

TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF  
CONSTRUCTION PERMIT  
TELEVISION STATION WWSB-DT  
SARASOTA, FLORIDA

June 21, 2005

CHANNEL 52 12 KW 213 M

TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT  
TELEVISION STATION WWSB-DT  
SARASOTA, FLORIDA  
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Technical Statement

This Technical Exhibit was prepared on behalf of digital television broadcast station WWSB-DT, Sarasota, Florida, in support of an application for modification of construction permit (See FCC File No. BPCDT-19991014AAY). WWSB-DT is authorized for operation on Channel 52 with a nominal non-directional effective radiated power (ERP) of 200 kW and an antenna height of 233 m above mean sea level. The purpose of this application is to authorize the WWSB-DT facility now operating pursuant to FCC Special Temporary Authority (STA). This is required in order to meet the “use-it-or-lose-it” deadline imposed by the FCC in the recent *Report and Order* in the Second Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television, Released: September 7, 2004.\*

The proposed facility will not result in any extension of the predicted 41 dBu noise-limited contour relative to the WWSB-DT authorized construction permit facility.† Therefore, the proposal meets the terms of the FCC Filing Freeze for television stations.‡ However, this proposal does not qualify as a DTV “checklist” facility.

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\* See also *Public Notice*, “DTV Channel Election Issues – Compliance with the July 1, 2005 Replication/Maximization Interference Protection Deadline; Stations Seeking Extension of the Deadline,” Federal Communications Commission, DA 05-1636, Released: June 15, 2005.

† See Figure 1.

‡ See *August 2004 Filing Freeze PN*, DA 04-2446 (MB rel. Aug. 3, 2004).

Proposed Facilities

The proposed transmitting facility will employ an Andrew, model AL8 antenna, which will be side-mounted on the existing WWSB(TV) tower structure. The transmitter site elevation is 11 m AMSL. The antenna center of radiation will be located at 216 m above ground level and 227 m AMSL. The proposed WWSB-DT facility will operate on Channel 52 with a non-directional average ERP of 10.8 dBk (12 kW) and antenna radiation center height above average terrain of 214 m.

The proposed facility provides minimum 48 dBu, f(50,90), coverage of Sarasota in compliance with Section 73.625(a)(1) of the FCC Rules. Figure 1 herein is a map depicting the predicted coverage contours of the proposed facility.

Tower Registration

The proposed antenna structure has been registered with the FCC. The FCC antenna structure registration number is 1028035. There will be no change in the overall height of the antenna structure as a result of the instant proposal.

Domestic Allocation Considerations

The proposed WWSB-DT Channel 52 facility meets the requirements of Section 73.623 of the FCC Rules concerning predicted interference to other existing U.S. NTSC facilities and U.S. DTV allotments and assignments. Longley-Rice interference analyses were conducted pursuant to the requirements of the FCC Rules; OET Bulletin No. 69; and published FCC guidelines for preparation of such interference analyses. The Longley-Rice interference analyses were conducted using the software maintained by du Treil, Lundin & Rackley, Inc. based on the FCC published software

routines.<sup>§</sup> Stations selected for analysis were determined pursuant to the distance requirements outlined in the FCC DTV Processing Guidelines Public Notice. Accordingly, co-channel DTV and NTSC stations within 429 km and 407 km, respectively, were examined for potential interference; and first-adjacent DTV and NTSC stations within 229 km and 207 km, respectively, were examined for potential interference. Analog taboo-related NTSC stations within 142 km were examined for potential interference. The results of the interference analyses for the proposed WWSB-DT facility are summarized herein at Figure 2. As indicated therein, the proposed facility will meet the 2%/10% criterion outlined in the FCC Rules and published guidelines with respect to all considered stations.

With respect to Class A TV station protection, the proposal has been evaluated according to the requirements of Section 73.623(c)(5) of the FCC Rules. The analysis reveals no potentially affected Class A TV stations

#### Environmental Considerations

An evaluation was conducted for the proposed facility concerning compliance with Section 1.1307(b) of the FCC Rules regarding human exposure to radio frequency (RF) energy.<sup>\*\*</sup> Calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF radiation at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground based on the following conservative assumptions, with the following results:

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§ The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is a precise implementation of the procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed.

