

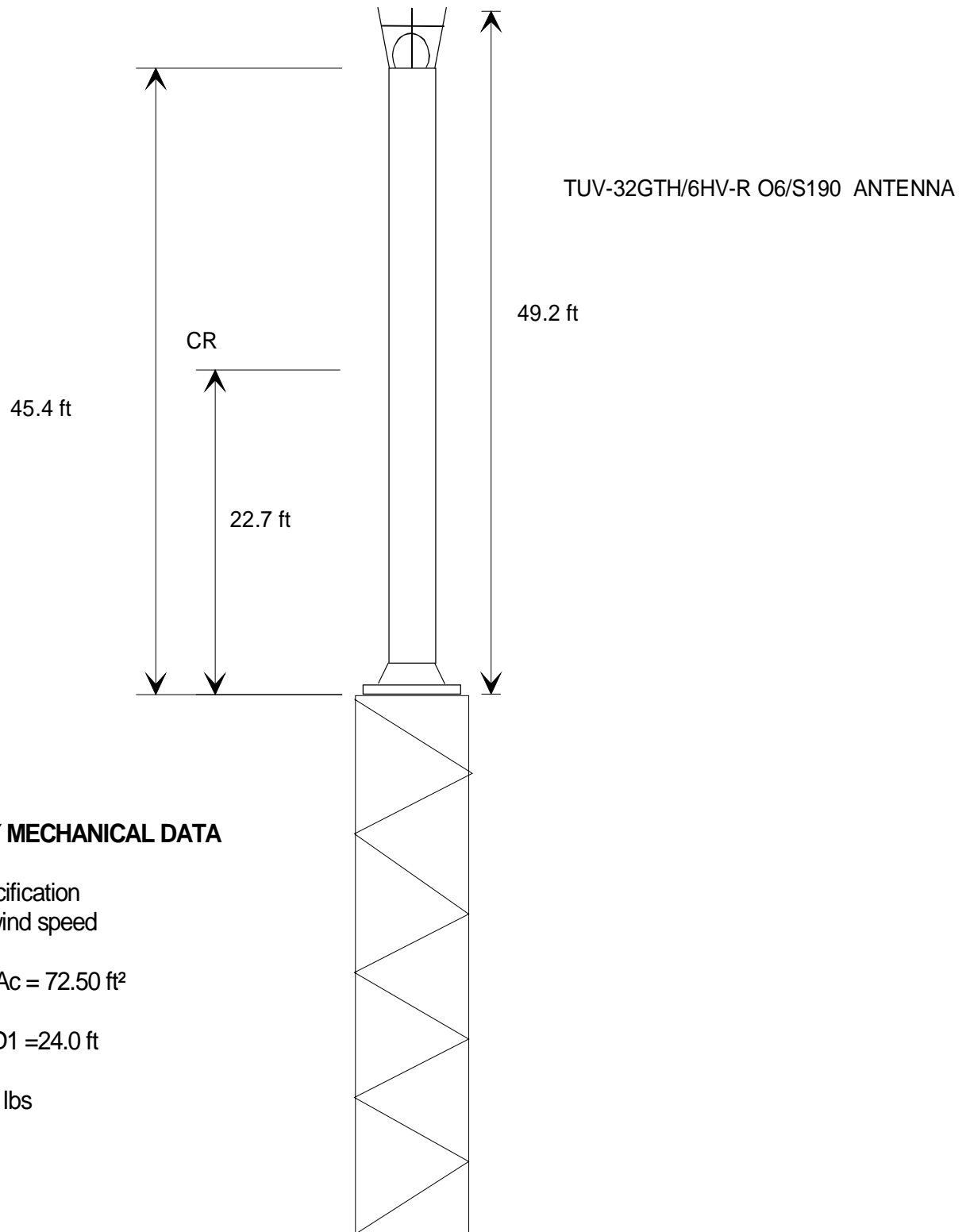


Proposal #: **DCA-11353-4** Antenna Type: **TUV-32GTH/6HV-R O6/S190** Channel: **58 NTSC**  
 Call Letters: **WNJB** Location: **New Brunswick, NJ** **8 DTV**

Electrical Specifications		Value		Remarks
		Ratio	dB	
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	26.5	14.23	N58; D8: 6.0 (7.78 dB)
	Vpol			
RMS Gain at Horizontal over Halfwave Dipole	Hpol	22.1	13.44	N58; D8: 5.5 (7.40 dB)
	Vpol			
Peak Directional Gain over Halfwave Dipole	Hpol			N58; D8: 11.4 (10.57 dB)
	Vpol			
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol			N58; D8: 10.5 (10.21 dB)
	Vpol			
Circularity		+/- 1.5 dB		D8: Directional
Axial Ratio		dB		
Beam Tilt		0.50 deg		N58; D8: 1.50 deg
Peak TV Power	10% Aural	60 kW	17.78 dBk	+10 kW average DTV power
Antenna Input:	T/L	6-1/8 in	75.0 ohm	Type: EIA/DCA D8: 1-5/8"EIA, 50 ohm
Maximum Antenna Input VSWR		Pix +.5MHz	1.05 : 1	D8: Channel: 1.15 : 1
		Color	1.08 : 1	
		Aural	1.10 : 1	
		Channel	1.10 : 1	
Patterns	Azimuth	TUV-O6-7370		D8: TUV-S190-1830
	Elevation	32G265050	32G265050-90	N58
		06V060150	06V060150-90	D8
Mechanical Specifications		Metric	English	Preliminary
Height with Lightning Protector	H4	15.0 m	49.2 ft	
Height Less Lightning Protector	H2	13.8 m	45.4 ft	
Height of Center of Radiation	H3	6.9 m	22.7 ft	
Basic Wind Speed	V	128.7 km/h	80 mi/h	TIA/EIA-222-F.
Force Coeff. x Projected Area	CaAc	6.74 m <sup>2</sup>	72.5 ft <sup>2</sup>	Above base flange
Moment Arm	D1	7.3 m	24.0 ft	Above base flange
Force Coeff. x Projected Area	CaAc	m <sup>2</sup>	ft <sup>2</sup>	
Moment Arm	D3	m	ft	
Pole Bury Length	D2	m	ft	
Weight	W	3.4 t	7,500 lbs	
Radome				
Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.				

NOTE:

Prepared By : EHM SWB Approved By : JLS  
 Original Date : 10-Jan-06 Revision: 4 Rev. Date: 17-May-07



## PRELIMINARY MECHANICAL DATA

EIA-222-F Specification  
80 mph basic wind speed

Aero. Area,  $CaAc = 72.50 \text{ ft}^2$

Moment arm,  $D1 = 24.0 \text{ ft}$

Weight = 7,500 lbs



Proposal Number	<b>DCA-11353</b>	Revision:	<b>4</b>
Date	<b>17-May-07</b>		
Call Letters	<b>WNJB</b>	Channel	<b>58</b>
Location	<b>New Brunswick, NJ</b>		
Customer	<b>NJPBA</b>		
Antenna Type	<b>TUV-32GTH/6HV-R O6/S190</b>		

## SYSTEM SUMMARY

### Antenna:

Type:	<b>TUV-32GTH/6HV-R O6/S190</b>	ERP:	<b>1320 kW</b>	H Pol ( 31.21 dBk )
Channel:	<b>58</b>	RMS Gain*:	<b>26.5</b>	( 14.23 dB )
Location:	<b>New Brunswick, NJ</b>	Input Power:	<b>49.8 kW</b>	( 16.97 dBk )

### Transmission Line:

Type:	<b>EIA/DCA</b>	Attenuation:	<b>0.54 dB</b>
Size:	<b>6-1/8 in</b>	Efficiency:	<b>88.3%</b>
Impedance:	<b>75 ohm</b>		
Length:	<b>400 ft</b>		<b>121.9 m</b>

### Combiner Input:

Power Required: **56.4 kW ( 17.51 dBk )**

\* Gain is with respect to half wave dipole.

