224	0.492	260	0.340	296	0.168
9	0.026	45	0.030	81	0.047	117	0.115	153	0.250	189	0.436	225	0.490	261	0.334	297	0.165
10	0.026	46	0.030	82	0.049	118	0.118	154	0.255	190	0.441	226	0.488	262	0.329	298	0.161
11	0.026	47	0.030	83	0.050	119	0.121	155	0.260	191	0.445	227	0.485	263	0.323	299	0.157
12	0.026	48	0.029	84	0.052	120	0.123	156	0.265	192	0.449	228	0.483	264	0.318	300	0.154
13	0.026	49	0.029	85	0.053	121	0.126	157	0.270	193	0.453	229	0.480	265	0.312	301	0.151
14	0.026	50	0.028	86	0.055	122	0.129	158	0.276	194	0.457	230	0.477	266	0.307	302	0.147
15	0.026	51	0.028	87	0.056	123	0.132	159	0.281	195	0.461	231	0.475	267	0.302	303	0.144
16	0.027	52	0.027	88	0.058	124	0.135	160	0.286	196	0.465	232	0.471	268	0.296	304	0.141
17	0.027	53	0.027	89	0.060	125	0.138	161	0.291	197	0.468	233	0.468	269	0.291	305	0.138
18	0.027	54	0.027	90	0.061	126	0.141	162	0.296	198	0.471	234	0.465	270	0.286	306	0.135
19	0.028	55	0.026	91	0.063	127	0.144	163	0.302	199	0.475	235	0.461	271	0.281	307	0.132
20	0.028	56	0.026	92	0.065	128	0.147	164	0.307	200	0.477	236	0.457	272	0.276	308	0.129
21	0.029	57	0.026	93	0.066	129	0.151	165	0.312	201	0.480	237	0.453	273	0.270	309	0.126
22	0.029	58	0.026	94	0.068	130	0.154	166	0.318	202	0.483	238	0.449	274	0.265	310	0.123
23	0.030	59	0.026	95	0.070	131	0.157	167	0.323	203	0.485	239	0.445	275	0.260	311	0.121
24	0.030	60	0.026	96	0.071	132	0.161	168	0.329	204	0.488	240	0.441	276	0.255	312	0.118
25	0.030	61	0.026	97	0.073	133	0.165	169	0.334	205	0.490	241	0.436	277	0.250	313	0.115
26	0.031	62	0.027	98	0.075	134	0.168	170	0.340	206	0.492	242	0.432	278	0.245	314	0.113
27	0.031	63	0.027	99	0.077	135	0.172	171	0.345	207	0.493	243	0.427	279	0.241	315	0.110
28	0.032	64	0.027	100	0.079	136	0.176	172	0.350	208	0.495	244	0.423	280	0.236	316	0.108
29	0.032	65	0.028	101	0.080	137	0.180	173	0.356	209	0.496	245	0.418	281	0.231	317	0.105
30	0.032	66	0.029	102	0.082	138	0.183	174	0.361	210	0.497	246	0.413	282	0.226	318	0.103
31	0.032	67	0.030	103	0.084	139	0.187	175	0.367	211	0.498	247	0.408	283	0.222	319	0.101
32	0.032	68	0.030	104	0.086	140	0.192	176	0.372	212	0.499	248	0.403	284	0.217	320	0.099
33	0.033	69	0.031	105	0.088	141	0.196	177	0.377	213	0.500	249	0.398	285	0.213	321	0.096
34	0.033	70	0.032	106	0.090	142	0.200	178	0.382	214	0.500	250	0.393	286	0.208	322	0.094
35	0.033	71	0.033	107	0.092	143	0.204	179	0.388	215	0.500	251	0.388	287	0.204	323	0.092

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AZIMUTH PATTERN Vertical Polarization

Mechanical Tilt

Proposal No. **C-70472-3**
 Date **3-Jul-18**
 Call Letters **WFXP**
 Channel **26**
 Frequency **545 MHz**
 Antenna Type **TFU-24DSB-E/VP-R MT**
 Gain **4.91 (6.91dB)**
 Calculated

