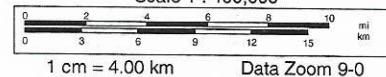


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Larry P. Waggoner
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Wichita, Kansas 67205

Scale 1 : 400,000



05-07-2020

Larry Waggoner

FCC Database Date: 4/17/2020

PAGE 1

# CALL STATUS	LOCATION STATE	CHANNEL CLASS	POWER	LATITUDE LONGITUDE	DISTANCE BEARING	WPBZ
WPBZ L	LOCK HAVEN PABL-	1230 Class	1.0 kW	41-08-03 77-28-09	Source Station	
1 WSQV LIC	LOCK HAVEN PA BLH-030228AGM	221 Class A	6.0 kW	41-08-49 77-29-16	2 km 10 km 312 dg 21 km WITHIN	
2 WBYL LIC	SALLADASBURG PA BMLH-960517KE	238 Class A	3.9 kW	41-14-00 77-12-10	25 km 10 km 64 dg 21 km +6 km	
3 WJSAFM LIC	JERSEY SHORE PA BLH-101123ASE	242 Class B1	2.7 kW DA	41-13-45 77-22-02	14 km 10 km 39 dg 27 km +24 km	
4 WVRT LIC	MILL HALL PA BLH-010126AAB	249 Class A	6.0 kW	41-13-14 77-16-39	19 km 10 km 59 dg 23 km +14 km	
5 WQBR LIC	AVIS PA BLH-030428AAB	260 Class A	0.6 kW	41-13-45 77-22-02	14 km 10 km 39 dg 19 km +15 km	
6 WKSJ LIC	WILLIAMSPORT PA BMLH-030625ACG	274 Class B	53.0 kW	41-11-21 76-58-53	41 km 10 km 81 dg 41 km +10 km	
7 WQKK LIC	RENOVO PA BLH-050118ADD	295 Class A	0.8 kW	41-14-15 77-45-02	26 km 10 km 296 dg 16 km +0 km	
8 WPBZ LIC	LOCK HAVEN PA BL-	1230 Class C	1.0 kW ND	41-08-03 77-28-09	0 km 10 km 0 dg 10 km WITHIN	
WSQV LIC	LOCK HAVEN PABLH-030228AGM	221 Class A	6.0 kW	41-08-49 77-29-16	Source Station	
9 WFGE LIC	STATE COLLEGE PA BLH-131206AYI	266 Class B	8.5 kW	40-55-10 77-58-28	48 km 18 km 238 dg 35 km +7 km	
10 WILQ LIC	WILLIAMSPORT PA BLH-890403KA	286 Class B	9.2 kW	41-11-43 76-58-18	44 km 23 km 83 dg 28 km +6 km	

FCC limit of 5 stations total with 3 in one service

Total of 10 stations comprise the market of:

WPBZ LIC LOCK HAVEN, PA

WSQV LIC LOCK HAVEN, PA

WQKK LIC RENOVO, PA

WBLF CONTOUR CALCULATIONS

Station: WBLF		Frequency 970 kHz		40-54-12	77-46-06		
Azim	Inverse	25 mV	5 mV	2.0 mV	0.5 mV	.250 mV	.025 mV
(deg)	(mV/m)	(km)	(km)	(km)	(km)	(km)	(km)
0	282.0	4.9	12.0	18.6	34.9	47.8	148.5
5	282.0	4.9	12.0	18.6	34.9	47.8	148.7
10	282.0	4.9	12.0	18.6	34.9	47.8	148.9
15	282.0	4.9	12.0	18.6	34.9	47.8	149.0
20	282.0	4.9	12.0	18.6	34.9	47.8	148.8
25	282.0	4.9	12.0	18.6	34.9	47.8	148.6
30	282.0	4.9	12.0	18.6	34.9	47.8	148.4
35	282.0	4.9	12.0	18.6	34.9	47.8	147.5
40	282.0	4.9	12.0	18.6	34.9	47.8	147.0
45	282.0	4.9	12.0	18.6	34.9	47.8	145.7
50	282.0	4.9	12.0	18.6	34.9	47.8	144.3
55	282.0	4.9	12.0	18.6	34.9	47.8	142.4
60	282.0	4.9	12.0	18.6	34.9	47.8	139.2
65	282.0	4.9	12.0	18.6	34.9	47.8	136.1
70	282.0	4.9	12.0	18.6	34.9	47.8	133.9
75	282.0	4.9	12.0	18.6	34.9	47.8	132.1
80	282.0	4.9	12.0	18.6	34.9	47.8	130.2
85	282.0	4.9	12.0	18.6	34.9	47.8	130.2
90	282.0	4.9	12.0	18.6	34.9	47.8	130.2
95	282.0	4.9	12.0	18.6	34.9	47.8	130.2
100	282.0	4.9	12.0	18.6	34.9	47.8	130.2
105	282.0	4.9	12.0	18.6	34.9	47.8	130.2
110	282.0	4.9	12.0	18.6	34.9	47.8	131.0
115	282.0	4.9	12.0	18.6	34.9	47.8	133.5
120	282.0	4.9	12.0	18.6	34.9	47.8	134.6
125	282.0	4.9	12.0	18.6	34.9	47.8	135.2
130	282.0	4.9	12.0	18.6	34.9	47.8	135.4
135	282.0	4.9	12.0	18.6	34.9	47.8	135.0
140	282.0	4.9	12.0	18.6	34.9	47.8	134.3
145	282.0	4.9	12.0	18.6	34.9	47.8	133.4
150	282.0	4.9	12.0	18.6	34.9	47.8	132.6
155	282.0	4.9	12.0	18.6	34.9	47.8	131.2
160	282.0	4.9	12.0	18.6	34.9	47.8	130.2
165	282.0	4.9	12.0	18.6	34.9	47.8	130.2
170	282.0	4.9	12.0	18.6	37.9	50.8	133.2
175	282.0	4.9	12.0	18.6	40.2	57.2	139.5

Larry Waggoner

05-05-2020

Project: WQCK

Site Coordinates: 40-47-34 North 78-10-29 West

NGDC 30-Second Database is used in Continental US

DEM-30 Database is used in AK, HI, and PR.

Site Elevation: (2,264 feet) AMSL 690 meters

Antenna HAAT: 290 meters

Antenna center Above Mean Sea Level: 796 meters

Azimuth of Main Lobe 4 degrees

Directional Pattern

----- Distances to Contours in Kilometers -----						
AZM (deg)	HAAT (mtrs)	ERP (kW)	70 dBu (km)	60 dBu (km)	54 dBu (km)	65 dBu (km)
0	234	0.7100	14.4	25.6	35.0	19.5
5	209	0.7100	13.7	24.2	33.2	18.4
10	202	0.7100	13.5	23.8	32.7	18.0
15	178	0.7100	12.7	22.5	30.9	16.9
20	175	0.7100	12.6	22.3	30.6	16.8
25	183	0.7100	12.9	22.8	31.3	17.2
30	180	0.7100	12.8	22.6	31.0	17.0
35	181	0.7100	12.8	22.7	31.1	17.1
40	181	0.7100	12.8	22.7	31.1	17.1
45	177	0.7100	12.6	22.5	30.8	16.9
50	166	0.7100	12.2	21.8	29.9	16.3
55	254	0.7100	15.1	26.6	36.4	20.3
60	321	0.7100	17.0	29.8	40.4	22.7
65	353	0.7100	17.9	31.2	42.2	23.7
70	401	0.7100	19.0	33.1	44.5	25.2
75	409	0.7100	19.2	33.4	44.9	25.4
80	388	0.7100	18.7	32.6	43.9	24.8
85	387	0.7100	18.7	32.6	43.8	24.8
90	392	0.7100	18.8	32.8	44.1	24.9
95	393	0.7100	18.8	32.8	44.1	25.0
100	393	0.7100	18.8	32.8	44.1	25.0
105	392	0.7100	18.8	32.8	44.1	24.9
110	392	0.7100	18.8	32.8	44.1	24.9
115	395	0.7100	18.9	32.9	44.2	25.0
120	398	0.7100	18.9	33.0	44.4	25.1
125	401	0.7100	19.0	33.1	44.5	25.2
130	399	0.7100	19.0	33.0	44.4	25.1
135	400	0.7100	19.0	33.1	44.5	25.2
140	397	0.7100	18.9	32.9	44.3	25.1
145	400	0.7100	19.0	33.1	44.5	25.2
150	404	0.7100	19.1	33.2	44.7	25.3
155	415	0.7100	19.3	33.7	45.2	25.6
160	428	0.7100	19.6	34.2	45.9	26.0
165	425	0.7100	19.5	34.0	45.7	25.9
170	418	0.7100	19.4	33.8	45.4	25.7
175	412	0.6255	18.6	32.6	44.0	24.8

Larry Waggoner

05-06-2020

Project: WQKK

Site Coordinates: 41-14-15 North 77-45-02 West

NGDC 30-Second Database is used in Continental US

DEM-30 Database is used in AK, HI, and PR.

