

02/28/2011

5

8:50 am

Beam tune up: pulse width 50ps
pulse current 50A
rep rate 300 Hz
beam energy 44 MeV

Radiator is out.

- established beam on view screen
- > see picture (Dr Dale's camera)

10:00AM

aligned view screen with the laser. (72.5mm center)

- aligned faraday cup
- hooked-up cables

-> A -> 4

B -> 3

- Good FC signal (~0.6V) from Dr Forest + Alex
- Chad + Kevin doing more alignment.

10:20 am

- Beam-on again, their phos view screen is off-center.
- eyed to best center on both screens.
- screw undone on their view screen, they need to fix...
- for now hit faraday cup with best beam so we can calibrate.
- 2cm diameter spot on our phos screen.
- file #44 is picture on scope

10:35 am

plugging in FC cable to ADC
cable A -> section 4 on FC

Run #1096 (analyzing 11.9 data using CODA)

Dr forest "RF Δ'd" scope picture #45

6

11:00am

Run 1698 - Current doubled

- Increase current verified via ADC shift.

- But change in current due to moving beam
- want to put beam back to center.

- going to pedestal again - at nominal center.

11:15am

Run 1699

- gate value in \rightarrow pedestal
looking @ channel 3, 10, 19, 26- gate value out \rightarrow
- 19, 3, 26 look good, but 10 is dead.

1:15pm

While setting up polarity switch, one of the Relays (Aied).
No polarity switch now, need to run beam-up then
get access and switch (+) & (-) to coils to get
beam pent down.

1:20pm

beam-on

200mA

41.5 MeV

Run # 1700 ~ forgot to pedestal first - discard..

Run # 1701 ~ pedestaled + got data.

Run # 1702 ~ trying beam up position...

- only moves beam \sim 1/2 cm ^{down} but also 1/2 cm to left

Run # 1703 - calibration of Kicker in up position.

