

WCOG-FM.P Site Spacing

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REFERENCE
41 44 34.00 N.          CLASS = B1 Int = B1          DISPLAY DATES
77 38 34.00 W.          Current Spacings to 3rd Adj. DATA 07-27-22
----- Channel 264 - 100.7 MHz ----- SEARCH 08-01-22

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Call	Channel	Location		Azi	Dist	FCC	Margin
WCOG-FM	LIC-N 264B1	Galeton	PA	175.3	9.21	174.5	-165.3
CHINFM+	USE 264C1	Toronto	ON	326.6	254.84	256.0	-1.2
WDVI	LIC 263B	Rochester	NY	7.1	144.54	144.5	0.04
WJNG	LIC-N 263A	Johnsonburg	PA	245.9	96.05	95.5	0.55
W263CZ	LIC-D 263D	Olean	NY	303.3	73.90	61.5	12.4
WLEV	LIC 264B	Allentown	PA	124.7	226.47	210.5	16.0
WLEV	CP 264B	Allentown	PA	124.7	226.52	210.5	16.0
WHGL-FM	LIC 262B1	Canton	PA	89.8	67.17	49.5	17.7
WVLY-FM	LIC 265A	Milton	PA	139.4	115.12	95.5	19.6
W263AG	LIC-D 263D	Williamsport	PA	135.3	81.63	61.5	20.1
WFGE	LIC 266B	State College	PA	196.9	95.54	70.5	25.0
W265BB	LIC 265D	Bradford	PA	286.2	86.64	61.5	25.1
CHINFM	LIC -D 264B	Toronto	ON	326.6	254.84	223.0	31.8
CHINFM	RUL 264B	Toronto	ON	326.6	254.84	223.0	31.8
R29063	DEL 264B	Toronto	ON	326.6	254.84	223.0	31.8
WBZZ	LIC-D 264B	New Kensington	PA	235.1	242.75	210.5	32.3
W265BX	LIC-D 265D	Geneseo	NY	348.3	94.26	61.5	32.8
W262DJ	LIC 262D	Wellsville	NY	327.5	44.08	10.5	33.6
W267DF	LIC 267D	Wellsville	NY	331.4	47.35	10.5	36.9
WCIN	LIC 211A	Trout Run	PA	125.7	54.23	11.5	42.7
WBRR	LIC-N 261A	Bradford	PA	286.4	91.39	47.5	43.9
WQBG	LIC 263A	Elizabethville	PA	151.1	141.73	95.5	46.2

Reference station has protected zone issue: Canada
All separation margins include rounding

Distance to Contour Report

Distance to Contour Report

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
of Radials Calculated: 360
FCC Matching HAAT Calculation Used
Field Strength: 57.00 dBuV/m

Primary Terrain: GLOBE 30 Second World Database

Transmitter Information:

Call Letters: WCOG 48m AG
File Number: BMLED19990408KA
Latitude: 41-44-34 N
Longitude: 077-38-34 W
ERP: 24.00 kW
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 718.0 m
Elevation: 670.0 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No

Azimuth (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	36.51	61.5
45.0	44.17	98.7
90.0	63.21	277.3
135.0	44.51	100.7
180.0	40.87	81.4
225.0	45.22	104.9
270.0	26.26	22.7
315.0	38.02	68.1

Average HAAT for radials shown: $815.3/8 = 101.9\text{m}$

Choose a U.S. State or Possession: PA - Pennsylvania

Station Class: Class B1

101.9

 meters Antenna Height Above Average Terrain (HAAT)

Find Result

Print

Clear Data

Results:

Calculated ERP (rounded per Section 73.212) = 24.000 kW

Unrounded ERP = 24.102857 kW

Comments:

Class B and B1 stations are authorized in PA.

Maximum class limit determined from:

Class: B1 Reference ERP: 25 kW Reference HAAT: 100 meters Distance to 60 dBu F(50,50) contour: 39.1 km



