

'ID'	'Key'	'Site Latitu	'Site Longi'	'Site AMSL	'Radials Us	'Antenna'	'Antenna A	'Curve'
BFO DA	-999	43.00339	-78.7653	183.7802	360		238	50:50
'Bearing'	'To-Contou	'miles'	'eirp (kW)'	'Ant Gain ('	'HAT (metr	'HAAT (meters)'		
0	0.762	0.47	0	0.01	179.429	58.571		
1	0.762	0.47	0	0.01	178.751	59.249		
2	0.762	0.47	0	0.01	178.073	59.927		
3	0.762	0.47	0	0.01	177.451	60.549		
4	0.762	0.47	0	0.01	176.777	61.224		
5	0.762	0.47	0	0.01	176.172	61.828		
6	0.762	0.47	0	0.01	175.737	62.263		
7	0.762	0.47	0	0.01	175.393	62.608		
8	0.762	0.47	0	0.01	174.999	63.001		
9	0.762	0.47	0	0.01	174.716	63.284		
10	0.762	0.47	0	0.01	174.462	63.538		
11	0.762	0.47	0	0.01	174.105	63.895		
12	0.762	0.47	0	0.01	173.825	64.175		
13	0.762	0.47	0	0.01	173.586	64.414		
14	0.762	0.47	0	0.01	173.517	64.483		
15	0.762	0.47	0	0.01	173.669	64.331		
16	0.762	0.47	0	0.01	173.847	64.153		
17	0.762	0.47	0	0.01	173.975	64.025		
18	0.762	0.47	0	0.01	173.978	64.022		
19	0.762	0.47	0	0.01	173.931	64.069		
20	0.762	0.47	0	0.01	173.896	64.104		
21	0.838	0.52	0	0.011	173.876	64.124		
22	0.914	0.57	0	0.012	173.822	64.178		
23	0.991	0.62	0	0.013	173.689	64.311		
24	1.067	0.66	0	0.014	173.456	64.544		
25	1.143	0.71	0	0.015	173.145	64.855		
26	1.219	0.76	0	0.016	172.847	65.153		
27	1.295	0.8	0	0.017	172.649	65.351		
28	1.372	0.85	0	0.018	172.54	65.46		
29	1.448	0.9	0	0.019	172.517	65.483		
30	1.524	0.95	0	0.02	172.613	65.387		
31	1.609	1	0.0001	0.026	172.772	65.228		
32	1.542	0.96	0.0001	0.033	172.871	65.129		
33	1.716	1.07	0.0002	0.039	172.844	65.157		
34	1.888	1.17	0.0002	0.046	172.683	65.317		
35	2.018	1.25	0.0003	0.052	172.376	65.624		
36	2.153	1.34	0.0004	0.059	172.017	65.983		
37	2.256	1.4	0.0005	0.065	171.813	66.187		
38	2.362	1.47	0.0006	0.072	171.864	66.136		
39	2.443	1.52	0.0007	0.078	172.056	65.944		
40	2.542	1.58	0.0009	0.085	172.27	65.73		
41	2.808	1.75	0.0012	0.102	172.472	65.528		
42	3.02	1.88	0.0016	0.118	172.664	65.336		
43	3.204	1.99	0.0021	0.134	172.845	65.155		

44	3.377	2.1	0.0027	0.151	173.017	64.983
45	3.531	2.19	0.0033	0.167	173.18	64.82
46	3.723	2.31	0.004	0.184	173.335	64.665
47	3.888	2.42	0.0047	0.2	173.482	64.518
48	4.049	2.52	0.0056	0.217	173.622	64.378
49	4.189	2.6	0.0064	0.233	173.755	64.245
50	4.328	2.69	0.0074	0.25	173.884	64.116
51	4.495	2.79	0.0087	0.272	174.012	63.988
52	4.684	2.91	0.0102	0.294	174.142	63.858
53	4.859	3.02	0.0118	0.316	174.281	63.719
54	5.021	3.12	0.0135	0.338	174.436	63.564
55	5.172	3.21	0.0153	0.36	174.613	63.387
