

SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

P.O. Box 356 McKinney, Texas 75070

MEMBER AFCCE

(972) 542-2056

EXHIBIT E1-10A**TABULATION OF EXISTING NIGHTTIME LIMITS TO OTHER STATIONS****RADIO STATION KWAM**

990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2

MEMPHIS, TENNESSEE

SEPTEMBER, 2001

Point: WDYZ

Frequency: 990 kHz

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
WNOX	861.3	163.9	7.5	510.2	57.374	5.8548	5.8548
WMYM	320.7	341.5	23.4	102.4	203.538	4.1694	7.1877
TGAL	1743.9	27.1	0.8	691.4	23.952	3.3120	7.9141
CBW	2725.6	144.2	0.0	2870.0	5.391	3.0943	8.4975
YSTA	1834.2	24.5	0.4	691.7	22.350	3.0920	9.0425
WZZD	1400.2	205.7	2.7	567.8	25.056	2.8451	9.4795
KZZB	1239.5	95.0	3.8	408.8	33.701	2.7553	9.8718
KWAM	1092.9	129.5	5.0	316.5	39.996	2.5318	10.1913
WGSO	849.2	98.3	7.7	175.9	59.924	2.1085	
WLEE	1071.7	200.7	10.1	241.6	40.332	1.9492	
HISA	1484.6	314.9	2.2	308.7	28.875	1.7830	

* - indicates an adjacent channel station.

Point: WGSO

Frequency: 990 kHz

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
WNOX	888.3	222.1	7.2	1327.9	54.496	14.4734	14.4734
KZZB	391.0	92.1	19.3	333.8	162.019	10.8173	18.0691
WDYZ	849.2	282.5	7.7	558.2	59.924	6.6896	19.2676
KXXL	914.6	116.6	6.9	579.9	53.037	6.1508	20.2256
WMYM	1052.7	297.9	5.4	609.4	44.890	5.4710	20.9525
KWAM	575.7	179.8	12.7	247.4	101.516	5.0230	
CBW	2296.7	161.5	0.0	2870.0	7.853	4.5074	
TGAL	1687.9	358.2	1.1	691.2	25.032	3.4603	

* - indicates an adjacent channel station.

Point: KXXL

Frequency: 990 kHz LICENSED SITE @ WICHITA FALLS

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
CBW	1770.3	183.2	0.7	2860.2	12.428	7.1094	7.1094
KZZB	592.9	316.3	12.3	229.7	98.015	4.5020	8.4150
KWAM	787.3	262.7	8.6	301.4	64.574	3.8922	9.2715
KLMX	504.2	122.3	14.8	156.4	119.619	3.7406	9.9977
XECL	1578.7	80.1	1.7	711.7	21.963	3.1261	10.4750
KRKS	865.3	136.9	7.5	274.5	54.729	3.0049	10.8975
KSPV	555.1	75.6	13.3	139.1	106.582	2.9656	11.2938
WDYZ	1728.8	294.4	0.9	585.8	18.778	2.2002	
KTKT	1172.9	77.5	5.0	290.2	36.021	2.0904	
XET	925.8	9.6	6.7	190.8	53.540	2.0428	

* - indicates an adjacent channel station.

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MEMBER AFCCE

(972) 542-2056

EXHIBIT E1-10A, PAGE-2
TABULATION OF EXISTING NIGHTTIME LIMITS TO OTHER STATIONS
RADIO STATION KWAM
990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2
MEMPHIS, TENNESSEE
SEPTEMBER, 2001

Point: KXXL Frequency: 990 kHz APPLICATION SITE @ FARMERSVILLE

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
CBW	1861.7	176.4	0.2	2866.7	11.383	6.5261	6.5261
KZZB	387.5	328.9	19.5	189.0	164.187	6.2060	9.0058
KWAM	611.8	250.3	11.9	274.2	92.816	5.0897	10.3445
WNOX	1178.2	257.6	4.3	432.6	33.936	2.9364	10.7532
WGSO	684.6	302.5	10.3	174.4	80.744	2.8159	11.1158
WDYZ	1500.1	293.4	2.1	574.9	24.170	2.7789	
KTOK *	271.9	156.1	27.3	543.9	234.538	2.5513	
XECL	1793.2	83.0	0.5	712.5	17.628	2.5122	

* - indicates an adjacent channel station.