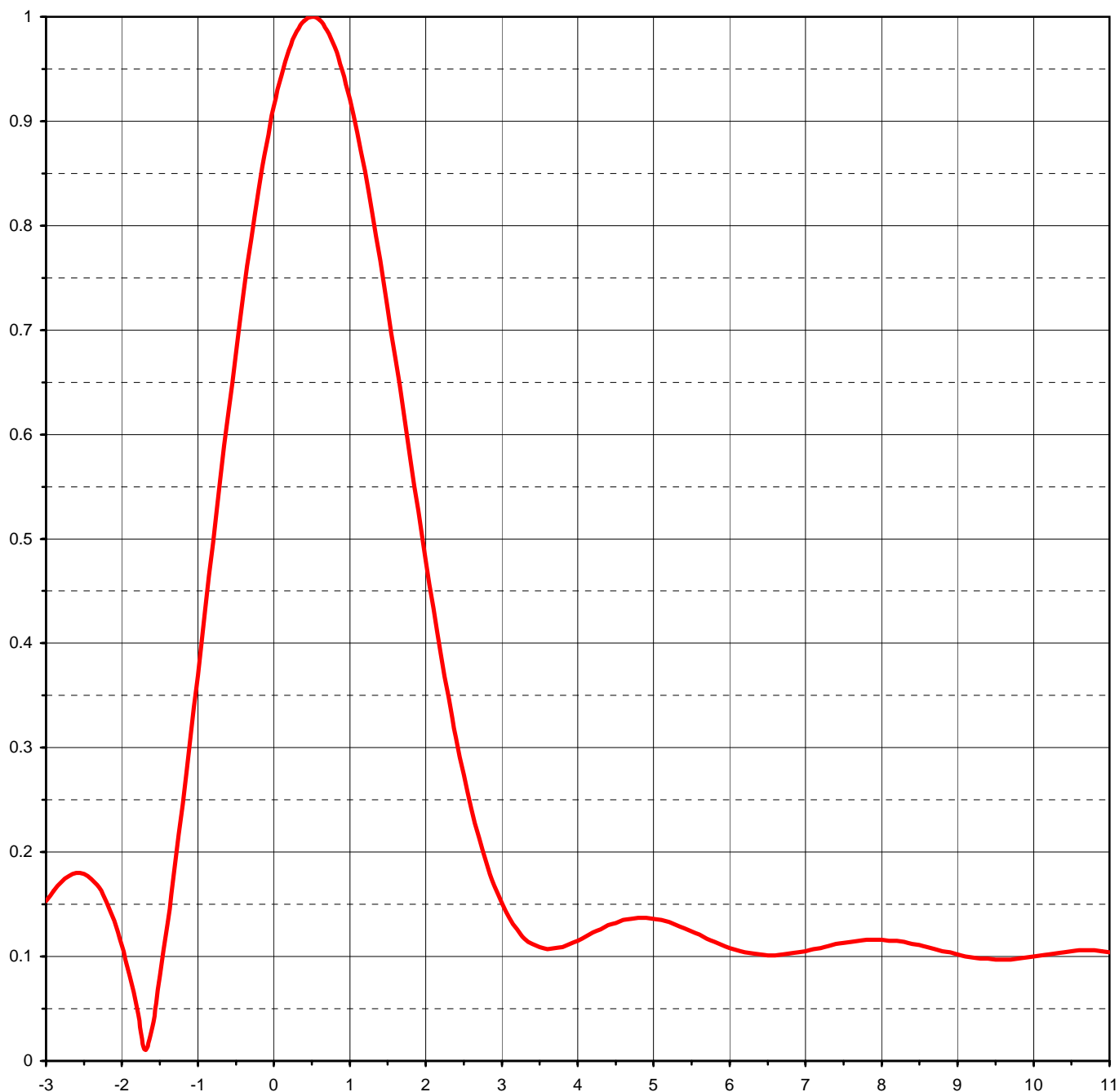


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Date	<b>17-May-07</b>		
Call Letters	<b>WNJB</b>	Channel	<b>58</b>
Location	<b>New Brunswick, NJ</b>		
Customer	<b>NJPBA</b>		
Antenna Type	<b>TUV-32GTH/6HV-R O6/S190</b>		

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>26.50 ( 14.23 dB )</b>
RMS Gain at Horizontal	<b>22.10 ( 13.44 dB )</b>
Calculated / Measured	<b>Calculated</b>

