

## AZIMUTH PATTERN Horizontal Polarization

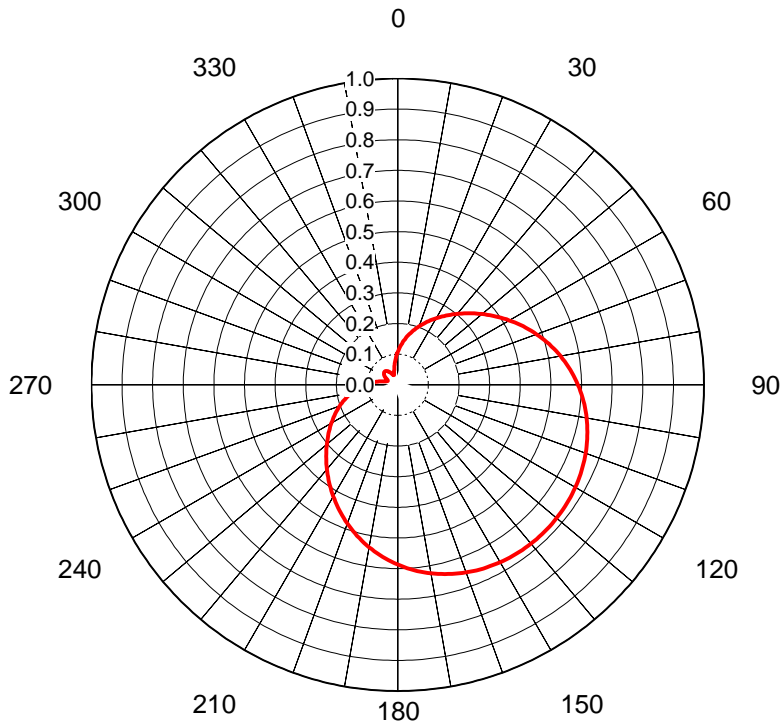
Proposal No. **WNYO Interim CH 16**  
 Date **19-Feb-20**  
 Call Letters **WNYO**  
 Channel **16**  
 Frequency **485 MHz**  
 Antenna Type **TFU-8WB/VP-R C160**  
 Gain **1.52 (1.82dB)**

