TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
NIGHTTIME FACILITY
AM STATION WOKV (FACILITY ID 53601)
JACKSONVILLE, FLORIDA

DECEMBER 15, 2003

690 KHZ 50 KW-D 25 kW-N DA-N

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Table of Contents

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Technical Narrative

This Technical Exhibit supports an application for construction permit (minor change) to modify the nighttime facility of WOKV(AM) on 690 kilohertz at Jacksonville, Florida. By means of this application, WOKV(AM) seeks to increase its nighttime power from 10 kilowatts to 25 kilowatts. No change in nighttime transmitter site, number and orientation of towers or daytime facilities are proposed (this is a two-site operation).

Nighttime Transmitter Location

Figure 1 is a map showing the proposed center of the array and the 1 V/m contour. As no site change is proposed, no new site photographs are required. The 2000 U.S. Census population within the 1 V/m contour is less than 300 people.

Directional Antenna System

Figure 2 is a plat of the transmitter site showing the existing nighttime tower arrangement and ground system. No change in this arrangement is proposed. Figure 3 is a sketch showing the elevation of the existing towers.

The directional antenna patterns have been calculated in accordance with 47 CFR 73.150 assuming a one-ohm lumped loss resistance at the current loop of each tower in the array. The nighttime standard radiation pattern and tabulation is shown herein as Figure 4.

Nighttime Coverage

The proposed nighttime field strength contours are depicted on Figure 5. As can be seen, the proposed 17.3 mV/m nighttime interference-free contour will encompass 681,000 persons and 1,500 square kilometers of the city of Jacksonville. This is 92% and 66% of the population and area of Jacksonville, respectively. The existing nighttime interference-free contour, using the facility as authorized by the Commission, currently encompasses 578,000 persons and 1,030 square kilometers of the city of Jacksonville. This is 79% and 45% of the population and area of Jacksonville, respectively.[1] Since the proposed nighttime facility will improve coverage over Jacksonville, a waiver of the Commission's city coverage requirement is requested on this basis.[2]

Nighttime Allocation Study

The proposed facility will afford nighttime protection to all stations and international allotments operating on 690 kHz, 690 kHz and 700 kHz.

With respect to co-channel Class A on CMEC at Santa Clara, Cuba, the predicted 0.025 Region II, 50% interfering contour does not overlap any land area of Cuba. Therefore, the proposal is in compliance with the current Commission policy toward CMEC.

With respect to co-channel Class A on CINF at Montreal, Canada, protection is provided using the ratio method at Nova Scotia and Pelee Island in Lake Erie - elsewhere, the proposed WOKV(AM) predicted 0.025 Region II, 10% interfering contour does not intersect Canadian territory. Sheet 3 of Figure 6 shows the aforementioned contours to demonstrate compliance with the above statements.

[1] The Jacksonville city limits greatly expanded in the late 1960's, when it was consolidated into much of Duval County. This is why the existing WOKV(AM) NIF contour does not encompass at least 80 percent of present city of Jacksonville city limits.

[2] The allocation protection requirements toward international stations preclude the proposed nighttime coverage requirement satisfying the 80% requirement using the existing tower array geometry

With respect to co-channel Class A on 690 kHz at Caribbean BC (the country of Anguilla), protection is provided using the ratio method. The nearest point of the country of Anguilla (the island of Sombrero) to WOKV(AM) is located approximately 60 kilometers (37 miles) from the Class A transmitter site. Applying the ratio method, the proposed WOKV(AM) Region 2, 50 percent skywave contour value at the Island of Sombrero is 0.04 mV/m. Since the Caribbean BC skywave contour cannot be generated at a distance of 60 kilometers from the transmitter site, the predicted groundwave contour value is 40 mV/m – which yields a ratio of 1,000 with respect to the WOKV(AM) interfering contour. Therefore, the proposed WOKV(AM) provides the required protection to Anguilla.

Radiofrequency Electromagnetic Field Exposure

A ground level radiofrequency electromagnetic field exposure survey will be completed and reported within the application for license.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. As existing towers with no physical change to such structures are proposed, this proposal is categorically excluded from other environmental processing.