\*\* See FCC Office of Engineering and Technology Bulletin No. 56 for background information on non-ionizing RF energy of the type discussed here. Internet web reference:  
[http://www.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet56/oet56e4.pdf](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf)

Call Sign	Channel	Average ERP (kW)	Relative Field Factor <sup>††</sup>	Distance (m)	FCC Limit <sup>††</sup> (mW/cm <sup>2</sup> )	Percentage of Limit
WWSB-DT	52	12	0.20	214	0.467	0.07%

As indicated above, the total exposure to RF radiation at 2-m above ground level will not exceed 0.07% of the FCC limit for general population / uncontrolled exposure. Therefore, the proposal complies with the FCC limits for human exposure to RF energy and it is categorically excluded from environmental processing. The applicant, in coordination with other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the WWSB-DT tower or antenna from radio frequency radiation in excess of the FCC guidelines.



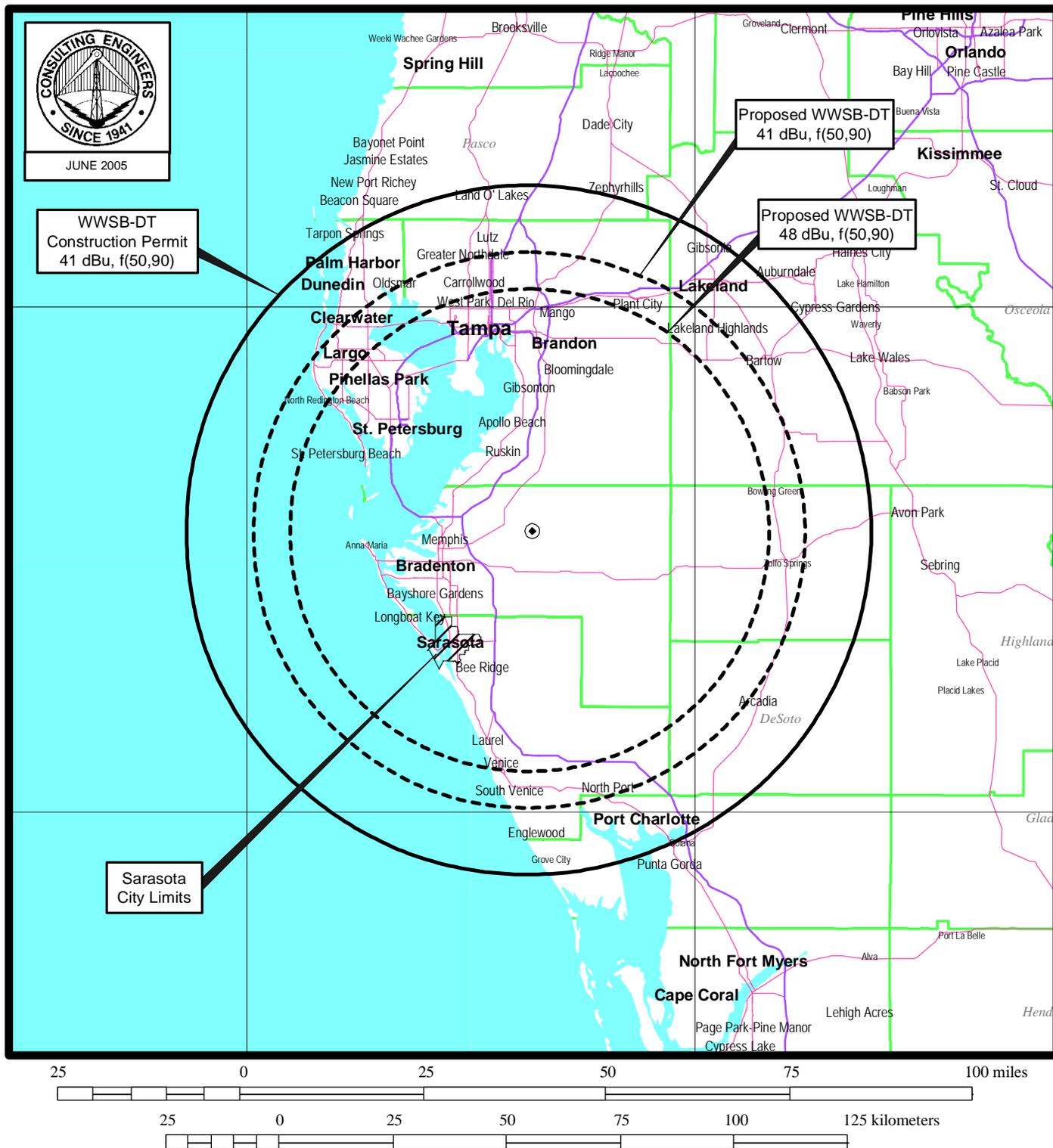
Louis Robert du Treil, Jr.

