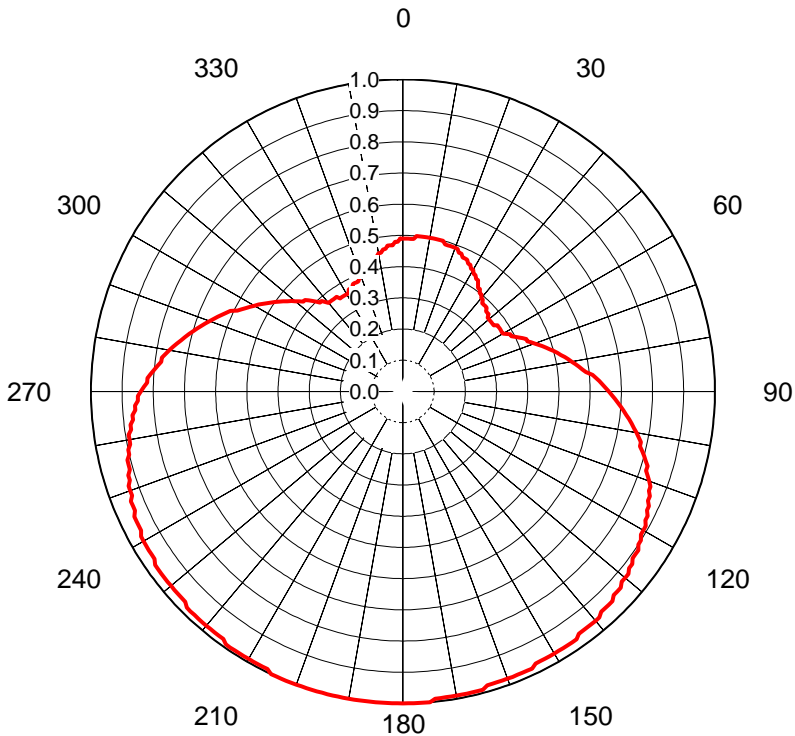


## AZIMUTH PATTERN Horizontal Polarization

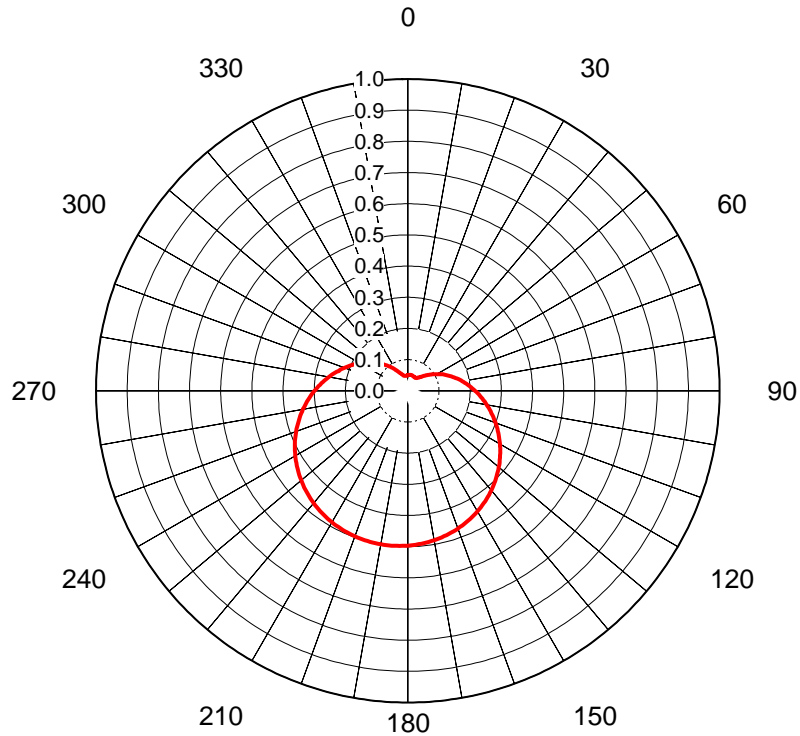
Proposal No. **C-70153-4**  
 Date **27-Feb-18**  
 Call Letters **WNAB**  
 Channel **30**  
 Frequency **569 MHz**  
 Antenna Type **TFU-26DSC/VP-R C180**  
 Gain **1.77 (2.48dB)**  
 Calculated