56	5.312	3.3	0.0172	0.382	174.825	63.175
57	5.442	3.38	0.0193	0.404	175.107	62.893
58	5.568	3.46	0.0214	0.426	175.494	62.506
59	5.69	3.54	0.0237	0.448	175.982	62.018
60	5.801	3.6	0.0261	0.47	176.546	61.455
61	5.881	3.65	0.0281	0.488	177.161	60.839
62	5.951	3.7	0.0301	0.505	177.782	60.218
63	6.02	3.74	0.0322	0.522	178.337	59.663
64	6.093	3.79	0.0344	0.54	178.827	59.173
65	6.164	3.83	0.0367	0.558	179.282	58.718
66	6.231	3.87	0.039	0.575	179.674	58.326
67	6.298	3.91	0.0414	0.592	179.981	58.02
68	6.371	3.96	0.0439	0.61	180.219	57.781
69	6.442	4	0.0464	0.627	180.368	57.632
70	6.523	4.05	0.0491	0.645	180.428	57.572
71	6.607	4.11	0.0517	0.662	180.537	57.463
72	6.687	4.15	0.0546	0.68	180.776	57.224
73	6.752	4.2	0.0573	0.697	181.127	56.873
74	6.817	4.24	0.0603	0.715	181.512	56.488
75	6.878	4.27	0.0632	0.732	181.844	56.156
76	6.946	4.32	0.0664	0.75	182.113	55.887
77	6.997	4.35	0.0694	0.767	182.551	55.449
78	7.029	4.37	0.0727	0.785	183.308	54.692
79	7.046	4.38	0.0761	0.803	184.258	53.742
80	7.04	4.37	0.0793	0.82	185.412	52.588
81	7.009	4.36	0.0819	0.833	186.624	51.376
82	6.983	4.34	0.0845	0.846	187.74	50.26
83	6.971	4.33	0.0871	0.859	188.618	49.382
84	6.978	4.34	0.0897	0.872	189.222	48.778
85	7.006	4.35	0.0924	0.885	189.529	48.471
86	7.029	4.37	0.0952	0.898	189.892	48.108
87	7.038	4.37	0.0979	0.911	190.427	47.573
88	7.041	4.37	0.1007	0.924	191.027	46.973
89	7.034	4.37	0.1036	0.937	191.726	46.274
90	7.026	4.37	0.1065	0.95	192.421	45.579

91	6.988	4.34	0.1076	0.955	193.112	44.888
92	6.926	4.3	0.1087	0.96	194.079	43.921
93	6.797	4.22	0.1099	0.965	195.812	42.188
94	6.636	4.12	0.111	0.97	197.853	40.147
95	6.475	4.02	0.1122	0.975	199.909	38.091
96	6.336	3.94	0.1133	0.98	201.902	36.098
97	6.218	3.86	0.1145	0.985	203.572	34.428
98	6.123	3.8	0.1157	0.99	204.914	33.086
99	6.043	3.75	0.1168	0.995	206.053	31.947
100	5.956	3.7	0.118	1	207.244	30.756
101	5.876	3.65	0.1168	0.995	208.299	29.701
102	5.861	3.64	0.1157	0.99	209.145	28.855
103	5.846	3.63	0.1145	0.985	209.703	28.297
104	5.831	3.62	0.1133	0.98	210.257	27.743
105	5.815	3.61	0.1122	0.975	210.822	27.178
106	5.8	3.6	0.111	0.97	211.276	26.724
107	5.784	3.59	0.1099	0.965	211.444	26.556
108	5.769	3.58	0.1087	0.96	211.441	26.559
109	5.753	3.57	0.1076	0.955	211.467	26.533
110	5.737	3.56	0.1065	0.95	211.552	26.448
111	5.696	3.54	0.1036	0.937	211.628	26.372
112	5.654	3.51	0.1007	0.924	211.608	26.392
113	5.612	3.49	0.0979	0.911	211.45	26.55
114	5.568	3.46	0.0952	0.898	211.225	26.775
115	5.525	3.43	0.0924	0.885	211.001	27