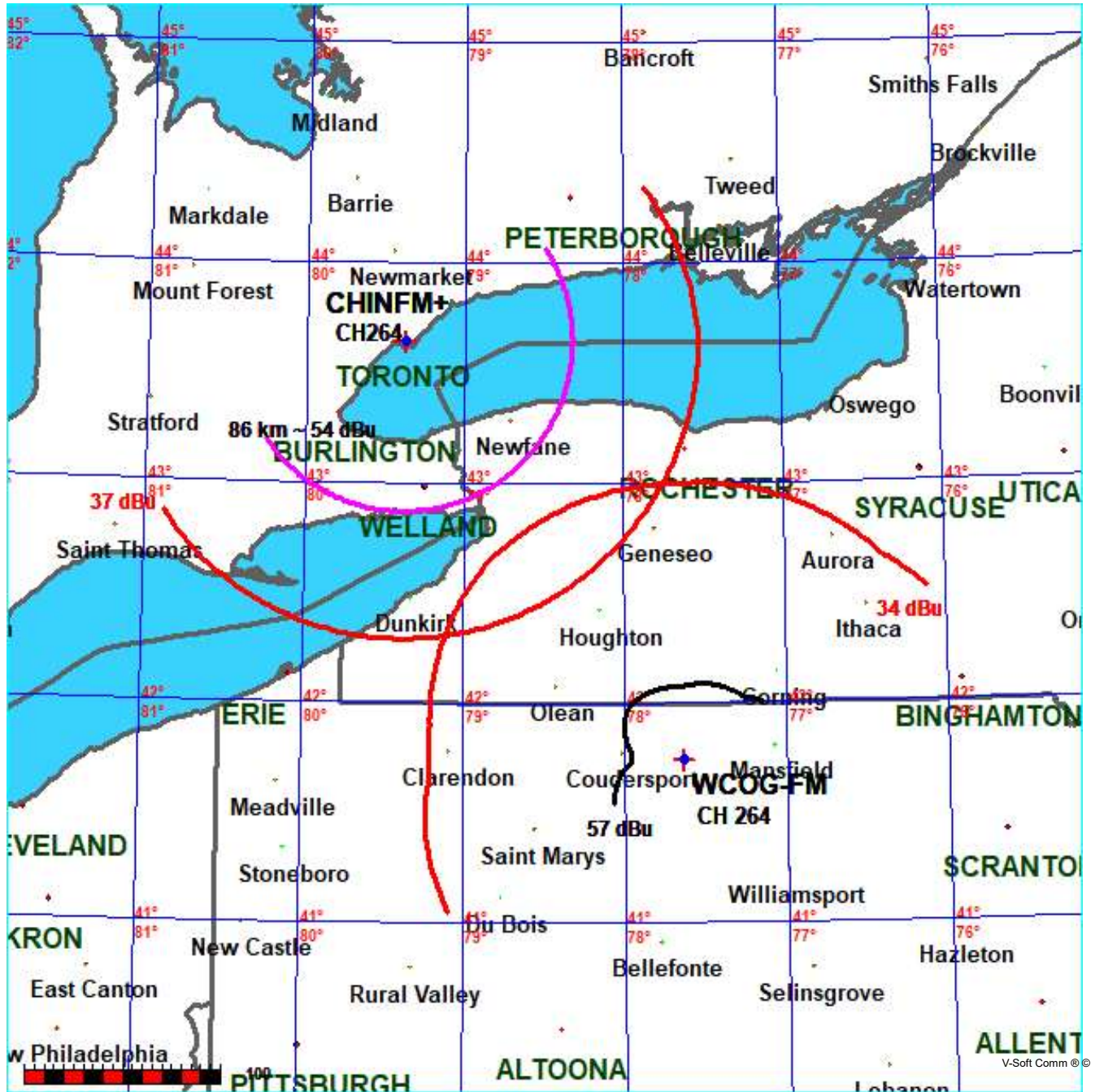
For example, FMpower shows that 4.1 kW ERP at 122 meters HAAT is equivalent to reference Class A facilities of 6.0 kW ERP at 100 meters HAAT. Reference

Compliance with International Requirements

The proposed FM translator is located approximately 160km from the Canadian border. As seen in Exhibit 1, CHINFM 264C1 is cochannel to the proposed WCOG 264B1 facility. Exhibit 2-A shows the service and interfering contour study. No transmit or received interference will occur to either the proposed WCOG and the CHINFM facilities.

The attached map (see Exhibit 2-A) also shows the 34dBu interfering contour of the proposed facility at no point extends beyond the Canadian border.

Therefore, the proposed facility will not cause interference to any existing or proposed Canadian facilities.



Human exposure to excess levels of radiofrequency radiation

The proposed facility is to be built using a Shively 6800 series 8-bay full-waved spaced circularly polarized antenna.

As can be seen in Exhibit 3-A, the proposed facility's maximum contribution to RF on the site is $28.6\mu\text{W}/\text{cm}^2$ at a distance of 14 meters from the tower, which is 14.3% of the uncontrolled (public) exposure limit.

Because the proposed facility is below 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.

