

**January 2012  
New FM Channel 208A  
Coos Bay, OR  
Allocation Study**

The attached spacing study shows the co-channel and adjacent channel spacing between stations and demonstrates that the proposed operation meets the IF channel spacing requirements as prescribed in §73.207 of the Commission's Rules.

Individual stations were examined to confirm the lack of prohibited contour overlap as prescribed in §73.509 of the Commission's Rules. Contours were calculated using a 1 degree radial increment and data extracted from the 3-second terrain database. The attached allocation study exhibits demonstrate requisite contour protection for the following domestic stations:

First-adjacent:	KLOV	207C3 Winchester
	KLCC	209C0 Eugene

**TV Channel 6**

Section 73.525 of the Commission's Rules specifies a threshold distance of 196 kilometers for FM stations operating on Channel 208. There is no TV Channel 6 station located within this threshold distance.

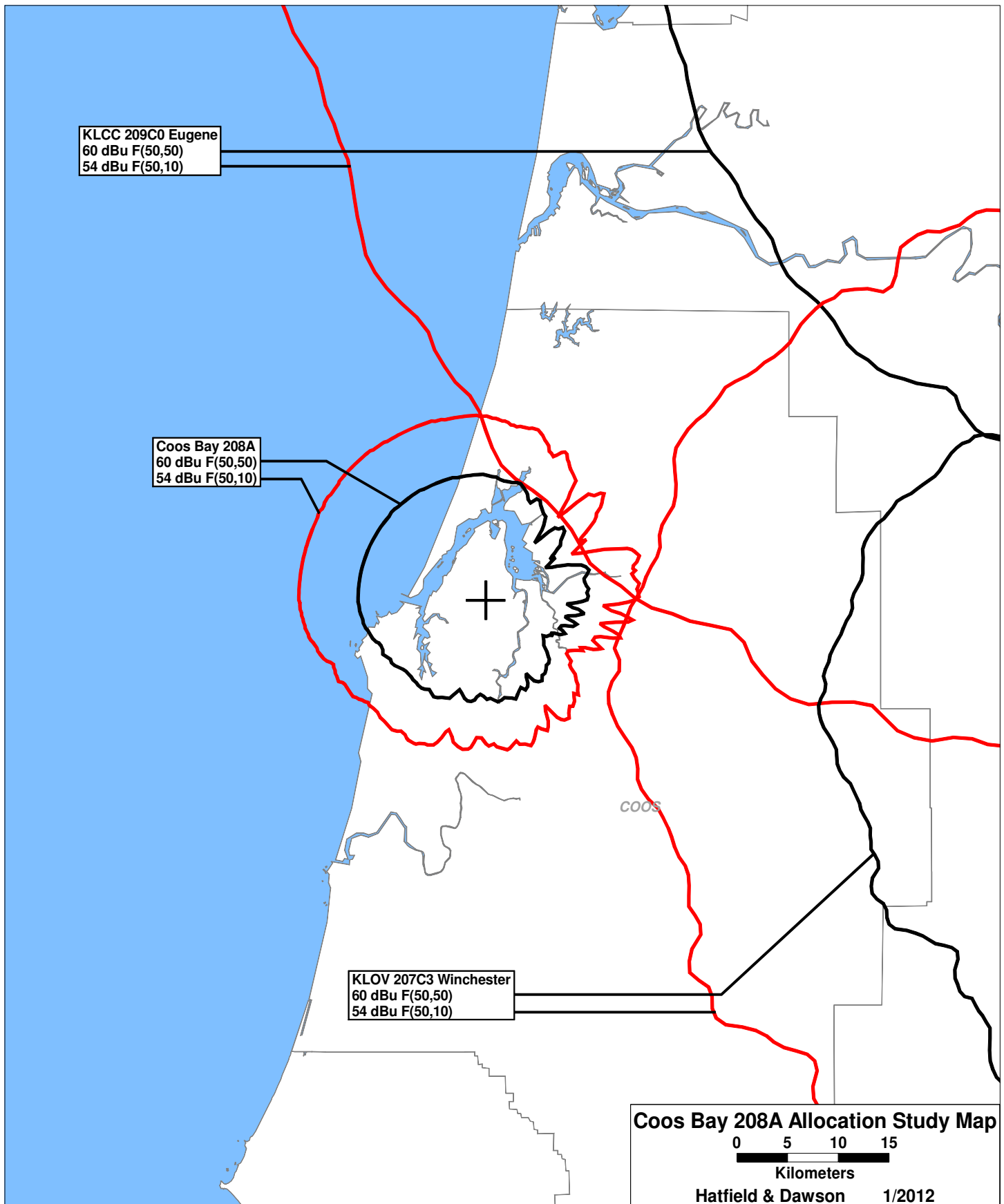
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SEARCH PARAMETERS                               FM Database Date: 120104
Channel: 208A      89.5 MHz                      Page 1
Latitude: 43 21 16
Longitude: 124 14 30
Safety Zone: 50 km
Job Title: COOS BAY 208A