Charles A. Cooper

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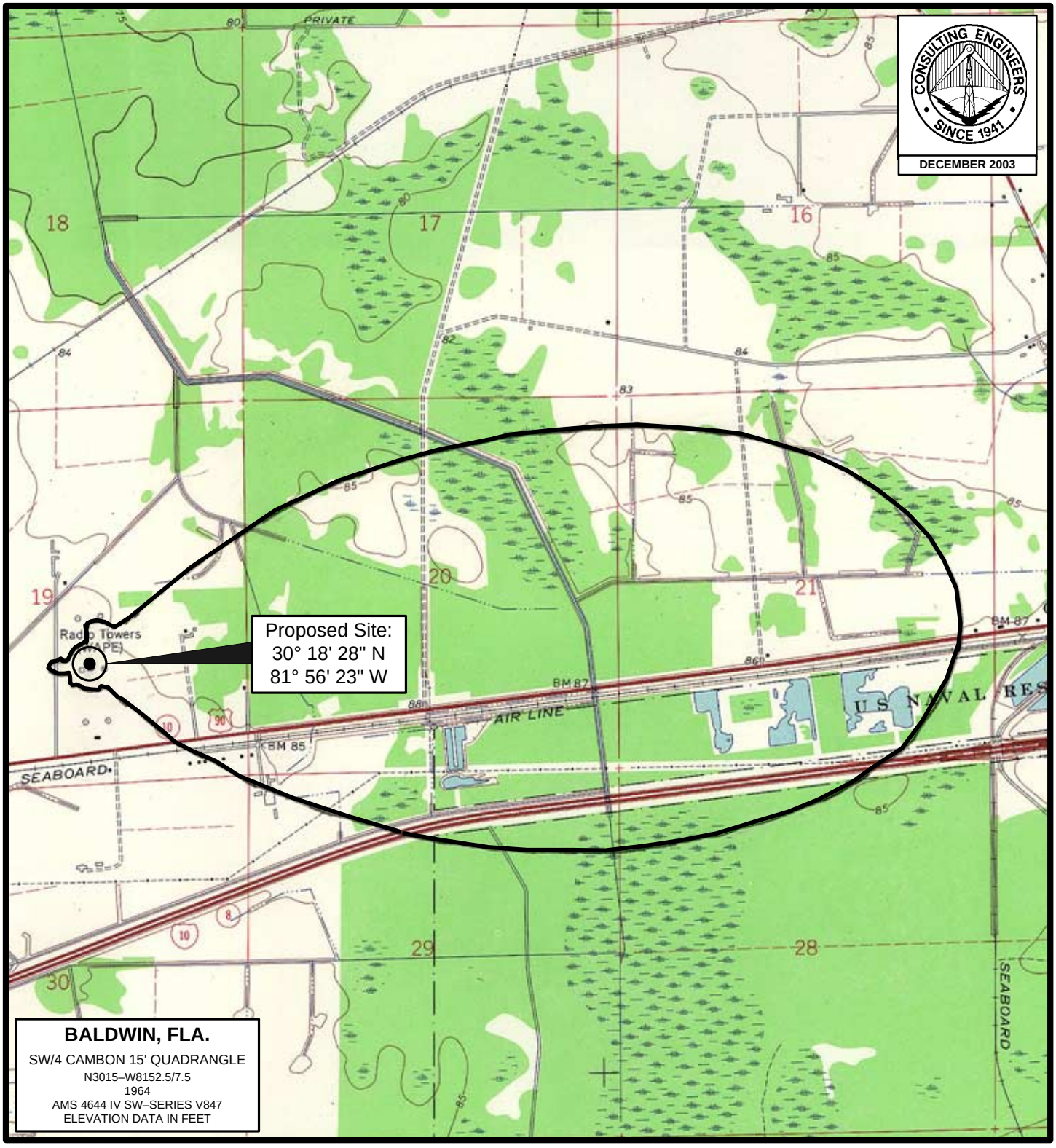
201 Fletcher Avenue
Sarasota, Florida 34237
941.329.6000

December 15, 2003



PROPOSED TRANSMITTER SITE & 1,000 mV/m CONTOUR

AM STATION WOKV
JACKSONVILLE, FLORIDA
690 KHZ 50-KW-D, 25 KW-N DA-N

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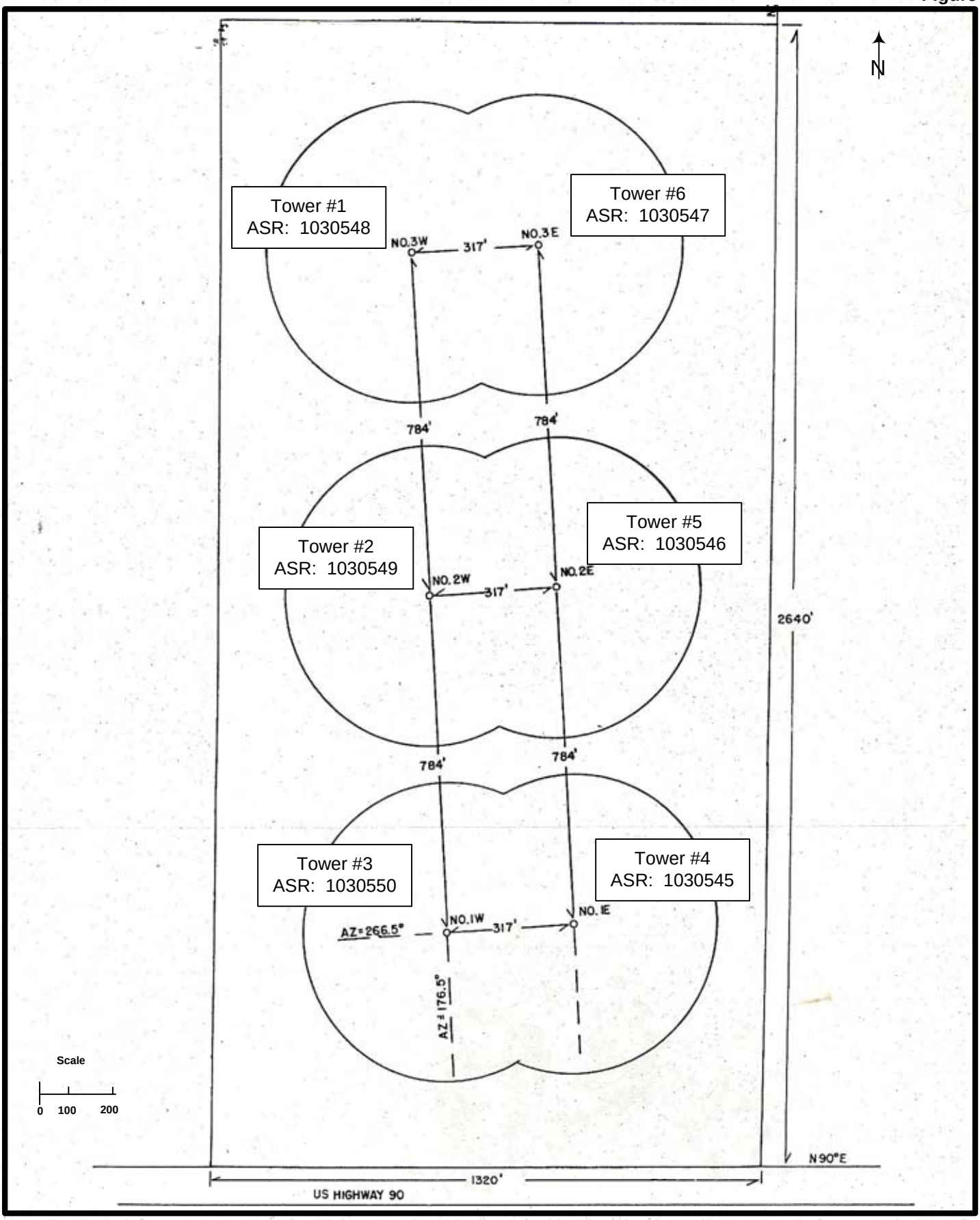