Site Elevation: (2,119 feet) AMSL 646 meters

Antenna HAAT: 267 meters

Antenna center Above Mean Sea Level: 733 meters

----- Distances to Contours in Kilometers -----

AZM (deg)	HAAT (mtrs)	ERP (kW)	70 dBu (km)	60 dBu (km)	54 dBu (km)	65 dBu (km)
60	238	0.8000	15.0	26.5	36.3	20.2
65	234	0.8000	14.9	26.3	36.0	20.1
70	253	0.8000	15.5	27.3	37.3	20.8
75	311	0.8000	17.3	30.1	40.9	23.0
80	342	0.8000	18.1	31.6	42.6	24.1
85	338	0.8000	18.0	31.4	42.3	23.9
90	369	0.8000	18.8	32.7	44.0	24.9
95	348	0.8000	18.3	31.9	42.9	24.3
100	295	0.8000	16.8	29.4	39.9	22.4
105	262	0.8000	15.8	27.7	37.9	21.2
110	265	0.8000	15.9	27.9	38.0	21.3
115	270	0.8000	16.0	28.1	38.4	21.5
120	285	0.8000	16.5	28.9	39.3	22.0
125	289	0.8000	16.6	29.1	39.6	22.2
130	296	0.8000	16.8	29.4	40.0	22.4
135	289	0.8000	16.6	29.1	39.6	22.2
140	277	0.8000	16.2	28.5	38.8	21.7
145	271	0.8000	16.1	28.2	38.4	21.5
150	268	0.8000	16.0	28.0	38.2	21.4
155	280	0.8000	16.3	28.6	39.0	21.8
160	287	0.8000	16.6	29.0	39.4	22.1
165	287	0.8000	16.6	29.0	39.4	22.1
170	278	0.8000	16.3	28.5	38.9	21.8
175	273	0.8000	16.1	28.3	38.6	21.6
180	279	0.8000	16.3	28.6	38.9	21.8
185	283	0.8000	16.4	28.8	39.2	21.9
190	282	0.8000	16.4	28.7	39.1	21.9
195	265	0.8000	15.9	27.9	38.0	21.3
200	261	0.8000	15.7	27.7	37.8	21.1
205	247	0.8000	15.3	27.0	36.9	20.6
210	221	0.8000	14.5	25.6	35.0	19.5
215	201	0.8000	13.8	24.4	33.5	18.6
220	166	0.8000	12.6	22.4	30.7	16.8
225	132	0.8000	11.2	20.1	27.7	14.9
230	109	0.8000	10.2	18.3	25.4	13.5
235	92	0.8000	9.4	16.6	23.5	12.4
240	81	0.8000	8.8	15.5	22.1	11.7