Beam Tilt	<b>0.50 deg</b>
Frequency	<b>737.00 MHz</b>
Drawing #	<b>32G265050</b>



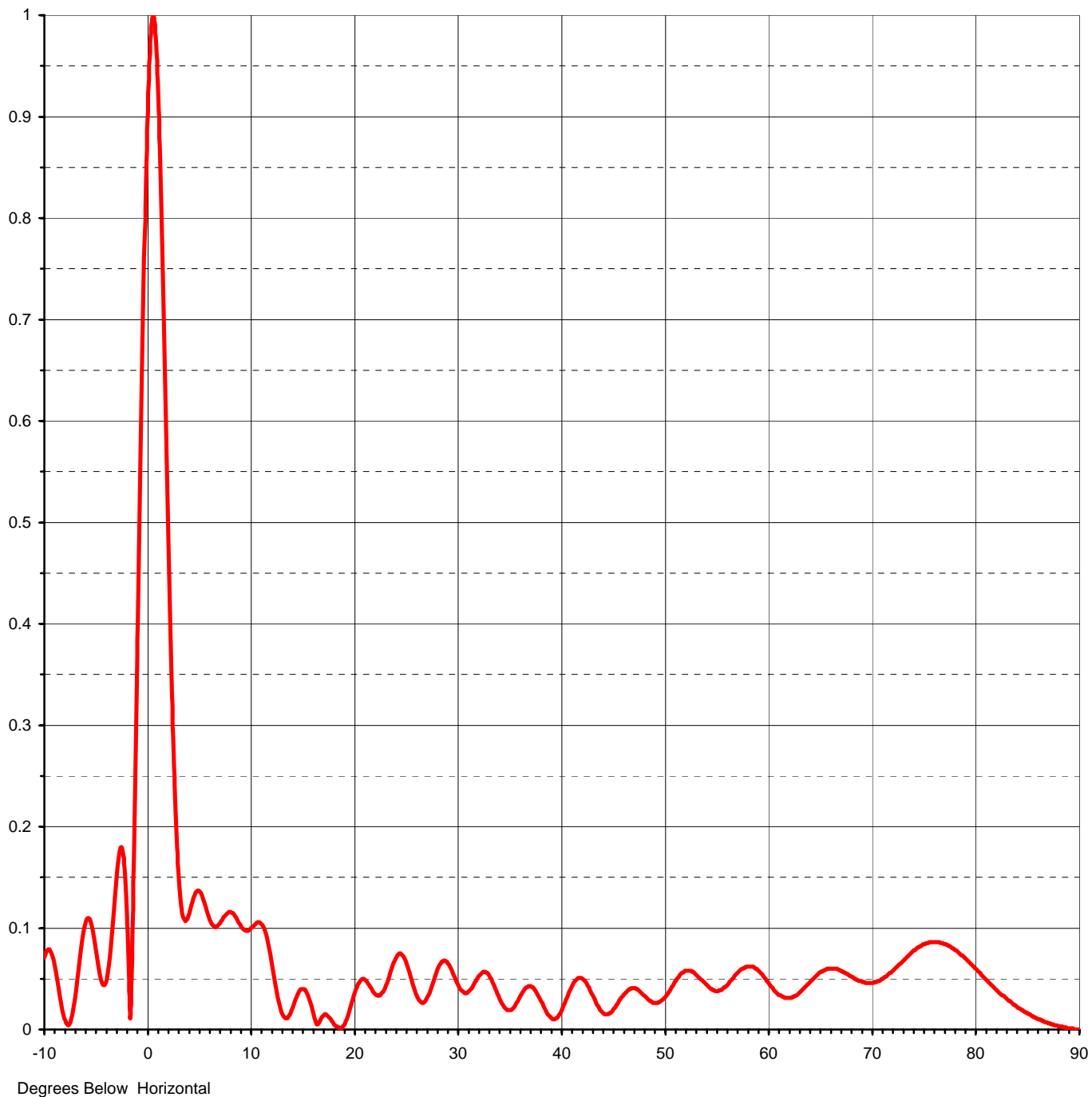


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Date	<b>17-May-07</b>		
Call Letters	<b>WNJB</b>	Channel	<b>58</b>
Location	<b>New Brunswick, NJ</b>		
Customer	<b>NJPBA</b>		
Antenna Type	<b>TUV-32GTH/6HV-R O6/S190</b>		

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>26.50 ( 14.23 dB )</b>
RMS Gain at Horizontal	<b>22.10 ( 13.44 dB )</b>
Calculated / Measured	<b>Calculated</b>

Beam Tilt	<b>0.50 deg</b>
Frequency	<b>737.00 MHz</b>
Drawing #	<b>32G265050-90</b>





Proposal Number **DCA-11353**      Revision: **4**  
 Date **17-May-07**  
 Call Letters **WNJB**      Channel **58**  
 Location **New Brunswick, NJ**  
 Customer **NJPBA**  
 Antenna Type **TUV-32GTH/6HV-R O6/S190**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **32G265050-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.071	2.4	0.309	10.6	0.105	30.5	0.038	51.0	0.047	71.5	0.054
-9.5	0.079	2.6	0.242	10.8	0.106	31.0	0.037	51.5	0.054	72.0	0.058
-9.0	0.064	2.8	0.190	11.0	0.105	31.5	0.043	52.0	0.058	72.5	0.063
-8.5	0.034	3.0	0.151	11.5	0.094	32.0	0.052	52.5	0.058	73.0	0.068
-8.0	0.009	3.2	0.126	12.0	0.069	32.5	0.057	53.0	0.055	73.5	0.073
-7.5	0.007	3.4	0.112	12.5	0.040	33.0	0.055	53.5	0.050	74.0	0.078
-7.0	0.034	3.6	0.107	13.0	0.017	33.5	0.045	54.0	0.045	74.5	0.081
-6.5	0.076	3.8	0.109	13.5	0.011	34.0	0.033	54.5	0.040	75.0	0.084
-6.0	0.106	4.0	0.115	14.0	0.019	34.5	0.022	55.0	0.038	75.5	0.086
-5.5	0.106	4.2	0.123	14.5	0.032	35.0	0.019	55.5	0.039	76.0	0.086
-5.0	0.078	4.4	0.130	15.0	0.040	35.5	0.022	56.0	0.043	76.5	0.086
-4.5	0.049	4.6	0.135	15.5	0.035	36.0	0.031	56.5	0.049	77.0	0.084
-4.0	0.049	4.8	0.137	16.0	0.019	36.5	0.040	57.0	0.055	77.5	0.082
-3.5	0.092	5.0	0.136	16.5	0.005	37.0	0.043	57.5	0.060	78.0	0.078
-3.0	0.153	5.2	0.133	17.0	0.013	37.5	0.039	58.0	0.062	78.5	0.074
-2.8	0.171	5.4	0.127	17.5	0.013	38.0	0.030	58.5	0.062	79.0	0.070
-2.6	0.180	5.6	0.121	18.0	0.007	38.5	0.019	59.0	0.059	79.5	0.065
-2.4	0.174	5.8	0.114	18.5	0.002	39.0	0.012	59.5	0.054	80.0	0.060
-2.2	0.152	6.0	0.108	19.0	0.004	39.5	0.011	60.0	0.047	80.5	0.054
-2.0	0.111	6.2	0.104	19.5	0.016	40.0	0.017	60.5	0.041	81.0	0.049
-1.8	0.049	6.4	0.102	20.0	0.034	40.5	0.029	61.0	0.035	81.5	0.044
-1.6	0.033	6.6	0.101	20.5	0.046	41.0	0.041	61.5	0.032	82.0	0.039
-1.4	0.132	6.8	0.103	21.0	0.050	41.5	0.049	62.0	0.031	82.5	0.034
-1.2	0.246	7.0	0.105	21.5	0.044	42.0	0.051	62.5	0.032	83.0	0.030
-1.0	0.369	7.2	0.108	22.0	0.036	42.5	0.045	63.0	0.036	83.5	0.026
-0.8	0.496	7.4	0.112	22.5	0.034	43.0	0.035	63.5	0.041	84.0	0.022
-0.6	0.620	7.6	0.114	23.0	0.041	43.5	0.024	64.0	0.046	84.5	0.019
-0.4	0.735	7.8	0.116	23.5	0.056	44.0	0.017	64.5	0.052	85.0	0.016
-0.2	0.834	8.0	0.116	24.0	0.069	44.5	0.015	65.0	0.057	85.5	0.013
0.0	0.914	8.2	0.115	24.5	0.075	45.0	0.018	65.5	0.059	86.0	0.010
0.2	0.968	8.4	0.112	25.0	0.068	45.5	0.025	66.0	0.060	86.5	0.008
0.4	0.996	8.6	0.109	25.5	0.052	46.0	0.033	66.5	0.060	87.0	0.006
0.6	0.997	8.8	0.105	26.0	0.036	46.5	0.039	67.0	0.058	87.5	0.005
0.8	0.971	9.0	0.102	26.5	0.027	47.0	0.041	67.5	0.055	88.0	0.003
1.0	0.921	9.2	0.099	27.0	0.030	47.5	0.039	68.0	0.052	88.5	0.002
1.2	0.852	9.4	0.098	27.5	0.042	48.0	0.034	68.5	0.049	89.0	0.001
1.4	0.767	9.6	0.097	28.0	0.057	48.5	0.029	69.0	0.047	89.5	0.000
1.6	0.673	9.8	0.097	28.5	0.067	49.0	0.026	69.5	0.046	90.0	0.000
1.8	0.575	10.0	0.099	29.0	0.067	49.5	0.027	70.0	0.046		
2.0	0.479	10.2	0.101	29.5	0.058	50.0	0.031	70.5	0.048		
2.2	0.389	10.4	0.103	30.0	0.046	50.5	0.038	71.0	0.050		