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.490	36	0.410	72	0.470	108	0.820	144	0.960	180	1.000	216	0.980	252	0.920	288	0.680
1	0.490	37	0.410	73	0.480	109	0.830	145	0.970	181	1.000	217	0.980	253	0.920	289	0.670
2	0.490	38	0.400	74	0.490	110	0.840	146	0.970	182	1.000	218	0.980	254	0.910	290	0.660
3	0.490	39	0.400	75	0.500	111	0.850	147	0.970	183	1.000	219	0.980	255	0.910	291	0.650
4	0.490	40	0.390	76	0.510	112	0.850	148	0.970	184	1.000	220	0.980	256	0.910	292	0.640
5	0.500	41	0.390	77	0.520	113	0.860	149	0.970	185	1.000	221	0.980	257	0.900	293	0.630
6	0.500	42	0.380	78	0.530	114	0.860	150	0.970	186	1.000	222	0.980	258	0.900	294	0.620
7	0.500	43	0.380	79	0.540	115	0.870	151	0.970	187	1.000	223	0.980	259	0.890	295	0.610
8	0.500	44	0.380	80	0.550	116	0.870	152	0.970	188	1.000	224	0.980	260	0.890	296	0.590
9	0.500	45	0.380	81	0.560	117	0.880	153	0.970	189	1.000	225	0.980	261	0.890	297	0.580
10	0.500	46	0.370	82	0.570	118	0.880	154	0.970	190	1.000	226	0.970	262	0.880	298	0.570
11	0.500	47	0.370	83	0.580	119	0.890	155	0.980	191	1.000	227	0.970	263	0.880	299	0.560
12	0.500	48	0.370	84	0.590	120	0.890	156	0.980	192	1.000	228	0.970	264	0.870	300	0.550
13	0.500	49	0.360	85	0.610	121	0.890	157	0.980	193	1.000	229	0.970	265	0.870	301	0.540
14	0.500	50	0.360	86	0.620	122	0.900	158	0.980	194	1.000	230	0.970	266	0.860	302	0.530
15	0.500	51	0.360	87	0.630	123	0.900	159	0.980	195	1.000	231	0.970	267	0.860	303	0.520
16	0.490	52	0.360	88	0.640	124	0.910	160	0.980	196	1.000	232	0.970	268	0.850	304	0.510
17	0.490	53	0.360	89	0.650	125	0.910	161	0.980	197	1.000	233	0.970	269	0.850	305	0.500
18	0.490	54	0.360	90	0.660	126	0.910	162	0.980	198	1.000	234	0.970	270	0.840	306	0.490
19	0.490	55	0.370	91	0.670	127	0.920	163	0.980	199	1.000	235	0.970	271	0.830	307	0.480
20	0.490	56	0.370	92	0.680	128	0.920	164	0.980	200	1.000	236	0.960	272	0.820	308	0.470
21	0.490	57	0.370	93	0.690	129	0.930	165	0.990	201	1.000	237	0.960	273	0.820	309	0.460
22	0.480	58	0.370	94	0.700	130	0.930	166	0.990	202	1.000	238	0.960	274	0.810	310	0.450
23	0.480	59	0.370	95	0.710	131	0.930	167	0.990	203	1.000	239	0.960	275	0.800	311	0.440
24	0.470	60	0.370	96	0.720	132	0.940	168	0.990	204	1.000	240	0.960	276	0.790	312	0.430
25	0.470	61	0.380	97	0.730	133	0.940	169	0.990	205	1.000	241	0.960	277	0.780	313	0.430
26	0.470	62	0.390	98	0.740	134	0.940	170	0.990	206	0.990	242	0.950	278	0.780	314	0.420
27	0.460	63	0.390	99	0.750	135	0.950	171	0.990	207	0.990	243	0.950	279	0.770	315	0.410
28	0.460	64	0.400	100	0.760	136	0.950	172	0.990	208	0.990	244	0.950	280	0.760	316	0.400
29	0.450	65	0.410	101	0.770	137	0.950	173	0.990	209	0.990	245	0.950	281	0.750	317	0.390
30	0.450	66	0.420	102	0.780	138	0.950	174	0.990	210	0.990	246	0.940	282	0.740	318	0.390
31	0.440	67	0.430	103	0.780	139	0.960	175	1.000	211	0.990	247	0.940	283	0.730	319	0.380
32	0.440	68	0.430	104	0.790	140	0.960	176	1.000	212	0.990	248	0.940	284	0.720	320	0.370
33	0.430	69	0.440	105	0.800	141	0.960	177	1.000	213	0.990	249	0.930	285	0.710	321	0.370
34	0.430	70	0.450	106	0.810	142	0.960	178	1.000	214	0.990	250	0.930	286	0.700	322	0.370
35	0.420	71	0.460	107	0.820	143	0.960	179	1.000	215	0.990	251	0.930	287	0.690	323	0.370

