

RF EMISSIONS COMPLIANCE REPORT

112-DR-2006
10/30/2006

Cingular Wireless

**Site: X154-01 - Jewish Community Center
12701 North Scottsdale Road
Scottsdale, AZ
6/23/2006**

Report Status:

Cingular Wireless Is Under 5% Threshold

Prepared By:

SiteSafe, Inc.

Engineering Statement in Re:
Electromagnetic Energy Analysis
Cingular Wireless
Scottsdale, AZ

Upon penalty of perjury, I, Klaus Bender, state:

That I am registered as a Professional Engineer in the Commonwealth of Virginia and

That I have extensive professional experience in the wireless communications engineering industry; and

That I am an employee of Sitesafe, Inc. in Arlington, Virginia; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission ("the FCC" and "the FCC Rules") both in general and specifically as they apply to the FCC's Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; and

That I have examined the technical information supplied by Cingular Wireless (See attached Computation Worksheet, "the worksheet"), and that Cingular Wireless's installations involve digital communications equipment, antennas and associated technical equipment at a location referred to as the "X154-01 - Jewish Community Center" ("the site"); and

That Cingular Wireless proposes to operate at the site with directional transmit antennas and with a maximum effective radiated power as specified by Cingular Wireless and shown on the worksheet, and that worst-case 100% duty cycle have been assumed; and

That this analysis has been performed with the assumption that the land immediately surrounding the tower is primarily flat or falling; and

That at this time, the FCC requires that certain licensees address specific levels of radio-frequency energy to which workers or members of the public might possibly be exposed (at §1.1307(b) of the FCC Rules); and

That such consideration of possible exposure of humans to radio-frequency radiation must utilize the standards set by the FCC, which is the Federal Agency having jurisdiction over communications facilities; and

That the FCC rules define two tiers of permissible exposure guidelines: 1) "uncontrolled environments," defined as situations in which persons may not be aware of (the "general public"), or may not be able to control their exposure to a transmission facility; and (2) "controlled environments", which defines situations in which persons are aware of their potential for exposure (industry personnel); and

That this statement specifically addresses the uncontrolled environment (which is more conservative than the controlled environment) and the limit set forth in the FCC rules for licensees of Cingular Wireless's operating frequency is shown on the attached computation worksheet; and

That when applying the uncontrolled environment standards, the predicted energy density from the proposed Cingular Wireless operation is no more than 0.328% of the maximum in any accessible area on the ground; and

That it is understood per FCC Guidelines and OET65 Appendix A, that regardless of the existent radio-frequency environment, only those licenses whose contributions exceed five percent of the exposure limit pertinent to their operation(s) bear any responsibility for bringing any non-compliant area(s) into compliance; and

That access to the tower will be restricted to communications industry professionals, and approved contractor personnel trained in radio-frequency safety; and

That the Occupational Safety and Health Administration has policies in place which address worker safety in and around communications sites, thus individual companies will be responsible for their employees' training regarding Radio Frequency Safety.

In summary, it is stated here that the proposed operation at the site would not result in exposure of the Public to excessive levels of radio-frequency energy as defined in the FCC Rules and Regulations, specifically 47 CFR 1.1307 and that Cingular Wireless's proposed operation is completely compliant.

Finally, it is stated that the instant analysis does not address exposure levels within the secured area of the site, on the tower, or in the immediate proximity of the antennas. Therefore, this analysis is only appropriate as a partial filing with the FCC as a means to meet the regulatory requirements appropriate for licensing.



Klaus Bender
Registered Professional Engineer
Commonwealth of Virginia Reg. No. 0402-039384

June 23, 2006



Cingular Wireless
X154-01 - Jewish Community Center
Site Summary

Carrier	Area Maximum Percentage MPE
Cingular Wireless	0.328 %

Composite Site MPE: 0.328 %

Cingular Wireless
X154-01 - Jewish Community Center
Carrier Summary

Frequency:	1930	MHz
Maximum Permissible Exposure (MPE):	1000	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	3.28215	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0.32821	%

					On Axis		Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Powerwave	7760.00.0	50	0	600	2.153016	0.215302	3.171368	0.317137
Powerwave	7760.00.0	50	120	600	2.153016	0.215302	3.171368	0.317137
Powerwave	7760.00.0	50	240	600	2.153016	0.215302	3.171368	0.317137

Cingular Wireless
X154-01 - Jewish Community Center
Powerwave:7760.00.0 Antenna Worksheet (0 Sector)

Maximum Permissible Exposure (MPE):