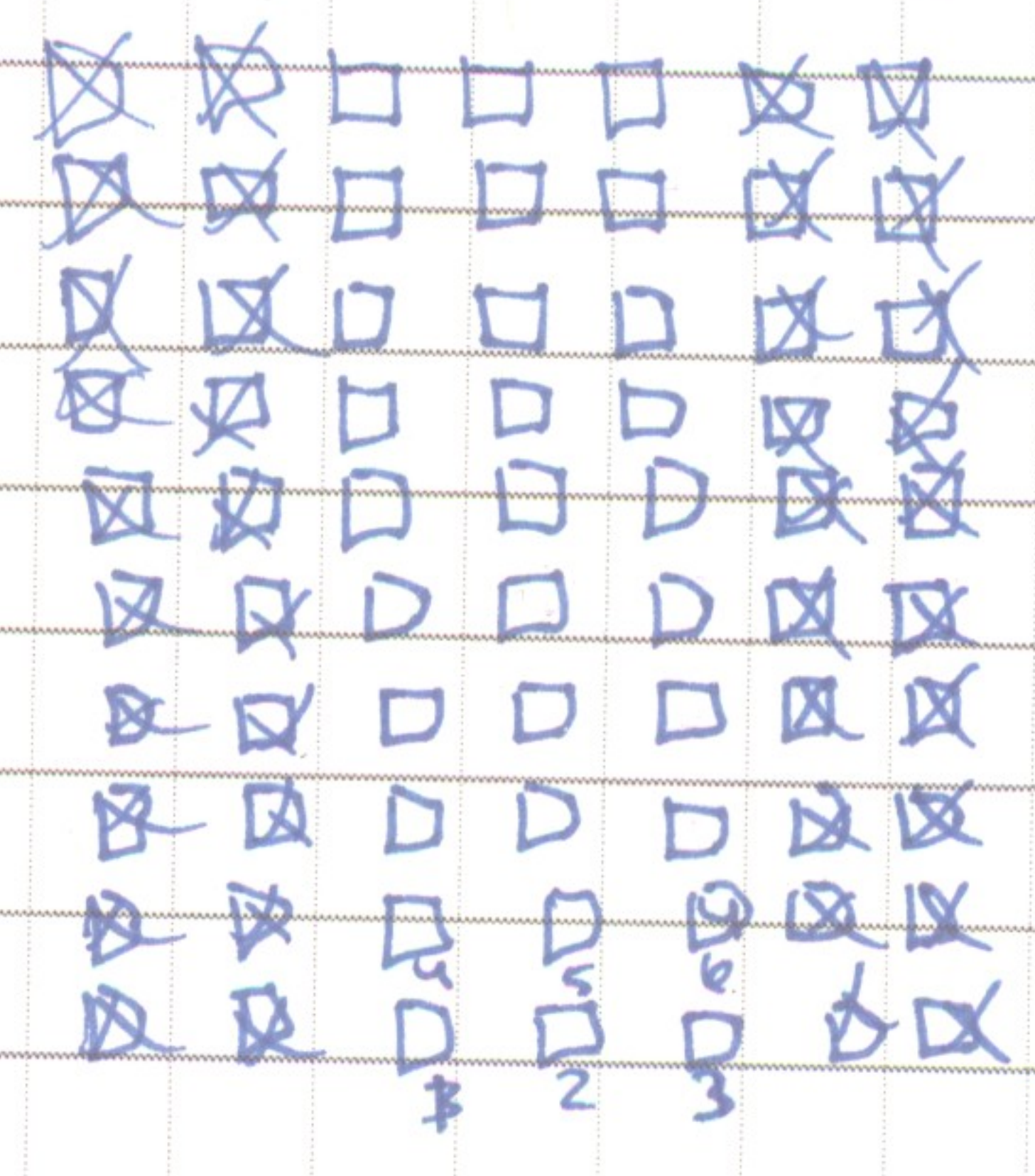
ADC chan 0 = 5-1 + 16 = 6-1

Calibration of the kicker magnet:

Position of the beam spot
 Current, A up, cm bottom, cm

Run	1703	0	8.3	6.3
	1704	10	8.5	6.5
	1705	20	8.8	7.2
	1706	30	9.0	7.5
	1707	40		

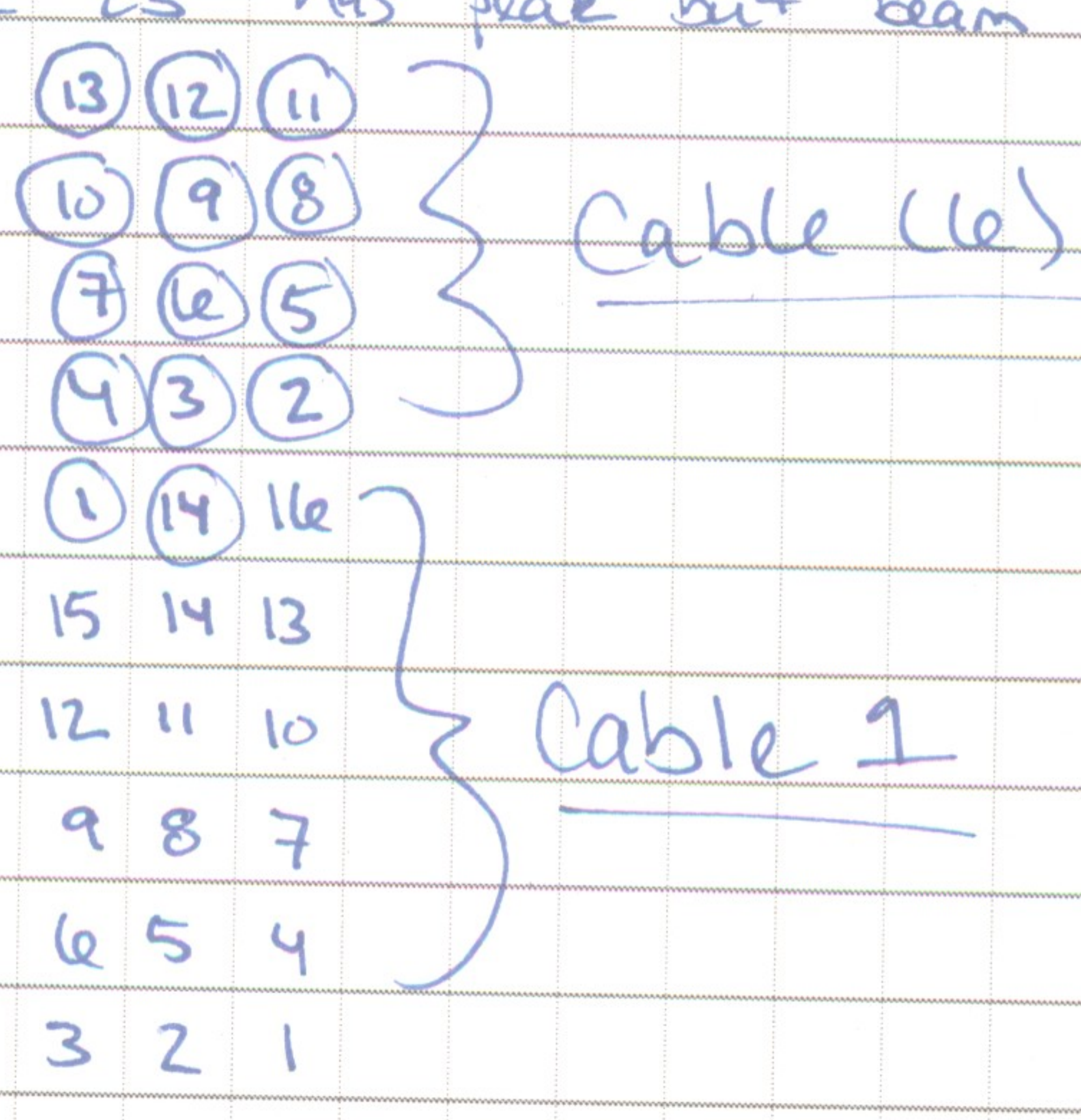
15:40 New FC Setup using only 3 middle rows.



Run # 1708

- we don't really understand data:
 Channel 23 has peak but beam should be @ 14(??).

FC design:



Check on 3/1/11