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## AZIMUTH PATTERN Vertical Polarization



Proposal No. **C-70153-4**  
 Date **27-Feb-18**  
 Call Letters **WNAB**  
 Channel **30**  
 Frequency **569 MHz**  
 Antenna Type **TFU-26DSC/VP-R C180**  
 Gain **2.58 (4.12dB)**  
 Calculated

C185V D30

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.050	36	0.051	72	0.148	108	0.291	144	0.429	180	0.497	216	0.478	252	0.373	288	0.224
1	0.050	37	0.052	73	0.152	109	0.295	145	0.432	181	0.497	217	0.476	253	0.370	289	0.220
2	0.051	38	0.053	74	0.155	110	0.299	146	0.435	182	0.498	218	0.474	254	0.366	290	0.216
3	0.051	39	0.055	75	0.159	111	0.303	147	0.438	183	0.498	219	0.472	255	0.362	291	0.212
4	0.051	40	0.056	76	0.162	112	0.308	148	0.441	184	0.499	220	0.470	256	0.358	292	0.208
5	0.051	41	0.058	77	0.166	113	0.312	149	0.444	185	0.499	221	0.468	257	0.354	293	0.204
6	0.052	42	0.059	78	0.170	114	0.316	150	0.447	186	0.499	222	0.466	258	0.349	294	0.200
7	0.052	43	0.061	79	0.174	115	0.320	151	0.449	187	0.500	223	0.464	259	0.345	295	0.196
8	0.052	44	0.063	80	0.177	116	0.325	152	0.452	188	0.500	224	0.462	260	0.341	296	0.193
9	0.052	45	0.065	81	0.181	117	0.329	153	0.454	189	0.500	225	0.459	261	0.337	297	0.189
10	0.052	46	0.067	82	0.185	118	0.333	154	0.457	190	0.500	226	0.457	262	0.333	298	0.185
11	0.052	47	0.070	83	0.189	119	0.337	155	0.459	191	0.500	227	0.454	263	0.329	299	0.181
12	0.052	48	0.072	84	0.193	120	0.341	156	0.462	192	0.500	228	0.452	264	0.325	300	0.177
13	0.052	49	0.075	85	0.196	121	0.345	157	0.464	193	0.500	229	0.449	265	0.320	301	0.174
14	0.052	50	0.077	86	0.200	122	0.349	158	0.466	194	0.499	230	0.447	266	0.316	302	0.170
15	0.051	51	0.080	87	0.204	123	0.354	159	0.468	195	0.499	231	0.444	267	0.312	303	0.166
16	0.051	52	0.083	88	0.208	124	0.358	160	0.470	196	0.499	232	0.441	268	0.308	304	0.162
17	0.051	53	0.085	89	0.212	125	0.362	161	0.472	197	0.498	233	0.438	269	0.303	305	0.159
18	0.051	54	0.088	90	0.216	126	0.366	162	0.474	198	0.498	234	0.435	270	0.299	306	0.155
19	0.050	55	0.091	91	0.220	127	0.370	163	0.476	199	0.497	235	0.432	271	0.295	307	0.152
20	0.050	56	0.094	92	0.224	128	0.373	164	0.478	200	0.497	236	0.429	272	0.291	308	0.148
21	0.050	57	0.097	93	0.228	129	0.377	165	0.479	201	0.496	237	0.426	273	0.286	309	0.144
22	0.049	58	0.101	94	0.232	130	0.381	166	0.481	202	0.495	238	0.423	274	0.282	310	0.141
23	0.049	59	0.104	95	0.236	131	0.385	167	0.482	203	0.494	239	0.420	275	0.278	311	0.137
24	0.049	60	0.107	96	0.240	132	0.389	168	0.484	204	0.494	240	0.417	276	0.274	312	0.134
25	0.049	61	0.110	97	0.244	133	0.392	169	0.485	205	0.493	241	0.413	277	0.269	313	0.130
26	0.048	62	0.113	98	0.248	134	0.396	170	0.487	206	0.492	242	0.410	278	0.265	314	0.127
27	0.048	63	0.117	99	0.253	135	0.400	171	0.488	207	0.490	243	0.407	279	0.261	315	0.124
28	0.048	64	0.120	100	0.257	136	0.403	172	0.489	208	0.489	244	0.403	280	0.257	316	0.120
29	0.048	65	0.125	101	0.261	137	0.407	173	0.490	209	0.488	245	0.400	281	0.253	317	0.117
30	0.048	66	0.127	102	0.265	138	0.410	174	0.492	210	0.487	246	0.396	282	0.248	318	0.113
31	0.048	67	0.130	103	0.269	139	0.413	175	0.493	211	0.485	247	0.392	283	0.244	319	0.110
32	0.049	68	0.134	104	0.274	140	0.417	176	0.494	212	0.484	248	0.389	284	0.240	320	0.107
33	0.049	69	0.137	105	0.278	141	0.420	177	0.494	213	0.482	249	0.385	285	0.236	321	0.104
34	0.050	70	0.141	106	0.282	142	0.423	178	0.495	214	0.481	250	0.381	286	0.230	322	0.101
35	0.050	71	0.144	107	0.286	143	0.426	179	0.496	215	0.479	251	0.377	287	0.228	323	0.097