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Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K205DR LIC	MCKINLEY OR	BLFT-30107AAA	205D 88.9	0.010 608.0	43-16-37 123-54-10	107.3	28.81 0.00	0 TRANS
K206AI LIC	COOS BAY, ETC. OR	BLFT-850725TC	206D 89.1	0.038 223.0	43-18-42 124-14-36	181.6	4.75 0.00	0 TRANS
KLFR LIC	REEDSPORT OR	BLED-21126ABV	206A 89.1	0.700 109.0	43-43-21 124-05-40	16.1	42.59 11.59	31 CLEAR
K207DQ LIC	FLORENCE OR	BMLFT-50627ACL	207D 89.3	0.041 249.0	43-57-20 124-04-26	11.4	68.14 0.00	0 TRANS
K207BQ LIC	PORT ORFORD OR	BLFT-960703TE	207D 89.3	0.009 100.0	42-44-42 124-30-09	197.5	70.96 0.00	0 TRANS
K207AB LIC	SUTHERLIN & GLIDE OR	BLFT-830701MA	207D 89.3	0.081 1020.0	43-22-20 123-03-47	88.4	95.56 0.00	0 TRANS
KLOV LIC	WINCHESTER OR	BLED-10623AAM	207C3 89.3	3.500 212.0	43-14-08 123-19-18	99.8	75.82 -13.18	89 SHORT
KLOVaux LIC	WINCHESTER OR	BXLED-30912ABH	207A 89.3	0.100 193.0	43-11-39 123-23-23	104.2	71.42 0.00	0 AUX
K208CC LIC	CAVE JUNCTION OR	BLFT-931202TC	208D 89.5	0.083 797.0	42-15-31 123-37-43	157.5	131.66 0.00	0 TRANS
NEW CP MOD	COOS BAY OR	BMPED-01012ABL	208A 89.5	0.900 30.8	43-17-41 124-13-17	166.1 SS	6.84 -108.16	115 SHORT
KLCC LIC	EUGENE OR	BLED-900313KB	209C0 89.7	81.000 354.0	44-00-05 123-06-48	51.2	115.96 -36.04	152 SHORT
K210DP LIC	COOS BAY OR	BLFT-50629ABO	210D 89.9	0.062 212.0	43-21-15 124-14-34	251.0	0.10 0.00	0 TRANS
KSOR LIC	ASHLAND OR	BMLLED-10926ABP	211C 90.1	38.000 810.0	42-41-30 123-13-44	131.5	110.62 15.62	95 CLEAR
K261DL LIC	BANDON OR	BLFT-50623ABP	261D 100.1	0.010 592.0	42-57-32 124-16-23	183.3	44.02 0.00	0 TRANS
K262AU LIC	EMPIRE OR	BLFT-41208AAY	262D 100.3	0.150 196.0	43-21-15 124-14-34	251.0	0.10 0.00	0 TRANS

===== END OF FM SPACING STUDY FOR CHANNEL 208 =====



KLCC 209C0 Eugene  
60 dBu F(50,50)  
54 dBu F(50,10)

Coos Bay 208A  
60 dBu F(50,50)  
54 dBu F(50,10)

KLOV 207C3 Winchester  
60 dBu F(50,50)  
54 dBu F(50,10)

**Coos Bay 208A Allocation Study Map**

0 5 10 15  
Kilometers

Hatfield & Dawson 1/2012

## Tabulation of Distances to Coos Bay 208A 60 dBu F(50,50) Contour

DISTANCES TO CONTOURS (Kilometers):  
 Antenna COR elevation (AMSL): 202 mtrs  
 Frequency: 89.5000 MHz  
 Coordinates: N 43 21 16.00 W 124 14 30.00  
 F(50,50) Curves Number of Contours: 1