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Ave.  
Sarasota, FL 34237-6019

June 21, 2005

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†† This is a conservative estimate of the elevation pattern relative field toward ground level. See elevation pattern at Appendix 1.  
‡‡ for general population/uncontrolled environments



# PREDICTED COVERAGE CONTOURS

TELEVISION STATION WWSB-DT  
 SARASOTA, FLORIDA  
 CHANNEL 52 12 KW 214 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

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Summary of Allocation Analysis

Stations Potentially Affected by Proposed Station							
Facility Number	Channel	Call	City State	Distance (km)	Status	Application Prefix	Application Reference Number
1	38	WTTA	ST. PETERSBURG FL	33.3	LIC	BLCT	19910703KG
2	44	WTOG	ST. PETERSBURG FL	31.9	LIC	BLCT	19990415KI
3	45	WLCB-TV	LEESBURG FL	135.8	LIC	BLET	20001212AAT
4	49	WRXY-TV	TICE FL	102.5	LIC	BLCT	20050224AAF
5	50	WFTT-TV	TAMPA FL	33.3	LIC	BLCT	19880616KH
6	51	WTGL-DT	COCOA FL	165.1	PLN	DTVPLN	DTVP1473
7	51	WOGX	OCALA FL	200.4	LIC	BLCT	19831107KI
8	52	WTGL-TV	COCOA FL	165.1	LIC	BLCT	19821006KG
9	52	WTGL-TV	COCOA FL	170	CP MOD	BMPCT	20041201BGU
10	52	WSCV	FORT LAUDERDALE FL	277.2	LIC	BLCDT	20020805AAB

Stations Potentially Affected by Proposed Station							
Facility Number	Channel	Call	City State	Distance (km)	Status	Application Prefix	Application Reference Number
11	52	WSCV-DT	FORT LAUDERDALE FL	277.3	PLN	DTVPLN	DTVP1503
12	52	WCTV-DT	THOMASVILLE GA	378.5	PLN	DTVPLN	DTVP1505
13	53	WTGL-TV	COCOA FL	170	CP	BPCDT	20000428ABS
14	53	WTGL-TV	COCOA FL	170	LIC	BPRM	20010511ABR
15	53	WINK-DT	FORT MYERS FL	102.8	PLN	DTVPLN	DTVP1526
16	56	WOPX	MELBOURNE FL	135.7	LIC	BLCT	19980327KF
17	60	960920YT	SEBRING FL	93	APP	BPCT	19960920YT

Summary of Interference Analysis for Worst-Case Scenarios							
Facility Number	Interference Population Before Analysis	Interference Population After Analysis	Baseline Population	Net Change in Interference	Percent of Baseline	Permissible Percent of Baseline	Result
1	--	--	--	*	0.000	--	pass
2	--	--	--	*	0.000	--	pass
3	--	--	--	*	0.000	--	pass

\* There is no interference predicted.

