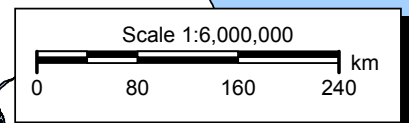
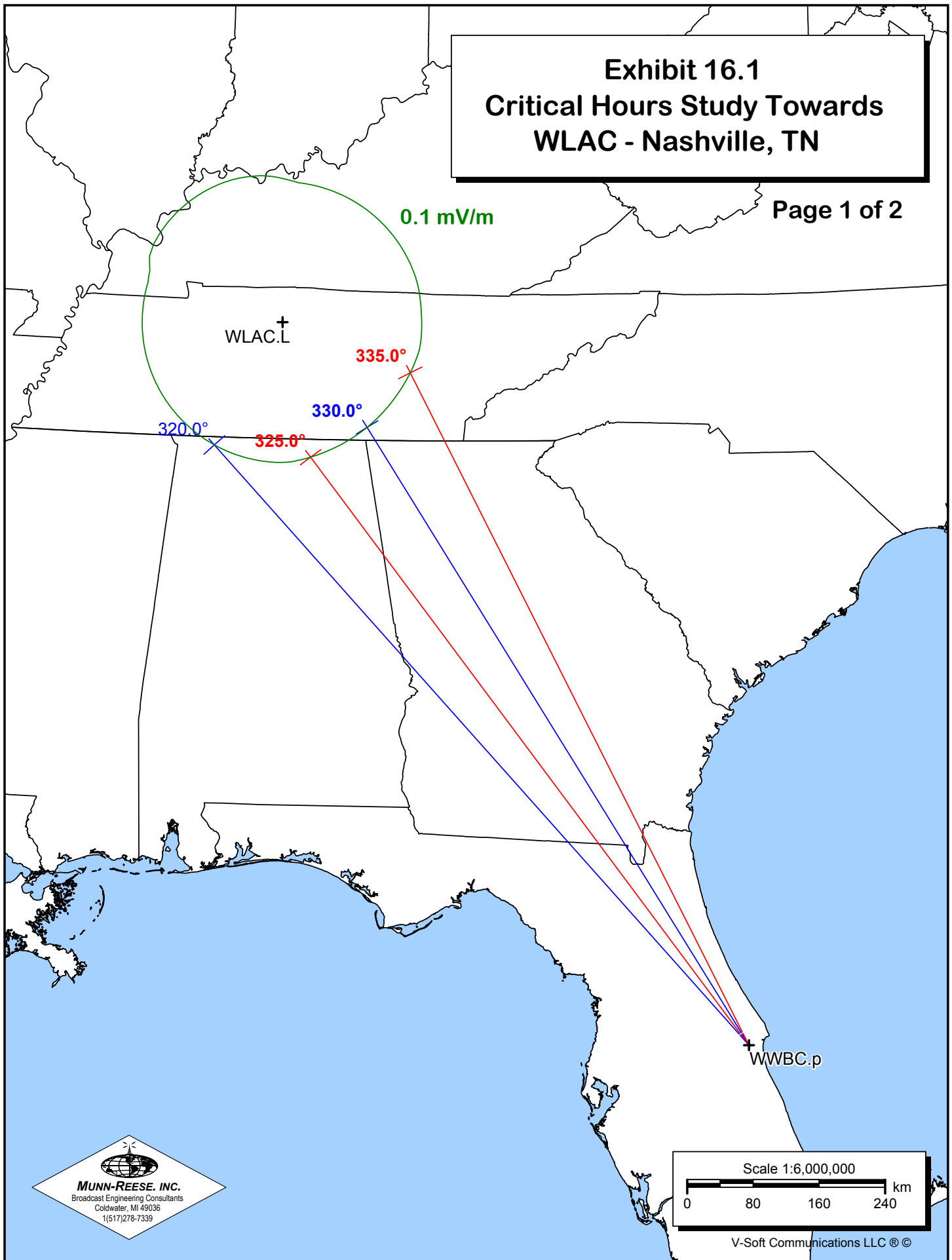