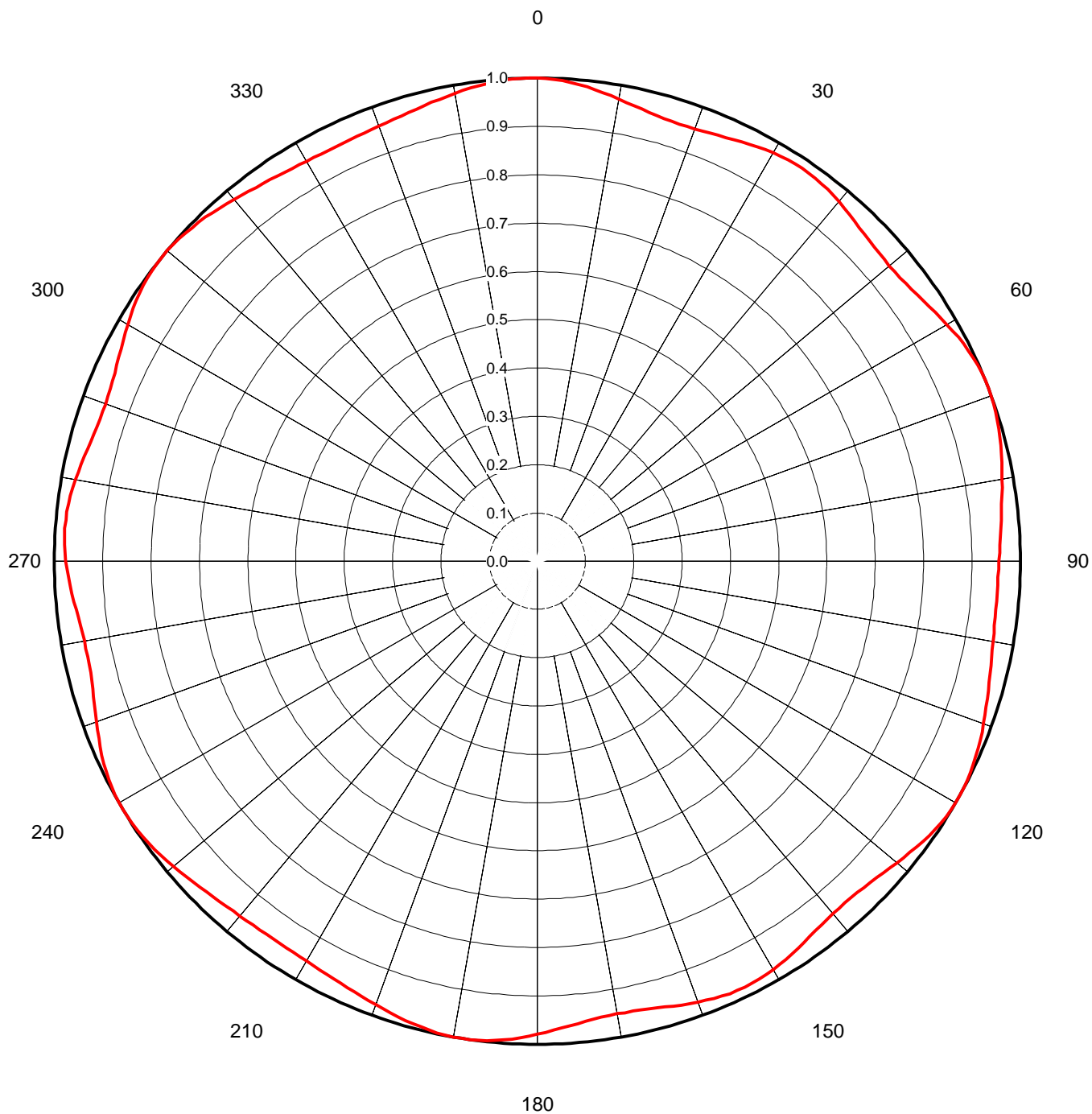


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Date	<b>17-May-07</b>		
Call Letters	<b>WNJB</b>	Channel	<b>58</b>
Location	<b>New Brunswick, NJ</b>		
Customer	<b>NJPBA</b>		
Antenna Type	<b>TUV-32GTH/6HV-R 06/S190</b>		

### AZIMUTH PATTERN

Gain	<b>1.10</b>	<b>(0.41 dB)</b>
Calculated / Measured		<b>Calculated</b>

Frequency	<b>737.00 MHz</b>
Drawing #	<b>TUV-06-7370</b>





Proposal Number **DCA-11353** Revision: **4**  
Date **17-May-07**  
Call Letters **WNJB** Channel **58**  
Location **New Brunswick, NJ**  
Customer **NJPBA**  
Antenna Type **TUV-32GTH/6HV-R O6/S190**

## TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TUV-O6-7370**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	1.000	45	0.957	90	0.956	135	0.955	180	0.979	225	0.968	270	0.976	315	0.992
1	0.999	46	0.955	91	0.955	136	0.953	181	0.983	226	0.971	271	0.978	316	0.989
2	0.998	47	0.954	92	0.954	137	0.952	182	0.987	227	0.974	272	0.979	317	0.986
3	0.995	48	0.952	93	0.954	138	0.951	183	0.990	228	0.977	273	0.980	318	0.983
4	0.993	49	0.952	94	0.954	139	0.952	184	0.993	229	0.980	274	0.981	319	0.980
5	0.990	50	0.951	95	0.954	140	0.952	185	0.995	230	0.983	275	0.980	320	0.977
6	0.987	51	0.952	96	0.954	141	0.954	186	0.998	231	0.986	276	0.979	321	0.974
7	0.983	52	0.953	97	0.955	142	0.955	187	0.999	232	0.989	277	0.978	322	0.971
8	0.979	53	0.955	98	0.956	143	0.957	188	1.000	233	0.992	278	0.976	323	0.968
9	0.975	54	0.957	99	0.957	144	0.960	189	1.000	234	0.994	279	0.974	324	0.966
10	0.971	55	0.961	100	0.958	145	0.963	190	1.000	235	0.996	280	0.971	325	0.964
11	0.967	56	0.964	101	0.960	146	0.966	191	0.999	236	0.998	281	0.968	326	0.961
12	0.964	57	0.967	102	0.962	147	0.968	192	0.998	237	0.999	282	0.966	327	0.960
13	0.960	58	0.971	103	0.964	148	0.971	193	0.996	238	1.000	283	0.963	328	0.958
14	0.957	59	0.975	104	0.966	149	0.974	194	0.994	239	1.000	284	0.960	329	0.957
15	0.955	60	0.979	105	0.969	150	0.976	195	0.992	240	1.000	285	0.957	330	0.956
16	0.953	61	0.983	106	0.971	151	0.978	196	0.989	241	0.999	286	0.955	331	0.955
17	0.952	62	0.987	107	0.974	152	0.979	197	0.986	242	0.998	287	0.954	332	0.954
18	0.951	63	0.990	108	0.977	153	0.980	198	0.983	243	0.995	288	0.952	333	0.954
19	0.952	64	0.993	109	0.980	154	0.981	199	0.980	244	0.993	289	0.952	334	0.954
20	0.952	65	0.995	110	0.983	155	0.980	200	0.977	245	0.990	290	0.951	335	0.954
21	0.954	66	0.998	111	0.986	156	0.979	201	0.974	246	0.987	291	0.952	336	0.954
22	0.955	67	0.999	112	0.989	157	0.978	202	0.971	247	0.983	292	0.953	337	0.955
23	0.957	68	1.000	113	0.992	158	0.976	203	0.968	248	0.979	293	0.955	338	0.956
24	0.960	69	1.000	114	0.994	159	0.974	204	0.966	249	0.975	294	0.957	339	0.957
25	0.963	70	1.000	115	0.996	160	0.971	205	0.964	250	0.971	295	0.960	340	0.958
26	0.966	71	0.999	116	0.998	161	0.968	206	0.962	251	0.967	296	0.964	341	0.960
27	0.968	72	0.998	117	0.999	162	0.966	207	0.960	252	0.964	297	0.967	342	0.961
28	0.971	73	0.996	118	1.000	163	0.963	208	0.958	253	0.960	298	0.971	343	0.964
29	0.974	74	0.994	119	1.000	164	0.960	209	0.957	254	0.957	299	0.975	344	0.966
30	0.976	75	0.992	120	1.000	165	0.957	210	0.956	255	0.955	300	0.979	345	0.968
31	0.978	76	0.989	121	0.999	166	0.955	211	0.955	256	0.953	301	0.983	346	0.971
32	0.979	77	0.986	122	0.998	167	0.954	212	0.954	257	0.952	302	0.987	347	0.974
33	0.980	78	0.983	123	0.995	168	0.952	213	0.954	258	0.951	303	0.990	348	0.977
34	0.981	79	0.980	124	0.993	169	0.952	214	0.954	259	0.952	304	0.993	349	0.980
35	0.980	80	0.977	125	0.990	170	0.951	215	0.954	260	0.952	305	0.995	350	0.983
36	0.979	81	0.974	126	0.987	171	0.952	216	0.954	261	0.954	306	0.998	351	0.986
37	0.978	82	0.971	127	0.983	172	0.953	217	0.955	262	0.955	307	0.999	352	0.989
38	0.976	83	0.969	128	0.979	173	0.955	218	0.956	263	0.957	308	1.000	353	0.992
39	0.974	84	0.966	129	0.975	174	0.957	219	0.957	264	0.960	309	1.000	354	0.994
40	0.971	85	0.964	130	0.971	175	0.960	220	0.958	265	0.963	310	1.000	355	0.996
41	0.968	86	0.962	131	0.967	176	0.964	221	0.960	266	0.966	311	0.999	356	0.998
42	0.966	87	0.960	132	0.964	177	0.967	222	0.962	267	0.968	312	0.998	357	0.999
43	0.963	88	0.958	133	0.960	178	0.971	223	0.964	268	0.971	313	0.996	358	1.000
44	0.960	89	0.957	134	0.957	179	0.975	224	0.966	269	0.974	314	0.994	359	1.000



Proposal Number	<b>DCA-11353</b>	Revision:	<b>4</b>
Date	<b>17-May-07</b>		
Call Letters	<b>WNJB-DT</b>	Channel	<b>8</b>
Location	<b>New Brunswick, NJ</b>		
Customer	<b>NJPBA</b>		
Antenna Type	<b>TUV-32GTH/6HV-R O6/S190</b>		

## SYSTEM SUMMARY

### Antenna:

Type:	<b>TUV-32GTH/6HV-R O6/S190</b>	ERP:	<b>17.9 kW</b>	<b>( 12.53 dBk )</b>
Channel:	<b>8</b>	Peak Gain*:	<b>11.4</b>	<b>( 10.57 dB )</b>
Location:	<b>New Brunswick, NJ</b>	Input Power:	<b>1.6 kW</b>	<b>( 1.96 dBk )</b>

### Transmission Line:

Type:	<b>Rigid</b>	Attenuation:	<b>1.18 dB</b>
Size:	<b>1 5/8 in</b>	Efficiency:	<b>76.2%</b>
Impedance:	<b>50 ohm</b>		
Length:	<b>420 ft</b>		<b>128.0 m</b>

### Combiner Input:

Power Required:	<b>2.1 kW</b>	<b>( 3.14 dBk )</b>
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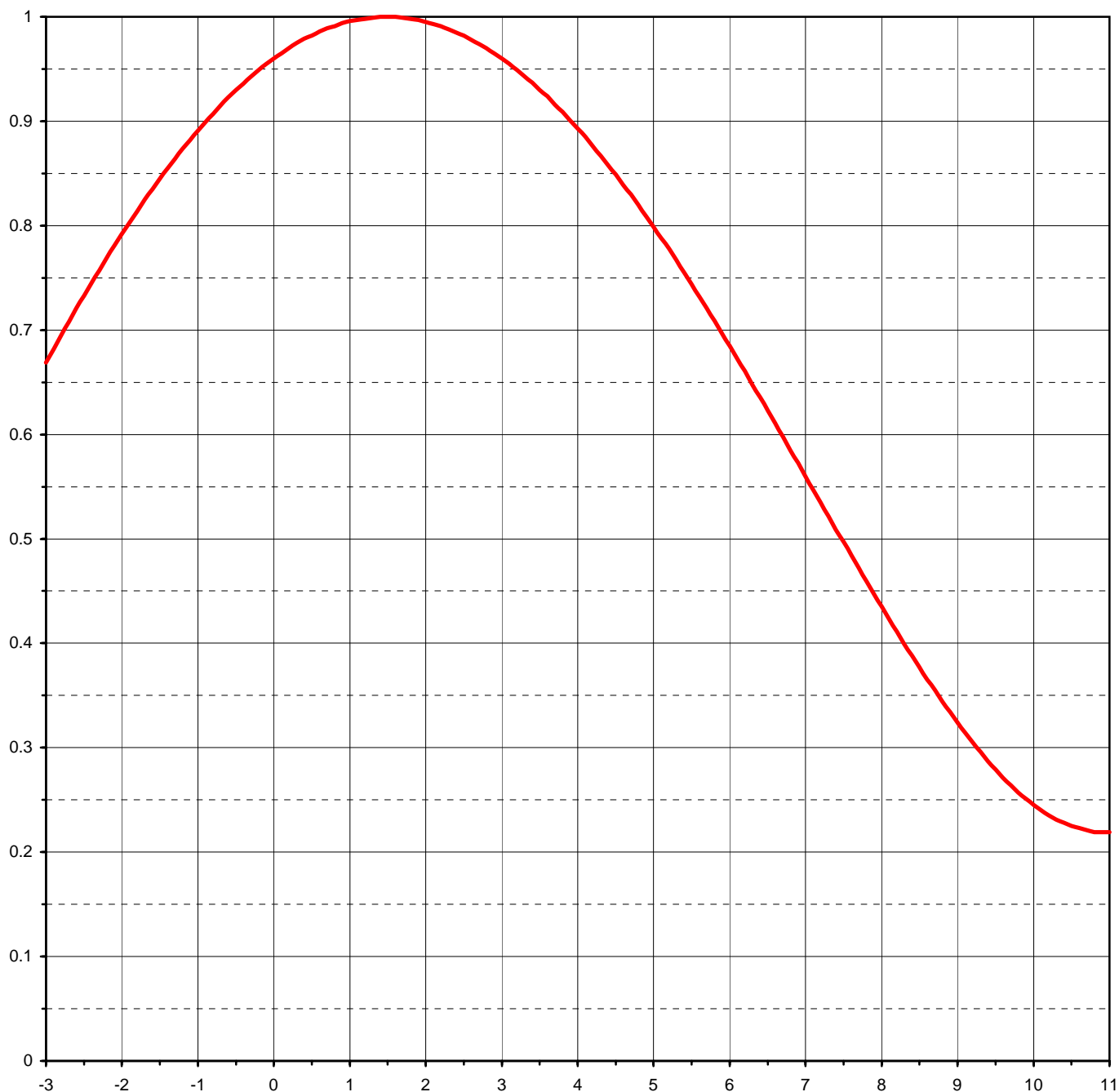
\* Gain is with respect to half wave dipole.