PLAT OF TRANSMITTER SITE

AM STATION WOKV
JACKSONVILLE, FLORIDA
690 KHZ 50 KW-D 25 KW-N DA-N

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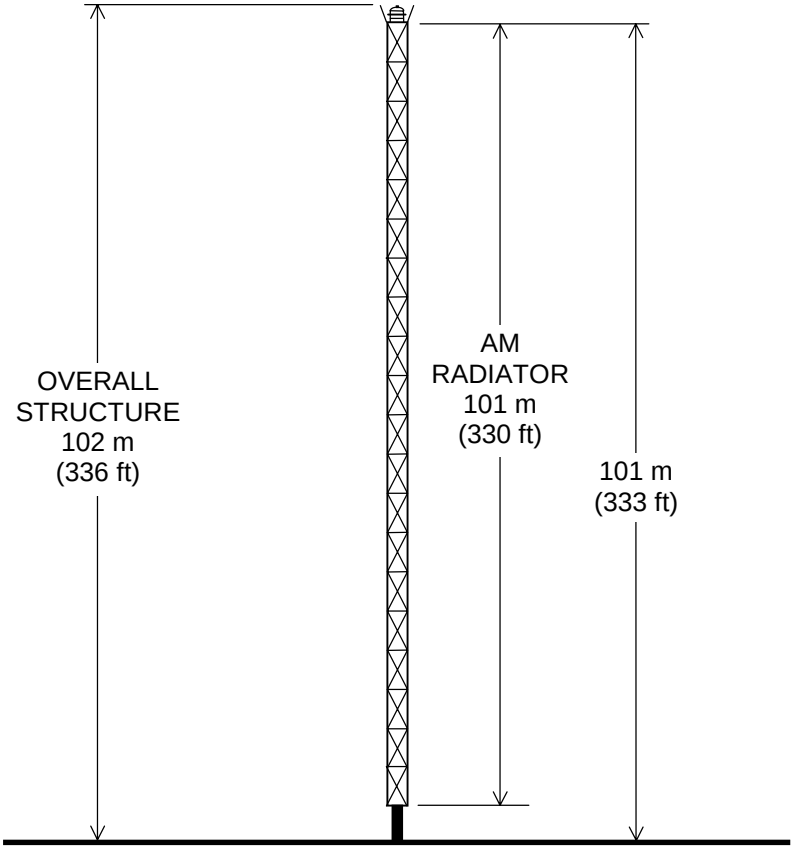
DECEMBER 2003



Center of Array
Site Coordinates:
30° 18' 28" N
081° 56' 23" W
(NAD 27)

Not to Scale

SKETCH OF ANTENNA ELEMENTS

RADIO STATION WOKV(AM)
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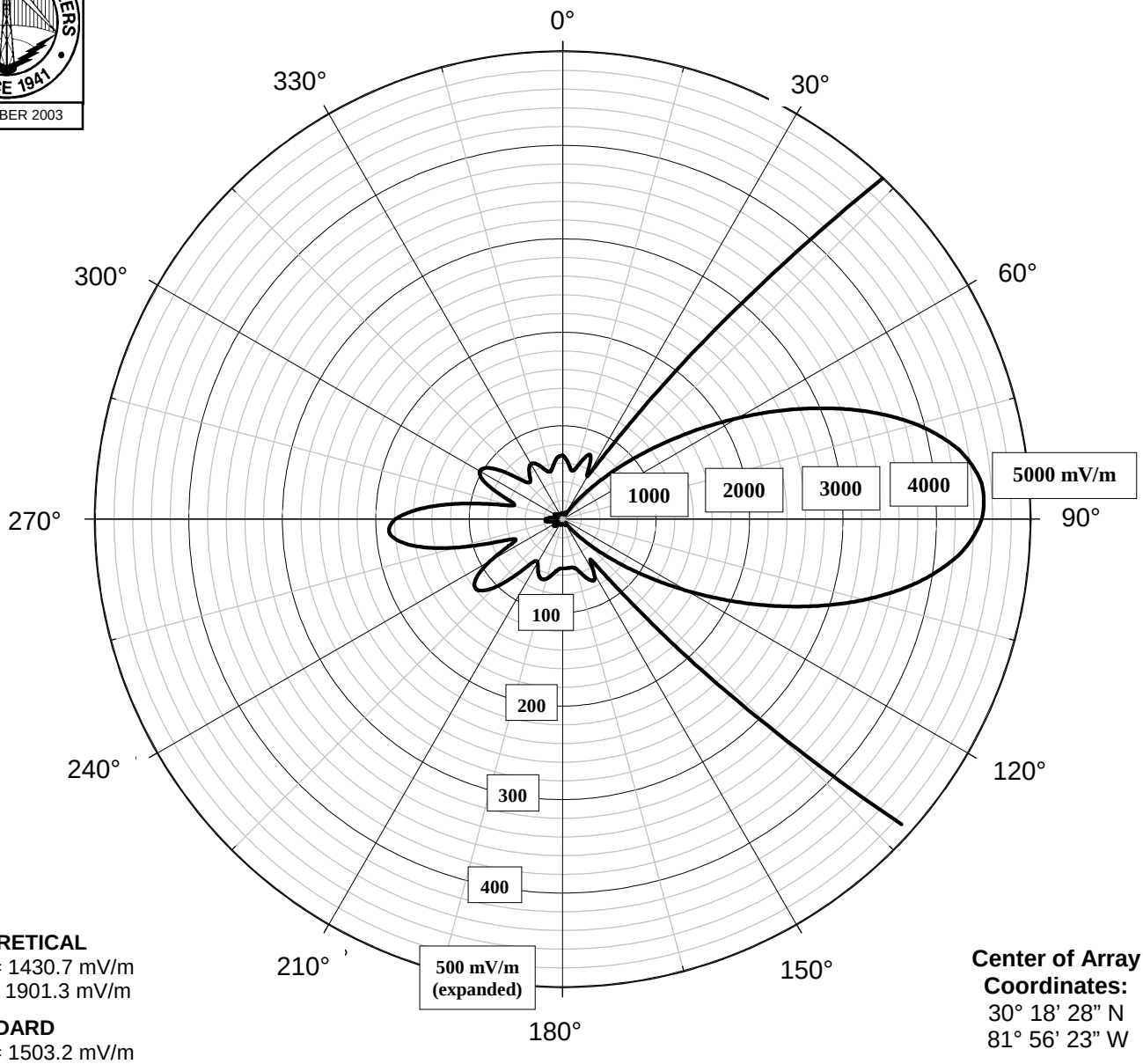

