

Channel Study

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REFERENCE          CH# 211A - 90.1 MHz, Pwr= 0.35 kW, HAAT= 37.0 M, COR= 37 M      DISPLAY DATES
24 34 21.0 N.          Average Protected F(50-50)= 8.6 km                      DATA 09-17-20
81 44 24.0 W.          Omni-directional                                     SEARCH 09-18-20
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CH      CALL      TYPE ANT      AZI.  DIST      LAT.      Pwr (kW)  INT (km)  PRO (km)  *IN*  *OUT*
CITY          STATE      <--  FILE #      LNG.      HAAT (M)  COR (M)  LICENSEE  (Overlap in km)
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211A WKWR!      LIC      240.6    0.91      24 34 06.50  0.250      ---Reference---
Key West      FL      60.6 BLED20051031ADJ  81 44 52.30  21      22      Broadcasting For The Chall

06--- WFIB-LD   LI  DHN      253.0    6.47      27 09 04.20  3.000      5.6      11.7      17.3R    -10.9M
Key West      FL      73.0 0000021275      82 27 50.30  26

213D W213BF!    LIC      253.1    6.52      24 33 19.50  0.050      0.5      5.0      -2.5*    0.2
Key West      FL      73.1 BMLFT20171023AAK  81 48 06.30  34      34      Family Worship Center Chur

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Terrain database is FCC NGDC 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin
in KM
In & Out distances between contours are shown at closest points. Reference Zone= - Zone 2, Co to 3rd
adjacent.
All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E),
Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
Reference station has protected zone issue: AM tower

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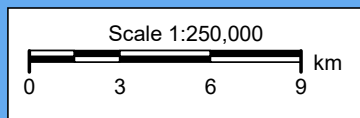
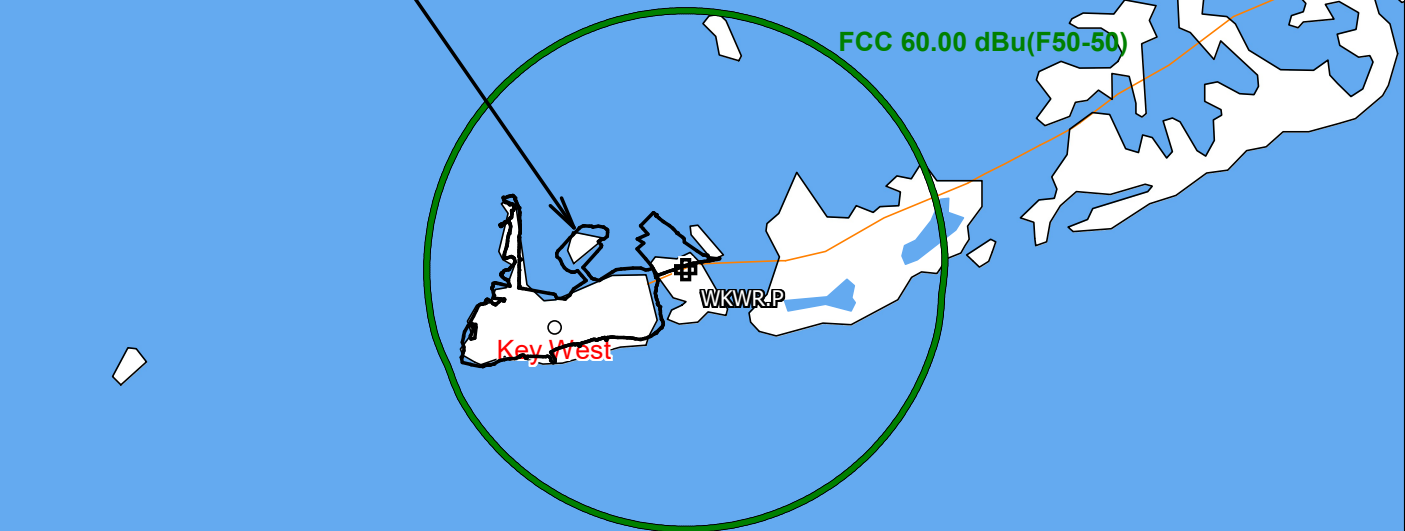
WKWR Key West, FL Community of License Coverage

Exhibit 2

WKWR.P

BLED20051031ADJ
Latitude: 24-34-21 N
Longitude: 081-44-24 W
ERP: 0.35 kW
Channel: 211
Frequency: 90.1 MHz
AMSL Height: 37.0 m
Elevation: 1.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

Black Outline - Key West, FL Community of License Corporate Bounday
The corporate boundary is 100% encompassed by the proposed 60dbu service contour.



Environmental Protection

There are two main factors that need to be addressed in order to make sure that the environment around a proposed facility is protected.

1) Significant affects to the environment.

EMF's proposed facility will be constructed on an existing tower (tower ID 1029778) and will cause no adverse effects to the surrounding environment at the site.

2) Human exposure to excess levels of radiofrequency radiation.