Family Life Ministries 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: WCOG
FIN 73196
Galeton, PA

Site type: Proposed
Channel: 264
Class: B1
ERP: 24
Antenna: Shively
Model: 6800 series
of bays: 8
bay spacing: 1.0
COR AGL: 48
Polarization: Circular Pol

Distance From Tower (m)	WCOG Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	3.4802	3.48	1.740
1	4.0418	4.04	2.021
2	4.6610	4.66	2.331
3	5.3332	5.33	2.667
4	6.0505	6.05	3.025
5	7.5025	7.50	3.751
6	9.3430	9.34	4.671
7	11.3721	11.37	5.686
8	13.5238	13.52	6.762
9	16.3419	16.34	8.171
10	19.7316	19.73	9.866
11	22.9991	23.00	11.500
12	25.9346	25.93	12.967
13	28.1523	28.15	14.076
14	28.6151	28.62	14.308
15	28.2795	28.28	14.140
16	27.1032	27.10	13.552
17	25.1068	25.11	12.553
18	22.6244	22.62	11.312
19	19.6595	19.66	9.830
20	16.1765	16.18	8.088
21	12.4537	12.45	6.227
22	8.8008	8.80	4.400
23	5.5133	5.51	2.757
24	2.8673	2.87	1.434
25	1.0478	1.05	0.524
26	0.1295	0.13	0.065
27	0.0768	0.08	0.038
28	0.7511	0.75	0.376
29	1.9304	1.93	0.965
30	3.3486	3.35	1.674
31	4.7351	4.74	2.368
32	5.8537	5.85	2.927
33	6.5330	6.53	3.267
34	6.6824	6.68	3.341
35	6.3032	6.30	3.152
36	5.4860	5.49	2.743
37	4.3736	4.37	2.187
38	3.1399	3.14	1.570
39	1.9603	1.96	0.980
40	0.9854	0.99	0.493
41	0.3202	0.32	0.160
42	0.0193	0.02	0.010
43	0.0740	0.07	0.037
44	0.4268	0.43	0.213
45	0.9866	0.99	0.493

Distance From Tower (m)	0.0000 Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	1.6450	1.64	0.822
47	2.2937	2.29	1.147
48	2.8387	2.84	1.419
49	3.2106	3.21	1.605
50	3.3706	3.37	1.685
51	3.3113	3.31	1.656
52	3.0536	3.05	1.527
53	2.6404	2.64	1.320
54	2.1284	2.13	1.064
55	1.5799	1.58	0.790
56	1.0548	1.05	0.527
57	0.6043	0.60	0.302
58	0.2658	0.27	0.133
59	0.0625	0.06	0.031
60	0.0002	0.00	0.000
61	0.0703	0.07	0.035
62	0.2525	0.25	0.126
63	0.5182	0.52	0.259
64	0.8344	0.83	0.417
65	1.1671	1.17	0.584
66	1.4846	1.48	0.742
67	1.7597	1.76	0.880
68	1.9718	1.97	0.986
69	2.1069	2.11	1.053
70	2.1588	2.16	1.079
71	2.1290	2.13	1.064
72	2.0243	2.02	1.012
73	1.8565	1.86	0.928
74	1.6404	1.64	0.820
75	1.3927	1.39	0.696
76	1.1307	1.13	0.565
77	0.8709	0.87	0.435
78	0.6281	0.63	0.314
79	0.4147	0.41	0.207
80	0.2402	0.24	0.120
81	0.1113	0.11	0.056
82	0.0312	0.03	0.016
83	0.0005	0.00	0.000
84	0.0170	0.02	0.008
85	0.0763	0.08	0.038
86	0.1722	0.17	0.086
87	0.2973	0.30	0.149
88	0.4437	0.44	0.222
89	0.6032	0.60	0.302
90	0.7677	0.77	0.384
91	0.9299	0.93	0.465
92	1.0829	1.08	0.541
93	1.2211	1.22	0.611
94	1.3398	1.34	0.670
95	1.4357	1.44	0.718
96	1.5062	1.51	0.753
97	1.5504	1.55	0.775
98	1.5679	1.57	0.784
99	1.5596	1.56	0.780
100	1.5270	1.53	0.764

TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

Your Specifications

NAD83 Coordinates

Latitude	41-44-34.0 north
Longitude	077-38-34.0 west

Measurements (Meters)

Overall Structure Height (AGL)	60
Support Structure Height (AGL)	60
Site Elevation (AMSL)	670

Structure Type

LTOWER - Lattice Tower

Tower Construction Notifications

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

Overlap Population Report
WCOG.P (264) / Galeton, PA

Overlap Area Type: Intersection
Areas Included:
WCOG.P (264): FCC F(50-50) 70.00 dBu (FCC HAAT)
PLST: Galeton, PA