Summary of Interference Analysis for Worst-Case Scenarios

Facility Number	Interference Population Before Analysis	Interference Population After Analysis	Baseline Population	Net Change in Interference	Percent of Baseline	Permissible Percent of Baseline	Result
4	--	--	--	*	0.000	--	pass
5	--	--	--	*	0.000	--	pass
6	--	--	--	*	0.000	--	pass
7	--	--	--	*	0.000	--	pass
8	--	--	--	*	0.000	--	pass
9	--	--	--	*	0.000	--	pass
10	--	--	--	*	0.000	--	pass
11	--	--	--	*	0.000	--	pass
12	--	--	--	*	0.000	--	pass
13	--	--	--	*	0.000	--	pass
14	--	--	--	*	0.000	--	pass
15	66592	66592	1082106	0	0.000	2.0	pass
16	--	--	--	*	0.000	--	pass
17	--	--	--	*	0.000	--	pass

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\* There is no interference predicted.

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Transmitting Antenna  
Manufacturer's Pattern Data

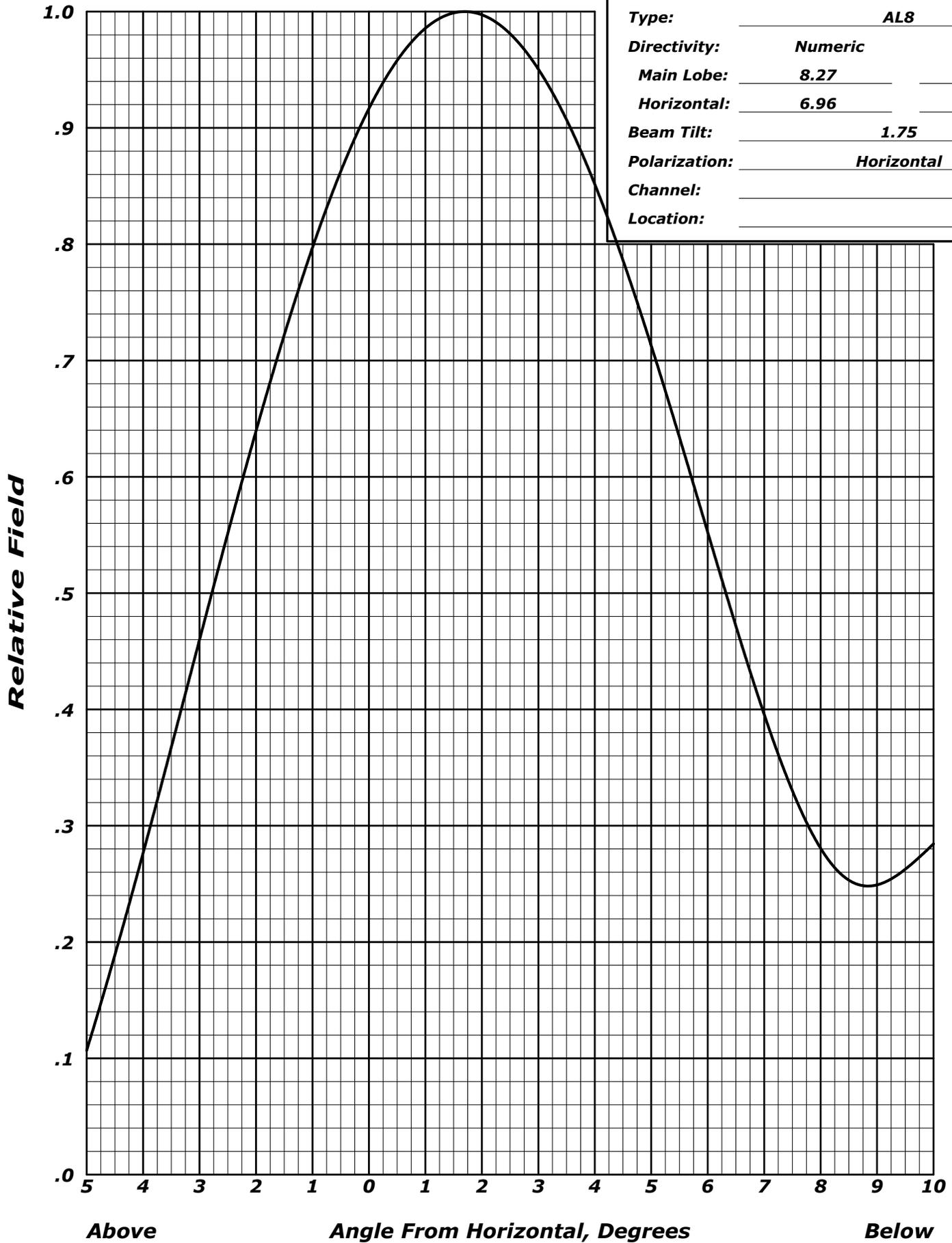
(two pages follow)



