May 3 Run log
Beam : Secondary, 82 GeV
File basename may3_

Run No	Voltages	Latency	Comments
0001	4000 3900 4000	0x56	initial setup, 200 evts
0002	"	"	5k
0003	"	"	"
0004	3950 3900 3950	"	lower voltage setup 200 evts
0005	"	"	5k
0006	3900 3850 3900	"	lower voltage setup 200 ev
0007	"	"	5k
0008	"	"	5k
0009	"	"	10k
0010	3875 3825 3875	"	lower voltage setup, 200 ev
0011	"	"	10k
0012	3875 3750 3875	"	Vscan setup 200 ev
0013	"	"	~2h
0014	"	"	10k
0015	3875 3700 3875	"	Vscan setup, 200 ev
0016	"	"	10k
0017	3875 3675 3875	"	Vscan setup, 200 ev
0018	"	"	10k
0019	3875 3650 3875	"	Vscan setup 200 ev
0020	"	"	10k
0021	3875 3625 3875	"	Vscan setup 200 ev
0022	3875 3625 3875	"	10k
0023	3875 3600 3875	"	Vscan setup 200 ev
0024	"	"	10k
0025	3875 3725 3875	"	Vscan setup 200 ev
0026	"	"	10k
0027	3875 3775 3875	"	Vscan setup 200 ev
0028	"	"	10k

May 3 — Beam width increased!

RUN No	Voltages	Latency	Comments
0029	3875 3800 3875	0x56	Vscan setup 200eV
0030	3875 3800 3875	"	10h
0031	3875 3750 3875	"	Optimal voltage? setup 200eV
0032	"	"	10h
0033	"	"	" aborted early (?)
0034	"	0x57	latency scan setup 200eV
0035	"	"	5h
0036	"	0x58	lat scan setup 200eV
0037	"	"	5h
0038	"	0x55	lat scan setup 200eV
0039	"	"	5h
0040	"	0x54	lat scan setup 200eV
0041	"	"	5h aborted early
0042	"	"	5h
0043	"	0x53	lat scan setup 200eV
0044	"	"	5h
0045	"	0x52	lat scan setup 200eV
0046	"	"	5h aborted early
	Change of TCPM Programming → should change timing by ~ 400ns		
0017	"	0x55	test run 200eV very few signals
0048	"	0x45	test run 200eV
0049	"	0x38	" no signals

May 4
Beam: Secondary, 32 GeV, defocused

Run No	Voltages	Latency	Comments
0001	3875 3750 3875	0x55	lat test, 200 ev
0002	"	0x46	"
0003	"	0x54	"
0004	"	0x50	"
0005	"	0x40	"
0006	"	0x38	"
0007	"	0x60	"
0008	3875 3825 3875	0x30	"
0009	"	0x28	"
0010	"	0x48	"
0011	"	0x20	"
0012	"	0x70	"
0013	"	0x43	"
0014	"	0x68	"
	Uploaded Original TCPU Program		
0015	3875 3825 3875	0x55	Lat. Test, 200 ev
0016	3875 3825 3875	0x59	"
0017	"	0x54	"
0018	3825 3750 3825	"	V setup 200 ev
0019	"	"	10k & Sor early
0020	3850 3750 3800	"	V setup 200 ev
0021	"	"	10k
0022	3850 3750 3800	0x54	10k
0023	"	"	10k
0024	"	"	10k
0025	"	"	10k
0026	"	"	15k

Run No	Voltages	Latency	Comments
0027	3850 3750 3800	0x54	15k
28	"	"	15K
0029	"	"	15k aborted at 4.8k
	Downtime for Tevatron filling		
0030	3850 3750 3800	0x54	10h
0031	"	"	"
0032	"	"	"
0033	"	"	15k abort after ~ 3k
0034	"	"	15K
0035	"	"	15k aborted after 10h

May 5

Run No	Voltage	Latency	Comments
0001	3850 3750 3800	0x54	Initial Setup, 200 ev
0002	"	"	15 h Observation: chip 5 always missing
0003	"	"	reprogram chips, setup 200 ev
0004	"	"	15 h
0005	"	"	15 h Eriks run 9048
0006	"	"	15 k " 9049
0007	"	"	15 h " 9050
0008	"	"	15 h " 9051
~~0009~~	~~"~~	~~"~~	
	Changed Angle to 30° on Det 1		
On Det 2 chip 3 was unseated → Plugged back in!			
0009	3850 3750 3800	0x54	Initial Setup, 200 eV
0010	"	"	15 h
0011	"	"	15 h, Eriks run 9053
0012	"	"	15 h " 9054
0013	"	"	15 h " 9055
0014	"	"	15 h " 9056
0015	"	"	15 h " 9057
0016	3850 3700 3800	"	Vscan setup 200 eV
0017	"	"	10 h
0018	3650		Vscan setup 200 eV
0019	"	"	10 h
0020	3600	"	Vscan setup 200 eV
0021	"	"	10 h
0022	3800	"	Vscan setup 200 ev
0023	"	"	10 h
0024	3850	"	10 h