1000

ERP (Watts): 600 Height (feet): 50 Frequency (MHz): 1930 Downtilt (Degrees): 2.0

Depression Angle (degrees)	Relative dB	Relative Gain	Slant Distance (meters)	Dist From Structure (meters)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Times Below MPE
0.1	-1.21	0.7568	7837.53	7837.52	0.000326	0.000033	3070307
1.0	-0.40	0.9120	783.79	783.67	0.032567	0.003257	30706
2.0	0.00	1.0000	391.96	391.72	0.130227	0.013023	7678
3.0	-0.10	0.9772	261.37	261.01	0.292863	0.029286	3414
4.0	-0.90	0.8128	196.10	195.62	0.520275	0.052027	1922
5.0	-2.20	0.6026	156.95	156.35	0.812187	0.081219	1231
6.0	-4.30	0.3715	130.86	130.15	1.141650	0.114165	875
7.0	-7.40	0.1820	112.24	111.41	1.588008	0.158801	629
8.0	-12.00	0.0631	98.29	97.33	2.026588	0.202659	493
9.0	-18.40	0.0145	87.44	86.37	2.153016	0.215302	464
10.0	-17.90	0.0162	78.77	77.58	2.001714	0.200171	499
12.0	-13.00	0.0501	65.79	64.35	0.928879	0.092888	1076
14.0	-15.60	0.0275	56.54	54.86	0.373251	0.037325	2679
16.0	-35.10	0.0003	49.63	47.70	0.483840	0.048384	2066
18.0	-18.50	0.0141	44.27	42.10	0.556815	0.055682	1795
20.0	-15.60	0.0275	39.99	37.58	0.422805	0.042281	2365
22.0	-18.70	0.0135	36.52	33.86	0.505779	0.050578	1977
24.0	-35.60	0.0003	33.63	30.72	0.595324	0.059532	1679
26.0	-23.80	0.0042	31.20	28.05	0.591710	0.059171	1690
28.0	-21.50	0.0071	29.14	25.73	0.219170	0.021917	4562
30.0	-25.60	0.0028	27.36	23.69	0.602907	0.060291	1658
32.0	-23.00	0.0050	25.81	21.89	0.996320	0.099632	1003
34.0	-17.40	0.0182	24.46	20.28	1.106174	0.110617	904
36.0	-15.60	0.0275	23.27	18.83	1.215473	0.121547	822
38.0	-16.50	0.0224	22.22	17.51	1.327847	0.132785	753
40.0	-19.90	0.0102	21.28	16.30	1.439453	0.143945	694
42.0	-26.70	0.0021	20.44	15.19	1.485364	0.148536	673
44.0	-31.00	0.0008	19.69	14.17	1.009319	0.100932	990
46.0	-27.80	0.0017	19.02	13.21	0.379733	0.037973	2633
48.0	-27.80	0.0017	18.41	12.32	0.148273	0.014827	6744
50.0	-31.30	0.0007	17.86	11.48	0.156427	0.015643	6392
52.0	-34.10	0.0004	17.36	10.69	0.164557	0.016456	6076
54.0	-30.70	0.0009	16.91	9.94	0.116496	0.011650	8583
56.0	-29.20	0.0012	16.50	9.23	0.121458	0.012146	8233
58.0	-29.10	0.0012	16.13	8.55	0.126024	0.012602	7934
60.0	-31.20	0.0008	15.80	7.90	0.130322	0.013032	7673
62.0	-35.30	0.0003	15.49	7.27	0.134505	0.013450	7434
64.0	-38.80	0.0001	15.22	6.67	0.106492	0.010649	9390
66.0	-40.20	0.0001	14.97	6.09	0.060676	0.006068	16480
68.0	-36.70	0.0002	14.75	5.53	0.054402	0.005440	18381
70.0	-35.60	0.0003	14.56	4.98	0.055486	0.005549	18022
72.0	-33.60	0.0004	14.38	4.44	0.056367	0.005637	17740
74.0	-34.20	0.0004	14.23	3.92	0.057183	0.005718	17487
76.0	-34.50	0.0004	14.10	3.41	0.057788	0.005779	17304
78.0	-34.30	0.0004	13.98	2.91	0.053399	0.005340	18726
80.0	-35.40	0.0003	13.89	2.41	0.053830	0.005383	18576
82.0	-37.10	0.0002	13.81	1.92	0.053994	0.005399	18520
84.0	-38.2	0.0002	13.75	1.44	0.039848	0.003985	25095
86.0	-39	0.0001	13.71	0.96	0.034204	0.00342	29236
88.0	-39.1	0.0001	13.69	0.48	0.023029	0.002303	43424
90.0	-40.6	0.0001	13.68	0	0.018454	0.001845	54188

Cingular Wireless
X154-01 - Jewish Community Center
Powerwave:7760.00.0 Antenna Worksheet (120 Sector)

Maximum Permissible Exposure (MPE):

