

Run period : Feb. 4 – April 13 (10 weeks = 70 calendar days)

2 days for optics: $70 - 2 = 68$ calendar days

Accelerator efficiency (50%) = 34 PAC days (816 hours)

GMP proposal has rates estimation assuming:

- Two HRSs (only L-HRS in reality, factor of 1/2)
- 80 uA (20 uA in reality, factor of 1/4)

So, total hours available for GMP $\sim 816 * \frac{1}{2} * \frac{1}{4} = 102$ hours

We will get additional 5 calendar days with L-HRS = 2.5 PAC days

2.5 days * 24 hours * $\frac{1}{4}$ (20 uA) = 15 hours

Total time available for GMP expt : $102 + 15 = 117$ hours

E_e (GeV)	Q^2 (GeV) ²	θ_e (deg)	E' (GeV)	ϵ	Rate (Hz)	Time (hours)	Events
4.8**	7.0	71.0	1.08	0.25	0.60	9.3	40k
6.6	7.0	35.4	2.87	0.62	7.45	0.7	40k
6.6	8.0	42.0	2.35	0.51	2.29	2.4	40k
5.8**	9.0	77.0	1.00	0.18	0.15	36.3	40k
6.6	9.0	52.0	1.78	0.37	0.48	11.6	40k
8.8	9.0	29.3	4.00*	0.67	3.38	3.3	40k
6.6	10.0	67.0	1.25	0.23	0.15	38.3	40k
8.8	10.0	33.3	3.47*	0.59	1.31	8.5	40k
8.8	11.0	38.0	2.95	0.51	0.53	10.5	40k
8.8	12.0	44.0	2.42	0.41	0.21	26.7	40k
8.8	13.0	53.0	1.86	0.30	0.06	67.4	28k
11.0	13.0	31.3	4.07*	0.58	0.36	21.2	28k
11.0	14.0	35.0	3.54*	0.50	0.17	39.0	24k
11.0	15.5	42.0	2.74	0.39	0.053	52.8	20k
11.0	17.0	53.0	1.94	0.26	0.013	175.2	16k
						503.3	

Table 1: Kinematics for the proposed measurement. Calculated rates assume a luminosity of $4.3 \times 10^{38} \text{ cm}^{-2} \text{ s}^{-1}$, solid angle coverage of 5.4 msr (each HRS), and proton form factor parameterization from Ref. [18]. Kinematics with non-standard beam energies with a double asterisk (**) indicate measurements included per PAC32 suggestion. Kinematics with scattered electron energy (E') with an asterisk (*) indicate measurements that will only be done with the Left HRS. The total time is slightly less than the sum of the individual times because the Right HRS will take data on the higher Q^2 points for the kinematics where only the Left arm can reach the required momentum.

E (GeV)	Q ² (GeV) ²	Theta (deg)	E' (GeV)	epis	Rate (Hz)	Time (hours)	Real Time (x8 or x4)	Events
4.8	7.0	71.0	1.08	0.25	0.60	9.3	74.4	40k
6.6	7.0	35.4	2.87	0.62	7.45	0.7	5.6	40k
6.6	8.0	42.0	2.35	0.51	2.29	2.4	19.2	40k
5.8	9.0	77.0	1.00	0.18	0.15	36.3	290.4	40k
6.6	9.0	52.0	1.78	0.37	0.48	11.6	92.8	40k
8.8	9.0	29.3	4.00*	0.67	3.38	3.3	13.2	40k
6.6	10.0	67.0	1.25	0.23	0.15	38.3	306.4	40k
8.8	10.0	33.3	3.47*	0.59	1.31	8.5	34.0	40k
8.8	11.0	38.0	2.95	0.51	0.53	10.5	84.0	40k
8.8	12.0	44.0	2.42	0.41	0.21	26.7	213.6	40k
8.8	13.0	53.0	1.86	0.30	0.06	67.4	539.2	28k
11.0	13.0	31.3	4.07*	0.58	0.36	21.2	84.8	28k
11.0	14.0	35.0	3.54*	0.50	0.17	39.0	156.0	24k
11.0	15.5	42.0	2.74	0.39	0.053	52.8	422.4	20k
11.0	17.0	53.0	1.94	0.26	0.013	175.2	1401.6	16k

Blue = only LHRS

E = 4.8 and 5.8 are no-standard beam energies

Time = proposal time (Two HRSs and 80 uA)

Real Time = Time with one HRS and 20 uA

Real Time available for Gmp expt. = 117 Hours