Run No	Voltage	Latency	Comments
0025	3850 3750 3800	0x54	30° angle, stable running 10h
0026	"	"	" aborted early
0027	"	"	10h
	Changed Angle of	Det 1	to ~~15°~~ 15°
0028	3850 3750 3800	0x54	initial setup, 200 ev
0029	"	"	15h aborted at ~6h
0030	"	"	15h Erik's runs 9062
0031	—" —	—" —	15k 9063
0032	—" —	—" —	15k 9064 ↓ was stopped with a few events
	(init. problem?)		
0033	—" —	—" —	15k Erik's runs 9065
0034	"	"	15k 9066
0035	"	"	15h 9067
0036	"	"	15h 9068
0037	"	"	15h 9069
~~0038~~	Voltages on Det 0 from Landau dist.	and 2 seem a bit high ⇒ lower by 50V	
0038	3800 3750 3750	"	15h stopped at 13k 9070
0039	"	"	15h 9071
0040	"	"	15h 9072
0041	"	"	15h 9073

May 6, 2007

Angle at 22.5°

File base name mayb_

Run	Voltage	Latency	comments
0001	3800 3750 3750	0x54	Initial setup
0002	"	"	15k Erik: 9075
0003	"	"	15k no MWPCs 9076
0004	"	"	15k 9077
0005	"	"	12535 ev. noMWPCs 9078
0006	"	"	10 25 ev MWPC test 9079
0007	"	"	15k, out of sync aborted early
0008	"	"	aborted early
0009	"	"	12766 ev. 9083
0010	"	"	16089 ev 9085
0011	"	"	8654 ev 9086
0012	"	"	was stopped 2x. 9087
0013	"	"	16492 ev 9088
0014	"	"	11080 ev 9089
Angle	set to 7.5°		
0015	"	"	Pulser Test, 50 ev

May 6 17:15

Changed alignment of GEM setup.
Beam now down the center of the Al plate, centered on Detectors.

Distances between Detectors (center of drift gap to center of drift gap)

Det 0	to Det 1	[illegible] mm	122 mm
Det 1	to Det 2	123,0 mm	
Det 0	to Det 2	245 mm	

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32 GeV Unfocused

Run	Voltage	latency	Comments
0001	3800 3750 3750	0x54	20k events
0002	"	"	15,169 events
0003	"	"	15,474
0004	"	"	15.890
0005	"	"	14.784
0006	"	"	15,082
0007	"	"	15,236
0008	"	"	7,106
0009	"	"	15,462
0010	"	"	15,275
0011	"	"	16,756
0012	"	"	16,127
0013	"	"	15,663 the event rate doubled
0014	"	"	16,241
0015	"	"	16,391
0016	"	"	16,182
0017	"	"	16,045 9111 ← Run#
0018	"	"	17,223 9112
0019	"	"	44 9113 lost beam
0020	"	"	15,543 9114
0021	"	"	15,106 9115
0022	"	"	15512 9116
0023	"	"	16949 9117
0024	"	"	15396 (15364) 9118
0025			16667 (16667) 9119
0026			15093 (15086) 9120
0027			16405 (16405) 9121
0028	"	"	15997 (15966) 122

scaler ↑ scree ↑

Begin Voltage Scan Def1

Run No	Voltage	Latency	Comments	
0024	3800 3600 3750	0x54	18130 match!	259
0025	3800 3650 3750	"	~~18861 match!~~ RPC@6.2 kV	260
			19531 match!	261
0026	3700	"	19027 match!	261
0027	3800	"	19261 match!	262
0029	3850	"	18811	263

Voltage Scan Def 0

0029	3600 3750 3750	"	19138 match!	264
0030	3650 "	"	17877	265
0031	3700 "	"	19031	267
0032	3750 "	"	18749	268
0033	3850 "	"	9316	269
0034	3900 "	"	18648	270
0035	3850 "	"	19088	271
0036	3800 3750 3750	"	19334	272
0037	"	"	18509	275
0038	"	"		

Continued from previous page

				Run No.
0029	"	"	15,746	123
0030	"	"	16,000	124
0031	"	"	17,305	126
0032	"	"	10,079	127
0033	"	"	4,008	128
0034	"	"	6,927	129
0035	"	"	12,086	130
0036	"	"	726	131

Run test muons

from this run muon beam. Absorber is installed

Focused Beam

But after the absorber, it's not focused any longer.