Calculated

Pattern Number **WB-C160-16 Hpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.471	36	0.815	72	0.955	108	0.989	144	0.959	180	0.998	216	0.893	252	0.665	288	0.479
1	0.480	37	0.821	73	0.959	109	0.988	145	0.960	181	0.997	217	0.890	253	0.654	289	0.488
2	0.489	38	0.826	74	0.962	110	0.986	146	0.962	182	0.995	218	0.886	254	0.643	290	0.497
3	0.498	39	0.831	75	0.965	111	0.985	147	0.963	183	0.994	219	0.882	255	0.632	291	0.506
4	0.509	40	0.836	76	0.968	112	0.983	148	0.964	184	0.993	220	0.878	256	0.620	292	0.516
5	0.519	41	0.841	77	0.971	113	0.981	149	0.966	185	0.991	221	0.874	257	0.609	293	0.526
6	0.530	42	0.846	78	0.973	114	0.979	150	0.968	186	0.989	222	0.870	258	0.597	294	0.536
7	0.542	43	0.850	79	0.976	115	0.977	151	0.969	187	0.987	223	0.866	259	0.586	295	0.546
8	0.553	44	0.854	80	0.979	116	0.976	152	0.971	188	0.985	224	0.862	260	0.574	296	0.556
9	0.565	45	0.858	81	0.981	117	0.974	153	0.973	189	0.983	225	0.858	261	0.562	297	0.565
10	0.576	46	0.863	82	0.984	118	0.972	154	0.975	190	0.980	226	0.854	262	0.551	298	0.575
11	0.588	47	0.867	83	0.986	119	0.970	155	0.976	191	0.978	227	0.849	263	0.539	299	0.584
12	0.600	48	0.870	84	0.988	120	0.969	156	0.978	192	0.975	228	0.845	264	0.528	300	0.593
13	0.611	49	0.874	85	0.990	121	0.967	157	0.980	193	0.972	229	0.840	265	0.517	301	0.602
14	0.623	50	0.878	86	0.991	122	0.965	158	0.982	194	0.969	230	0.835	266	0.507	302	0.610
15	0.634	51	0.882	87	0.993	123	0.964	159	0.984	195	0.966	231	0.830	267	0.497	303	0.618
16	0.646	52	0.885	88	0.994	124	0.962	160	0.985	196	0.963	232	0.825	268	0.487	304	0.625
17	0.657	53	0.889	89	0.996	125	0.961	161	0.987	197	0.960	233	0.819	269	0.478	305	0.632
18	0.668	54	0.893	90	0.997	126	0.960	162	0.989	198	0.957	234	0.814	270	0.469	306	0.638
19	0.678	55	0.896	91	0.998	127	0.959	163	0.990	199	0.954	235	0.808	271	0.462	307	0.643
20	0.689	56	0.900	92	0.998	128	0.958	164	0.992	200	0.950	236	0.802	272	0.455	308	0.648
21	0.699	57	0.903	93	0.999	129	0.957	165	0.993	201	0.947	237	0.795	273	0.449	309	0.653
22	0.709	58	0.907	94	0.999	130	0.956	166	0.994	202	0.944	238	0.789	274	0.444	310	0.657
23	0.718	59	0.910	95	1.000	131	0.955	167	0.996	203	0.940	239	0.782	275	0.440	311	0.660
24	0.727	60	0.914	96	1.000	132	0.955	168	0.997	204	0.937	240	0.774	276	0.437	312	0.662
25	0.736	61	0.917	97	1.000	133	0.954	169	0.998	205	0.933	241	0.767	277	0.435	313	0.664
26	0.745	62	0.921	98	0.999	134	0.954	170	0.998	206	0.930	242	0.759	278	0.434	314	0.665
27	0.753	63	0.924	99	0.999	135	0.954	171	0.999	207	0.926	243	0.751	279	0.434	315	0.665
28	0.761	64	0.928	100	0.998	136	0.954	172	0.999	208	0.922	244	0.743	280	0.435	316	0.665
29	0.769	65	0.932	101	0.998	137	0.954	173	1.000	209	0.919	245	0.734	281	0.438	317	0.664
30	0.776	66	0.935	102	0.997	138	0.955	174	1.000	210	0.915	246	0.725	282	0.441	318	0.662
31	0.784	67	0.938	103	0.996	139	0.955	175	1.000	211	0.912	247	0.716	283	0.445	319	0.660
32	0.790	68	0.942	104	0.995	140	0.956	176	1.000	212	0.908	248	0.706	284	0.451	320	0.656
33	0.797	69	0.945	105	0.994	141	0.956	177	1.000	213	0.904	249	0.696	285	0.457	321	0.653
34	0.803	70	0.949	106	0.992	142	0.957	178	0.999	214	0.901	250	0.686	286	0.464	322	0.648
35	0.809	71	0.952	107	0.991	143	0.958	179	0.998	215	0.897	251	0.676	287	0.471	323	0.643

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## AZIMUTH PATTERN Vertical Polarization

Proposal No. **WNYO Interim CH 16**  
 Date **19-Feb-20**  
 Call Letters **WNYO**  
 Channel **16**  
 Frequency **485 MHz**  
 Antenna Type **TFU-8WB/VP-R C160**  
 Gain **2.64 (4.21dB)**  
 Calculated