AZ (deg)	HAAT (m)	ERPd (kW)	CONTOUR LEVELS (dBu): 60.0
0.0	189	0.0550	12.2
1.0	188	0.0550	12.2
2.0	187	0.0550	12.2
3.0	186	0.0550	12.1
4.0	184	0.0550	12.1
5.0	183	0.0550	12.1
6.0	181	0.0550	12.0
7.0	179	0.0550	11.9
8.0	177	0.0550	11.9
9.0	176	0.0550	11.8
10.0	174	0.0550	11.8
11.0	175	0.0550	11.8
12.0	176	0.0550	11.9
13.0	176	0.0550	11.8
14.0	176	0.0550	11.9
15.0	178	0.0550	11.9
16.0	178	0.0550	11.9
17.0	177	0.0550	11.9
18.0	173	0.0550	11.8
19.0	169	0.0550	11.6
20.0	165	0.0550	11.4
21.0	161	0.0550	11.3
22.0	156	0.0550	11.1
23.0	146	0.0550	10.7
24.0	144	0.0550	10.6
25.0	141	0.0550	10.5
26.0	147	0.0550	10.8
27.0	155	0.0550	11.1
28.0	158	0.0550	11.2
29.0	156	0.0550	11.1
30.0	149	0.0550	10.8
31.0	145	0.0550	10.7
32.0	139	0.0550	10.5
33.0	135	0.0550	10.3
34.0	134	0.0550	10.2
35.0	130	0.0550	10.1
36.0	131	0.0550	10.1
37.0	124	0.0550	9.9
38.0	108	0.0550	9.3
39.0	98	0.0550	8.8
40.0	83	0.0550	8.0
41.0	72	0.0550	7.4
42.0	84	0.0550	8.1
43.0	104	0.0550	9.1
44.0	122	0.0550	9.8

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45.0	124	0.0550	9.9
46.0	126	0.0550	10.0
47.0	138	0.0550	10.4
48.0	141	0.0550	10.5
49.0	134	0.0550	10.3
50.0	128	0.0550	10.0
51.0	121	0.0550	9.8
52.0	112	0.0550	9.4
53.0	109	0.0550	9.3
54.0	104	0.0550	9.1
55.0	94	0.0550	8.6
56.0	86	0.0550	8.2
57.0	78	0.0550	7.8
58.0	72	0.0550	7.5
59.0	81	0.0550	8.0
60.0	72	0.0550	7.5
61.0	64	0.0550	7.1
62.0	57	0.0550	6.7
63.0	57	0.0550	6.7
64.0	68	0.0550	7.3
65.0	78	0.0550	7.8
66.0	86	0.0550	8.2
67.0	97	0.0550	8.8
68.0	106	0.0550	9.1
69.0	115	0.0550	9.5
70.0	127	0.0550	10.0
71.0	133	0.0550	10.2
72.0	137	0.0550	10.4
73.0	139	0.0550	10.5
74.0	142	0.0550	10.6
75.0	143	0.0550	10.6
76.0	135	0.0550	10.3
77.0	129	0.0550	10.1
78.0	126	0.0550	9.9
79.0	130	0.0550	10.1
80.0	124	0.0550	9.9
81.0	123	0.0550	9.8
82.0	127	0.0550	10.0
83.0	131	0.0550	10.1
84.0	133	0.0550	10.2
85.0	132	0.0550	10.2
86.0	129	0.0550	10.0
87.0	130	0.0550	10.1
88.0	131	0.0550	10.1
89.0	132	0.0550	10.2
90.0	127	0.0550	10.0
91.0	115	0.0550	9.5
92.0	101	0.0550	8.9
93.0	82	0.0550	8.0
94.0	79	0.0550	7.9
95.0	93	0.0550	8.6
96.0	107	0.0550	9.2
97.0	115	0.0550	9.5
98.0	123	0.0550	9.8
99.0	118	0.0550	9.6
100.0	102	0.0550	9.0
101.0	88	0.0550	8.3
102.0	81	0.0550	8.0