Population Database: 2020 US Census (PL)

Total Population: 990
Overlap Area: 3.32 sq. km (Area determined using 0.006 km cells)

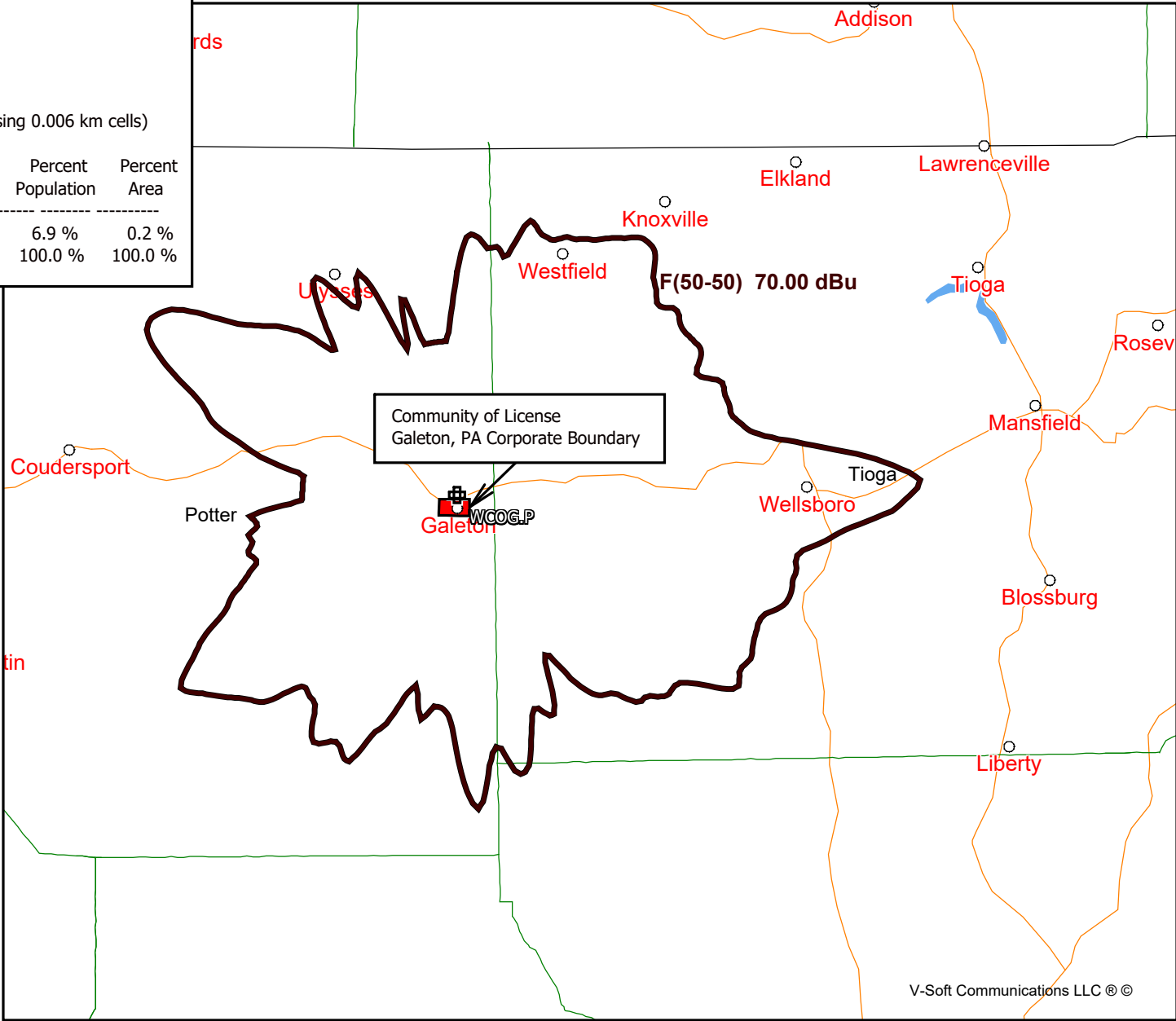
Area Description	Total Population	Total Area [sq. km]	Percent Population	Percent Area
WCOG.P (264):	14,394	1,560	6.9 %	0.2 %
PLST: Galeton, PA	990	3.32	100.0 %	100.0 %

Exhibit 4

Community of License Coverage Compliance

Note: 100% of the Area and Population Are Contained Within the 70dbu Service Contour

WCOG.P
BMLED19990408KA
Latitude: 41-44-34 N
Longitude: 077-38-34 W
ERP: 24.00 kW
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 718.0 m
Elevation: 670.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None



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