Pattern Number **WB-C160-16 Vpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.107	36	0.281	72	0.494	108	0.649	144	0.675	180	0.587	216	0.384	252	0.191	288	0.038
1	0.112	37	0.286	73	0.500	109	0.651	145	0.674	181	0.583	217	0.378	253	0.187	289	0.036
2	0.117	38	0.292	74	0.506	110	0.653	146	0.673	182	0.578	218	0.371	254	0.182	290	0.036
3	0.122	39	0.297	75	0.512	111	0.655	147	0.672	183	0.573	219	0.365	255	0.177	291	0.035
4	0.126	40	0.302	76	0.518	112	0.657	148	0.671	184	0.569	220	0.359	256	0.172	292	0.035
5	0.131	41	0.308	77	0.523	113	0.659	149	0.670	185	0.564	221	0.354	257	0.168	293	0.036
6	0.136	42	0.313	78	0.529	114	0.661	150	0.669	186	0.559	222	0.348	258	0.163	294	0.036
7	0.141	43	0.319	79	0.534	115	0.662	151	0.668	187	0.554	223	0.342	259	0.158	295	0.037
8	0.146	44	0.324	80	0.540	116	0.664	152	0.666	188	0.549	224	0.336	260	0.153	296	0.039
9	0.151	45	0.330	81	0.545	117	0.666	153	0.665	189	0.544	225	0.330	261	0.149	297	0.040
10	0.155	46	0.336	82	0.550	118	0.667	154	0.663	190	0.538	226	0.324	262	0.144	298	0.042
11	0.160	47	0.342	83	0.555	119	0.668	155	0.662	191	0.533	227	0.319	263	0.139	299	0.043
12	0.165	48	0.347	84	0.560	120	0.670	156	0.660	192	0.528	228	0.313	264	0.134	300	0.045
13	0.170	49	0.353	85	0.565	121	0.671	157	0.658	193	0.522	229	0.308	265	0.130	301	0.047
14	0.174	50	0.359	86	0.570	122	0.672	158	0.656	194	0.517	230	0.302	266	0.125	302	0.049
15	0.179	51	0.365	87	0.575	123	0.673	159	0.654	195	0.511	231	0.297	267	0.120	303	0.050
16	0.184	52	0.371	88	0.580	124	0.674	160	0.652	196	0.505	232	0.291	268	0.115	304	0.052
17	0.189	53	0.377	89	0.584	125	0.674	161	0.650	197	0.499	233	0.286	269	0.110	305	0.053
18	0.193	54	0.383	90	0.588	126	0.675	162	0.647	198	0.494	234	0.281	270	0.106	306	0.055
19	0.198	55	0.390	91	0.593	127	0.676	163	0.645	199	0.488	235	0.275	271	0.101	307	0.056
20	0.203	56	0.396	92	0.597	128	0.676	164	0.642	200	0.482	236	0.270	272	0.096	308	0.057
21	0.208	57	0.402	93	0.601	129	0.677	165	0.640	201	0.476	237	0.265	273	0.092	309	0.058
22	0.212	58	0.408	94	0.605	130	0.677	166	0.637	202	0.470	238	0.260	274	0.087	310	0.059
23	0.217	59	0.414	95	0.609	131	0.678	167	0.634	203	0.464	239	0.255	275	0.083	311	0.059
24	0.222	60	0.421	96	0.613	132	0.678	168	0.631	204	0.457	240	0.250	276	0.078	312	0.060
25	0.227	61	0.427	97	0.616	133	0.678	169	0.628	205	0.451	241	0.245	277	0.074	313	0.060
26	0.231	62	0.433	98	0.620	134	0.678	170	0.625	206	0.445	242	0.240	278	0.070	314	0.061
27	0.236	63	0.439	99	0.623	135	0.678	171	0.622	207	0.439	243	0.235	279	0.065	315	0.061
28	0.241	64	0.446	100	0.626	136	0.678	172	0.618	208	0.433	244	0.230	280	0.061	316	0.061
29	0.246	65	0.452	101	0.629	137	0.678	173	0.615	209	0.427	245	0.225	281	0.058	317	0.060
30	0.251	66	0.458	102	0.633	138	0.678	174	0.611	210	0.420	246	0.220	282	0.054	318	0.060
31	0.256	67	0.464	103	0.635	139	0.677	175	0.607	211	0.414	247	0.215	283	0.051	319	0.059
32	0.261	68	0.470	104	0.638	140	0.677	176	0.604	212	0.408	248	0.211	284	0.047	320	0.059
33	0.266	69	0.476	105	0.641	141	0.677	177	0.600	213	0.402	249	0.206	285	0.044	321	0.058
34	0.271	70	0.482	106	0.644	142	0.676	178	0.595	214	0.396	250	0.201	286	0.042	322	0.057
35	0.276	71	0.488	107	0.646	143	0.675	179	0.591	215	0.390	251	0.196	287	0.040	323	0.056