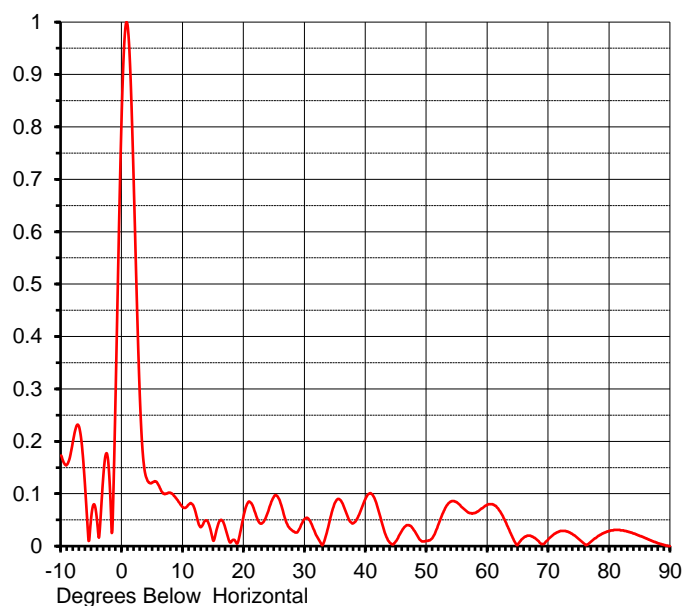
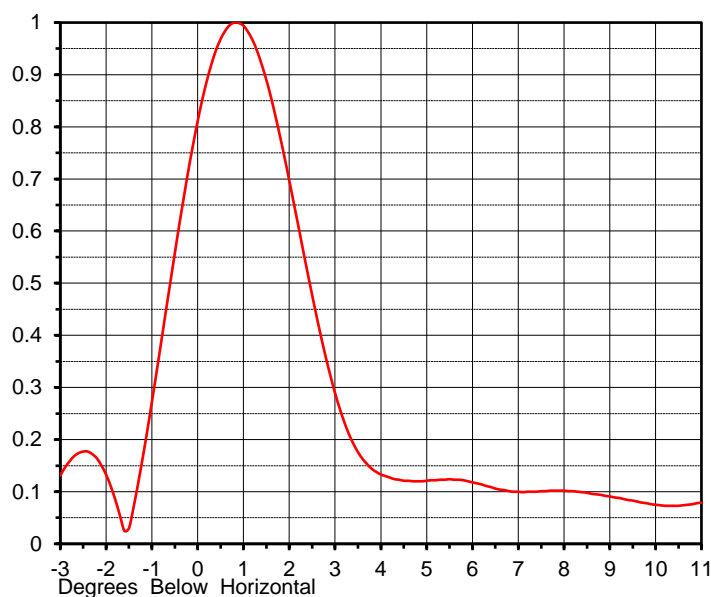
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## ELEVATION PATTERN

Proposal No. **C-70153-4**  
 Date **27-Feb-18**  
 Call Letters **WNAB**  
 Channel **30**  
 Frequency **569 MHz**  
 Antenna Type **TFU-26DSC/VP-R C180**

RMS Directivity at Main Lobe **22.5 ( 13.52 dB )**  
 RMS Directivity at Horizontal **16.3 ( 12.12 dB )**  
**Calculated**

Beam Tilt **0.75 deg**  
 Pattern Number **26Q225075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.173	10.0	0.074	30.0	0.052	50.0	0.010	70.0	0.014
-9.0	0.156	11.0	0.080	31.0	0.044	51.0	0.017	71.0	0.024
-8.0	0.204	12.0	0.067	32.0	0.018	52.0	0.044	72.0	0.029
-7.0	0.225	13.0	0.037	33.0	0.004	53.0	0.072	73.0	0.028
-6.0	0.100	14.0	0.048	34.0	0.045	54.0	0.085	74.0	0.022
-5.0	0.062	15.0	0.010	35.0	0.084	55.0	0.083	75.0	0.013