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103.0	88	0.0550	8.3
104.0	100	0.0550	8.9
105.0	110	0.0550	9.3
106.0	113	0.0550	9.4
107.0	102	0.0550	9.0
108.0	85	0.0550	8.2
109.0	79	0.0550	7.9
110.0	79	0.0550	7.8
111.0	78	0.0550	7.8
112.0	85	0.0550	8.2
113.0	92	0.0550	8.5
114.0	89	0.0550	8.4
115.0	83	0.0550	8.1
116.0	73	0.0550	7.5
117.0	68	0.0550	7.2
118.0	72	0.0550	7.5
119.0	67	0.0550	7.2
120.0	63	0.0550	7.0
121.0	63	0.0550	7.0
122.0	57	0.0550	6.7
123.0	55	0.0550	6.6
124.0	58	0.0550	6.7
125.0	63	0.0550	7.0
126.0	66	0.0550	7.2
127.0	66	0.0550	7.1
128.0	68	0.0550	7.3
129.0	72	0.0550	7.5
130.0	80	0.0550	7.9
131.0	83	0.0550	8.0
132.0	88	0.0550	8.3
133.0	93	0.0550	8.6
134.0	94	0.0550	8.6
135.0	99	0.0550	8.8
136.0	103	0.0550	9.0
137.0	97	0.0550	8.8
138.0	101	0.0550	8.9
139.0	105	0.0550	9.1
140.0	107	0.0550	9.2
141.0	109	0.0550	9.3
142.0	107	0.0550	9.2
143.0	109	0.0550	9.3
144.0	114	0.0550	9.5
145.0	119	0.0550	9.7
146.0	120	0.0550	9.7
147.0	118	0.0550	9.6
148.0	114	0.0550	9.5
149.0	110	0.0550	9.3
150.0	97	0.0550	8.8
151.0	87	0.0550	8.3
152.0	95	0.0550	8.6
153.0	108	0.0550	9.2
154.0	115	0.0550	9.5
155.0	119	0.0550	9.7
156.0	119	0.0550	9.7
157.0	114	0.0550	9.5
158.0	110	0.0550	9.3
159.0	112	0.0550	9.4
160.0	117	0.0550	9.6

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161.0	123	0.0550	9.8
162.0	129	0.0550	10.0
163.0	131	0.0550	10.2
164.0	131	0.0550	10.1
165.0	127	0.0550	10.0
166.0	127	0.0550	10.0
167.0	125	0.0550	9.9
168.0	120	0.0550	9.7
169.0	121	0.0550	9.8
170.0	123	0.0550	9.8
171.0	128	0.0550	10.0
172.0	130	0.0550	10.1
173.0	129	0.0550	10.1
174.0	126	0.0550	9.9
175.0	125	0.0550	9.9
176.0	123	0.0550	9.8
177.0	119	0.0550	9.7
178.0	121	0.0550	9.7
179.0	122	0.0550	9.8
180.0	119	0.0550	9.7
181.0	114	0.0550	9.5
182.0	111	0.0550	9.4
183.0	110	0.0550	9.3
184.0	111	0.0550	9.4
185.0	117	0.0550	9.6
186.0	124	0.0550	9.9
187.0	129	0.0550	10.1
188.0	130	0.0550	10.1
189.0	131	0.0550	10.1
190.0	129	0.0550	10.1
191.0	127	0.0550	10.0
192.0	126	0.0550	9.9
193.0	121	0.0550	9.8
194.0	115	0.0550	9.5
195.0	110	0.0550	9.4
196.0	106	0.0550	9.2
197.0	110	0.0550	9.3
198.0	120	0.0550	9.7
199.0	128	0.0550	10.0
200.0	135	0.0550	10.3
201.0	138	0.0550	10.4
202.0	139	0.0550	10.4
203.0	140	0.0550	10.5
204.0	141	0.0550	10.5
205.0	143	0.0550	10.6
206.0	146	0.0550	10.7
207.0	147	0.0550	10.8
208.0	147	0.0550	10.8
209.0	147	0.0550	10.7
210.0	144	0.0550	10.6
211.0	140	0.0550	10.5
212.0	139	0.0550	10.4
213.0	140	0.0550	10.5
214.0	143	0.0550	10.6
215.0	145	0.0550	10.7
216.0	146	0.0550	10.7
217.0	146	0.0550	10.7
218.0	145	0.0550	10.7

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219.0	144	0.0550	10.6
220.0	142	0.0550	10.6
221.0	143	0.0550	10.6
222.0	143	0.0550	10.6
223.0	140	0.0550	10.5
224.0	140	0.0550	10.5
225.0	140	0.0550	10.5
226.0	140	0.0550	10.5
227.0	139	0.0550	10.4
228.0	140	0.0550	10.5
229.0	139	0.0550	10.5
230.0	143	0.0550	10.6
231.0	145	0.0550	10.7
232.0	149	0.0550	10.8
233.0	151	0.0550	10.9
234.0	154	0.0550	11.0
235.0	154	0.0550	11.0
236.0	154	0.0550	11.1
237.0	154	0.0550	11.1
238.0	154	0.0550	11.0
239.0	154	0.0550	11.1
240.0	157	0.0550	11.2
241.0	161	0.0550	11.3
242.0	163	0.0550	11.4
243.0	160	0.0550	11.3
244.0	159	0.0550	11.2
245.0	159	0.0550	11.2
246.0	158	0.0550	11.2
247.0	157	0.0550	11.1
248.0	160	0.0550	11.3
249.0	167	0.0550	11.5
250.0	170	0.0550	11.6
251.0	172	0.0550	11.7
252.0	173	0.0550	11.8
253.0	176	0.0550	11.8
254.0	177	0.0550	11.9
255.0	178	0.0550	11.9
256.0	181	0.0550	12.0
257.0	183	0.0550	12.1
258.0	186	0.0550	12.1
259.0	187	0.0550	12.2
260.0	188	0.0550	12.2
261.0	189	0.0550	12.2
262.0	190	0.0550	12.3
263.0	191	0.0550	12.3
264.0	192	0.0550	12.3
265.0	193	0.0550	12.4
266.0	194	0.0550	12.4
267.0	195	0.0550	12.4
268.0	196	0.0550	12.4
269.0	196	0.0550	12.5
270.0	196	0.0550	12.5
271.0	197	0.0550	12.5
272.0	197	0.0550	12.5
273.0	197	0.0550	12.5
274.0	197	0.0550	12.5
275.0	197	0.0550	12.5
276.0	197	0.0550	12.5