# Exhibit 16.1 Critical Hours Study Towards WLAC - Nashville, TN

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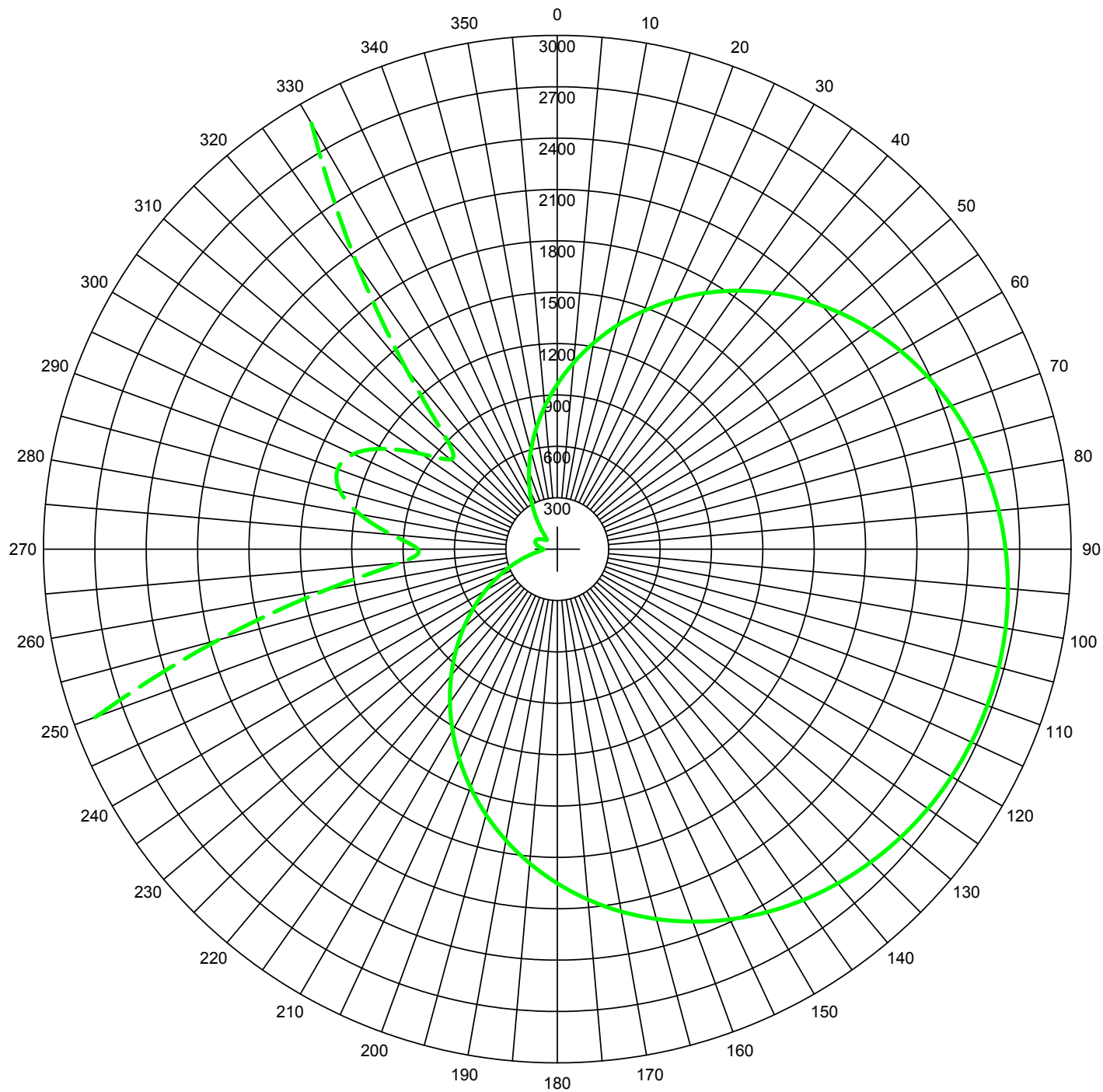