-4.0	0.035	16.0	0.048	36.0	0.085	56.0	0.072	76.0	0.003
-3.0	0.146	17.0	0.032	37.0	0.057	57.0	0.063	77.0	0.009
-2.0	0.111	18.0	0.010	38.0	0.044	58.0	0.064	78.0	0.018
-1.0	0.328	19.0	0.007	39.0	0.063	59.0	0.072	79.0	0.025
0.0	0.852	20.0	0.061	40.0	0.092	60.0	0.079	80.0	0.029
1.0	0.982	21.0	0.084	41.0	0.099	61.0	0.079	81.0	0.031
2.0	0.653	22.0	0.058	42.0	0.071	62.0	0.067	82.0	0.030
3.0	0.260	23.0	0.044	43.0	0.030	63.0	0.045	83.0	0.028
4.0	0.130	24.0	0.067	44.0	0.006	64.0	0.019	84.0	0.024
5.0	0.122	25.0	0.096	45.0	0.010	65.0	0.004	85.0	0.019
6.0	0.116	26.0	0.082	46.0	0.031	66.0	0.017	86.0	0.015
7.0	0.099	27.0	0.044	47.0	0.040	67.0	0.020	87.0	0.010
8.0	0.101	28.0	0.029	48.0	0.029	68.0	0.013	88.0	0.005
9.0	0.089	29.0	0.031	49.0	0.011	69.0	0.004	89.0	0.002
								90.0	0.000

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