Point: WNOX Frequency: 990 kHz

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
CBW	1885.5	139.3	0.1	2868.3	9.331	5.3531	5.3531
WMVP *	732.7	149.8	9.5	2833.0	65.465	3.7093	6.5126
KWAM	569.1	78.0	15.2	139.9	100.518	2.8125	7.0940
WDEO	692.2	182.1	10.2	176.2	70.816	2.4950	7.5200
WZZD	878.2	241.9	7.3	238.5	49.712	2.3715	7.8850
WYFN *	249.9	93.3	29.4	419.0	251.708	2.1095	8.1623
WDYZ	861.3	345.2	13.6	177.9	57.374	2.0410	8.4136
WLEE	588.2	254.2	12.4	103.0	93.926	1.9343	
WGSO	888.3	38.8	7.2	176.2	54.496	1.9205	
CHTX	1337.3	223.3	3.1	420.7	21.170	1.7812	

* - indicates an adjacent channel station.

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EXHIBIT E1-10B
TABULATION OF PROPOSED NIGHTTIME LIMITS TO OTHER STATIONS
RADIO STATION KWAM
990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2
MEMPHIS, TENNESSEE
SEPTEMBER, 2001

Point: WDYZ Frequency: 990 kHz

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
WNOX	861.3	163.9	7.5	510.2	57.374	5.8548	5.8548
WMYM	320.7	341.5	23.4	102.4	203.538	4.1694	7.1877
TGAL	1743.9	27.1	0.8	691.4	23.952	3.3120	7.9141
CBW	2725.6	144.2	0.0	2870.0	5.391	3.0943	8.4975
YSTA	1834.2	24.5	0.4	691.7	22.350	3.0920	9.0425
WZZD	1400.2	205.7	2.7	567.8	25.056	2.8451	9.4795
KZZB	1239.5	95.0	3.8	408.8	33.701	2.7553	9.8718
KWAM	1091.3	130.0	5.1	289.9	40.070	2.3234	
WGSO	849.2	98.3	7.7	175.9	59.924	2.1085	
WLEE	1071.7	200.7	10.1	241.6	40.332	1.9492	

* - indicates an adjacent channel station.

Point: WGSO Frequency: 990 kHz

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
WNOX	888.3	222.1	7.2	1327.9	54.496	14.4734	14.4734
KZZB	391.0	92.1	19.3	333.8	162.019	10.8173	18.0691
WDYZ	849.2	282.5	7.7	558.2	59.924	6.6896	19.2676
KXXL	684.6	119.2	10.3	374.5	80.745	6.0476	20.1944
WMYM	1052.7	297.9	5.4	609.4	44.890	5.4710	20.9224
CBW	2296.7	161.5	0.0	2870.0	7.853	4.5074	
KWAM	582.5	180.6	12.6	207.9	99.925	4.1543	
TGAL	1687.9	358.2	1.1	691.2	25.032	3.4603	

* - indicates an adjacent channel station.

Point: KXXL Frequency: 990 kHz WICHITA FALLS LICENSED SITE

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
CBW	1770.3	183.2	0.7	2860.2	12.428	7.1094	7.1094
KZZB	592.9	316.3	12.3	229.7	98.015	4.5020	8.4150
KLMX	504.2	122.3	14.8	156.4	119.619	3.7406	9.2089
KWAM	795.9	262.3	8.5	276.4	63.517	3.5114	9.8557
XECL	1578.7	80.1	1.7	711.7	21.963	3.1261	10.3396
KRKS	865.3	136.9	7.5	274.5	54.729	3.0049	10.7674
KSVP	555.1	75.6	13.3	139.1	106.582	2.9656	11.1683
WDYZ	1728.8	294.4	0.9	585.8	18.778	2.2002	
KTKT	1172.9	77.5	5.0	290.2	36.021	2.0904	
XET	925.8	9.6	6.7	190.8	53.540	2.0428	

* - indicates an adjacent channel station.