Mechanical tilt 1.2 deg at 355

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.009	36	0.008	72	0.007	108	0.065	144	0.200	180	0.390	216	0.459	252	0.211	288	0.031
1	0.008	37	0.008	73	0.008	109	0.067	145	0.205	181	0.395	217	0.456	253	0.202	289	0.030
2	0.008	38	0.007	74	0.008	110	0.070	146	0.209	182	0.399	218	0.452	254	0.194	290	0.030
3	0.008	39	0.007	75	0.009	111	0.073	147	0.214	183	0.404	219	0.449	255	0.186	291	0.029
4	0.008	40	0.007	76	0.010	112	0.076	148	0.219	184	0.409	220	0.445	256	0.178	292	0.029
5	0.007	41	0.007	77	0.011	113	0.079	149	0.224	185	0.414	221	0.441	257	0.170	293	0.029
6	0.007	42	0.007	78	0.012	114	0.082	150	0.229	186	0.418	222	0.437	258	0.162	294	0.029
7	0.007	43	0.007	79	0.012	115	0.085	151	0.234	187	0.422	223	0.432	259	0.155	295	0.029
8	0.007	44	0.006	80	0.013	116	0.088	152	0.240	188	0.427	224	0.427	260	0.147	296	0.028
9	0.007	45	0.006	81	0.014	117	0.091	153	0.245	189	0.431	225	0.421	261	0.140	297	0.028
10	0.007	46	0.006	82	0.016	118	0.094	154	0.250	190	0.435	226	0.416	262	0.133	298	0.028
11	0.007	47	0.006	83	0.017	119	0.097	155	0.255	191	0.439	227	0.410	263	0.126	299	0.028
12	0.007	48	0.006	84	0.018	120	0.101	156	0.261	192	0.442	228	0.403	264	0.120	300	0.028
13	0.007	49	0.005	85	0.019	121	0.104	157	0.266	193	0.446	229	0.397	265	0.113	301	0.028
14	0.007	50	0.005	86	0.021	122	0.108	158	0.271	194	0.449	230	0.390	266	0.107	302	0.028
15	0.007	51	0.005	87	0.022	123	0.111	159	0.277	195	0.452	231	0.384	267	0.101	303	0.028
16	0.007	52	0.005	88	0.023	124	0.115	160	0.282	196	0.455	232	0.376	268	0.095	304	0.028
17	0.007	53	0.005	89	0.025	125	0.119	161	0.287	197	0.458	233	0.369	269	0.090	305	0.028
18	0.007	54	0.005	90	0.027	126	0.122	162	0.293	198	0.460	234	0.361	270	0.084	306	0.028
19	0.007	55	0.004	91	0.028	127	0.126	163	0.298	199	0.462	235	0.354	271	0.079	307	0.028
20	0.007	56	0.004	92	0.030	128	0.130	164	0.304	200	0.464	236	0.346	272	0.074	308	0.028
21	0.007	57	0.004	93	0.032	129	0.134	165	0.309	201	0.466	237	0.338	273	0.070	309	0.027
22	0.008	58	0.004	94	0.034	130	0.138	166	0.315	202	0.468	238	0.330	274	0.065	310	0.027
23	0.008	59	0.004	95	0.035	131	0.142	167	0.320	203	0.469	239	0.322	275	0.061	311	0.027
24	0.008	60	0.004	96	0.037	132	0.146	168	0.326	204	0.470	240	0.313	276	0.057	312	0.027
25	0.008	61	0.004	97	0.039	133	0.150	169	0.331	205	0.471	241	0.305	277	0.054	313	0.027
26	0.008	62	0.004	98	0.041	134	0.154	170	0.337	206	0.471	242	0.296	278	0.051	314	0.026
27	0.008	63	0.004	99	0.043	135	0.159	171	0.342	207	0.471	243	0.288	279	0.048	315	0.026
28	0.008	64	0.004	100	0.046	136	0.163	172	0.348	208	0.471	244	0.279	280	0.045	316	0.026
29	0.008	65	0.005	101	0.048	137	0.167	173	0.353	209	0.471	245	0.271	281	0.042	317	0.025
30	0.008	66	0.005	102	0.050	138	0.172	174	0.358	210	0.470	246	0.262	282	0.040	318	0.025
31	0.008	67	0.005	103	0.052	139	0.176	175	0.364	211	0.469	247	0.253	283	0.038	319	0.025
32	0.008	68	0.005	104	0.055	140	0.181	176	0.369	212	0.467	248	0.245	284	0.036	320	0.024
33	0.008	69	0.006	105	0.057	141	0.185	177	0.374	213	0.466	249	0.236	285	0.035	321	0.024
34	0.008	70	0.006	106	0.060	142	0.190	178	0.379	214	0.464	250	0.227	286	0.033	322	0.024
35	0.008	71	0.007	107	0.062	143	0.195	179	0.384	215	0.461	251	0.219	287	0.032	323	0.023