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277.0	197	0.0550	12.5
278.0	197	0.0550	12.5
279.0	197	0.0550	12.5
280.0	197	0.0550	12.5
281.0	197	0.0550	12.5
282.0	197	0.0550	12.5
283.0	197	0.0550	12.5
284.0	197	0.0550	12.5
285.0	197	0.0550	12.5
286.0	197	0.0550	12.5
287.0	197	0.0550	12.5
288.0	198	0.0550	12.5
289.0	198	0.0550	12.5
290.0	198	0.0550	12.5
291.0	198	0.0550	12.5
292.0	198	0.0550	12.5
293.0	198	0.0550	12.5
294.0	198	0.0550	12.5
295.0	198	0.0550	12.5
296.0	198	0.0550	12.5
297.0	198	0.0550	12.5
298.0	198	0.0550	12.5
299.0	198	0.0550	12.5
300.0	198	0.0550	12.5
301.0	198	0.0550	12.5
302.0	198	0.0550	12.5
303.0	198	0.0550	12.5
304.0	198	0.0550	12.5
305.0	198	0.0550	12.5
306.0	198	0.0550	12.5
307.0	198	0.0550	12.5
308.0	198	0.0550	12.5
309.0	198	0.0550	12.5
310.0	199	0.0550	12.5
311.0	199	0.0550	12.5
312.0	199	0.0550	12.5
313.0	199	0.0550	12.6
314.0	199	0.0550	12.6
315.0	199	0.0550	12.6
316.0	199	0.0550	12.6
317.0	199	0.0550	12.5
318.0	199	0.0550	12.5
319.0	199	0.0550	12.5
320.0	199	0.0550	12.5
321.0	199	0.0550	12.5
322.0	198	0.0550	12.5
323.0	198	0.0550	12.5
324.0	197	0.0550	12.5
325.0	197	0.0550	12.5
326.0	197	0.0550	12.5
327.0	196	0.0550	12.5
328.0	196	0.0550	12.5
329.0	196	0.0550	12.5
330.0	196	0.0550	12.5
331.0	196	0.0550	12.4
332.0	196	0.0550	12.4
333.0	195	0.0550	12.4
334.0	195	0.0550	12.4

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335.0	195	0.0550	12.4
336.0	195	0.0550	12.4
337.0	195	0.0550	12.4
338.0	196	0.0550	12.4
339.0	196	0.0550	12.4
340.0	196	0.0550	12.4
341.0	195	0.0550	12.4
342.0	195	0.0550	12.4
343.0	195	0.0550	12.4
344.0	194	0.0550	12.4
345.0	193	0.0550	12.4
346.0	193	0.0550	12.4
347.0	192	0.0550	12.3
348.0	191	0.0550	12.3
349.0	191	0.0550	12.3
350.0	191	0.0550	12.3
351.0	191	0.0550	12.3
352.0	191	0.0550	12.3
353.0	192	0.0550	12.3
354.0	192	0.0550	12.3
355.0	192	0.0550	12.3
356.0	192	0.0550	12.3
357.0	191	0.0550	12.3
358.0	190	0.0550	12.3
359.0	190	0.0550	12.3
360.0	189	0.0550	12.2

