

Expected CARIBU beam intensities for December 2012 PAC cycle

Nuclide	t1/2	low energy yield (ion/sec on target)	reaccelerated yield (ion/sec on target)
83As	13.4 s	6.3E+02	9.3E+01
83Se	22.3 m	2.4E+02	3.8E+01
84As	5.5 s	5.9E+02	8.3E+01
84Se	3.3 m	6.9E+02	1.1E+02
85As	2.03 s	7.0E+02	8.3E+01
85Se-m	19 s	1.0E+03	1.5E+02
85Se	39 s	1.0E+03	1.6E+02
85Br	2.87 m	5.2E+02	8.1E+01
86As	0.9 s	2.5E+02	2.1E+01
86Se	15 s	1.8E+03	2.7E+02
86Br-m	4.5 s	5.7E+02	7.8E+01
86Br	55.5 s	5.7E+02	8.7E+01
87Se	5.6 s	1.9E+03	2.7E+02
87Br	55.9 s	3.0E+03	4.6E+02
87Kr	1.27 h	6.0E+02	9.4E+01
88Se	1.5 s	1.2E+03	1.3E+02
88Br	16.4 s	4.6E+03	6.9E+02
88Kr	2.84 h	2.4E+03	3.7E+02
89Se	0.41 s	4.1E+02	1.7E+01
89Br	4.37 s	4.1E+03	5.5E+02
89Kr	3.15 m	4.7E+03	7.3E+02
89Rb	15.4 m	5.4E+02	8.4E+01
90Br	1.9 s	2.9E+03	3.4E+02
90Kr	32.3 s	9.0E+03	1.4E+03
90Rb-m	4.3 m	2.0E+03	3.1E+02
90Rb	2.6 m	4.7E+02	7.3E+01
91Br	0.54 s	1.1E+03	6.2E+01
91Kr	8.6 s	8.5E+03	1.2E+03
91Rb	58 s	6.0E+03	9.3E+02
91Sr	9.5 h	4.8E+02	7.5E+01
92Br	0.34 s	3.2E+02	9.9E+00
92Kr	1.84 s	6.4E+03	7.3E+02
92Rb	4.48 s	9.4E+03	1.3E+03
92Sr	2.71 h	2.2E+03	3.4E+02
93Kr	1.29 s	3.5E+03	3.6E+02
93Rb	5.85 s	1.4E+04	1.9E+03
93Sr	7.4 m	6.4E+03	9.9E+02
93Y	10.2 h	2.9E+02	4.5E+01
94Kr	0.21 s	1.3E+03	1.5E+01
94Rb	2.73 s	1.2E+04	1.6E+03
94Sr	1.25 m	1.5E+04	2.3E+03
94Y	18.7 m	1.6E+03	2.5E+02
95Kr	0.78 s	3.0E+02	2.3E+01
95Rb	0.377 s	7.2E+03	2.6E+02
95Sr	25.1s	2.1E+04	3.2E+03
95Y	10.3 m	5.3E+03	8.3E+02
96Rb	0.199 s	3.4E+03	3.3E+01

96Sr	1.06 s	2.4E+04	2.2E+03
96Y -m	9.6 s	1.3E+04	1.9E+03
96Y	6.2 s	1.5E+03	2.1E+02
97Rb	0.169 s	9.3E+02	5.4E+00
97Sr	0.42 s	1.6E+04	6.8E+02
97Y	3.76 s	2.3E+04	3.2E+03
97Zr	16.8 h	4.5E+03	7.0E+02
98Rb	0.107s	2.2E+02	3.4E+01
98Sr	0.65 s	1.0E+04	6.6E+02
98Y -m	2.1 s	1.7E+04	2.1E+03
98Y	0.59 s	1.7E+04	1.1E+03
98Zr	30.7 s	1.6E+04	2.4E+03
98Nb	2.9 s	4.4E+02	5.6E+01
99Sr	0.269 s	3.6E+03	7.2E+01
99Y	1.47 s	3.1E+04	3.3E+03
99Zr	2.2 s	3.4E+04	4.1E+03