THEORETICAL
RMS = 1430.7 mV/m
RSS = 1901.3 mV/m

STANDARD
RMS = 1503.2 mV/m

Center of Array Coordinates:
30° 18’ 28” N
81° 56’ 23” W

DIRECTIONAL PATTERN PARAMETERS

TOWER	FIELD RATIO	PHASE (DEGREES)	SPACING (DEGREES)	ORIENTATION (DEGREES T.)	TOWER HEIGHT (DEGREES)
1	1.000	54.5	0.0	0.0	83.3
2	1.965	52.6	198.0	176.5	83.3
3	1.000	49.4	396.0	176.5	83.3
4	1.001	-54.3	404.0	165.1	83.3
5	1.964	-52.6	213.6	154.5	83.3
6	1.000	-49.3	80.0	86.5	83.3

PROPOSED NIGHTTIME HORIZONTAL PLANE STANDARD RADIATION PATTERN

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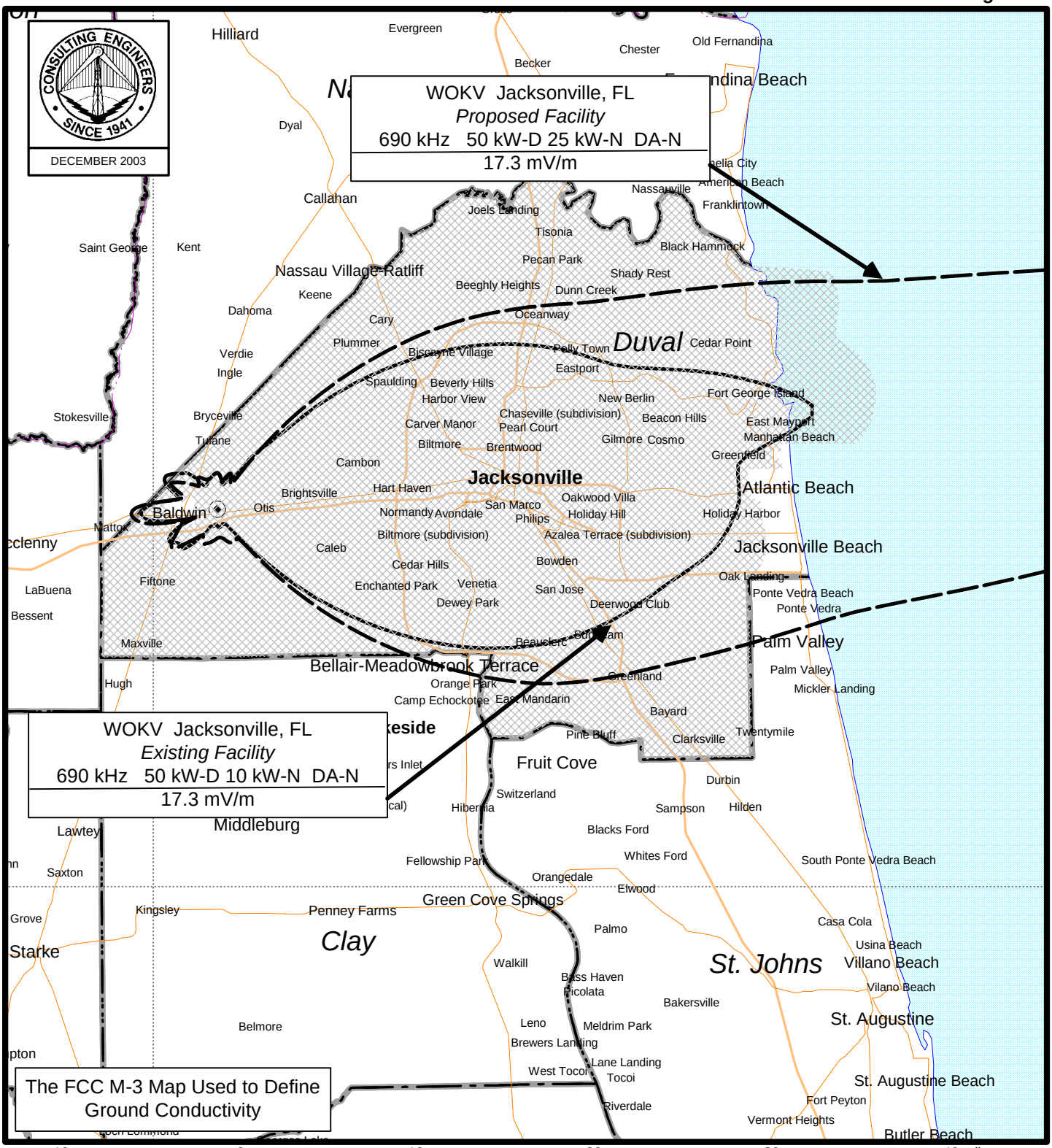
Proposed Horizontal Plane Radiation Pattern