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EXHIBIT E1-10B, PAGE-2
TABULATION OF PROPOSED NIGHTTIME LIMITS TO OTHER STATIONS
RADIO STATION KWAM
990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2
MEMPHIS, TENNESSEE
SEPTEMBER, 2001

Point: KXXL Frequency: 990 kHz FARMERSVILLE APPLICATION SITE

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
CBW	1861.7	176.4	0.2	2866.7	11.383	6.5261	6.5261
KZZB	387.5	328.9	19.5	189.0	164.187	6.2060	9.0058
KWAM	621.4	250.0	11.6	250.2	90.836	4.5463	10.0883
WNOX	1178.2	257.6	4.3	432.6	33.936	2.9364	10.5069
WGSO	684.6	302.5	10.3	174.4	80.744	2.8159	10.8777
WDYZ	1500.1	293.4	2.1	574.9	24.170	2.7789	11.2271
KTOK *	271.9	156.1	27.3	543.9	234.538	2.5513	
XECL	1793.2	83.0	0.5	712.5	17.628	2.5122	
KLMX	731.2	118.4	9.5	163.6	72.256	2.3635	

* - indicates an adjacent channel station.

Point: WNOX Frequency: 990 kHz

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)
CBW	1885.5	139.3	0.1	2868.3	9.331	5.3531	5.3531
WMVP *	732.7	149.8	9.5	2833.0	65.465	3.7093	6.5126
WDEO	692.2	182.1	10.2	176.2	70.816	2.4950	6.9742
KWAM	560.1	78.5	13.1	120.3	102.663	2.4710	7.3990
WZZD	878.2	241.9	7.3	238.5	49.712	2.3715	7.7698
WYFN *	249.9	93.3	29.4	419.0	251.708	2.1095	8.0510
WDYZ	861.3	345.2	13.6	177.9	57.374	2.0410	8.3057
WLEE	588.2	254.2	12.4	103.0	93.926	1.9343	
WGSO	888.3	38.8	7.2	176.2	54.496	1.9205	
CHTX	1337.3	223.3	3.1	420.7	21.170	1.7812	

* - indicates an adjacent channel station.

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EXHIBIT E1-10C

TABULATION OF PROPOSED NIGHTTIME LIMITS TO STATION KWAM

RADIO STATION KWAM

990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2

MEMPHIS, TENNESSEE

SEPTEMBER, 2001

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Point: KWAM

Frequency: 990 kHz

Station Call	Distance (km)	Bearing (degs.)	Theta (degs.)	Radiation (mV/m)	SW Mult. (uV/m)	IF Level (mV/m)	RSS (mV/m)	RSS EXCL
CBW	1742.0	157.0	0.8	2858.2	11.877	6.7892	6.7892	50%
WNOX	569.1	261.6	12.9	298.3	100.518	5.9979	9.0591	50%
WYFN *	331.1	249.9	22.7	974.3	193.340	3.7675	9.8113	25%
WGSO	575.7	359.8	12.7	172.2	101.516	3.4961	10.4156	25%
WDYZ	1092.9	314.0	9.9	398.7	39.996	3.1892	10.8929	25%
TGAL	2263.3	358.7	0.0	692.0	14.238	1.9705		
YSTA	2383.0	358.0	0.0	692.0	13.224	1.8302		
KXXL	787.3	77.8	15.1	135.4	64.574	1.7492		

* - indicates an adjacent channel station.

Call sign: KWAM
Frequency: 990 kHz
Power: 0.330 kW
ERSS: 202.30 mV/m at 1 km
Q factor at zero degrees:
10.00 mV/m at 1 km
Theoretical pattern RMS:
196.64 mV/m at 1 km
Standard pattern RMS:
206.74 mV/m at 1 km
Modified pattern RMS:
0.00 mV/m at 1 km

Coordinates:
N35°11'45.00" W90°00'32.00"