## Tabulation of Distances to KLLC 209C0 54 dBu F(50,10) Contour

DISTANCES TO CONTOURS (Kilometers):  
 Antenna COR elevation (AMSL): 546 mtrs  
 Frequency: 89.7000 MHz  
 Coordinates: N 44 0 5.00 W 123 6 48.00  
 F(50,10) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERPd (kW)	CONTOUR LEVELS (dBu): 54.0
0.0	416	80.9095	116.5
1.0	416	80.9095	116.5
2.0	416	80.9095	116.5
3.0	415	80.9095	116.5
4.0	415	80.9095	116.4
5.0	415	80.9095	116.4
6.0	414	80.9095	116.3
7.0	414	80.9095	116.3
8.0	410	80.9095	115.9
9.0	407	80.9095	115.5
10.0	406	80.9095	115.4
11.0	407	80.9095	115.5
12.0	407	80.9095	115.5
13.0	409	80.9095	115.7
14.0	409	80.9095	115.8
15.0	408	80.9095	115.7
16.0	408	80.9095	115.6
17.0	407	80.9095	115.5
18.0	407	80.9095	115.5
19.0	406	80.9095	115.4
20.0	405	80.9095	115.3
21.0	404	80.9095	115.2
22.0	402	80.9095	115.0
23.0	401	80.9095	114.8
24.0	398	80.9095	114.5
25.0	391	80.9095	113.7
26.0	386	80.9095	113.1
27.0	384	80.9095	112.9
28.0	382	80.9095	112.7
29.0	376	80.9095	112.0
30.0	368	80.9095	110.8
31.0	361	80.9095	109.8
32.0	356	80.9095	109.0
33.0	348	80.9095	107.9
34.0	341	80.9095	106.7
35.0	336	80.9095	106.1
36.0	334	80.9095	105.8
37.0	336	80.9095	106.1
38.0	338	80.9095	106.4
39.0	340	80.9095	106.7
40.0	346	80.9095	107.5
41.0	347	80.9095	107.6
42.0	346	80.9095	107.4
43.0	349	80.9095	107.9
44.0	349	80.9095	108.0

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45.0	354	80.9095	108.7
46.0	359	80.9095	109.5
47.0	363	80.9095	110.1
48.0	369	80.9095	111.0
49.0	375	80.9095	111.8
50.0	375	80.9095	111.7
51.0	375	80.9095	111.8
52.0	376	80.9095	111.9
53.0	376	80.9095	112.0
54.0	377	80.9095	112.0
55.0	377	80.9095	112.0
56.0	375	80.9095	111.8
57.0	370	80.9095	111.2
58.0	367	80.9095	110.8
59.0	368	80.9095	110.9
60.0	369	80.9095	111.0
61.0	365	80.9095	110.5
62.0	362	80.9095	109.9
63.0	358	80.9095	109.3
64.0	354	80.9095	108.8
65.0	353	80.9095	108.5
66.0	351	80.9095	108.2
67.0	349	80.9095	108.0
68.0	349	80.9095	108.0
69.0	350	80.9095	108.1
70.0	353	80.9095	108.6
71.0	358	80.9095	109.4
72.0	364	80.9095	110.2
73.0	366	80.9095	110.6
74.0	366	80.9095	110.6
75.0	367	80.9095	110.7
76.0	368	80.9095	110.8
77.0	368	80.9095	110.8
78.0	368	80.9095	110.8
79.0	367	80.9095	110.7
80.0	364	80.9095	110.2
81.0	360	80.9095	109.6
82.0	357	80.9095	109.2
83.0	353	80.9095	108.5
84.0	348	80.9095	107.8
85.0	343	80.9095	107.1
86.0	338	80.9095	106.4
87.0	335	80.9095	106.0
88.0	330	80.9095	105.3
89.0	328	80.9095	105.1
90.0	331	80.9095	105.5
91.0	336	80.9095	106.1
92.0	340	80.9095	106.6
93.0	343	80.9095	107.0
94.0	346	80.9095	107.6
95.0	350	80.9095	108.1
96.0	353	80.9095	108.5
97.0	354	80.9095	108.8
98.0	355	80.9095	108.9
99.0	356	80.9095	109.1
100.0	357	80.9095	109.1
101.0	357	80.9095	109.2
102.0	357	80.9095	109.1