		-Radiation at One Kilometer-	
Azimuth (deg)	Elevation (deg)	Theoretical (mV/m)	Standard (mV/m)
0.0	0.0	40.37	67.47
10.0	0.0	6.84	52.99
20.0	0.0	45.51	70.99
30.0	0.0	5.84	52.86
40.0	0.0	293.3	312.4
50.0	0.0	987.2	1038.
60.0	0.0	2054.	2158.
70.0	0.0	3234.	3396.
80.0	0.0	4096.	4301.
90.0	0.0	4272.	4486.
100.0	0.0	3685.	3870.
110.0	0.0	2602.	2732.
120.0	0.0	1453.	1526.
130.0	0.0	583.0	614.3
140.0	0.0	111.3	128.2
150.0	0.0	42.15	68.67
160.0	0.0	36.33	64.90
170.0	0.0	3.64	52.64
180.0	0.0	3.17	52.61
190.0	0.0	28.83	60.60
200.0	0.0	41.92	68.51
210.0	0.0	10.43	53.63
220.0	0.0	55.56	78.49
230.0	0.0	101.0	118.3
240.0	0.0	68.23	88.82
250.0	0.0	40.51	67.57
260.0	0.0	147.1	163.1
270.0	0.0	162.9	178.9
280.0	0.0	76.41	95.88
290.0	0.0	35.25	64.23
300.0	0.0	84.26	102.9
310.0	0.0	52.08	75.80
320.0	0.0	10.31	53.60
330.0	0.0	41.11	67.97
340.0	0.0	20.65	56.80
350.0	0.0	22.50	57.57



FCC PREDICTED NIGHTTIME INTERFERENCE-FREE GROUNDWAVE COVERAGE

RADIO STATION WOKV(AM)
NIGHTTIME FACILITY
JACKSONVILLE, FLORIDA
690 kHz 50 kW-D, 25 KW-N DA-2

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

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Nighttime Allocation Study

Toward Station	Freq. (kHz)	Dist. (km)	Bear (degT)	Angles Min (deg)	Angles Max (deg)	Skywave Mult. (mV/m)	50% Ex-RSS (mV/m)	25% Ex-RSS (mV/m)	Req. Prot. (mV/m)	Permissible Vert-Rad mV/m@1km
WCNN	680	461.4	332.3	16.3	26.3	134.27	36.19	38.94	9.73	3624.7
WCTT	680	759.5	345.5	9.0	15.8	68.19	7.13	9.55	2.39	1751.
WDRD	680	931.1	339.3	6.7	12.3	49.68	11.5	16.43	4.11	4134.8
WRKO	680	1656.8	32.2	1.2	4.5	17.16	3.89	4.65	1.16	3389.8
WCBM	680	1109.	23.3	4.9	9.7	36.86	12.72	12.72	3.18	4314.2
WNZK	680	1316.8	355.	3.3	7.3	26.62	27.48	28.82	7.20	13530.3
WDBC	680	1775.8	346.8	0.6	3.7	14.24	8.43	10.99	2.75	9652.2
KFEQ	680	1575.2	315.7	1.7	5.1	20.13	5.89	5.89	1.47	3657.3
WPTF	680	677.9	25.	10.5	17.9	80.61	3.09	4.59	1.15	711.2
WRGC	680	577.4	348.6	12.7	21.2	100.69	29.84	29.84	7.46	3704.8
KWKA	680	2045.	288.3	0.0	2.1	13.52	9.03	9.03	2.26	8344.1
WINR	680	1420.7	20.8	2.6	6.3	23.08	11.53	12.69	3.17	6872.6
WAPA	680	2087.2	125.7	0.0	1.8	16.18	14.3	15.23	3.81	11766.3
WJCE	680	933.5	307.9	6.7	12.3	50.58	8.32	9.8	2.45	2422.6
KKYX	680	1629.	271.1	1.4	4.7	21.35	9.64	10.77	2.69	6304.
WOGO	680	1819.2	335.6	0.4	3.4	13.9	14.57	15.63	3.91	14054.3
WCAW	680	891.4	2.2	7.2	13.0	52.99	26.54	27.59	6.90	6508.3
CBU	690	4032.4	313.2	0.0	0.0	1.85	5.02	5.02	2.51	6782.8
CBKF	690	2987.3	323.7	0.0	0.0	3.63	9.37	9.85	4.68	6454.9
HIAW	690	1793.7	134.4	2.1	2.1	5.87	18.47	20.49	9.23	7871.3
YSQR	690	1988.7	203.7	1.0	1.0	4.22	6.67	7.01	3.34	3954.7
TGVX	690	1959.	206.3	1.2	1.2	4.43	6.56	7.03	3.28	3707.8
HRNN 1	690	1966.5	197.1	1.1	1.1	4.37	6.97	7.78	3.48	3985.9
XECS	690	2572.8	246.2	0.0	0.0	5.25	19.58	21.52	9.79	9322.5
XEN	690	2116.5	238.8	0.4	0.4	8.88	10.57	13.7	5.29	2976.3
XEXL1	690	2310.9	243.4	0.0	0.0	6.94	17.29	22.6	8.65	6228.4
XERG	690	1868.7	258.4	1.6	1.6	12.95	16.91	18.62	8.46	3265.3
XEST	690	2545.5	257.9	0.0	0.0	5.41	34.62	35.91	17.31	16011.3
XEUY1	690	1856.	225.8	1.7	1.7	13.23	16.9	17.69	8.45	3193.2
XEMA	690	2217.7	254.	0.0	0.0	7.81	21.58	23.48	10.79	6912.8
HOR-43	690	2468.8	177.5	0.0	0.0	2.35	3.78	4.31	1.89	4025.4
WJOX	690	585.8	307.9	12.5	20.9	99.29	8.6	10.57	2.64	133.
KORL	690	7530.7	282.4	0.0	0.0	1.05	1.45	1.45	.36	1721.7
KGGF	690	1462.4	304.9	2.3	6.0	23.84	6.09	7.38	1.85	387.
WTIX	690	771.8	269.2	8.8	15.5	68.49	7.92	9.44	2.36	172.3
KRCO	690	3737.3	305.7	0.0	0.0	2.92	16.36	16.36	4.09	6997.
KTSM	690	2325.7	280.9	0.0	0.6	10.98	9.11	11.4	2.85	1298.5
KPET	690	1911.2	283.2	0.0	2.8	15.64	20.47	21.89	5.47	1749.6