116	5.483	3.41	0.0897	0.872	210.785	27.215
117	5.443	3.38	0.0871	0.859	210.614	27.386
118	5.403	3.36	0.0845	0.846	210.554	27.446
119	5.363	3.33	0.0819	0.833	210.513	27.487
120	5.321	3.31	0.0793	0.82	210.411	27.589
121	5.267	3.27	0.0761	0.803	210.169	27.831
122	5.207	3.24	0.0727	0.785	209.863	28.137
123	5.146	3.2	0.0694	0.767	209.533	28.467
124	5.087	3.16	0.0664	0.75	209.198	28.802
125	5.024	3.12	0.0632	0.732	208.872	29.128
126	4.962	3.08	0.0603	0.715	208.64	29.36
127	4.895	3.04	0.0573	0.697	208.578	29.422
128	4.83	3	0.0546	0.68	208.645	29.355
129	4.764	2.96	0.0519	0.663	208.697	29.303
130	4.692	2.92	0.0491	0.645	208.622	29.378
131	4.618	2.87	0.0464	0.627	208.419	29.581
132	4.546	2.82	0.0439	0.61	208.195	29.805
133	4.475	2.78	0.0414	0.592	208.06	29.94
134	4.418	2.75	0.039	0.575	207.997	30.004
135	4.365	2.71	0.0367	0.558	207.896	30.104
136	4.307	2.68	0.0344	0.54	207.781	30.219
137	4.245	2.64	0.0322	0.522	207.702	30.298

138	4.178	2.6	0.0301	0.505	207.718	30.282
139	4.109	2.55	0.0281	0.488	207.741	30.259
140	4.035	2.51	0.0261	0.47	207.738	30.262
141	3.943	2.45	0.0237	0.448	207.709	30.291
142	3.847	2.39	0.0214	0.426	207.651	30.349
143	3.747	2.33	0.0193	0.404	207.566	30.434
144	3.643	2.26	0.0172	0.382	207.454	30.546
145	3.535	2.2	0.0153	0.36	207.316	30.684
146	3.442	2.14	0.0135	0.338	207.154	30.846
147	3.355	2.08	0.0118	0.316	206.969	31.031
148	3.261	2.03	0.0102	0.294	206.764	31.236
149	3.161	1.96	0.0087	0.272	206.546	31.454
150	3.051	1.9	0.0074	0.25	206.326	31.674
151	2.966	1.84	0.0065	0.234	206.117	31.883
152	2.867	1.78	0.0056	0.217	205.932	32.068
153	2.758	1.71	0.0047	0.2	205.78	32.22
154	2.645	1.64	0.004	0.184	205.659	32.341
155	2.52	1.57	0.0033	0.168	205.562	32.438
156	2.41	1.5	0.0027	0.151	205.483	32.517
157	2.3	1.43	0.0022	0.135	205.414	32.586
158	2.167	1.35	0.0016	0.118	205.353	32.647
159	2.022	1.26	0.0012	0.102	205.288	32.712
160	1.846	1.15	0.0009	0.085	205.093	32.907
161	1.785	1.11	0.0007	0.079	204.685	33.315
162	1.708	1.06	0.0006	0.072	204.172	33.828
163	1.619	1.01	0.0005	0.065	203.733	34.268
164	1.531	0.95	0.0004	0.059	203.437	34.563
165	1.609	1	0.0003	0.053	203.317	34.683
166	1.609	1	0.0002	0.046	203.213	34.787
167	1.609	1	0.0002	0.04	203.079	34.921
168	1.609	1	0.0001	0.033	202.855	35.145
169	1.609	1	0.0001	0.027	202.629	35.371
170	1.524	0.95	0	0.02	202.206	35.794
171	1.448	0.9	0	0.019	201.645	36.355
172	1.372	0.85	0	0.018	200.623	37.377
173	1.295	0.8	0	0.017	198.741	39.259
174	1.219	0.76	0	0.016	196.685	41.315
