

Analysis of the GUN long term tests (run week 12)

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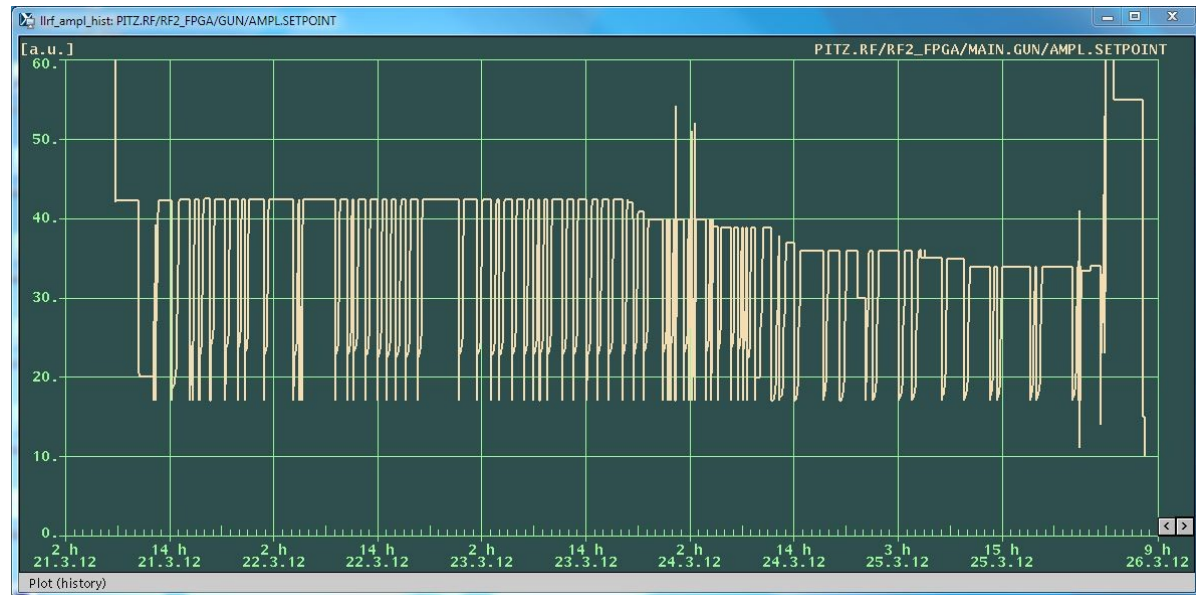
The GUN operational conditions for the long term tests

Pulse length



Time: 21.03.12 12:43 –
26.03.12 02:00

Power Set Point



Pulse length = 700 μ s

Power \geq 5 MW

The GUN trip rate

	Power SP (Power)						Sum	All
	42.3 (6.4 MW)	39.3 (6.0 MW)	39 (5.9 MW)	35.9 (5.5 MW)	35 (5.3 MW)	33.9 (5.2 MW)		
Gun PMT	33	3	5	6	2	5	54	58
Gun e-det	3	0	0	0	0	0	3	3
Gun vacuum in dir. coup.	2	0	0	0	0	0	2	2
Sum Gun Intlk	33	3	5	6	2	5	54	58
Booster PMT Cell 1	18	3	4	4	2	3	34	37
Booster PMT Cell 14	18	3	4	4	2	3	34	37
Booster PD WG2	16	3	4	3	2	3	28	34
Booster PD WG1	14	0	0	0	0	0	14	15
RF1: RF leak	2	0	0	0	0	1	3	3
RF1: spark det	2	0	0	0	0	1	3	3
RF2: RF leak	3	0	0	0	0	1	4	4
RF2: spark det	3	0	0	1	0	1	5	5
Period duration, hh(mm)	78.1(4686)	7.45(447)	7.62(457)	14.57(874)	5.17(310)	12.43(746)	125.33(7520)	133.28(7997)

The GUN trip rate per 1 hour

	Power SP (Power)						Sum	All
	42.3 (6.4 MW)	39.3 (6.0 MW)	39 (5.9 MW)	35.9 (5.5 MW)	35 (5.3 MW)	33.9 (5.2 MW)		
Gun PMT	0.423	0.403	0.656	0.412	0.387	0.402	0.431	0.435
Gun e-det	0.038	0.000	0.000	0.000	0.000	0.000	0.024	0.023
Gun vacuum in dir. coup.	0.026	0.000	0.000	0.000	0.000	0.000	0.016	0.015
Sum Gun Intlk	0.423	0.403	0.656	0.412	0.387	0.402	0.431	0.435
Booster PMT Cell 1	0.230	0.403	0.525	0.275	0.387	0.241	0.271	0.278
Booster PMT Cell 14	0.230	0.403	0.525	0.275	0.387	0.241	0.271	0.278
Booster PD WG2	0.205	0.403	0.525	0.206	0.387	0.241	0.223	0.255
Booster PD WG1	0.179	0.000	0.000	0.000	0.000	0.000	0.112	0.113
RF1: RF leak	0.026	0.000	0.000	0.000	0.000	0.080	0.024	0.023
RF1: spark det	0.026	0.000	0.000	0.000	0.000	0.080	0.024	0.023
RF2: RF leak	0.038	0.000	0.000	0.000	0.000	0.080	0.032	0.030
RF2: spark det	0.038	0.000	0.000	0.069	0.000	0.080	0.040	0.038

The GUN trip rate per day (24 hours)

	Power SP (Power)						Sum	All
	42.3 (6.4 MW)	39.3 (6.0 MW)	39 (5.9 MW)	35.9 (5.5 MW)	35 (5.3 MW)	33.9 (5.2 MW)		
Gun PMT	10.141	9.664	15.748	9.883	9.284	9.654	10.341	10.444
Gun e-det	0.922	0.000	0.000	0.000	0.000	0.000	0.574	0.540
Gun vacuum in dir. coup.	0.615	0.000	0.000	0.000	0.000	0.000	0.383	0.360
Sum Gun Intlk	10.141	9.664	15.748	9.883	9.284	9.654	10.341	10.444
Booster PMT Cell 1	5.531	9.664	12.598	6.589	9.284	5.792	6.511	6.663
Booster PMT Cell 14	5.531	9.664	12.598	6.589	9.284	5.792	6.511	6.663
Booster PD WG2	4.917	9.664	12.598	4.942	9.284	5.792	5.362	6.122
Booster PD WG1	4.302	0.000	0.000	0.000	0.000	0.000	2.681	2.701
RF1: RF leak	0.615	0.000	0.000	0.000	0.000	1.931	0.574	0.540
RF1: spark det	0.615	0.000	0.000	0.000	0.000	1.931	0.574	0.540
RF2: RF leak	0.922	0.000	0.000	0.000	0.000	1.931	0.766	0.720
RF2: spark det	0.922	0.000	0.000	1.647	0.000	1.931	0.957	0.900