99Nb-m	2.6 m	2.9E+03	4.5E+02
99Nb	15 s	2.5E+02	3.8E+01
100Sr	0.201 s	9.5E+02	9.4E+00
100Y	0.73 s	2.1E+04	1.5E+03
100Zr	7.1 s	5.6E+04	8.0E+03
100Nb-m	3 s	7.7E+03	9.9E+02
100Nb	1.5 s	7.7E+03	8.3E+02
100Mo	stable	4.0E+02	6.2E+01
101Y	0.43 s	9.1E+03	3.9E+02
101Zr	2.1 s	5.9E+04	7.1E+03
101Nb	7.1 s	3.5E+04	5.0E+03
101Mo	14.6 m	2.4E+03	3.7E+02
102Y	0.36 s	2.2E+03	7.4E+01
102Zr	2.9 s	3.9E+04	5.0E+03
102Nb	1.3 s	5.5E+04	5.6E+03
102Mo	11.3 m	1.3E+04	1.9E+03
103Y	0.26 s	4.8E+02	8.9E+00
103Zr	1.3 s	2.3E+04	2.3E+03
103Nb	1.5 s	8.3E+04	8.9E+03
103Mo	1.13 m	4.0E+04	6.2E+03
103Tc	54 s	1.5E+03	2.4E+02
104Zr	1.2 s	6.0E+03	5.9E+02
104Nb	4.8 s	5.8E+04	8.0E+03
104Mo	60 s	7.6E+04	1.2E+04
104Tc	18.2 m	1.2E+04	1.8E+03
105Zr	0.493 s	1.1E+03	5.3E+01
105Nb	3 s	2.7E+04	3.5E+03
105Mo	36 s	8.2E+04	1.2E+04
105Tc	7.6 m	5.7E+04	8.8E+03
105Ru	4.44 h	1.8E+03	2.9E+02
106Nb	1 s	1.2E+04	1.1E+03
106Mo	8.4 s	9.4E+04	1.4E+04
106Tc	36 s	5.9E+04	9.1E+03
106Ru	1.02 y	5.6E+03	8.7E+02
107Nb	0.766 s	2.4E+03	1.8E+02

107Mo	3.5 s	5.4E+04	7.2E+03
107Tc	21.2 s	9.8E+04	1.5E+04
107Ru	3.8 m	2.4E+04	3.7E+03
107Rh	21.7 m	4.3E+02	6.6E+01
108Nb	0.242 s	2.8E+02	4.3E+00
108Mo	1.5 s	1.8E+04	1.9E+03
108Tc	5.1 s	9.0E+04	1.3E+04
108Ru	4.5 m	5.3E+04	8.3E+03
108Rh-m	5.9 m	1.5E+03	2.4E+02
108Rh	17 s	1.5E+03	2.3E+02
109Mo	1.41 s	4.0E+03	4.2E+02
109Tc	1.4 s	5.1E+04	5.3E+03
109Ru	34.5 s	8.1E+04	1.2E+04
109Rh-m	50 s	6.9E+03	1.1E+03
109Rh	1.34 m	1.8E+04	2.7E+03
110Mo	2.77 s	6.2E+02	7.9E+01
110Tc	0.83 s	2.3E+04	1.8E+03
110Ru	15 s	9.8E+04	1.5E+04
110Rh-m	29 s	1.8E+04	2.8E+03
110Rh	3.1 s	1.8E+04	2.4E+03
110Pd	stable	1.6E+03	2.5E+02
111Tc	1.98 s	4.8E+03	5.6E+02
111Ru	1.5 s	6.1E+04	6.6E+03
111Rh	11 s	6.6E+04	9.8E+03
111Pd-m	5.5 h	4.6E+03	7.2E+02
111Pd	23.4 m	3.3E+03	5.1E+02
112Tc	0.431 s	6.2E+02	2.7E+01
112Ru	4.5 s	2.5E+04	3.5E+03
112Rh	4 s	6.5E+04	8.7E+03
112Pd	20.04 h	2.0E+04	3.1E+03
112Ag	3.13 h	9.7E+02	1.5E+02
113Ru	2.7 s	5.8E+03	7.3E+02