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**FIGURE 16.1**  
**SPECIAL DAYTIME SKYWAVE STUDY TOWARDS WLAC - NASHVILLE, TN**

From WWBC Proposed Site			§73.190 - Figure 10-11		§73.187 Computations				Total Permissible		Proposed
Azimuth ° True	Distance km	Distance miles	1000 kHz Radiation	1600 kHz Radiation	1000 kHz Factor	1600 kHz Factor	1000 kHz Limit	1600 kHz Limit	Radiation mV/m/mi	Radiation mV/m/km	Standard Pattern
320°	973.9	605.2	540	183	0.150	0.850	81.0	155.6	236.6	380.7	137.24
325°	888.6	552.2	510	170	0.150	0.850	76.5	144.5	221.0	355.7	204.76
330°	880.0	546.8	535	175	0.150	0.850	80.3	148.8	229.0	368.5	287.08
335°	912.1	566.8	570	185	0.150	0.850	85.5	157.3	242.8	390.7	380.8

# Exhibit 16.2 - Polar Plot of Critical Hours Directional Standard Pattern



Theo RMS: 1622.349 mV/m@1km  
Std RMS: 1703.466 mV/m@1km  
Q: 53.052 mV/m@1km

Horizontal Plane Standard Pattern

—— Pattern (mV/m @ 1km)  
- - - - Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	143.7	0	0	0.0	0.0	0.0	0.0
2	0.950	-124.0	60.0	110.0	80.0	0	0	0.0	0.0	0.0	0.0

Call: WWBC.p  
Freq: 1510 kHz  
COCOA, FL, US  
Lat: 28-21-12 N  
Lng: 080-46-45 W  
Power: 25.0 kW  
Theo RMS: 1622.35 mV/m @ 1km

**Munn-Reese, Inc.**  
Broadcast Engineering Consultants  
Coldwater, MI 49036

# Exhibit 16.3

## Tabulation of Proposed Critical Hours Directional Standard Pattern

### AM Radiation Report

Call: WWBC.p  
 Freq: 1510 kHz  
 COCOA, FL, US  
 Lat: 28-21-12 N  
 Lng: 080-46-45 W  
 Power: 25.0 kW  
 Theo RMS: 1622.35 mV/m @ 1km

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	143.7	0	0	0.0	0.0	0.0	0.0
2	0.950	-124.0	60.0	110.0	80.0	0	0	0.0	0.0	0.0	0.0

### Standard Horizontal Plane Pattern

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	962.88	120.0	2658.44	240.0	484.01
5.0	1092.19	125.0	2641.61	245.0	380.81
10.0	1222.51	130.0	2617.80	250.0	287.08
15.0	1352.43	135.0	2586.78	255.0	204.76
20.0	1480.61	140.0	2548.31	260.0	137.24
25.0	1605.74	145.0	2502.13	265.0	92.25
30.0	1726.64	150.0	2447.98	270.0	81.45
35.0	1842.27	155.0	2385.68	275.0	97.01
40.0	1951.70	160.0	2315.10	280.0	117.16
45.0	2054.20	165.0	2236.23	285.0	131.39
50.0	2149.18	170.0	2149.18	290.0	136.39
55.0	2236.23	175.0	2054.20	295.0	131.39
60.0	2315.10	180.0	1951.70	300.0	117.16
65.0	2385.68	185.0	1842.27	305.0	97.01
70.0	2447.98	190.0	1726.64	310.0	81.45
75.0	2502.13	195.0	1605.74	315.0	92.25
80.0	2548.31	200.0	1480.61	320.0	137.24
85.0	2586.78	205.0	1352.43	325.0	204.76
90.0	2617.80	210.0	1222.51	330.0	287.08
95.0	2641.61	215.0	1092.19	335.0	380.81
100.0	2658.44	220.0	962.88	340.0	484.01
105.0	2668.46	225.0	836.00	345.0	595.19
110.0	2671.79	230.0	712.98	350.0	712.98
115.0	2668.46	235.0	595.19	355.0	836.00