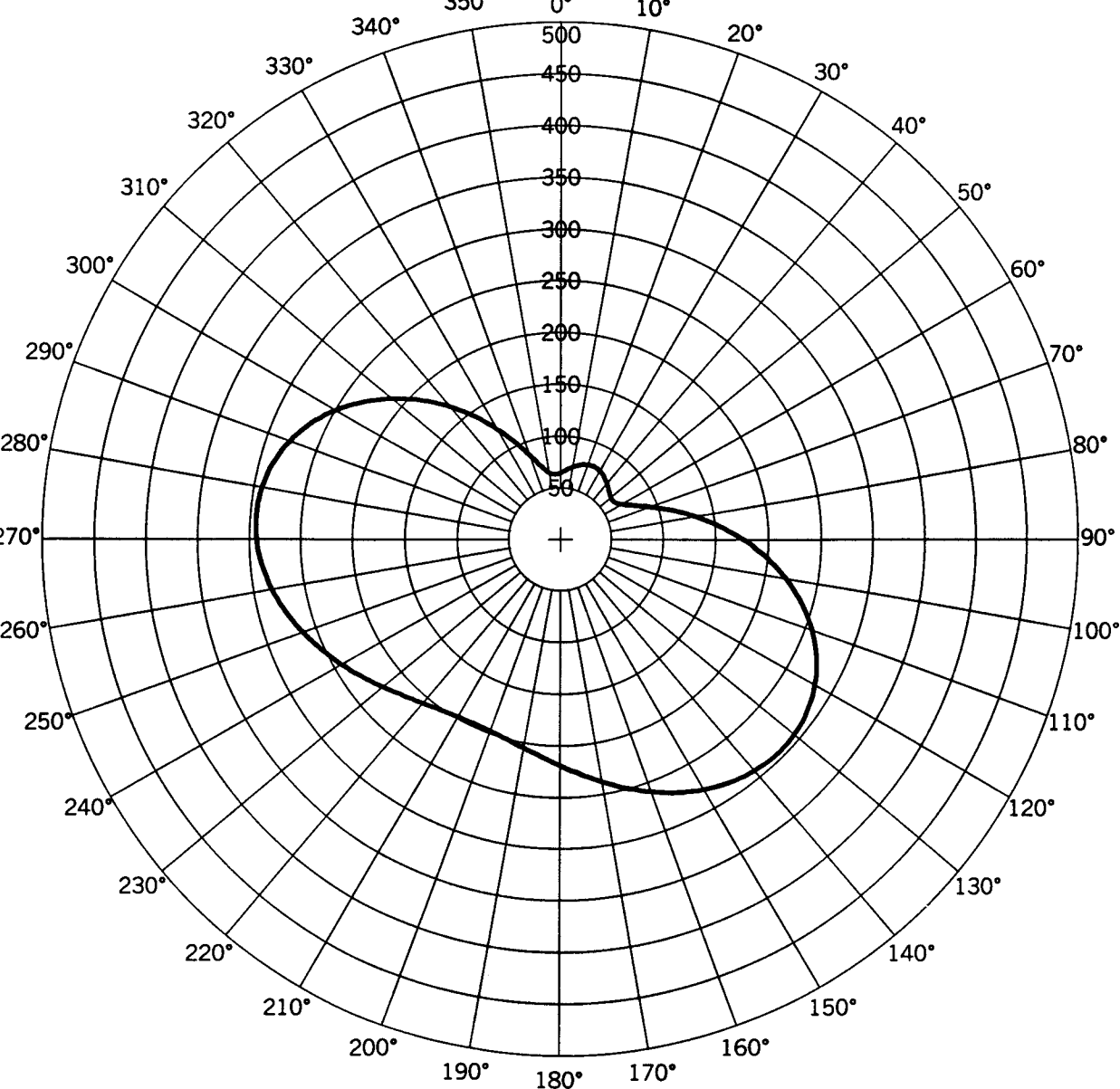
No. of augmentations: 0

TOWER PARAMETERS

#	Field	Phase	Spacing	Bearing	Tower	Elec.	Length	Length	Length	Length
	Ratio	(deg.)	(deg.)	(deg.)	Ref.	Height	Twr. A	Twr. B	Twr. C	Twr. D
1	1.000	0.0	0.0	0.0	0	0.0	149.9	6.8	0.0	0.0
2	0.649	-49.5	148.5	204.0	0	0.0	149.9	6.8	0.0	0.0

EXHIBIT E1-11A
PLOT OF NIGHTTIME STANDARD PATTERN

HORIZONTAL PLANE PATTERN



Field in mV/m

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EXHIBIT E1-11B
TABULATION OF PROPOSED NIGHTTIME STANDARD PATTERN
RADIO STATION KWAM
990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2
MEMPHIS, TENNESSEE

Power: .330 kW
ERSS: 202.30 mV/m at 1 km
Multiplying Constant (K factor): 169.69 mV/m at 1 km
Q Factor (elevation angle = 0 degrees): 10.00
Theoretical Pattern RMS: 196.64 mV/m at 1 km
Standard Pattern RMS: 206.74 mV/m at 1 km

ANTENNA TOWER PARAMETERS:

##	Field Ratio	Phase (degs.)	Spac. (degs.)	Bear. (degs.)	TL SW	HT (degs.)	TLA (degs.)	TLB (degs.)	TLC (degs.)	TLD (degs.)
1	1.000	.0	.0	.0	1	149.9	6.8	.0	.0	.0
2	.649	-49.5	148.5	204.0	1	149.9	6.8	.0	.0	.0