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103.0	356	80.9095	109.0
104.0	352	80.9095	108.5
105.0	348	80.9095	107.8
106.0	344	80.9095	107.2
107.0	340	80.9095	106.6
108.0	335	80.9095	106.0
109.0	331	80.9095	105.5
110.0	327	80.9095	104.9
111.0	322	80.9095	104.3
112.0	321	80.9095	104.2
113.0	324	80.9095	104.6
114.0	332	80.9095	105.5
115.0	337	80.9095	106.2
116.0	342	80.9095	106.9
117.0	345	80.9095	107.3
118.0	347	80.9095	107.6
119.0	347	80.9095	107.7
120.0	347	80.9095	107.7
121.0	347	80.9095	107.6
122.0	346	80.9095	107.5
123.0	345	80.9095	107.4
124.0	344	80.9095	107.2
125.0	343	80.9095	107.0
126.0	342	80.9095	106.9
127.0	342	80.9095	106.9
128.0	344	80.9095	107.2
129.0	345	80.9095	107.4
130.0	346	80.9095	107.5
131.0	345	80.9095	107.3
132.0	342	80.9095	107.0
133.0	340	80.9095	106.7
134.0	339	80.9095	106.5
135.0	339	80.9095	106.4
136.0	338	80.9095	106.4
137.0	338	80.9095	106.4
138.0	339	80.9095	106.5
139.0	342	80.9095	106.9
140.0	343	80.9095	107.0
141.0	340	80.9095	106.7
142.0	339	80.9095	106.5
143.0	340	80.9095	106.7
144.0	344	80.9095	107.2
145.0	344	80.9095	107.2
146.0	343	80.9095	107.1
147.0	345	80.9095	107.4
148.0	345	80.9095	107.3
149.0	342	80.9095	107.0
150.0	341	80.9095	106.8
151.0	340	80.9095	106.6
152.0	339	80.9095	106.5
153.0	338	80.9095	106.4
154.0	338	80.9095	106.4
155.0	339	80.9095	106.5
156.0	338	80.9095	106.4
157.0	337	80.9095	106.3
158.0	332	80.9095	105.6
159.0	322	80.9095	104.4
160.0	314	80.9095	103.4

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161.0	306	80.9095	102.7
162.0	295	80.9095	101.6
163.0	286	80.9095	100.7
164.0	277	80.9095	99.8
165.0	268	80.9095	98.9
166.0	263	80.9095	98.4
167.0	261	80.9095	98.2
168.0	261	80.9095	98.2
169.0	258	80.9095	97.9
170.0	256	80.9095	97.7
171.0	255	80.9095	97.6
172.0	251	80.9095	97.2
173.0	247	80.9095	96.8
174.0	245	80.9095	96.6
175.0	248	80.9095	96.9
176.0	250	80.9095	97.1
177.0	247	80.9095	96.8
178.0	239	80.9095	95.9
179.0	230	80.9095	95.0
180.0	227	80.9095	94.6
181.0	226	80.9095	94.6
182.0	224	80.9095	94.4
183.0	223	80.9095	94.3
184.0	218	80.9095	93.7
185.0	216	80.9095	93.5
186.0	219	80.9095	93.8
187.0	225	80.9095	94.5
188.0	231	80.9095	95.1
189.0	229	80.9095	94.9
190.0	229	80.9095	94.9
191.0	236	80.9095	95.7
192.0	239	80.9095	95.9
193.0	239	80.9095	96.0
194.0	246	80.9095	96.7
195.0	246	80.9095	96.7
196.0	242	80.9095	96.3
197.0	234	80.9095	95.5
198.0	230	80.9095	95.1
199.0	233	80.9095	95.4
200.0	232	80.9095	95.3
201.0	228	80.9095	94.8
202.0	227	80.9095	94.7
203.0	227	80.9095	94.6
204.0	229	80.9095	94.9
205.0	231	80.9095	95.1
206.0	236	80.9095	95.7
207.0	238	80.9095	95.9
208.0	245	80.9095	96.6
209.0	257	80.9095	97.9
210.0	264	80.9095	98.5
211.0	266	80.9095	98.7
212.0	262	80.9095	98.3
213.0	257	80.9095	97.9
214.0	265	80.9095	98.6
215.0	277	80.9095	99.8
216.0	292	80.9095	101.3
217.0	298	80.9095	101.9
218.0	299	80.9095	102.0