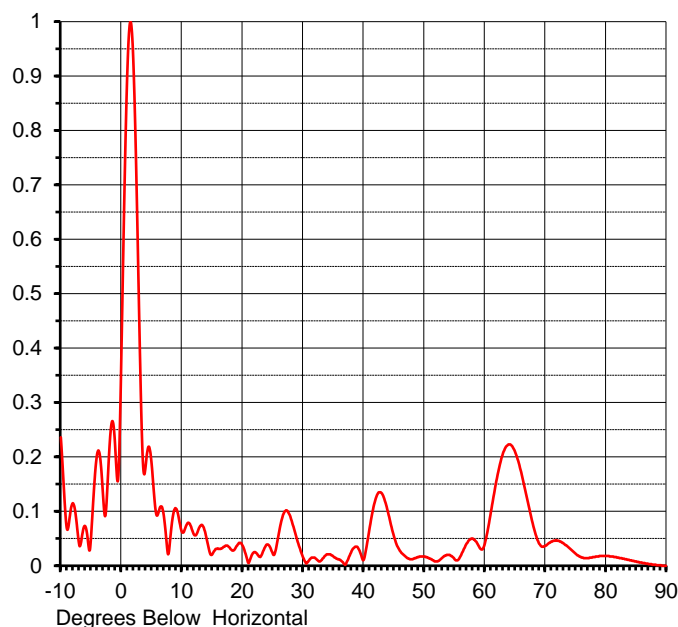
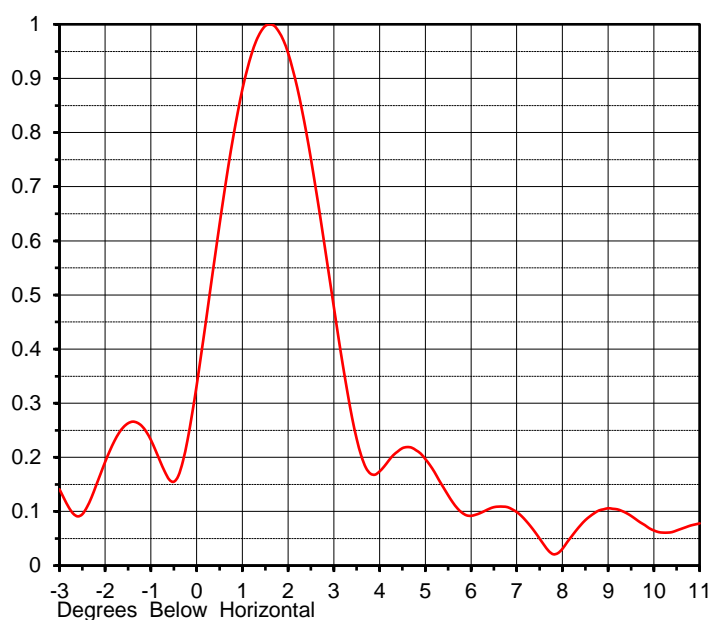
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ELEVATION PATTERN

Proposal No. **C-70472-3**
 Date **3-Jul-18**
 Call Letters **WFXP**
 Channel **26**
 Frequency **545 MHz**
 Antenna Type **TFU-24DSB-E/VP-R MT**

RMS Directivity at Main Lobe **22.5 (13.52 dB)**
 RMS Directivity at Horizontal **3.4 (5.31 dB)**
Calculated