CALCULATED STANDARD PATTERN DATA:

Azimuth (degs.)	Elevation Angle (degrees):								
	.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00
.0	64.72	64.23	62.92	61.26	60.00	59.96	61.71	65.27	70.07
5.0	68.09	67.36	65.33	62.49	59.68	57.93	58.19	60.82	65.33
10.0	71.94	71.03	68.47	64.74	60.69	57.46	56.28	57.86	61.90
15.0	75.18	74.16	71.26	66.93	62.02	57.73	55.42	56.09	59.65
20.0	77.19	76.11	73.02	68.38	63.00	58.09	55.11	55.21	58.44
25.0	77.67	76.58	73.45	68.73	63.25	58.20	55.06	55.02	58.17
30.0	76.56	75.50	72.47	67.92	62.68	57.96	55.19	55.47	58.81
35.0	74.00	73.02	70.24	66.12	61.50	57.58	55.67	56.68	60.42
40.0	70.42	69.58	67.21	63.80	60.19	57.52	56.89	58.88	63.12
45.0	66.61	65.96	64.20	61.80	59.58	58.51	59.37	62.41	67.06
50.0	63.85	63.47	62.49	61.37	60.77	61.39	63.67	67.53	72.36
55.0	63.92	63.84	63.72	63.91	64.84	66.90	70.19	74.44	79.07
60.0	68.51	68.68	69.28	70.49	72.48	75.37	79.05	83.17	87.18
65.0	78.32	78.64	79.63	81.32	83.71	86.73	90.15	93.60	96.58
70.0	92.87	93.22	94.23	95.88	98.06	100.59	103.19	105.51	107.09
75.0	111.08	111.35	112.13	113.33	114.83	116.40	117.77	118.59	118.49
80.0	131.79	131.92	132.28	132.79	133.29	133.59	133.42	132.51	130.51
85.0	153.95	153.91	153.75	153.40	152.73	151.56	149.69	146.87	142.85
90.0	176.64	176.41	175.68	174.40	172.46	169.74	166.07	161.29	155.20
95.0	199.00	198.57	197.26	195.04	191.83	187.56	182.11	175.38	167.26
100.0	220.26	219.64	217.78	214.65	210.23	204.47	197.33	188.76	178.72
105.0	239.71	238.92	236.56	232.61	227.09	220.00	211.33	201.09	189.31
110.0	256.75	255.82	253.03	248.39	241.94	233.70	223.73	212.07	198.79
115.0	270.89	269.84	266.72	261.55	254.37	245.24	234.23	221.44	206.96
120.0	281.78	280.66	277.32	271.79	264.11	254.37	242.63	229.03	213.67
125.0	289.23	288.08	284.64	278.93	271.00	260.93	248.80	234.73	218.83
130.0	293.22	292.07	288.63	282.94	275.01	264.91	252.71	238.51	222.42
135.0	293.85	292.75	289.43	283.92	276.23	266.38	254.43	240.43	224.48
140.0	291.41	290.38	287.28	282.11	274.87	265.52	254.10	240.61	225.11
145.0	286.27	285.34	282.55	277.86	271.23	262.61	251.95	239.23	224.43
150.0	278.92	278.11	275.68	271.57	265.70	257.97	248.27	236.52	222.65
155.0	269.89	269.23	267.20	263.74	258.72	252.00	243.40	232.76	219.97
160.0	259.76	259.24	257.65	254.87	250.76	245.10	237.67	228.25	216.63
165.0	249.10	248.72	247.55	245.47	242.26	237.69	231.45	223.27	212.87
170.0	238.44	238.21	237.45	236.02	233.70	230.17	225.10	218.13	208.94
175.0	228.28	228.18	227.80	226.98	225.47	222.92	218.94	213.11	205.05
180.0	219.06	219.06	219.02	218.74	217.95	216.27	213.26	208.46	201.42
185.0	211.13	211.23	211.46	211.64	211.45	210.50	208.32	204.39	198.23
190.0	204.77	204.94	205.40	205.93	206.22	205.85	204.32	201.09	195.63

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EXHIBIT E1-11B, PAGE-2
TABULATION OF PROPOSED NIGHTTIME STANDARD PATTERN
RADIO STATION KWAM
990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2
MEMPHIS, TENNESSEE