175	1.143	0.71	0	0.015	195.374	42.626
176	1.067	0.66	0	0.014	195.026	42.974
177	0.991	0.62	0	0.013	194.632	43.368
178	0.914	0.57	0	0.012	194.226	43.774
179	0.838	0.52	0	0.011	193.959	44.041
180	0.762	0.47	0	0.01	193.693	44.307
181	0.762	0.47	0	0.01	193.532	44.468
182	0.762	0.47	0	0.01	193.569	44.431
183	0.762	0.47	0	0.01	193.654	44.346
184	0.762	0.47	0	0.01	193.743	44.257

185	0.762	0.47	0	0.01	193.838	44.162
186	0.762	0.47	0	0.01	193.936	44.064
187	0.762	0.47	0	0.01	194.097	43.903
188	0.762	0.47	0	0.01	194.582	43.418
189	0.762	0.47	0	0.01	195.149	42.851
190	0.762	0.47	0	0.01	195.667	42.333
191	0.762	0.47	0	0.01	195.89	42.11
192	0.762	0.47	0	0.01	195.921	42.079
193	0.762	0.47	0	0.01	195.918	42.082
194	0.762	0.47	0	0.01	195.847	42.153
195	0.762	0.47	0	0.01	195.633	42.367
196	0.762	0.47	0	0.01	195.391	42.609
197	0.762	0.47	0	0.01	195.197	42.803
198	0.762	0.47	0	0.01	195.148	42.852
199	0.762	0.47	0	0.01	195.169	42.832
200	0.762	0.47	0	0.01	195.214	42.786
201	0.762	0.47	0	0.01	195.248	42.752
202	0.762	0.47	0	0.01	195.078	42.923
203	0.762	0.47	0	0.01	194.594	43.406
204	0.762	0.47	0	0.01	193.843	44.157
205	0.762	0.47	0	0.01	192.969	45.031
206	0.762	0.47	0	0.01	192.031	45.969
207	0.762	0.47	0	0.01	191.044	46.956
208	0.762	0.47	0	0.01	190.048	47.952
209	0.762	0.47	0	0.01	189.102	48.898
210	0.762	0.47	0	0.01	188.244	49.756
211	0.762	0.47	0	0.01	187.497	50.503
212	0.838	0.52	0	0.011	186.861	51.139
213	0.914	0.57	0	0.012	186.304	51.696
214	0.914	0.57	0	0.012	185.791	52.209
215	0.914	0.57	0	0.012	185.288	52.712
216	0.991	0.62	0	0.013	184.771	53.229
217	0.991	0.62	0	0.013	184.246	53.754
218	1.067	0.66	0	0.014	183.725	54.276
219	1.067	0.66	0	0.014	183.236	54.764
220	1.143	0.71	0	0.015	182.784	55.216
221	1.219	0.76	0	0.016	182.362	55.638
222	1.295	0.8	0	0.017	181.973	56.027
223	1.372	0.85	0	0.018	181.646	56.354
224	1.448	0.9	0	0.019	181.339	56.661
225	1.524	0.95	0	0.02	180.975	57.025
226	1.6	0.99	0.0001	0.021	180.578	57.422
227	1.609	1	0.0001	0.022	180.166	57.835
228	1.609	1	0.0001	0.023	179.795	58.205
229	1.609	1	0.0001	0.024	179.462	58.538
230	1.609	1	0.0001	0.025	179.121	58.879
231	1.609	1	0.0001	0.026	178.869	59.131

232	1.609	1	0.0001	0.027	178.824	59.176
233	1.609	1	0.0001	0.028	178.987	59.013
234	1.609	1	0.0001	0.029	179.196	58.804
235	1.609	1	0.0001	0.03	179.33	58.67
236	1.609	1	0.0001	0.03	179.394	58.606
237	1.609	1	0.0001	0.031	179.513	58.487
238	1.609	1	0.0001	0.032	179.636	58.364
239	1.609	1	0.0001	0.033	179.62	58.38