# ANDREW

## ELEVATION PATTERN

Type:	AL8	
Directivity:	Numeric	dBd
Main Lobe:	8.27	( 9.18)
Horizontal:	6.96	( 8.43)
Beam Tilt:	1.75	
Polarization:	Horizontal	
Channel:		
Location:		





**TABULATED DATA FOR ELEVATION PATTERN**  
**TYPE : AL8**

<b>Angle Field dB</b> <b>-5 To 10</b> <b>In 0.25 Increments</b>			<b>Angle Field dB</b> <b>10 To 90</b> <b>In 0.5 Increments</b>			<b>Angle Field dB</b>			<b>Angle Field dB</b>		
-5.00	0.107	-19.43	8.75	0.248	-12.09	35.00	0.043	-27.30	62.50	0.093	-20.65
-4.75	0.147	-16.65	9.00	0.249	-12.07	35.50	0.057	-24.81	63.00	0.093	-20.60
-4.50	0.189	-14.47	9.25	0.254	-11.89	36.00	0.070	-23.11	63.50	0.093	-20.63
-4.25	0.232	-12.68	9.50	0.263	-11.61	36.50	0.080	-21.95	64.00	0.092	-20.72
-4.00	0.277	-11.17	9.75	0.273	-11.28	37.00	0.087	-21.18	64.50	0.090	-20.87
-3.75	0.322	-9.85	10.00	0.284	-10.92	37.50	0.092	-20.74	65.00	0.088	-21.09
-3.50	0.368	-8.69	10.50	0.307	-10.26	38.00	0.094	-20.57	65.50	0.086	-21.36
-3.25	0.414	-7.67	11.00	0.325	-9.76	38.50	0.093	-20.68	66.00	0.082	-21.68
-3.00	0.460	-6.75	11.50	0.336	-9.46	39.00	0.089	-21.04	66.50	0.079	-22.05
-2.75	0.506	-5.92	12.00	0.340	-9.38	39.50	0.082	-21.70	67.00	0.075	-22.46
-2.50	0.551	-5.17	12.50	0.334	-9.52	40.00	0.073	-22.68	67.50	0.072	-22.91
-2.25	0.596	-4.50	13.00	0.321	-9.88	40.50	0.063	-24.07	68.00	0.068	-23.39
-2.00	0.639	-3.88	13.50	0.300	-10.46	41.00	0.050	-26.03	68.50	0.064	-23.88
-1.75	0.682	-3.33	14.00	0.273	-11.28	41.50	0.036	-28.90	69.00	0.060	-24.39
-1.50	0.722	-2.83	14.50	0.242	-12.33	42.00	0.021	-33.63	69.50	0.057	-24.89
-1.25	0.761	-2.38	15.00	0.208	-13.64	42.50	0.006	-44.97	70.00	0.054	-25.36
-1.00	0.797	-1.97	15.50	0.175	-15.16	43.00	0.012	-38.45	70.50	0.051	-25.79
-0.75	0.831	-1.61	16.00	0.145	-16.79	43.50	0.028	-31.09	71.00	0.049	-26.16
-0.50	0.862	-1.29	16.50	0.123	-18.21	44.00	0.044	-27.20	71.50	0.048	-26.46
-0.25	0.891	-1.00	17.00	0.114	-18.89	44.50	0.059	-24.62	72.00	0.046	-26.66
0.00	0.917	-0.76	17.50	0.118	-18.59	45.00	0.073	-22.75	72.50	0.046	-26.78
0.25	0.939	-0.55	18.00	0.130	-17.69	45.50	0.086	-21.34	73.00	0.046	-26.81
0.50	0.958	-0.37	18.50	0.147	-16.68	46.00	0.097	-20.26	73.50	0.046	-26.78
0.75	0.974	-0.23	19.00	0.162	-15.83	46.50	0.107	-19.43	74.00	0.046	-26.69
1.00	0.986	-0.13	19.50	0.173	-15.22	47.00	0.115	-18.81	74.50	0.047	-26.56