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Location	<b>New Brunswick, NJ</b>		
Customer	<b>NJPBA</b>		
Antenna Type	<b>TUV-32GTH/6HV-R O6/S190</b>		

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>6.00 ( 7.78 dB )</b>	Beam Tilt	<b>1.50 deg</b>
RMS Gain at Horizontal	<b>5.50 ( 7.40 dB )</b>	Frequency	<b>183.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>06V060150</b>



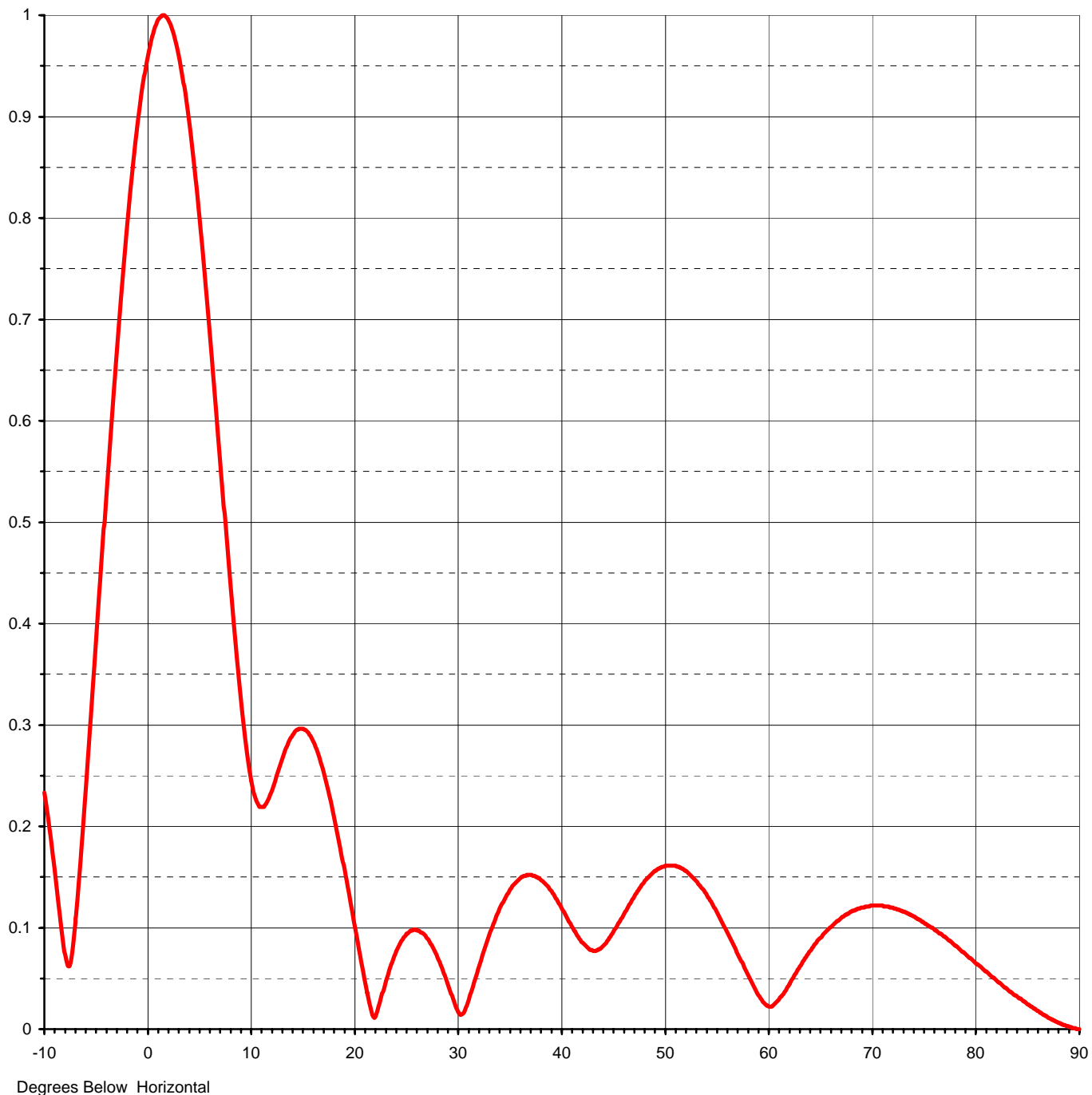


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## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>6.00 ( 7.78 dB )</b>
RMS Gain at Horizontal	<b>5.50 ( 7.40 dB )</b>
Calculated / Measured	<b>Calculated</b>

Beam Tilt	<b>1.50 deg</b>
Frequency	<b>183.00 MHz</b>
Drawing #	<b>06V060150-90</b>