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16 GeV focused with absorber

Run	Voltage	latency	Comments	run#
0001	3for 875 3750	0x54	697	134
0002	"	"	11,272	135
0003	"	"	30,000	136
0004	"	"	935 beam lost	137
0005	"	"	7,972	138
0006	"	"	4,201	139
0007	"	"	0	140
				~~141~~

8 GeV

~~0008~~	"	"	Canceled	141

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8 GeV ~~pions~~ muons

Run	Voltage	latency	comments	Run #
0001	3700, 3770, 3776	Dc54	30,000 events	142
0002	"	"	14,491	143
0003	"	"	30,000	144
0004	"	"	30,000	145
~~0005~~	"	"		~~146~~
		Pions		
0005	"	"		147 ~~146~~
0006	"	"		148
0007	"	"		149
0008	"	PION MUONS	8 GeV & STILL PIONSETTING ABSORBER IN	150

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with RPC installed, slightly changed alignment
Energy : 8 GeV, absorber in

Run	Voltage	latency	Comments	
0001	3800, 3750, 3750	0x54	pedestal	153
0002	"	"	"	154
0003	"	0x54	Beam!	155
0004	"	"		156
0005	"	"		157
0006			RPC 5.5 KV WRONG POLARITY (+) +6KV, -6KV	158
0007	"	"	~~RPC 7.0~~	159
0008			~~7.0 KV~~	160
0009				162
0010	"	"	"	164
0011			4 GeV ABSORBER OUT	
0012	"	"		165
0013	"	"	"	166
0014	"	"	"	167
0015				168
0016				170
0017				171

Angle changed to 30°

May 12, 2007 Tai Sakuma

32 GeV, absorber out
Angle 30°

	Run	Voltage	latency		Comment		
T	0001	3700, 3750, 3750	0x54	3,139	beam	177	~~177~~
	0002	"	0x54	17,118	"	178	
Problem with synchronisation	0003	"	"	17,607	"	~~179~~	~~180~~ 181
	0004	"	"	12,408	"	182	
	0005	"	"	18,490	"	183	
	0006	"	"	17,801	"	184	
	0007	"	"	12,900	"	185	
	0008	"	"	9,105	"	186	
	0009	"	"	10,936	pedestal	187	
	0010	"	"	19,777	beam	188	
	0011	"	"	5,212	"	189	
	0012	"	"	18922	"	~~190~~ 191	
	0013	"	"	21422	"	192	
	0014	"	"	18340	"	193	
	0015	"	"	19607	"	194	
	0016	"	"	21744	"	195	
	0017	"	"	23085	RPC: 7.2kV	196	
	0018	"	"	24153	RPC: 7.3kV	197	
	0019	"	"	20214	RPC: 6.8kV	198	
	0020	"	"	26121	RPC 6.6kV	~~199~~ 200	

Angle set to 15°

Live runs: No of events read from scaler

May 12

No of events read from DAQ Program

Angle: 15° 32 GeV beam

Run	Voltage	Latency	Comment	
0021	3800, 3750, 3750	0x54	16433 Mudet ramping	201
0022	"	"	6729	202
0023	"	"	24101	203
0024	"	"	23054	204
0025	"	"	23372	205
0026	"	"	15687	207
0027	"	"	17651	208
0028	"	"	1801 token test	209
0029	"	"	15129	210
	Angle changed to		7.5°	
0030	3800, 3750, 3750	0x54	22444 RPC@ 0V	211
0031	"	"	20632	212
0032		"	23021 RPC-6.3kV	213
0033	"	"	29441 "	214
0034	"	"	244	215
0035	"	"	21811 -6.5 Mudet Ramping	216
0036	"	"	21553 "	"
0037	"	"	28947	217
0038	"	"	3753	"

May 12

~~Run No~~ Angle 22.5°

Run No.	Voltage	Latency	Comment	
0039	3800 3750 3750	0x54	22048	218
0040	"	"	22841	219
0041	"	"	21190	220
0042	"	"	24689	221
0043	"	"	22296	222
0044	"	"	21536	223
0045	"	"	22449	224
0046	"	"	22572	225
0047	"	"	25973 (event match!)	226
0048	"	"	28935 "	227
0049	"	"	9300 "	228