1000

ERP (Watts):	600	Height (feet):	50	Frequency (MHz):	1930	Downtilt (Degrees):	2.0
Depression Angle (degrees)	Relative dB	Relative Gain	Slant Distance (meters)	Dist From Structure (meters)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Times Below MPE
0.1	-1.21	0.7568	7837.53	7837.52	0.000326	0.000033	3070307
1.0	-0.40	0.9120	783.79	783.67	0.032567	0.003257	30706
2.0	0.00	1.0000	391.96	391.72	0.130227	0.013023	7678
3.0	-0.10	0.9772	261.37	261.01	0.292863	0.029286	3414
4.0	-0.90	0.8128	196.10	195.62	0.520275	0.052027	1922
5.0	-2.20	0.6026	156.95	156.35	0.812187	0.081219	1231
6.0	-4.30	0.3715	130.86	130.15	1.168242	0.116824	855
7.0	-7.40	0.1820	112.24	111.41	1.588008	0.158801	629
8.0	-12.00	0.0631	98.29	97.33	2.026588	0.202659	493
9.0	-18.40	0.0145	87.44	86.37	2.153016	0.215302	464
10.0	-17.90	0.0162	78.77	77.58	2.001714	0.200171	499
12.0	-13.00	0.0501	65.79	64.35	0.930063	0.093006	1075
14.0	-15.60	0.0275	56.54	54.86	0.373251	0.037325	2679
16.0	-35.10	0.0003	49.63	47.70	0.483840	0.048384	2066
18.0	-18.50	0.0141	44.27	42.10	0.556815	0.055682	1795
20.0	-15.60	0.0275	39.99	37.58	0.422805	0.042281	2365
22.0	-18.70	0.0135	36.52	33.86	0.505779	0.050578	1977
24.0	-35.60	0.0003	33.63	30.72	0.595324	0.059532	1679
26.0	-23.80	0.0042	31.20	28.05	0.592465	0.059246	1687
28.0	-21.50	0.0071	29.14	25.73	0.219170	0.021917	4562
30.0	-25.60	0.0028	27.36	23.69	0.602907	0.060291	1658
32.0	-23.00	0.0050	25.81	21.89	0.996320	0.099632	1003
34.0	-17.40	0.0182	24.46	20.28	1.106174	0.110617	904
36.0	-15.60	0.0275	23.27	18.83	1.212379	0.121238	824
38.0	-16.50	0.0224	22.22	17.51	1.324468	0.132447	755
40.0	-19.90	0.0102	21.28	16.30	1.439453	0.143945	694
42.0	-26.70	0.0021	20.44	15.19	1.485364	0.148536	673
44.0	-31.00	0.0008	19.69	14.17	1.009319	0.100932	990
46.0	-27.80	0.0017	19.02	13.21	0.379733	0.037973	2633
48.0	-27.80	0.0017	18.41	12.32	0.148462	0.014846	6735
50.0	-31.30	0.0007	17.86	11.48	0.157027	0.015703	6368
52.0	-34.10	0.0004	17.36	10.69	0.164557	0.016456	6076
54.0	-30.70	0.0009	16.91	9.94	0.116942	0.011694	8551
56.0	-29.20	0.0012	16.50	9.23	0.121923	0.012192	8201
58.0	-29.10	0.0012	16.13	8.55	0.126668	0.012667	7894
60.0	-31.20	0.0008	15.80	7.90	0.131155	0.013116	7624
62.0	-35.30	0.0003	15.49	7.27	0.134505	0.013450	7434
64.0	-38.80	0.0001	15.22	6.67	0.106492	0.010649	9390
66.0	-40.20	0.0001	14.97	6.09	0.060676	0.006068	16480
68.0	-36.70	0.0002	14.75	5.53	0.054402	0.005440	18381
70.0	-35.60	0.0003	14.56	4.98	0.055486	0.005549	18022
72.0	-33.60	0.0004	14.38	4.44	0.056367	0.005637	17740
74.0	-34.20	0.0004	14.23	3.92	0.057183	0.005718	17487
76.0	-34.50	0.0004	14.10	3.41	0.057861	0.005786	17282
78.0	-34.30	0.0004	13.98	2.91	0.053399	0.005340	18726
80.0	-35.40	0.0003	13.89	2.41	0.053830	0.005383	18576
82.0	-37.10	0.0002	13.81	1.92	0.053994	0.005399	18520
84.0	-38.2	0.0002	13.75	1.44	0.039848	0.003985	25095
86.0	-39	0.0001	13.71	0.96	0.034204	0.00342	29236
88.0	-39.1	0.0001	13.69	0.48	0.023029	0.002303	43424
90.0	-40.6	0.0001	13.68	0	0.018454	0.001845	54188

Cingular Wireless
X154-01 - Jewish Community Center
Powerwave:7760.00.0 Antenna Worksheet (240 Sector)