113Rh	0.9 s	5.3E+04	4.4E+03
113Pd	1.64 m	6.5E+04	1.0E+04
113Ag-m	1.14 m	5.3E+03	8.2E+02
113Ag	5.3 h	7.9E+02	1.2E+02
114Ru	8.14 s	5.1E+02	7.5E+01
114Rh	1.8 s	1.5E+04	1.7E+03
114Pd	2.48 m	4.9E+04	7.6E+03
114Ag	4.6 s	2.5E+04	3.4E+03
114Cd	stable	5.3E+02	8.3E+01
115Rh	0.99 s	4.6E+03	4.1E+02
115Pd	47 s	4.6E+04	7.1E+03
115Ag-m	18.7 s	1.5E+04	2.2E+03
115Ag	20 m	1.2E+04	1.8E+03
115Cd-m	44.6 d	1.1E+03	1.7E+02
115Cd	2.228 d	3.3E+02	5.2E+01
116Rh	0.7 s	6.1E+02	4.3E+01
116Pd	12.7 s	2.2E+04	3.3E+03
116Ag-m	10.5 s	1.4E+04	2.1E+03
116Ag	2.68 m	1.8E+04	2.7E+03

116Cd	stable	2.7E+03	4.1E+02
117Pd	5 s	7.9E+03	1.1E+03
117Ag-m	5.3 s	1.4E+04	1.9E+03
117Ag	1.22 m	1.4E+04	2.1E+03
117Cd-m	3.4 h	4.0E+03	6.2E+02
117Cd	2.49 h	1.2E+03	1.8E+02
118Pd	2.4 s	3.4E+03	4.2E+02
118Ag-m	2.4 s	7.9E+03	9.8E+02
118Ag	4 s	8.0E+03	1.1E+03
118Cd	50.3 m	7.3E+03	1.1E+03
119Pd	1.76 s	2.3E+02	2.6E+01
119Ag	2.1 s	5.2E+03	6.2E+02
119Cd-m	2.2 m	2.4E+03	3.7E+02
119Cd	2.69 m	2.4E+03	3.7E+02
120Ag	1.23 s	2.1E+03	2.1E+02
120Cd	50.8 s	4.2E+03	6.5E+02
121Ag	0.78 s	5.1E+02	3.9E+01
121Cd	13.5 s	2.6E+03	3.9E+02
122Cd	5.3 s	2.3E+03	3.2E+02
123Cd	2.09 s	9.0E+02	1.1E+02
124Cd	1.24 s	3.0E+02	3.0E+01
124In	3.18 s	2.6E+02	3.3E+01
126In	1.63 s	2.2E+02	2.4E+01
126Sn	1.00E+05 y	4.8E+02	7.4E+01
127Sn-m	4.15 m	7.7E+02	1.2E+02
127Sn	2.12 h	1.9E+03	2.9E+02
128Sn	59.1 m	4.7E+03	7.3E+02
128Sb-m	10.1 m	2.6E+02	4.0E+01
129Sn-m	6.9 m	3.2E+03	5.0E+02
129Sn	2.4 m	7.8E+03	1.2E+03
129Sb	4.4 h	4.6E+03	7.2E+02
130In	0.29 s	2.8E+02	6.3E+00
130Sn	3.7 m	9.8E+03	1.5E+03
130Sb-m	6.5 m	7.6E+03	1.2E+03
130Sb	38.4 m	4.4E+03	6.9E+02
130Te	stable	8.3E+02	1.3E+02
131Sn	39 s	8.0E+03	1.2E+03
131Sb	23 m	2.7E+04	4.2E+03
131Te-m	1.35 d	6.4E+03	9.9E+02
131Te	25 m	1.9E+03	2.9E+02
132Sn	40 s	3.7E+03	5.7E+02
132Sb-m	2.8 m	1.4E+04	2.1E+03
132Sb	4.2 m	1.9E+04	3.0E+03
132Te	3.26 d	2.1E+04	3.3E+03
132I	2.28 h	5.7E+02	8.9E+01
133Sn	1.44 s	1.7E+03	1.8E+02
133Sb	2.5 m	2.9E+04	4.4E+03