=====

CALCULATED STANDARD PATTERN DATA:

Azimuth (degs.)	Elevation Angle (degrees):							
	.00	5.00	10.00	15.00	20.00	25.00	30.00	40.00
195.0	200.21	200.43	201.04	201.83	202.46	202.50	201.43	198.70
200.0	197.58	197.84	198.53	199.46	200.29	200.56	199.76	197.31
205.0	196.97	197.23	197.95	198.91	199.78	200.11	199.37	196.99
210.0	198.39	198.64	199.31	200.19	200.96	201.16	200.28	197.74
215.0	201.81	202.02	202.57	203.26	203.78	203.68	202.45	199.54
220.0	207.11	207.25	207.63	208.03	208.15	207.57	205.79	202.31
225.0	214.12	214.19	214.32	214.32	213.91	212.69	210.19	205.93
230.0	222.61	222.57	222.40	221.92	220.85	218.84	215.45	210.26
235.0	232.26	232.10	231.57	230.52	228.69	225.76	221.36	215.09
240.0	242.67	242.38	241.46	239.77	237.10	233.16	227.64	220.19
245.0	253.39	252.96	251.62	249.26	245.69	240.69	233.98	225.30
250.0	263.91	263.33	261.56	258.51	254.03	247.94	240.04	230.12
255.0	273.67	272.94	270.75	267.03	261.66	254.52	245.47	234.37
260.0	282.09	281.23	278.65	274.30	268.11	260.01	249.91	237.75
265.0	288.62	287.65	284.72	279.83	272.93	264.00	253.01	239.95
270.0	292.73	291.67	288.47	283.15	275.70	266.13	254.46	240.74
275.0	293.98	292.86	289.48	283.88	276.06	266.08	254.00	239.88
280.0	292.03	290.88	287.43	281.70	273.75	263.63	251.42	237.23
285.0	286.67	285.53	282.11	276.45	268.59	258.62	246.61	232.68
290.0	277.83	276.74	273.47	268.06	260.55	251.02	239.54	226.21
295.0	265.60	264.60	261.60	256.62	249.71	240.90	230.27	217.89
300.0	250.26	249.38	246.75	242.37	236.27	228.46	218.98	207.86
305.0	232.19	231.47	229.29	225.66	220.57	213.98	205.90	196.31
310.0	211.94	211.39	209.75	206.97	203.02	197.85	191.37	183.52
315.0	190.15	189.80	188.72	186.87	184.17	180.51	175.77	169.81
320.0	167.56	167.40	166.90	166.00	164.57	162.48	159.54	155.54
325.0	144.97	145.00	145.06	145.07	144.88	144.31	143.14	141.09
330.0	123.27	123.47	124.01	124.82	125.75	126.58	127.06	126.87
335.0	103.43	103.74	104.64	106.06	107.87	109.87	111.78	113.24
340.0	86.55	86.90	87.94	89.66	91.99	94.78	97.77	100.59
345.0	73.78	74.06	74.93	76.49	78.81	81.86	85.46	89.24
350.0	66.06	66.14	66.49	67.34	68.98	71.63	75.22	79.46
355.0	63.43	63.23	62.78	62.45	62.81	64.35	67.30	71.46

Azimuth (degs.)	Elevation Angle (degrees):			
	45.00	50.00	55.00	60.00
.0	75.12	79.29	81.56	81.03
5.0	70.62	75.39	78.42	78.68
10.0	67.24	72.40	75.99	76.86
15.0	64.94	70.32	74.28	75.57
20.0	63.66	69.15	73.31	74.84
25.0	63.36	68.88	73.09	74.67
30.0	64.05	69.51	73.61	75.06
35.0	65.73	71.04	74.87	76.02
40.0	68.46	73.49	76.87	77.53
45.0	72.29	76.85	79.59	79.56
50.0	77.23	81.10	83.00	82.10
55.0	83.29	86.23	87.07	85.12
60.0	90.42	92.17	91.74	88.56

SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

P.O. Box 356 McKinney, Texas 75070

MEMBER AFCCE

(972) 542-2056

EXHIBIT E1-11B, PAGE-3
TABULATION OF PROPOSED NIGHTTIME STANDARD PATTERN
RADIO STATION KWAM
990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2
MEMPHIS, TENNESSEE