Proposal Number **DCA-11353**      Revision: **4**  
 Date **17-May-07**  
 Call Letters **WNJB-DT**      Channel **8**  
 Location **New Brunswick, NJ**  
 Customer **NJPBA**  
 Antenna Type **TUV-32GTH/6HV-R O6/S190**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **06V060150-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.233	2.4	0.985	10.6	0.225	30.5	0.015	51.0	0.161	71.5	0.121
-9.5	0.198	2.6	0.978	10.8	0.221	31.0	0.026	51.5	0.159	72.0	0.120
-9.0	0.158	2.8	0.970	11.0	0.219	31.5	0.042	52.0	0.156	72.5	0.118
-8.5	0.114	3.0	0.960	11.5	0.222	32.0	0.059	52.5	0.152	73.0	0.116
-8.0	0.073	3.2	0.949	12.0	0.233	32.5	0.075	53.0	0.147	73.5	0.114
-7.5	0.065	3.4	0.937	12.5	0.249	33.0	0.090	53.5	0.141	74.0	0.111
-7.0	0.106	3.6	0.924	13.0	0.264	33.5	0.104	54.0	0.134	74.5	0.108
-6.5	0.167	3.8	0.909	13.5	0.278	34.0	0.116	54.5	0.126	75.0	0.105
-6.0	0.236	4.0	0.893	14.0	0.288	34.5	0.127	55.0	0.117	75.5	0.102
-5.5	0.308	4.2	0.876	14.5	0.295	35.0	0.136	55.5	0.107	76.0	0.098
-5.0	0.382	4.4	0.858	15.0	0.296	35.5	0.143	56.0	0.097	76.5	0.094
-4.5	0.456	4.6	0.839	15.5	0.293	36.0	0.148	56.5	0.087	77.0	0.091
-4.0	0.530	4.8	0.820	16.0	0.285	36.5	0.151	57.0	0.076	77.5	0.087
-3.5	0.601	5.0	0.799	16.5	0.273	37.0	0.152	57.5	0.066	78.0	0.082
-3.0	0.669	5.2	0.778	17.0	0.257	37.5	0.151	58.0	0.055	78.5	0.078
-2.8	0.695	5.4	0.755	17.5	0.237	38.0	0.148	58.5	0.045	79.0	0.074
-2.6	0.721	5.6	0.732	18.0	0.214	38.5	0.143	59.0	0.035	79.5	0.070
-2.4	0.745	5.8	0.709	18.5	0.189	39.0	0.137	59.5	0.027	80.0	0.065
-2.2	0.769	6.0	0.685	19.0	0.162	39.5	0.129	60.0	0.023	80.5	0.061
-2.0	0.792	6.2	0.661	19.5	0.135	40.0	0.121	60.5	0.023	81.0	0.057
-1.8	0.814	6.4	0.636	20.0	0.106	40.5	0.112	61.0	0.028	81.5	0.052
-1.6	0.835	6.6	0.611	20.5	0.078	41.0	0.103	61.5	0.035	82.0	0.048
-1.4	0.855	6.8	0.585	21.0	0.051	41.5	0.094	62.0	0.043	82.5	0.044
-1.2	0.874	7.0	0.560	21.5	0.026	42.0	0.086	62.5	0.052	83.0	0.040
-1.0	0.891	7.2	0.535	22.0	0.011	42.5	0.081	63.0	0.060	83.5	0.036
-0.8	0.907	7.4	0.509	22.5	0.025	43.0	0.078	63.5	0.068	84.0	0.032
-0.6	0.923	7.6	0.484	23.0	0.044	43.5	0.078	64.0	0.076	84.5	0.028
-0.4	0.936	7.8	0.459	23.5	0.061	44.0	0.081	64.5	0.084	85.0	0.024
-0.2	0.949	8.0	0.435	24.0	0.074	44.5	0.087	65.0	0.090	85.5	0.021
0.0	0.960	8.2	0.411	24.5	0.085	45.0	0.094	65.5	0.096	86.0	0.018
0.2	0.970	8.4	0.388	25.0	0.092	45.5	0.103	66.0	0.101	86.5	0.014
0.4	0.979	8.6	0.365	25.5	0.097	46.0	0.112	66.5	0.106	87.0	0.011
0.6	0.986	8.8	0.344	26.0	0.098	46.5	0.121	67.0	0.110	87.5	0.009
0.8	0.991	9.0	0.324	26.5	0.095	47.0	0.129	67.5	0.113	88.0	0.006
1.0	0.996	9.2	0.305	27.0	0.090	47.5	0.137	68.0	0.116	88.5	0.004
1.2	0.998	9.4	0.287	27.5	0.083	48.0	0.144	68.5	0.118	89.0	0.002
1.4	1.000	9.6	0.271	28.0	0.073	48.5	0.150	69.0	0.120	89.5	0.001
1.6	1.000	9.8	0.264	28.5	0.061	49.0	0.155	69.5	0.121	90.0	0.000
1.8	0.998	10.0	0.251	29.0	0.047	49.5	0.158	70.0	0.122		
2.0	0.995	10.2	0.240	29.5	0.033	50.0	0.160	70.5	0.122		
2.2	0.991	10.4	0.231	30.0	0.019	50.5	0.161	71.0	0.122		