133Te-m	55.4 m	3.5E+04	5.4E+03
133Te	12.4 m	1.4E+04	2.2E+03
133I	20.8 h	5.9E+03	9.2E+02
134Sn	1.04 s	4.1E+02	3.7E+01

134Sb	0.8 s	1.5E+04	1.2E+03
134Te	42 m	6.3E+04	9.9E+03
134I -m	3.7 m	1.6E+04	2.4E+03
134I	52.6 m	8.9E+03	1.4E+03
134Xe-m	0.29 s	7.0E+02	1.6E+01
135Sb	1.71 s	3.9E+03	4.4E+02
135Te	19 s	4.8E+04	7.3E+03
135I	6.57 h	5.0E+04	7.8E+03
135Xe-m	15.3 m	6.1E+03	9.4E+02
135Xe	9.1 h	5.0E+03	7.8E+02
136Sb	0.82 s	8.2E+02	6.5E+01
136Te	17.5 s	2.5E+04	3.7E+03
136I -m	47 s	2.5E+04	3.9E+03
136I	1.39 m	3.7E+04	5.7E+03
137Te	2.5 s	6.3E+03	7.8E+02
137I	24.5 s	4.2E+04	6.4E+03
137Xe	3.82 m	7.0E+04	1.1E+04
137Cs	30.17 y	1.9E+04	2.9E+03
138Te	1.4 s	1.5E+03	1.5E+02
138I	6.5 s	2.7E+04	3.9E+03
138Xe	14.1 m	9.8E+04	1.5E+04
138Cs-m	2.9 m	8.1E+03	1.3E+03
138Cs	32.2 m	1.5E+04	2.4E+03
139Te	0.58 s	2.2E+02	1.3E+01
139I	2.3 s	1.1E+04	1.4E+03
139Xe	39.7 s	9.5E+04	1.4E+04
139Cs	9.3 m	4.9E+04	7.7E+03
139Ba	1.396 h	3.9E+03	6.1E+02
140I	0.86 s	3.1E+03	2.6E+02
140Xe	13.6 s	6.9E+04	1.0E+04
140Cs	1.06 m	7.5E+04	1.2E+04
140Ba	12.75 d	1.4E+04	2.2E+03
141I	0.45 s	7.5E+02	3.4E+01
141Xe	1.72 s	2.7E+04	3.0E+03
141Cs	24.9 s	1.0E+05	1.6E+04
141Ba	18.3 m	3.0E+04	4.7E+03
141La	3.9 h	1.0E+03	1.6E+02
142Xe	1.22 s	9.9E+03	9.8E+02
142Cs	1.8 s	6.8E+04	7.8E+03
142Ba	10.7 m	7.3E+04	1.1E+04
142La	1.54 h	1.1E+04	1.7E+03
143Xe	0.3 s	1.1E+03	2.8E+01
143Cs	1.78 s	2.0E+04	2.3E+03
143Ba	14.3 s	1.2E+05	1.8E+04
143La	14.1 m	2.8E+04	4.4E+03
143Ce	1.38 d	4.4E+02	6.9E+01
144Xe	1.2 s	3.1E+02	3.1E+01
144Cs	1.01 s	1.5E+04	1.3E+03
144Ba	11.4 s	9.1E+04	1.3E+04
144La	40.7 s	5.0E+04	7.7E+03
144Ce	284.6 d	2.7E+03	4.2E+02

145Cs	0.59 s	4.0E+03	2.4E+02
145Ba	4 s	5.6E+04	7.5E+03
145La	24 s	6.8E+04	1.0E+04
145Ce	3 m	9.4E+03	1.5E+03
146Cs	0.322 s	7.0E+02	1.9E+01
146Ba	2.2 s	2.6E+04	3.2E+03
146La	6.3 s	6.5E+04	9.2E+03
146Ce	13.5 m	2.7E+04	4.2E+03
146Pr	24.2 m	8.3E+02	1.3E+02
147Ba	0.892 s	6.8E+03	5.6E+02
147La	4.02 s	5.2E+04	7.1E+03
147Ce	56 s	5.2E+04	7.9E+03