Nighttime Allocation Study Continued

KMBX	700	3691.2	291.3	0.0	0.0	3.88	4.61	5.59	1.40	17980.9
KGRV	700	3911.9	302.9	0.0	0.0	2.74	7.05	8.44	2.11	38551.5
KSEV	700	1310.7	272.9	3.3	7.4	30.52	12.69	13.6	3.40	5570.1
KXXT	700	1390.9	286.3	2.8	6.6	27.1	14.99	14.99	3.75	6913.
KXXT	700	1390.8	286.3	2.8	6.6	27.1	14.99	14.99	3.75	6913.9
KALL	700	2937.6	301.8	0.0	0.0	5.74	4.53	5.79	1.45	12618.4
KMJY	700	3568.2	313.8	0.0	0.0	2.81	8.25	9.57	2.39	42640.2

Class A Stations Considered

CINF Montreal, Canada 690 kHz 50 kW
Ratio Method & Lack of Contour Overlap Used for Protection

Anguilla 690 kHz 50 kW
Ratio Method Used for Protection

XETRA Tijuana, Mexico 690 kHz 50 kW
No Contour Overlap (Region II, 0.025 mV/m 10%)

CMEC Santa Clara, Cuba 690 kHz 50 kW
No Contour Overlap (Region II, 0.025 mV/m 50%)

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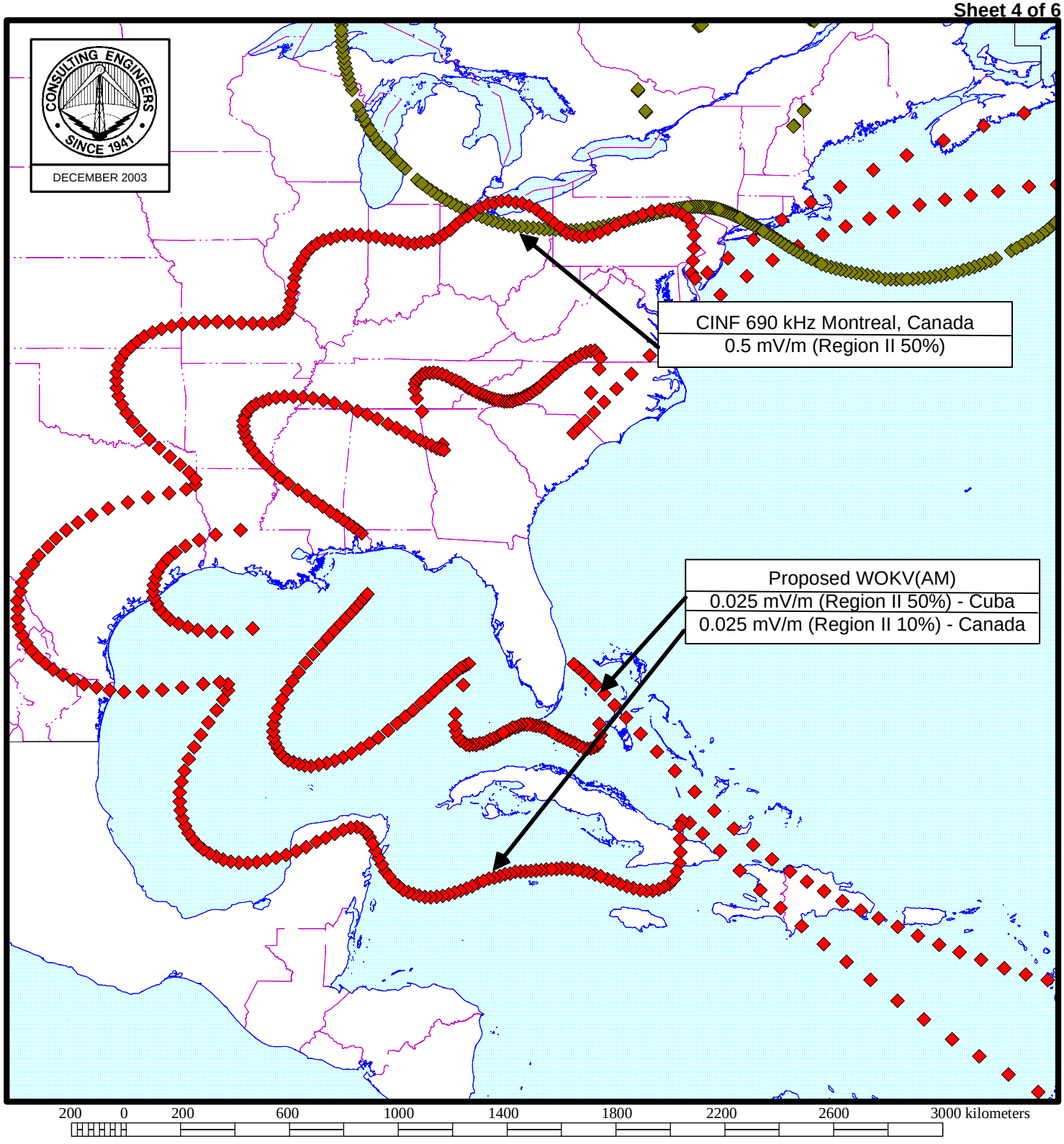
Nighttime Allocation Study