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32 GeV absorber out

Run#	Voltage	latency		Comments	
0001	3800 3750 3750	0x54	20,164	RPC@ 6.5kV	231
0002	"	"	21,410		232
0003	"	"	2,025		233
0004	"	"	19,791		235
0005	"	"	21,276		236
0006	"	"	19,583		237
0007	"	"	19,996		238
0008	"	"	8,751		239
0009	"	0x54	19578	RPC -6,5kV	241
Begin Latency Scan					
0010	"	0x58	19208	Mu Det ramping	
0011	"	0x57	~~19208~~ 18749		
0012	"	0x56	15918		243
0013	"	0x55	18528		244
0014	"	0x53	18629		245
0015	"	0x52	20640		246
0016	"	0x51	20252 OURS		
0017		0x50	27855 THEIRS	NO HARD RESET ACC OFF	249
0018		0x50	18588 THEIRS	NO VPSP 18585 OURS	250
0019	"	0x50	18393		251
0020	"	0x4E	19457		253
0021	"	0x4C	18779		254
0022	"	0x4A	18452		255
0	Done with latency scan				
0023	"	0x54			256

Begin Voltage Scan Def1

Run No	Voltage	Latency	Comments	
0025	3800 3600 3750	0x54	18130 match!	259
0025	3800 3650 3750	"	~~match!~~ RPC@6.2 kV	260
			19531 match!	261
0026	3700	"	19027 match!	261
0027	3800	"	19261 match!	262
0029	3850	"	18811	263

Voltage Scan Def 0

0029	3600 3750 3750	"	19138 match!	264
0030	3650 "	"	17877	266
0031	3700 "	"	19031	267
0032	3750 "	"	18799	268
0033	3850 "	"	9316	269
0034	3900 "	"	18648	270
0035	3850 "	"	19088	271
0036	3800 3750 3750	"	19334	272
0037	"	"	18509	275
0038	"	"		

May 14

120 GeV beam protons

	Run No	Voltage	Latency	Comments	
	0001	3800 3750 3750	0x54	initial run @ 120 GeV	1280
				12125 match!	
	0002	"	"	10672 match!	281
	⇒ 120 GeV p^+ have higher dE/dx → lower voltage on detectors, amplitudes ~20% above May 13				
	0003	3750 3700 3700	0x54	16602 match	282
	0004	"	"	4882 match	283
	change	Det 0 to 3775			
13:49	0005			8045 match	284
	0006	3775 3700 3700	0x54	11252 match	285

May 15, 2007 Tai Sakuma

120 GeV Absorber out

Run	Voltage	latency		Comments	
0001	3775 3700 3700	0x54	19,003		286
0002	"	"	20,779		287
0003	"	"	19,302		288
~~0004~~					
	Absorber in		ONE RUN ONLY		
0004	"	7:	2568		289
0005	"	"	10264	RPC 7.2 KV	
0006			9319	7.0 KV	291
0007			11642	~~7.2~~ 7.4	293
0008		0x54	10450	7.0	295
0009		0x57	10541	7.2 LAT	296
0010		0x57	~~10384~~	7.4 11539 EV	297
0011		0x5A	10368	7.4	298
0012		0x5C	11419	7.4	300
0013		0x5F	10319	7.4	301
0014		0x50	10901	7.4	302
0015		0x4E	10198	7.4	303
0016		0x5A		7.2	304

1000 TAIG 2600 PARTICLES 300 WERE DEAD
FIND OCCUPANCY, STRUCTURE

Intensity scan

Run	Voltage	Latency	Comments		
0017	3725 3710 3700	0x54	10133	Intensity start ~6k/spill	305
				" stop ~10k	
0018	"	"	16565	start ~17k	306
0019	"	"	24604	start ~18k	307
				end 28k	
0020	"	"		start ~50k	308
			24,558	end ~75k	
0021	"	"	23,111	start ~70k	309
				end ~66k	
0022	"	"	30,000	start ~67k	310
				end ~63k	
0023	"	"	20,324	start ~33k	311
				end ~61k	
0024	"	"	20,435	start ~52k	312
	increase dead time to msec			end ~58k	
from this run 0025	"	"	21,507	start ~74k	313
	dead time 1.2 msec			end ~92k	
0026	"	"	20,373	start ~98k	314
				end ~80k	
0027	"	"	22,941	start ~127k	315
				end ~144k	316
0028	"	"	16648	start ~159k	317
				stop ~170k	
0029	0V	"	20 000	pedestal run	
0030	0V	"	20 000	"	