Azimuth (degs.)	Elevation Angle (degrees):			
	45.00	50.00	55.00	60.00
65.0	98.52	98.83	96.94	92.37
70.0	107.46	106.11	102.59	96.49
75.0	117.05	113.87	108.57	100.85
80.0	127.10	121.95	114.79	105.38
85.0	137.37	130.19	121.11	109.98
90.0	147.63	138.41	127.42	114.57
95.0	157.64	146.44	133.60	119.07
100.0	167.17	154.10	139.51	123.40
105.0	176.02	161.24	145.04	127.49
110.0	183.98	167.72	150.11	131.27
115.0	190.91	173.42	154.63	134.69
120.0	196.69	178.26	158.54	137.70
125.0	201.26	182.18	161.79	140.27
130.0	204.59	185.18	164.38	142.40
135.0	206.70	187.25	166.30	144.09
140.0	207.68	188.45	167.59	145.34
145.0	207.61	188.85	168.30	146.19
150.0	206.64	188.55	168.50	146.69
155.0	204.94	187.67	168.25	146.87
160.0	202.68	186.34	167.65	146.79
165.0	200.05	184.69	166.80	146.51
170.0	197.24	182.87	165.78	146.10
175.0	194.42	181.00	164.69	145.60
180.0	191.76	179.20	163.62	145.08
185.0	189.41	177.60	162.65	144.59
190.0	187.48	176.27	161.83	144.17
195.0	186.07	175.30	161.23	143.85
200.0	185.25	174.73	160.87	143.67
205.0	185.06	174.60	160.79	143.62
210.0	185.50	174.91	160.98	143.72
215.0	186.57	175.64	161.44	143.97
220.0	188.19	176.76	162.13	144.33
225.0	190.30	178.21	163.02	144.78
230.0	192.80	179.90	164.04	145.29
235.0	195.54	181.74	165.13	145.80
240.0	198.37	183.61	166.20	146.27
245.0	201.13	185.38	167.16	146.64
250.0	203.64	186.92	167.93	146.85
255.0	205.70	188.08	168.39	146.83
260.0	207.13	188.75	168.48	146.53
265.0	207.75	188.78	168.09	145.90
270.0	207.42	188.07	167.15	144.89
275.0	206.00	186.53	165.61	143.47
280.0	203.40	184.09	163.42	141.60
285.0	199.58	180.73	160.57	139.30
290.0	194.52	176.43	157.05	136.54
295.0	188.27	171.24	152.89	133.37
300.0	180.91	165.22	148.15	129.80
305.0	172.58	158.46	142.88	125.89
310.0	163.43	151.09	137.18	121.70
315.0	153.68	143.27	131.15	117.29
320.0	143.54	135.14	124.91	112.74
325.0	133.25	126.89	118.58	108.13
330.0	123.04	118.69	112.28	103.55

SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

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EXHIBIT E1-11B, PAGE-4

TABULATION OF PROPOSED NIGHTTIME STANDARD PATTERN

RADIO STATION KWAM

990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2

MEMPHIS, TENNESSEE

Azimuth (degs.)	Elevation Angle (degrees):			
	45.00	50.00	55.00	60.00
335.0	113.15	110.72	106.14	99.09
340.0	103.80	103.13	100.28	94.81
345.0	95.17	96.09	94.80	90.81
350.0	87.45	89.70	89.81	87.13
355.0	80.73	84.08	85.37	83.86

AMW™: KWAMNITEMAP2.am

Prop. method: Region 2 annex II figure 4 curve
Ground conduct. map type: US M3
Skywave departure angle method: median
Percent time for skywave field: 10%