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219.0	296	80.9095	101.7
220.0	292	80.9095	101.3
221.0	283	80.9095	100.4
222.0	282	80.9095	100.3
223.0	292	80.9095	101.3
224.0	303	80.9095	102.4
225.0	311	80.9095	103.1
226.0	320	80.9095	104.1
227.0	325	80.9095	104.6
228.0	326	80.9095	104.8
229.0	330	80.9095	105.3
230.0	332	80.9095	105.6
231.0	329	80.9095	105.2
232.0	327	80.9095	104.9
233.0	327	80.9095	104.9
234.0	328	80.9095	105.1
235.0	332	80.9095	105.6
236.0	337	80.9095	106.3
237.0	340	80.9095	106.7
238.0	339	80.9095	106.5
239.0	336	80.9095	106.1
240.0	333	80.9095	105.7
241.0	333	80.9095	105.7
242.0	337	80.9095	106.3
243.0	339	80.9095	106.5
244.0	340	80.9095	106.6
245.0	339	80.9095	106.4
246.0	341	80.9095	106.8
247.0	346	80.9095	107.6
248.0	351	80.9095	108.3
249.0	354	80.9095	108.8
250.0	356	80.9095	109.0
251.0	354	80.9095	108.7
252.0	352	80.9095	108.5
253.0	351	80.9095	108.2
254.0	349	80.9095	107.9
255.0	347	80.9095	107.7
256.0	349	80.9095	108.0
257.0	350	80.9095	108.1
258.0	352	80.9095	108.5
259.0	352	80.9095	108.5
260.0	353	80.9095	108.6
261.0	358	80.9095	109.4
262.0	363	80.9095	110.2
263.0	367	80.9095	110.6
264.0	370	80.9095	111.1
265.0	372	80.9095	111.5
266.0	375	80.9095	111.8
267.0	378	80.9095	112.2
268.0	379	80.9095	112.4
269.0	378	80.9095	112.2
270.0	374	80.9095	111.7
271.0	368	80.9095	110.9
272.0	360	80.9095	109.7
273.0	354	80.9095	108.7
274.0	353	80.9095	108.5
275.0	355	80.9095	108.9
276.0	358	80.9095	109.4

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277.0	361	80.9095	109.7
278.0	363	80.9095	110.0
279.0	364	80.9095	110.3
280.0	366	80.9095	110.5
281.0	365	80.9095	110.4
282.0	365	80.9095	110.4
283.0	367	80.9095	110.6
284.0	371	80.9095	111.2
285.0	374	80.9095	111.7
286.0	377	80.9095	112.1
287.0	378	80.9095	112.2
288.0	377	80.9095	112.1
289.0	374	80.9095	111.6
290.0	373	80.9095	111.5
291.0	373	80.9095	111.5
292.0	375	80.9095	111.8
293.0	378	80.9095	112.2
294.0	381	80.9095	112.5
295.0	383	80.9095	112.8
296.0	385	80.9095	113.0
297.0	387	80.9095	113.2
298.0	388	80.9095	113.4
299.0	389	80.9095	113.5
300.0	390	80.9095	113.6
301.0	391	80.9095	113.7
302.0	391	80.9095	113.6
303.0	393	80.9095	113.9
304.0	397	80.9095	114.3
305.0	397	80.9095	114.4
306.0	398	80.9095	114.5
307.0	399	80.9095	114.6
308.0	401	80.9095	114.9
309.0	403	80.9095	115.0
310.0	406	80.9095	115.4
311.0	407	80.9095	115.6
312.0	408	80.9095	115.6
313.0	409	80.9095	115.7
314.0	410	80.9095	115.8
315.0	411	80.9095	116.0
316.0	412	80.9095	116.1
317.0	413	80.9095	116.2
318.0	414	80.9095	116.3
319.0	414	80.9095	116.3
320.0	415	80.9095	116.4
321.0	415	80.9095	116.5
322.0	416	80.9095	116.5
323.0	416	80.9095	116.6
324.0	417	80.9095	116.6
325.0	417	80.9095	116.7
326.0	417	80.9095	116.7
327.0	417	80.9095	116.6
328.0	417	80.9095	116.6
329.0	416	80.9095	116.5
330.0	415	80.9095	116.5
331.0	415	80.9095	116.4
332.0	415	80.9095	116.4
333.0	414	80.9095	116.3
334.0	414	80.9095	116.3

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335.0	414	80.9095	116.4
336.0	415	80.9095	116.4
337.0	416	80.9095	116.5
338.0	416	80.9095	116.6
339.0	417	80.9095	116.6
340.0	417	80.9095	116.7
341.0	418	80.9095	116.7
342.0	418	80.9095	116.8
343.0	419	80.9095	116.9
344.0	419	80.9095	116.9
345.0	419	80.9095	116.9
346.0	420	80.9095	116.9
347.0	420	80.9095	117.0
348.0	420	80.9095	117.0
349.0	420	80.9095	117.0
350.0	420	80.9095	117.0
351.0	420	80.9095	117.0
352.0	420	80.9095	116.9
353.0	419	80.9095	116.9
354.0	418	80.9095	116.8
355.0	418	80.9095	116.7
356.0	417	80.9095	116.7
357.0	416	80.9095	116.6
358.0	416	80.9095	116.5
359.0	416	80.9095	116.5
360.0	416	80.9095	116.5