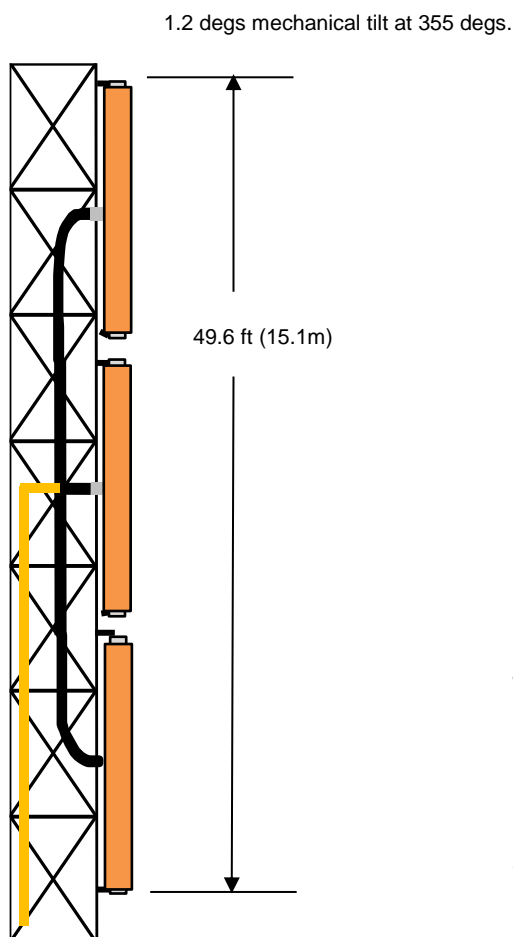
Beam Tilt **1.50 deg**
 Pattern Number **24B225150**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.236	10.0	0.062	30.0	0.015	50.0	0.017	70.0	0.037
-9.0	0.068	11.0	0.079	31.0	0.010	51.0	0.013	71.0	0.044
-8.0	0.115	12.0	0.057	32.0	0.014	52.0	0.008	72.0	0.046
-7.0	0.041	13.0	0.073	33.0	0.010	53.0	0.015	73.0	0.041
-6.0	0.073	14.0	0.053	34.0	0.021	54.0	0.020	74.0	0.032
-5.0	0.055	15.0	0.021	35.0	0.017	55.0	0.012	75.0	0.022
-4.0	0.206	16.0	0.031	36.0	0.011	56.0	0.018	76.0	0.015
-3.0	0.124	17.0	0.035	37.0	0.002	57.0	0.041	77.0	0.014
-2.0	0.212	18.0	0.031	38.0	0.027	58.0	0.050	78.0	0.016
-1.0	0.213	19.0	0.036	39.0	0.034	59.0	0.036	79.0	0.018
0.0	0.391	20.0	0.037	40.0	0.011	60.0	0.041	80.0	0.018
1.0	0.915	21.0	0.005	41.0	0.071	61.0	0.099	81.0	0.017
2.0	0.917	22.0	0.025	42.0	0.124	62.0	0.161	82.0	0.015
3.0	0.422	23.0	0.017	43.0	0.133	63.0	0.207	83.0	0.013
4.0	0.183	24.0	0.039	44.0	0.099	64.0	0.223	84.0	0.010
5.0	0.186	25.0	0.022	45.0	0.054	65.0	0.209	85.0	0.008
6.0	0.094	26.0	0.060	46.0	0.027	66.0	0.172	86.0	0.005
7.0	0.092	27.0	0.100	47.0	0.016	67.0	0.122	87.0	0.003
8.0	0.043	28.0	0.086	48.0	0.012	68.0	0.073	88.0	0.002
9.0	0.105	29.0	0.048	49.0	0.016	69.0	0.040	89.0	0.001
								90.0	0.000

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MECHANICAL SPECIFICATIONS



Proposal No. **C-70472-3**
 Date **3-Jul-18**
 Call Letters **WFXP**
 Channel **26**
 Frequency **545 MHz**
 Antenna Type **TFU-24DSB-E/VP-R MT**

Preliminary Specifications

Side Mounted

With ice TIA-222-G

Height AGL(z) 717 ft (218.5 m)
 Basic Wind Speed 89 m/h (143.2 km/h)

Structure Class II
 Exposure Category C
 Topography Category 1

Design Ice 0.75 in $t_{iz} = 2.10$ in
 Wind Speed w/Ice 40 m/h (64.4 km/h)

Mechanical Specifications

		without ice	with ice	
Height	H2	49.6 ft (15.1m)		
Height of Center of Radiation	H3	24.8 ft (7.6m)		
Effective Projected Area	(EPA) _A	82.7 ft ² (7.7m ²)	164.2 ft ² (15.3m ²)	Mounts Excluded
Weight	W	1005 lb (0.5t)	5000 lb (2.3t)	Mounts Excluded

Antenna designed in accordance with AISC specifications for design of structural steel as prescribed by TIA-222-G

Prepared by: KLP
 Rev. No.3 by: JBC

Date: 28-Jun-18
 Date: 3-Jul-18

ME: EE:

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Summary

Proposal No.	C-70472-3
Date	3-Jul-18
Call Letters	WFXP
Channel	26
Frequency	545 MHz
Antenna Type	TFU-24DSB-E/VP-R MT

Antenna

	Hpol		Vpol	
ERP:	930 kW	(29.68 dBk)	233 kW	(23.66 dBk)
Peak Gain*	69.48	(18.42 dB)	17.37	(12.40 dB)

Antenna Input Power	13.4 kW	(11.26 dBk)
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Transmission Line

Type:	Rigid	Attenuation:	(0.91 dB)
Size:	6-1/8"	Efficiency:	81.0%
Impedance:	75 Ohm		
Length:	805 ft	245.4 m	

Transmitter Output

16.5 kW **(12.18 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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