

Table of Contents

Welcome to the Logbook for ATF Collimator Damage Tests.....	1
26 Feb 2008 - 01:23 [NigelWatson]: Test single shot mode.....	1
26 Feb 2008 - 03:44 [NigelWatson]: Single shot now works.....	1
26 Feb 2008 - 06:35 [MarkSlater]: Single Shot Results.....	1
26 Feb 2008 - 07:24 [MarkSlater]: First attempts to damage target.....	2
26 Feb 2008 - 08:06 [NigelWatson]: Optimisation against ICT signal.....	2
29 Feb 2008 - 04:18 [MarkSlater]: Shift started Friday, 9:00.....	2
29 Feb 2008 - 04:19 [MarkSlater]: 11:30: Strange behaviour with manipulator.....	2
29 Feb 2008 - 04:21 [MarkSlater]: 11:45: FIRE!.....	2
29 Feb 2008 - 12:46 [MarkSlater]: ~13:00 Back on again.....	2
29 Feb 2008 - 12:54 [MarkSlater]: ~14:00 Started hitting the target.....	2
29 Feb 2008 - 12:56 [MarkSlater]: ~18:00 Decommissioning.....	3
10 Mar 2008 - 15:23 [MarkSlater]: Data from last day's running.....	3

Welcome to the Logbook for ATF Collimator Damage Tests

Doubleclick anywhere to go directly to logbook entry form.

You can also edit items added using the form, e.g. to include figures, etc.

See also RunPlan (logbook up to 24 Feb 2008).

26 Feb 2008 - 01:23 [NigelWatson]: [Test single shot mode](#)

We start by trying to establish single shot operation.

From "BEAM CONTROL (simple)" panel, click "one shot" button.

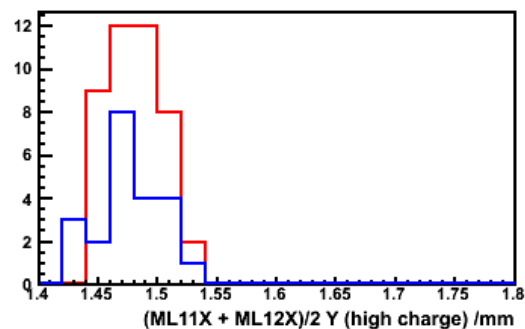
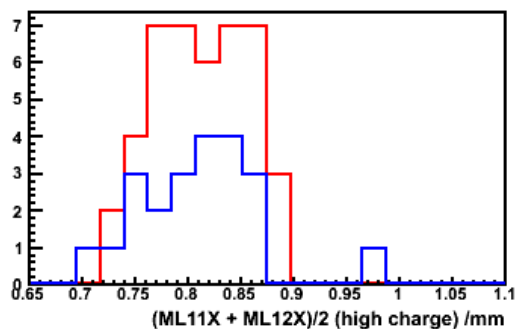
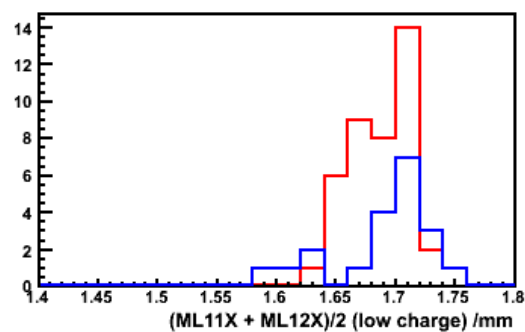
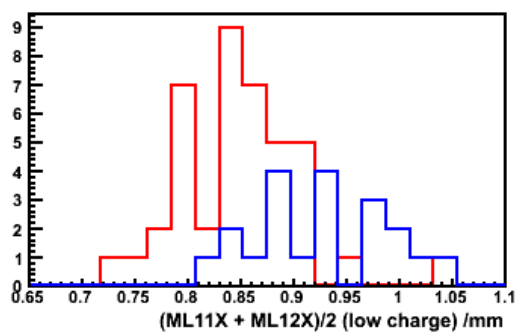
ONE SHOT CONTROL panel pops up, we try start/stop but does not appear to actually stop the beam using shutter. Terenuma-san called for help.