The proposed facility is to be built using a 1-bay circularly polarized antenna.

According to OET 65, "Applicants and licensees should be able to calculate, based on considerations of frequency, power and antenna characteristics the distance from their transmitter where their signal produces an RF field equal to, or greater than, the 5% threshold limit. The applicant or licensee then shares responsibility for compliance in any accessible area or areas within this 5% "contour" where the appropriate limits are found to be exceeded."

As can be seen in Exhibit 3-A, the proposed facility's maximum contribution to RF on the site is $4.96\mu\text{W}/\text{cm}^2$ at a distance of 37 meters from the tower, which is 2.48% of the uncontrolled (public) exposure limit.

Therefore, because the proposed facility will not cause an RF field that is equal to or greater than 5% of the $200\mu\text{W}/\text{cm}^2$ limit for uncontrolled exposure at any point, the proposed facility complies with the requirements of OET 65.

EMF will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.

**RF Analysis: WKWR
90274**

Site type: Application
Channel: 211
Class: A
ERP: .35kw
Antenna: Nicom
 BKG77
 1 Bay

COR AGL: 37m
Polarization: Circular Pol

Distance From Tower (m)	WFRJ Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	1.2634	1.26	0.632
1	1.2875	1.29	0.644
2	1.3129	1.31	0.656
3	1.3393	1.34	0.670
4	1.4501	1.45	0.725
5	1.5772	1.58	0.789
6	1.7054	1.71	0.853
7	1.8508	1.85	0.925
8	2.0084	2.01	1.004
9	2.1687	2.17	1.084
10	2.3335	2.33	1.167
11	2.5056	2.51	1.253
12	2.6786	2.68	1.339
13	2.8508	2.85	1.425
14	3.0361	3.04	1.518
15	3.2241	3.22	1.612
16	3.4116	3.41	1.706
17	3.5876	3.59	1.794
18	3.7237	3.72	1.862
19	3.8521	3.85	1.926
20	3.9723	3.97	1.986
21	4.0877	4.09	2.044
22	4.2085	4.21	2.104
23	4.3214	4.32	2.161
24	4.4260	4.43	2.213
25	4.5222	4.52	2.261
26	4.5715	4.57	2.286
27	4.6033	4.60	2.302
28	4.6280	4.63	2.314
29	4.6460	4.65	2.323
30	4.6574	4.66	2.329
31	4.7163	4.72	2.358
32	4.7811	4.78	2.391
33	4.8378	4.84	2.419
34	4.8868	4.89	2.443
35	4.9282	4.93	2.464
36	4.9625	4.96	2.481
37	4.9642	4.96	2.482
38	4.9609	4.96	2.480
39	4.9530	4.95	2.476
40	4.9407	4.94	2.470
41	4.9244	4.92	2.462
42	4.9043	4.90	2.452
43	4.8786	4.88	2.439
44	4.8292	4.83	2.415
45	4.7781	4.78	2.389

Distance From Tower (m)	0.0000 Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	4.7255	4.73	2.363
47	4.6716	4.67	2.336
48	4.6165	4.62	2.308
49	4.5606	4.56	2.280
50	4.5039	4.50	2.252
51	4.4467	4.45	2.223
52	4.3870	4.39	2.194
53	4.3258	4.33	2.163
54	4.2647	4.26	2.132
55	4.2037	4.20	2.102
56	4.1430	4.14	2.071
57	4.0825	4.08	2.041
58	4.0224	4.02	2.011
59	3.9628	3.96	1.981
60	3.9037	3.90	1.952
61	3.8452	3.85	1.923
62	3.7873	3.79	1.894
63	3.7287	3.73	1.864
64	3.6704	3.67	1.835
65	3.6128	3.61	1.806
66	3.5561	3.56	1.778
67	3.5003	3.50	1.750
68	3.4454	3.45	1.723
69	3.3913	3.39	1.696
70	3.3381	3.34	1.669
71	3.2858	3.29	1.643
72	3.2344	3.23	1.617
73	3.1839	3.18	1.592
74	3.1342	3.13	1.567
75	3.0854	3.09	1.543
76	3.0375	3.04	1.519
77	2.9905	2.99	1.495
78	2.9421	2.94	1.471
79	2.8941	2.89	1.447
80	2.8471	2.85	1.424
81	2.8011	2.80	1.401
82	2.7561	2.76	1.378
83	2.7120	2.71	1.356
84	2.6688	2.67	1.334
85	2.6266	2.63	1.313
86	2.5852	2.59	1.293
87	2.5446	2.54	1.272
88	2.5049	2.50	1.252
89	2.4661	2.47	1.233
90	2.4280	2.43	1.214
91	2.3908	2.39	1.195
92	2.3542	2.35	1.177
93	2.3185	2.32	1.159
94	2.2835	2.28	1.142
95	2.2492	2.25	1.125
96	2.2156	2.22	1.108
97	2.1826	2.18	1.091
98	2.1504	2.15	1.075
99	2.1183	2.12	1.059
100	2.0821	2.08	1.041