Sites

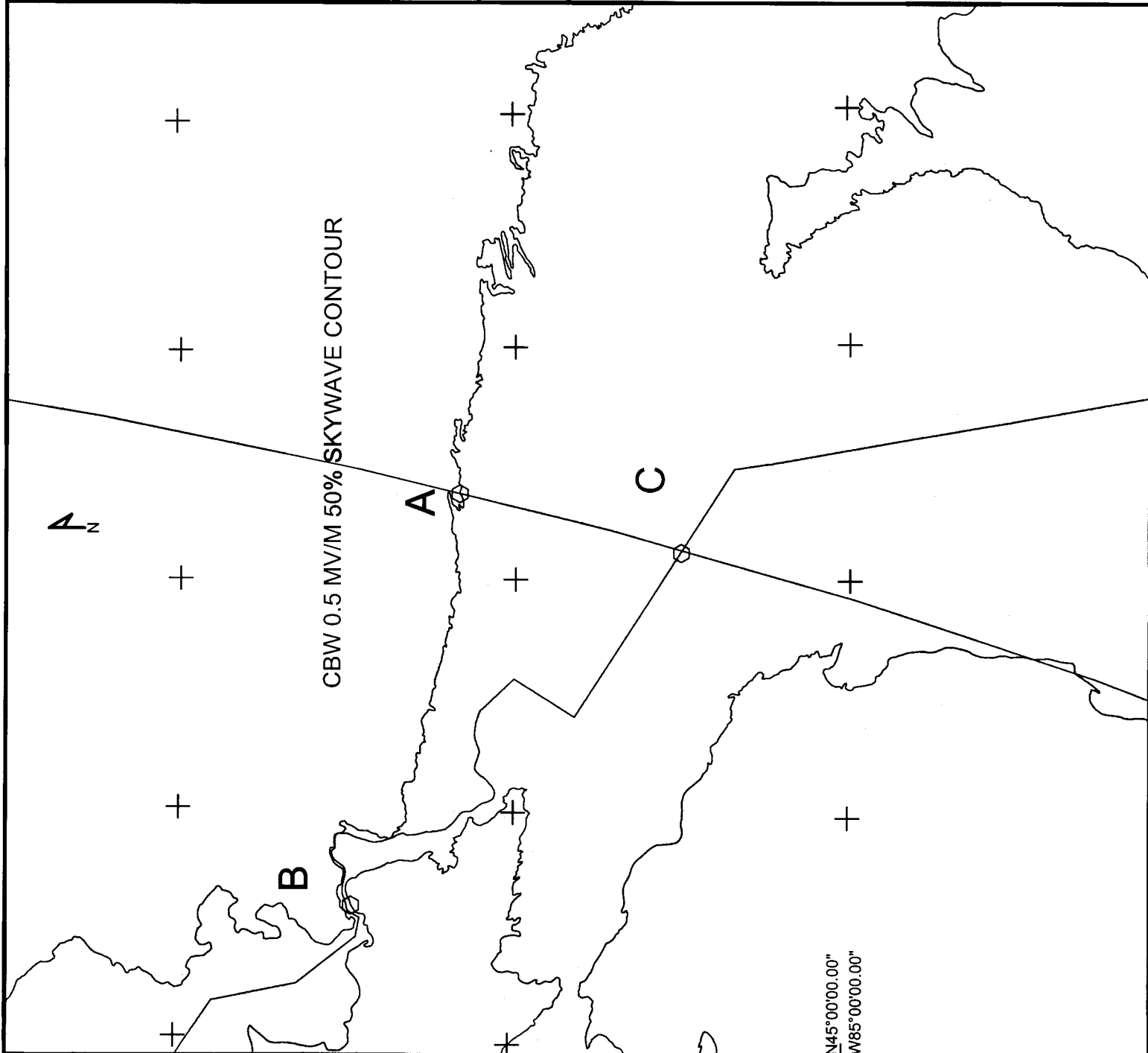
Call sign: KWAM* Power: 0.450 kW
Pattern: DA-J Frequency: 990 kHz
Coordinates: N35°08'04.00" W90°05'38.00"

Call sign: KWAMP Power: 0.330 kW
Pattern: DA-J Frequency: 990 kHz
Coordinates: N35°11'45.00" W90°00'32.00"

Call sign: CBW Power: 46.000 kW
Pattern: ND-J Frequency: 990 kHz
Coordinates: N49°50'12.00" W97°30'43.00"



MAP SHOWING STUDY PTS ALONG
CBW 0.5 MV/M 50% SW CONTOUR
EXHIBIT E1-12



SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

P.O. Box 356 McKinney, Texas 75070

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EXHIBIT E1-12A

STUDY OF NIGHTTIME SKYWAVE INTERFERENCE TO STATION CBW ALONG US/CANADIAN BORDER

PT	COORDINATES	CBW-50%	KWAM-LIC-10%	RATIO	KWAM-PROP-10%	RATIO
A	46-09-26.6	0.5200	0.0238	21.85	0.0259	20.08
	82-39-46.8					
B	46-29-00.2	0.6381	0.0248	25.73	0.0269	23.721
	84-24-29.2					
C	45-30-16.4	0.5053	0.0272	18.577*	0.0294	17.19*
	82-52-30.5					

*** AT US/CANADIAN BORDER IN LAKE HURON**