240	1.521	0.94	0.0001	0.034	179.397	58.603
241	1.524	0.95	0.0001	0.034	179.083	58.917
242	1.555	0.97	0.0001	0.035	178.884	59.116
243	1.556	0.97	0.0001	0.035	178.82	59.18
244	1.585	0.98	0.0002	0.036	178.75	59.25
245	1.587	0.99	0.0002	0.036	178.593	59.408
246	1.589	0.99	0.0002	0.036	178.391	59.609
247	1.618	1.01	0.0002	0.037	178.225	59.775
248	1.618	1.01	0.0002	0.037	178.253	59.747
249	1.643	1.02	0.0002	0.038	178.462	59.538
250	1.64	1.02	0.0002	0.038	178.744	59.256
251	1.636	1.02	0.0002	0.038	179.071	58.929
252	1.633	1.01	0.0002	0.038	179.385	58.616
253	1.657	1.03	0.0002	0.039	179.554	58.447
254	1.655	1.03	0.0002	0.039	179.749	58.251
255	1.652	1.03	0.0002	0.039	179.989	58.011
256	1.65	1.03	0.0002	0.039	180.162	57.838
257	1.65	1.03	0.0002	0.039	180.185	57.815
258	1.679	1.04	0.0002	0.04	179.905	58.095
259	1.684	1.05	0.0002	0.04	179.425	58.575
260	1.69	1.05	0.0002	0.04	178.863	59.137
261	1.697	1.05	0.0002	0.04	178.234	59.766
262	1.702	1.06	0.0002	0.04	177.638	60.362
263	1.707	1.06	0.0002	0.04	177.087	60.913
264	1.713	1.06	0.0002	0.04	176.369	61.631
265	1.724	1.07	0.0002	0.04	175.024	62.976
266	1.742	1.08	0.0002	0.04	172.872	65.128
267	1.758	1.09	0.0002	0.04	170.839	67.161
268	1.773	1.1	0.0002	0.04	169.055	68.945
269	1.772	1.1	0.0002	0.04	169.116	68.884
270	1.762	1.09	0.0002	0.04	170.394	67.606
271	1.752	1.09	0.0002	0.04	171.67	66.33
272	1.741	1.08	0.0002	0.04	172.947	65.054
273	1.736	1.08	0.0002	0.04	173.622	64.378
274	1.734	1.08	0.0002	0.04	173.886	64.114
275	1.731	1.08	0.0002	0.04	174.181	63.819
276	1.73	1.07	0.0002	0.04	174.347	63.653
277	1.73	1.07	0.0002	0.04	174.368	63.632
278	1.73	1.07	0.0002	0.04	174.367	63.633

279	1.73	1.07	0.0002	0.04	174.345	63.655
280	1.73	1.07	0.0002	0.04	174.316	63.684
281	1.73	1.08	0.0002	0.04	174.284	63.716
282	1.731	1.08	0.0002	0.04	174.248	63.752
283	1.731	1.08	0.0002	0.04	174.209	63.791
284	1.731	1.08	0.0002	0.04	174.167	63.834
285	1.732	1.08	0.0002	0.04	174.12	63.88
286	1.732	1.08	0.0002	0.04	174.07	63.93
287	1.732	1.08	0.0002	0.04	174.016	63.984
288	1.733	1.08	0.0002	0.04	173.958	64.042
289	1.733	1.08	0.0002	0.04	173.896	64.104
290	1.734	1.08	0.0002	0.04	173.832	64.168
291	1.734	1.08	0.0002	0.04	173.781	64.219
292	1.735	1.08	0.0002	0.04	173.758	64.242
293	1.735	1.08	0.0002	0.04	173.758	64.242
294	1.734	1.08	0.0002	0.04	173.796	64.205
295	1.734	1.08	0.0002	0.04	173.873	64.127
296	1.733	1.08	0.0002	0.04	173.968	64.032
297	1.732	1.08	0.0002	0.04	174.06	63.94
298	1.732	1.08	0.0002	0.04	174.131	63.869