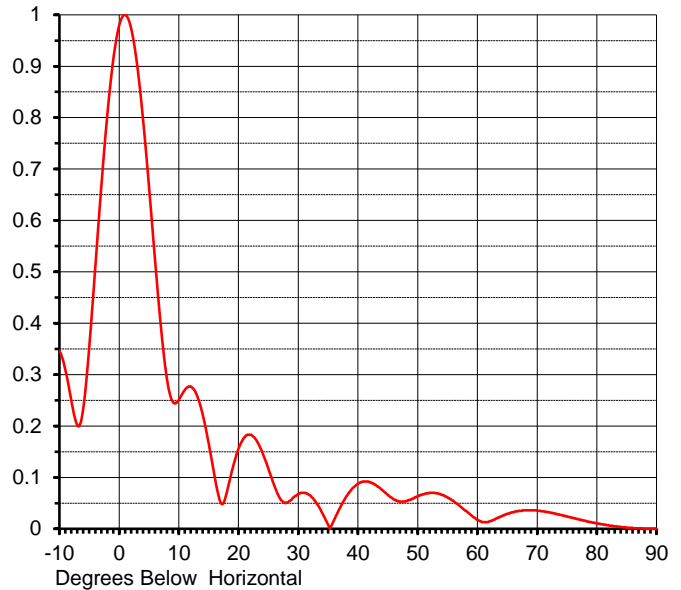
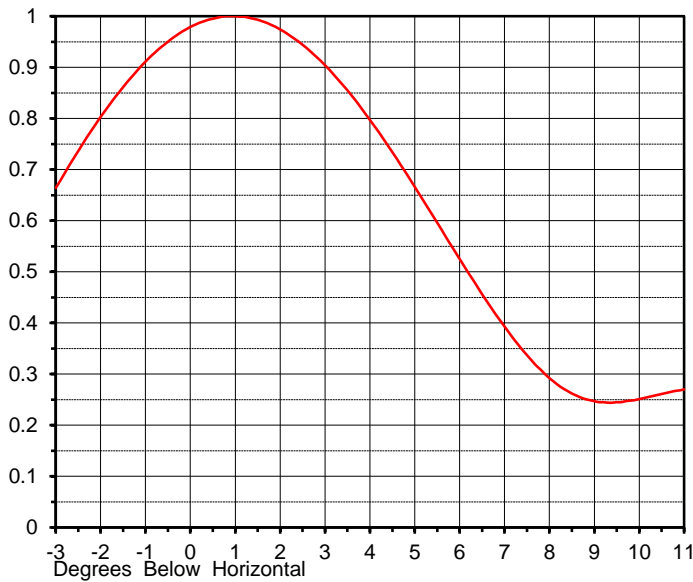
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## ELEVATION PATTERN

Proposal No. **WNYO Interim CH 16**  
 Date **19-Feb-20**  
 Call Letters **WNYO**  
 Channel **16**  
 Frequency **485 MHz**  
 Antenna Type **TFU-8WB/VP-R C160**

RMS Directivity at Main Lobe **7.5 ( 8.75 dB )**  
 RMS Directivity at Horizontal **7.2 ( 8.57 dB )**  
**Calculated**

Beam Tilt **1.05 deg**  
 Pattern Number **08W075105-16**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.347	10.0	0.251	30.0	0.068	50.0	0.063	70.0	0.035
-9.0	0.309	11.0	0.270	31.0	0.070	51.0	0.067	71.0	0.034
-8.0	0.249	12.0	0.277	32.0	0.065	52.0	0.070	72.0	0.032
-7.0	0.201	13.0	0.260	33.0	0.051	53.0	0.069	73.0	0.030
-6.0	0.235	14.0	0.222	34.0	0.031	54.0	0.066	74.0	0.027
-5.0	0.354	15.0	0.166	35.0	0.008	55.0	0.061	75.0	0.024
-4.0	0.508	16.0	0.102	36.0	0.017	56.0	0.054	76.0	0.021
-3.0	0.664	17.0	0.051	37.0	0.041	57.0	0.045	77.0	0.018
-2.0	0.803	18.0	0.069	38.0	0.062	58.0	0.035	78.0	0.016
-1.0	0.911	19.0	0.117	39.0	0.078	59.0	0.026	79.0	0.013
0.0	0.979	20.0	0.156	40.0	0.088	60.0	0.018	80.0	0.011
1.0	1.000	21.0	0.178	41.0	0.092	61.0	0.013	81.0	0.009
2.0	0.974	22.0	0.183	42.0	0.091	62.0	0.014	82.0	0.007
3.0	0.904	23.0	0.172	43.0	0.085	63.0	0.019	83.0	0.005
4.0	0.797	24.0	0.148	44.0	0.076	64.0	0.024	84.0	0.004
5.0	0.666	25.0	0.117	45.0	0.066	65.0	0.029	85.0	0.002
6.0	0.525	26.0	0.084	46.0	0.057	66.0	0.032	86.0	0.002
7.0	0.393	27.0	0.058	47.0	0.053	67.0	0.035	87.0	0.001
8.0	0.292	28.0	0.051	48.0	0.054	68.0	0.036	88.0	0.000
9.0	0.247	29.0	0.059	49.0	0.058	69.0	0.036	89.0	0.000
								90.0	0.000

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