From Station(Call)	WTIX	WJOX		WPTF	CINF	WCNN	KGGF
Frequency(kHz)	690.000	690.000	690.000	680.000	690.000	680.000	690.000
G.C. Distance(km)	771.800	585.800	2335.600	677.900	1824.100	461.400	1462.400
Slant Distance (km)	797.311	619.036	2344.139	706.828	1835.044	502.842	1476.034
Bearing degrees	85.157	125.268	308.660	206.784	205.984	151.072	117.361
Mid-Pt Latitude(deg)	30.200	31.900	24.560	33.060	37.920	32.140	33.910
Geo. M.P. Lat.	41.120	42.930	36.040	44.300	49.240	43.240	44.650
Min-Angle(deg)	8.820	12.480	0.000	10.460	0.400	16.280	2.320
Max-Angle(deg)	15.460	20.860	0.570	17.880	3.350	26.340	5.980
Horiz. Rad (mV/m)	1283.730	395.000	2675.130	3060.610	919.650	713.040	494.440
Max Vert. Rad. (mV/m)	1261.795	374.119	2675.126	2963.765	921.301	914.092	499.860
Skywave Mult.	68.491	99.289	13.286	80.613	13.394	134.274	23.839
Night Limit (mV/m)	17.284	7.429	7.108	4.778	2.468	2.455	2.383

From Station(Call)	WLW	XEN	HRNN9A	WJCE	XERG	XEMA1	XECS
Frequency(kHz)	700.000	690.000	690.000	680.000	690.000	690.000	690.000
G.C. Distance(km)	1028.800	2116.500	1713.700	933.500	1868.700	2218.000	2572.800
Slant Distance (km)	1048.086	2125.903	1725.331	954.687	1879.337	2227.044	2580.576
Bearing degrees	167.089	51.480	18.231	123.556	69.756	64.469	56.691
Mid-Pt Latitude(deg)	34.840	25.070	23.050	32.830	28.290	27.110	25.120
Geo. M.P. Lat.	45.930	35.640	34.070	43.760	38.810	37.520	35.450
Min-Angle(deg)	5.640	0.000	0.940	6.660	0.190	0.000	0.000
Max-Angle(deg)	10.750	1.660	4.070	12.250	3.070	1.140	0.000
Horiz. Rad (mV/m)	2674.280	619.680	308.000	997.550	248.790	306.490	281.740
Max Vert. Rad. (mV/m)	2616.532	619.682	307.940	995.270	248.788	306.490	281.740
Skywave Mult.	41.870	15.991	23.811	50.584	17.817	13.825	11.404
Night Limit (mV/m)	2.191	1.982	1.466	1.007	0.887	0.847	0.643

RSS Night Limit to station
50 % Exclusion = 17.284 mV/m from WTIX
25 % Exclusion = 20.111 mV/m from WTIX WJOX
0 % Exclusion = 21.475



NIGHTTIME SKYWAVE ALLOCATION ANALYSIS

RADIO STATION WOKV(AM)
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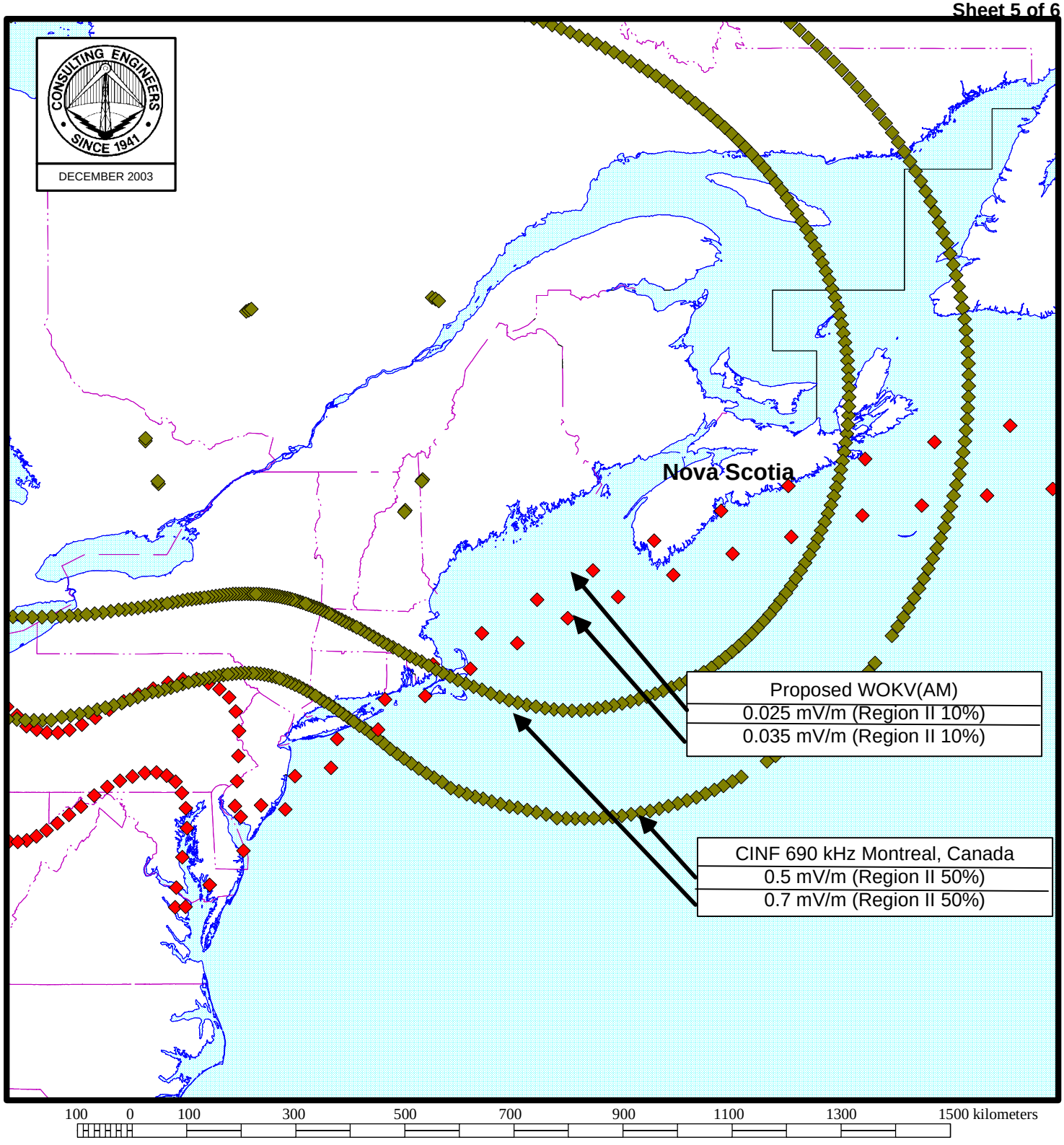
690 kHz 50 kW-D, 25 KW-N DA-N