299	1.731	1.08	0.0002	0.04	174.153	63.847
300	1.732	1.08	0.0002	0.04	174.107	63.893
301	1.732	1.08	0.0002	0.04	174.014	63.986
302	1.733	1.08	0.0002	0.04	173.902	64.098
303	1.708	1.06	0.0002	0.039	173.783	64.218
304	1.709	1.06	0.0002	0.039	173.657	64.343
305	1.71	1.06	0.0002	0.039	173.525	64.475
306	1.711	1.06	0.0002	0.039	173.387	64.613
307	1.713	1.06	0.0002	0.039	173.242	64.758
308	1.687	1.05	0.0002	0.038	173.089	64.911
309	1.688	1.05	0.0002	0.038	172.934	65.066
310	1.689	1.05	0.0002	0.038	172.783	65.217
311	1.69	1.05	0.0002	0.038	172.647	65.354
312	1.664	1.03	0.0002	0.037	172.529	65.471
313	1.664	1.03	0.0002	0.037	172.43	65.57
314	1.637	1.02	0.0002	0.036	172.341	65.659
315	1.637	1.02	0.0002	0.036	172.249	65.751
316	1.638	1.02	0.0002	0.036	172.139	65.861
317	1.61	1	0.0001	0.035	171.996	66.004
318	1.611	1	0.0001	0.035	171.813	66.187
319	1.583	0.98	0.0001	0.034	171.598	66.402
320	1.585	0.98	0.0001	0.034	171.356	66.644
321	1.555	0.97	0.0001	0.033	171.116	66.884
322	1.525	0.95	0.0001	0.032	170.927	67.073
323	1.609	1	0.0001	0.031	170.836	67.164
324	1.609	1	0.0001	0.03	170.856	67.144
325	1.609	1	0.0001	0.03	170.973	67.027

326	1.609	1	0.0001	0.029	171.176	66.824
327	1.609	1	0.0001	0.028	171.425	66.575
328	1.609	1	0.0001	0.027	171.701	66.299
329	1.609	1	0.0001	0.026	172.059	65.941
330	1.609	1	0.0001	0.025	172.446	65.554
331	1.609	1	0.0001	0.024	172.706	65.294
332	1.609	1	0.0001	0.023	172.782	65.218
333	1.609	1	0.0001	0.022	172.847	65.153
334	1.6	0.99	0.0001	0.021	173.013	64.987
335	1.524	0.95	0	0.02	173.231	64.769
336	1.448	0.9	0	0.019	173.289	64.711
337	1.372	0.85	0	0.018	173.228	64.772
338	1.295	0.8	0	0.017	173.388	64.612
339	1.219	0.76	0	0.016	173.946	64.054
340	1.143	0.71	0	0.015	174.675	63.325
341	1.067	0.66	0	0.014	175.464	62.536
342	1.067	0.66	0	0.014	176.268	61.732
343	0.991	0.62	0	0.013	176.865	61.135
344	0.991	0.62	0	0.013	177.14	60.86
345	0.914	0.57	0	0.012	177.091	60.909
346	0.914	0.57	0	0.012	176.855	61.145
347	0.838	0.52	0	0.011	176.609	61.392
348	0.838	0.52	0	0.011	176.554	61.446
349	0.762	0.47	0	0.01	176.603	61.397
350	0.762	0.47	0	0.01	176.66	61.34
351	0.762	0.47	0	0.01	176.686	61.314
352	0.762	0.47	0	0.01	176.761	61.239
353	0.762	0.47	0	0.01	176.916	61.084
354	0.762	0.47	0	0.01	177.194	60.806
355	0.762	0.47	0	0.01	177.734	60.266
356	0.762	0.47	0	0.01	178.369	59.632
357	0.762	0.47	0	0.01	178.997	59.003
358	0.762	0.47	0	0.01	179.617	58.383
359	0.762	0.47	0	0.01	179.994	58.006



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