26 Feb 2008 - 03:44 [NigelWatson]: [Single shot now works](#)

Now we are OK, Terenuma-san et al have this running now. Beam still being tuned up by the shift crew. Next to check on jitter inherent in procedure.

26 Feb 2008 - 06:35 [MarkSlater]: [Single Shot Results](#)

I have analysed the single shot/varying charge data. Essentially, the single shot is no different from continuous operation but when changing charge, I saw a shift of a $\sim 200\mu\text{m}$ in Y.



26 Feb 2008 - 07:24 [MarkSlater]: *First attempts to damage target.*

* We move sample to beam, find that offsets from edge finding are:

- ♦ Yoffset=-29.6mm is lower edge
- ♦ Xoffset=-3.2mm
- ♦ Roffset=-0.035

We also see the ICT saturating at 14bits range.

We position the target sample at horizontal -6.248mm, vertical -30.242mm (i.e. below right hand edge of sample holder) and now we start optimise beam size against ICT readings...

* Try to find edges, check width of sample.

26 Feb 2008 - 08:06 [NigelWatson]: *Optimisation against ICT signal*

trying, but all of a sudden, gamma count saturated and remained so even after the sample had been **completely** retracted from the beam position. We don't think we could have actually damaged any solid components. Let's try again...

29 Feb 2008 - 04:18 [MarkSlater]: *Shift started Friday, 9:00*

Started the shift with new Damping Ring optics giving an improvement of a factor 2 in emittance. James started working on the extraction line.

29 Feb 2008 - 04:19 [MarkSlater]: *11:30: Strange behaviour with manipulator*

James has finished and seems confident. Unfortunately, after booting up the laptop, we put in a move and the controller kept the motor running and wouldn't stop! I suspect that USBAnywhere has screwed us again.

29 Feb 2008 - 04:21 [MarkSlater]: *11:45: FIRE!*

Beam has been turned off as there was a fire just outside the ATF hall. We used the opportunity to go in and reset the controller. Everything is working properly now, we just have to wait for the all clear...

29 Feb 2008 - 12:46 [MarkSlater]: *~13:00 Back on again*

The danger has passed so James continued tuning the optics.

29 Feb 2008 - 12:54 [MarkSlater]: *~14:00 Started hitting the target*

After James got the optics as best as he could (~5x10), we scanned the edges of the sample, then started taking strip data. Over the next ~3 hours we did several strips:

14_32_37: Edge data

26 Feb 2008 - 06:35 [MarkSlater]: Single Shot Results

14_44_19: S1 & S2 - single bunch, ~1.0 charge

14_49_31: S3 & S4 - 3 bunch, same charge, S5 & S6 - slower move speed

15_07_14: 4 strips, 1-1.2 charge

15_23_40: 1.5 strips (forgot to move across until halfway through!), 0.6-0.8 charge

15_39_58: 4 strips, single bunch 1-1.2 charge

15_42_55: single bunch, 0.6-0.8 charge

16_54_25: 3 bunches, ~1.2 charge, 1.5 strips, last half of strip in single bunch mode

17_05_34: No sample in - checking beam changes from ~1.2 charge -> 0.7

29 Feb 2008 - 12:56 [MarkSlater]: [~18:00 Decommissioning](#)

Broke vacuum, removed and packed everything. It looks like we've certainly done something to the sample this time as not only can we see marks on it, both it and the manipulator are active!! We've left everything in the LINAC tunnel and Luis will come in on Monday to check again. Hopefully it'll be fine to ship.

10 Mar 2008 - 15:23 [MarkSlater]: [Data from last day's running](#)

I have attached the hit lists from the last days running as well as the screen shots. These are associated with the list above. Enjoy!

Electronic Logbook Data Entry (TWiki formatting allowed)

Summary (optional)
Logbook text

-- NigelWatson - 24 Feb 2008

This topic: ILCBDSColl > RunLogBook

Topic revision: r11 - 2008-03-10 - unknown



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