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



NIGHTTIME SKYWAVE ALLOCATION ANALYSIS
EXPANDED VIEW

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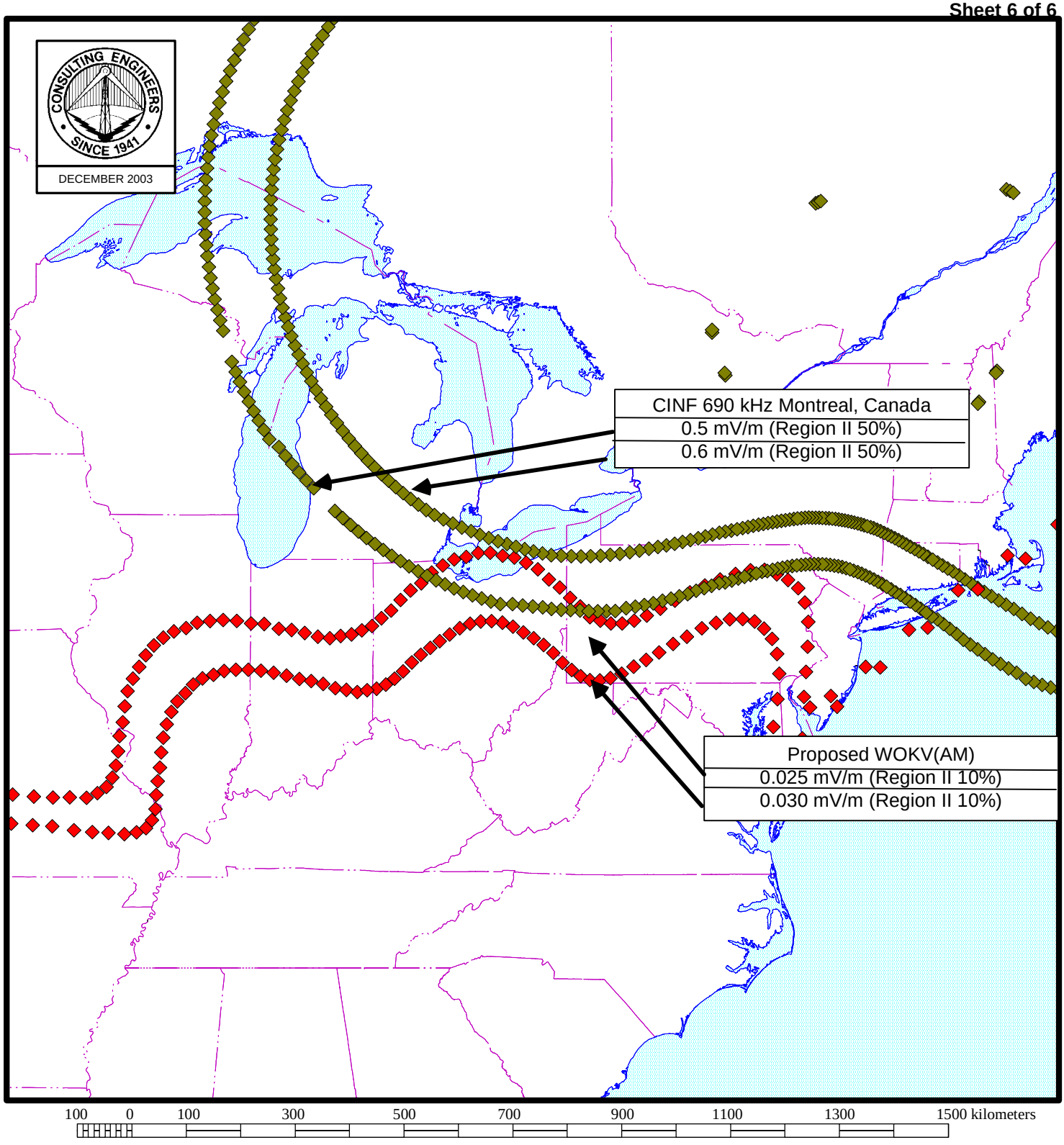

NIGHTTIME SKYWAVE ALLOCATION ANALYSIS
EXPANDED VIEW

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