147Pr	13.4 m	4.9E+03	7.6E+02
148Ba	0.64 s	1.3E+03	8.5E+01
148La	1.1 s	2.7E+04	2.5E+03
148Ce	56 s	6.3E+04	9.8E+03
148Pr	2.27 m	1.5E+04	2.3E+03
148Nd	stable	3.6E+02	5.6E+01
149La	1.1 s	6.3E+03	5.9E+02
149Ce	5.2 s	4.1E+04	5.7E+03
149Pr	2.3 m	2.5E+04	3.9E+03
149Nd	1.72 h	1.6E+03	2.4E+02
150La	0.608 s	1.5E+03	9.3E+01
150Ce	4.4 s	2.5E+04	3.5E+03
150Pr	6.2 s	3.5E+04	5.0E+03
150Nd	stable	3.9E+03	6.1E+02
151Ce	1 s	7.9E+03	7.0E+02
151Pr	22.4 s	2.9E+04	4.4E+03
151Nd	12.4 m	1.5E+04	2.4E+03
151Pm	1.183 d	5.8E+02	9.0E+01
152Ce	3.1 s	2.0E+03	2.6E+02
152Pr	3.2 s	1.9E+04	2.5E+03
152Nd	11.4 m	2.2E+04	3.5E+03
152Pm-m	7.5 m	1.6E+03	2.5E+02
152Pm	4.1 m	1.6E+03	2.5E+02
153Ce	1.47 s	2.8E+02	2.9E+01
153Pr	4.3 s	7.0E+03	9.6E+02
153Nd	28.9 s	2.2E+04	3.3E+03
153Pm	5.4 m	5.9E+03	9.1E+02
154Pr	2.3 s	1.4E+03	1.8E+02
154Nd	25.9 s	1.1E+04	1.7E+03
154Pm-m	2.7 m	6.9E+03	1.1E+03
154Pm	1.7 m	8.0E+03	1.3E+03
154Sm	stable	1.1E+03	1.8E+02
155Pr	1.12 s	3.1E+02	2.9E+01
155Nd	8.9 s	6.6E+03	9.6E+02
155Pm	48 s	1.2E+04	1.8E+03
155Sm	22.2 m	2.6E+03	4.0E+02
156Nd	5.5 s	2.8E+03	4.0E+02
156Pm	26.7 s	1.2E+04	1.9E+03
156Sm	9.4 h	2.7E+03	4.2E+02

156Eu	15.2 d	2.7E+02	4.2E+01
157Nd	2.48 s	4.8E+02	5.9E+01
157Pm	10.9 s	5.4E+03	8.0E+02
157Sm	8 m	7.7E+03	1.2E+03
157Eu	15.13 h	9.5E+02	1.5E+02
158Pm	4.8 s	1.9E+03	2.6E+02
158Sm	5.5 m	6.6E+03	1.0E+03
158Eu	45.9 m	4.0E+03	6.2E+02
159Pm	3 s	5.5E+02	7.1E+01
159Sm	11.3 s	4.8E+03	7.0E+02
159Eu	18.1 m	3.5E+03	5.5E+02
159Gd	18.6 h	3.3E+02	5.2E+01
160Sm	9.6 s	2.3E+03	3.4E+02
160Eu	38 s	4.2E+03	6.5E+02
160Gd	stable	1.0E+03	1.6E+02
161Sm	4.78 s	6.7E+02	9.3E+01
161Eu	27 s	2.9E+03	4.4E+02
161Gd	3.66 m	1.6E+03	2.5E+02
162Eu	11 s	1.3E+03	1.9E+02
162Gd	8.4 m	1.6E+03	2.6E+02
163Eu	7.6 s	4.1E+02	5.9E+01
163Gd	1.13 m	1.3E+03	2.0E+02
163Tb	19.5 m	3.5E+02	5.4E+01
164Gd	45 s	7.0E+02	1.1E+02
164Tb	3 m	4.5E+02	6.9E+01
165Gd	0.705 m	2.7E+02	4.2E+01
165Tb	2.1 m	4.1E+02	6.3E+01
166Tb		2.8E+02	4.4E+01