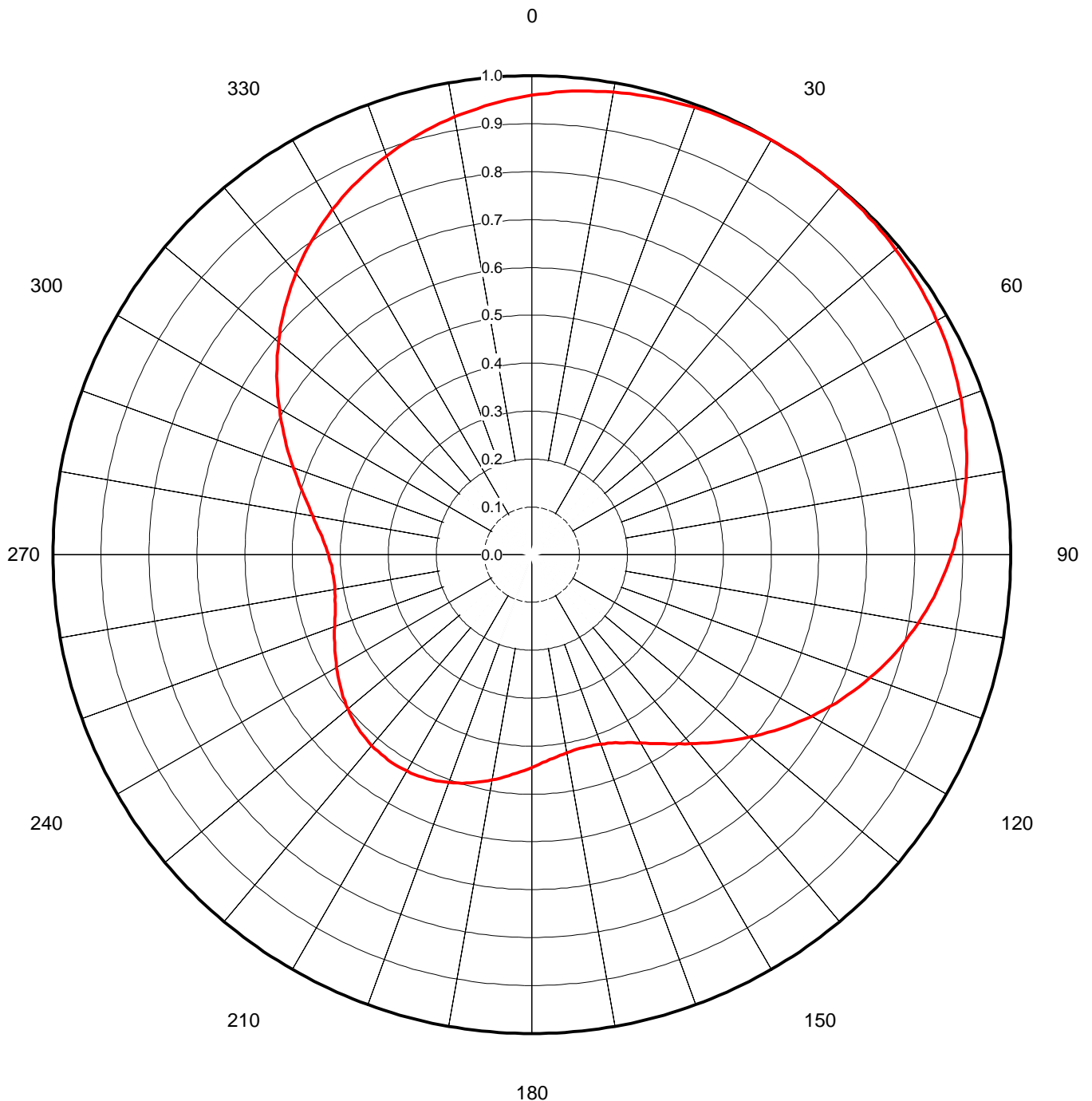


Proposal Number	<b>DCA-11353</b>	Revision:	<b>4</b>
Date	<b>17-May-07</b>		
Call Letters	<b>WNJB-DT</b>	Channel	<b>8</b>
Location	<b>New Brunswick, NJ</b>		
Customer	<b>NJPBA</b>		
Antenna Type	<b>TUV-32GTH/6HV-R 06/S190</b>		

### AZIMUTH PATTERN

Gain	<b>1.90</b>	<b>( 2.79 dB)</b>
Calculated / Measured		<b>Calculated</b>

Frequency	<b>183.00 MHz</b>
Drawing #	<b>TUV-S190-1830</b>





Proposal Number **DCA-11353** Revision: **4**  
Date **17-May-07**  
Call Letters **WNJB-DT** Channel **8**  
Location **New Brunswick, NJ**  
Customer **NJPBA**  
Antenna Type **TUV-32GTH/6HV-R O6/S190**

## TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TUV-S190-1830**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.959	45	0.996	90	0.877	135	0.553	180	0.444	225	0.513	270	0.425	315	0.730
1	0.962	46	0.995	91	0.871	136	0.545	181	0.447	226	0.511	271	0.427	316	0.737
2	0.964	47	0.994	92	0.866	137	0.538	182	0.451	227	0.508	272	0.430	317	0.745
3	0.966	48	0.994	93	0.861	138	0.530	183	0.454	228	0.506	273	0.433	318	0.752
4	0.969	49	0.993	94	0.855	139	0.523	184	0.457	229	0.504	274	0.437	319	0.759
5	0.971	50	0.992	95	0.850	140	0.515	185	0.461	230	0.501	275	0.441	320	0.766
6	0.973	51	0.990	96	0.844	141	0.508	186	0.464	231	0.499	276	0.445	321	0.773
7	0.975	52	0.989	97	0.838	142	0.501	187	0.467	232	0.496	277	0.449	322	0.781
8	0.977	53	0.988	98	0.832	143	0.495	188	0.471	233	0.493	278	0.454	323	0.787
9	0.979	54	0.987	99	0.826	144	0.488	189	0.474	234	0.490	279	0.459	324	0.794
10	0.980	55	0.985	100	0.820	145	0.482	190	0.477	235	0.487	280	0.464	325	0.801
11	0.982	56	0.984	101	0.814	146	0.476	191	0.481	236	0.484	281	0.470	326	0.807
12	0.984	57	0.982	102	0.807	147	0.470	192	0.484	237	0.481	282	0.476	327	0.814
13	0.985	58	0.980	103	0.801	148	0.464	193	0.487	238	0.477	283	0.482	328	0.820
14	0.987	59	0.979	104	0.794	149	0.459	194	0.490	239	0.474	284	0.488	329	0.826
15	0.988	60	0.977	105	0.787	150	0.454	195	0.493	240	0.471	285	0.495	330	0.832
16	0.989	61	0.975	106	0.781	151	0.449	196	0.496	241	0.467	286	0.501	331	0.838
17	0.990	62	0.973	107	0.773	152	0.445	197	0.499	242	0.464	287	0.508	332	0.844
18	0.992	63	0.971	108	0.766	153	0.441	198	0.501	243	0.461	288	0.515	333	0.850
19	0.993	64	0.969	109	0.759	154	0.437	199	0.504	244	0.457	289	0.523	334	0.855
20	0.994	65	0.966	110	0.752	155	0.433	200	0.506	245	0.454	290	0.530	335	0.861
21	0.994	66	0.964	111	0.745	156	0.430	201	0.508	246	0.451	291	0.538	336	0.866
22	0.995	67	0.962	112	0.737	157	0.427	202	0.511	247	0.447	292	0.545	337	0.871
23	0.996	68	0.959	113	0.730	158	0.425	203	0.513	248	0.444	293	0.553	338	0.877
24	0.997	69	0.957	114	0.722	159	0.423	204	0.514	249	0.441	294	0.561	339	0.881
25	0.997	70	0.954	115	0.714	160	0.421	205	0.516	250	0.438	295	0.569	340	0.886
26	0.998	71	0.951	116	0.706	161	0.419	206	0.518	251	0.435	296	0.577	341	0.891
27	0.998	72	0.948	117	0.698	162	0.418	207	0.519	252	0.433	297	0.585	342	0.896
28	0.999	73	0.945	118	0.691	163	0.417	208	0.520	253	0.430	298	0.593	343	0.900
29	0.999	74	0.942	119	0.683	164	0.417	209	0.521	254	0.428	299	0.601	344	0.905
30	0.999	75	0.939	120	0.675	165	0.417	210	0.522	255	0.426	300	0.609	345	0.909
31	1.000	76	0.935	121	0.666	166	0.417	211	0.522	256	0.424	301	0.617	346	0.913
32	1.000	77	0.932	122	0.658	167	0.417	212	0.523	257	0.422	302	0.626	347	0.917
33	1.000	78	0.928	123	0.650	168	0.418	213	0.523	258	0.420	303	0.634	348	0.921
34	1.000	79	0.925	124	0.642	169	0.419	214	0.523	259	0.419	304	0.642	349	0.925
35	1.000	80	0.921	125	0.634	170	0.420	215	0.523	260	0.418	305	0.650	350	0.928
36	1.000	81	0.917	126	0.626	171	0.422	216	0.523	261	0.417	306	0.658	351	0.932
37	1.000	82	0.913	127	0.617	172	0.424	217	0.522	262	0.417	307	0.666	352	0.935
38	0.999	83	0.909	128	0.609	173	0.426	218	0.522	263	0.417	308	0.675	353	0.939
39	0.999	84	0.905	129	0.601	174	0.428	219	0.521	264	0.417	309	0.683	354	0.942
40	0.999	85	0.900	130	0.593	175	0.430	220	0.520	265	0.417	310	0.691	355	0.945
41	0.998	86	0.896	131	0.585	176	0.433	221	0.519	266	0.418	311	0.698	356	0.948
42	0.998	87	0.891	132	0.577	177	0.435	222	0.518	267	0.419	312	0.706	357	0.951
43	0.997	88	0.886	133	0.569	178	0.438	223	0.516	268	0.421	313	0.714	358	0.954
44	0.997	89	0.881	134	0.561	179	0.441	224	0.514	269	0.423	314	0.722	359	0.957