1.25	0.994	-0.05	20.00	0.180	-14.88	47.50	0.121	-18.37	75.00	0.048	-26.42
1.50	0.999	-0.01	20.50	0.182	-14.79	48.00	0.125	-18.08	75.50	0.049	-26.27
1.75	1.000	-0.00	21.00	0.178	-14.97	48.50	0.127	-17.94	76.00	0.049	-26.14
2.00	0.997	-0.02	21.50	0.169	-15.42	49.00	0.127	-17.93	76.50	0.050	-26.01
2.25	0.991	-0.08	22.00	0.156	-16.16	49.50	0.125	-18.05	77.00	0.051	-25.92
2.50	0.981	-0.17	22.50	0.138	-17.22	50.00	0.122	-18.31	77.50	0.051	-25.85
2.75	0.967	-0.29	23.00	0.117	-18.67	50.50	0.116	-18.69	78.00	0.051	-25.81
3.00	0.951	-0.44	23.50	0.093	-20.61	51.00	0.110	-19.21	78.50	0.051	-25.81
3.25	0.930	-0.63	24.00	0.069	-23.20	51.50	0.101	-19.88	79.00	0.051	-25.85
3.50	0.907	-0.85	24.50	0.047	-26.59	52.00	0.092	-20.72	79.50	0.051	-25.92
3.75	0.881	-1.10	25.00	0.033	-29.69	52.50	0.082	-21.75	80.00	0.050	-26.04
4.00	0.852	-1.40	25.50	0.037	-28.61	53.00	0.071	-23.03	80.50	0.049	-26.20
4.25	0.820	-1.72	26.00	0.054	-25.41	53.50	0.059	-24.61	81.00	0.048	-26.40
4.50	0.786	-2.09	26.50	0.072	-22.82	54.00	0.047	-26.62	81.50	0.047	-26.65
4.75	0.750	-2.49	27.00	0.089	-20.98	54.50	0.034	-29.29	82.00	0.045	-26.94
5.00	0.713	-2.94	27.50	0.104	-19.70	55.00	0.022	-33.12	82.50	0.043	-27.29
5.25	0.674	-3.43	28.00	0.114	-18.84	55.50	0.011	-39.47	83.00	0.041	-27.70
5.50	0.634	-3.96	28.50	0.121	-18.34	56.00	0.007	-43.52	83.50	0.039	-28.16
5.75	0.593	-4.53	29.00	0.124	-18.14	56.50	0.016	-35.88	84.00	0.037	-28.70
6.00	0.552	-5.15	29.50	0.123	-18.22	57.00	0.027	-31.44	84.50	0.034	-29.30
6.25	0.512	-5.82	30.00	0.118	-18.58	57.50	0.037	-28.61	85.00	0.032	-30.00
6.50	0.472	-6.53	30.50	0.109	-19.22	58.00	0.047	-26.60	85.50	0.029	-30.80
6.75	0.433	-7.27	31.00	0.098	-20.19	58.50	0.056	-25.09	86.00	0.026	-31.72
7.00	0.396	-8.05	31.50	0.084	-21.53	59.00	0.064	-23.93	86.50	0.023	-32.78
7.25	0.361	-8.84	32.00	0.068	-23.38	59.50	0.071	-23.02	87.00	0.020	-34.05
7.50	0.330	-9.63	32.50	0.050	-25.96	60.00	0.077	-22.30	87.50	0.017	-35.56
7.75	0.303	-10.37	33.00	0.032	-29.79	60.50	0.082	-21.74	88.00	0.013	-37.45
8.00	0.281	-11.04	33.50	0.016	-35.89	61.00	0.086	-21.31	88.50	0.010	-39.91
8.25	0.264	-11.57	34.00	0.013	-37.44	61.50	0.089	-20.99	89.00	0.007	-43.40
8.50	0.253	-11.93	34.50	0.028	-31.20	62.00	0.091	-20.78	89.50	0.003	-49.40