WBPZ CONTOUR CALCULATIONS

Station: WBPZ		Frequency 1230 kHz		41-08-03	77-28-09		
Azim	Inverse	25 mV	5 mV	2.0 mV	0.5 mV	.250 mV	.025 mV
(deg)	(mV/m)	(km)	(km)	(km)	(km)	(km)	(km)
180	291.3	4.2	10.0	15.5	29.4	40.4	112.3
185	291.3	4.2	10.0	15.5	29.4	40.4	112.3
190	291.3	4.2	10.0	15.5	29.4	40.4	112.3
195	291.3	4.2	10.0	15.5	29.4	40.4	119.6
200	291.3	4.2	10.0	15.5	29.4	40.4	125.4
205	291.3	4.2	10.0	15.5	29.4	40.4	126.6
210	291.3	4.2	10.0	15.5	29.4	40.4	127.6
215	291.3	4.2	10.0	15.5	29.4	40.4	127.7
220	291.3	4.2	10.0	15.5	29.4	40.4	127.6
225	291.3	4.2	10.0	15.5	29.4	40.4	127.1
230	291.3	4.2	10.0	15.5	29.4	40.4	120.4
235	291.3	4.2	10.0	15.5	29.4	40.4	113.6
240	291.3	4.2	10.0	15.5	29.4	40.4	112.3
245	291.3	4.2	10.0	15.5	29.4	40.4	112.3
250	291.3	4.2	10.0	15.5	29.4	40.4	112.3
255	291.3	4.2	10.0	15.5	29.4	40.4	112.3
260	291.3	4.2	10.0	15.5	29.4	40.4	112.3
265	291.3	4.2	10.0	15.5	29.4	40.4	112.3
270	291.3	4.2	10.0	15.5	29.4	40.4	112.3
275	291.3	4.2	10.0	15.5	29.4	40.4	112.3
280	291.3	4.2	10.0	15.5	29.4	40.4	112.3
285	291.3	4.2	10.0	15.5	29.4	40.4	112.3
290	291.3	4.2	10.0	15.5	29.4	40.4	112.3
295	291.3	4.2	10.0	15.5	29.4	40.4	112.3
300	291.3	4.2	10.0	15.5	29.4	40.4	115.3
305	291.3	4.2	10.0	15.5	29.4	40.4	121.1
310	291.3	4.2	10.0	15.5	29.4	40.4	124.8
315	291.3	4.2	10.0	15.5	29.4	40.4	127.5
320	291.3	4.2	10.0	15.5	29.4	40.4	129.6
325	291.3	4.2	10.0	15.5	29.4	41.1	131.2
330	291.3	4.2	10.0	15.5	29.4	42.1	132.2
335	291.3	4.2	10.0	15.5	29.4	43.0	133.1
340	291.3	4.2	10.0	15.5	29.4	43.7	133.8
345	291.3	4.2	10.0	15.5	29.7	44.2	134.3
350	291.3	4.2	10.0	15.5	30.0	44.5	134.6
355	291.3	4.2	10.0	15.5	30.3	44.8	134.9

Larry Waggoner

05-06-2020

Project: WSQV

Site Coordinates: 41-08-46 North 77-29-29 West

NGDC 30-Second Database is used in Continental US

DEM-30 Database is used in AK, HI, and PR.

Site Elevation: (1,076 feet) AMSL 328 meters

Antenna HAAT: 69 meters

Antenna center Above Mean Sea Level: 415 meters

----- Distances to Contours in Kilometers -----						
AZM (deg)	HAAT (mtrs)	ERP (kW)	70 dBu (km)	60 dBu (km)	54 dBu (km)	65 dBu (km)
180	125	6.0000	18.2	31.3	42.3	24.0
185	144	6.0000	19.6	33.3	44.7	25.6
190	155	6.0000	20.3	34.4	46.1	26.4
195	149	6.0000	20.0	33.8	45.3	26.0
200	134	6.0000	18.9	32.2	43.5	24.8
205	138	6.0000	19.2	32.7	44.0	25.1
210	125	6.0000	18.2	31.3	42.3	24.0
215	147	6.0000	19.8	33.6	45.1	25.8
220	202	6.0000	22.9	38.9	50.8	29.9
225	194	6.0000	22.5	38.2	50.1	29.3
230	171	6.0000	21.3	36.1	47.9	27.7
235	136	6.0000	19.0	32.4	43.7	24.9
240	125	6.0000	18.2	31.3	42.3	24.0
245	120	6.0000	17.8	30.7	41.6	23.6
250	55	6.0000	12.0	21.4	29.5	16.0
255	9	6.0000	8.9	15.7	22.3	11.9
260	-3	6.0000	8.9	15.7	22.3	11.9
265	13	6.0000	8.9	15.7	22.3	11.9
270	32	6.0000	9.2	16.3	23.0	12.2
275	47	6.0000	11.1	19.9	27.4	14.7
280	49	6.0000	11.4	20.3	27.9	15.0
285	49	6.0000	11.4	20.3	27.9	15.0
290	50	6.0000	11.5	20.5	28.2	15.2
295	26	6.0000	8.9	15.7	22.3	11.9
300	33	6.0000	9.3	16.5	23.3	12.4
305	58	6.0000	12.3	22.0	30.2	16.4
310	88	6.0000	15.1	26.6	36.4	20.3
315	101	6.0000	16.2	28.4	38.7	21.8
320	140	6.0000	19.3	32.9	44.2	25.3
325	121	6.0000	17.9	30.8	41.7	23.7
330	52	6.0000	11.7	20.9	28.7	15.5
335	20	6.0000	8.9	15.7	22.3	11.9
340	34	6.0000	9.5	16.8	23.6	12.6
345	5	6.0000	8.9	15.7	22.3	11.9
350	-27	6.0000	8.9	15.7	22.3	11.9
355	-18	6.0000	8.9	15.7	22.3	11.9