Maximum Permissible Exposure (MPE):

1000

ERP (Watts): 600 Height (feet): 50 Frequency (MHz): 1930 Downtilt (Degrees): 2.0

Depression Angle (degrees)	Relative dB	Relative Gain	Slant Distance (meters)	Dist From Structure (meters)	Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Times Below MPE
0.1	-1.21	0.7568	7837.53	7837.52	0.000326	0.000033	3070307
1.0	-0.40	0.9120	783.79	783.67	0.032567	0.003257	30706
2.0	0.00	1.0000	391.96	391.72	0.130227	0.013023	7678
3.0	-0.10	0.9772	261.37	261.01	0.292863	0.029286	3414
4.0	-0.90	0.8128	196.10	195.62	0.520275	0.052027	1922
5.0	-2.20	0.6026	156.95	156.35	0.812187	0.081219	1231
6.0	-4.30	0.3715	130.86	130.15	1.141650	0.114165	875
7.0	-7.40	0.1820	112.24	111.41	1.588008	0.158801	629
8.0	-12.00	0.0631	98.29	97.33	2.026588	0.202659	493
9.0	-18.40	0.0145	87.44	86.37	2.153016	0.215302	464
10.0	-17.90	0.0162	78.77	77.58	2.001714	0.200171	499
12.0	-13.00	0.0501	65.79	64.35	0.928879	0.092888	1076
14.0	-15.60	0.0275	56.54	54.86	0.374203	0.037420	2672
16.0	-35.10	0.0003	49.63	47.70	0.485693	0.048569	2058
18.0	-18.50	0.0141	44.27	42.10	0.558948	0.055895	1789
20.0	-15.60	0.0275	39.99	37.58	0.423884	0.042388	2359
22.0	-18.70	0.0135	36.52	33.86	0.507070	0.050707	1972
24.0	-35.60	0.0003	33.63	30.72	0.596083	0.059608	1677
26.0	-23.80	0.0042	31.20	28.05	0.591710	0.059171	1690
28.0	-21.50	0.0071	29.14	25.73	0.219170	0.021917	4562
30.0	-25.60	0.0028	27.36	23.69	0.602139	0.060214	1660
32.0	-23.00	0.0050	25.81	21.89	0.995051	0.099505	1004
34.0	-17.40	0.0182	24.46	20.28	1.103358	0.110336	906
36.0	-15.60	0.0275	23.27	18.83	1.215473	0.121547	822
38.0	-16.50	0.0224	22.22	17.51	1.327847	0.132785	753
40.0	-19.90	0.0102	21.28	16.30	1.435789	0.143579	696
42.0	-26.70	0.0021	20.44	15.19	1.483473	0.148347	674
44.0	-31.00	0.0008	19.69	14.17	1.009319	0.100932	990
46.0	-27.80	0.0017	19.02	13.21	0.379733	0.037973	2633
48.0	-27.80	0.0017	18.41	12.32	0.148273	0.014827	6744
50.0	-31.30	0.0007	17.86	11.48	0.156427	0.015643	6392
52.0	-34.10	0.0004	17.36	10.69	0.165187	0.016519	6053
54.0	-30.70	0.0009	16.91	9.94	0.116496	0.011650	8583
56.0	-29.20	0.0012	16.50	9.23	0.121458	0.012146	8233
58.0	-29.10	0.0012	16.13	8.55	0.126024	0.012602	7934
60.0	-31.20	0.0008	15.80	7.90	0.130322	0.013032	7673
62.0	-35.30	0.0003	15.49	7.27	0.135192	0.013519	7396
64.0	-38.80	0.0001	15.22	6.67	0.107037	0.010704	9342
66.0	-40.20	0.0001	14.97	6.09	0.061064	0.006106	16376
68.0	-36.70	0.0002	14.75	5.53	0.054750	0.005475	18264
70.0	-35.60	0.0003	14.56	4.98	0.055699	0.005570	17953
72.0	-33.60	0.0004	14.38	4.44	0.056511	0.005651	17695
74.0	-34.20	0.0004	14.23	3.92	0.057256	0.005726	17465
76.0	-34.50	0.0004	14.10	3.41	0.057788	0.005779	17304
78.0	-34.30	0.0004	13.98	2.91	0.053399	0.005340	18726
80.0	-35.40	0.0003	13.89	2.41	0.053556	0.005356	18671
82.0	-37.10	0.0002	13.81	1.92	0.053583	0.005358	18662
84.0	-38.2	0.0002	13.75	1.44	0.039444	0.003944	25352
86.0	-39	0.0001	13.71	0.96	0.033771	0.003377	29611
88.0	-39.1	0.0001	13.69	0.48	0.022708	0.002271	44037
90.0	-40.6	0.0001	13.68	0	0.018059	0.001806	55375