28 May 2010 Friday.

Got beam ~500 enA.

Run # 374	Beam: 84Se	Date: 28 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.375 (Seg. 8)
MCP0: out	Trigger: S800&HiRA	Target: 25 μm CH2
MCP1: 167 k	Drives [mm]	Attenuation: 1
XFP: 218 k	I250X-R: 0 MCP0	OnShift: Dan Meredith Brett Remi
Live Time: 99%	I250Y-R: 165mm MCP1 ✓	
Live Trigger:	I251Y-R: 100 mm Target	Welding ended ~5min in)
Comments: (Runs started with beam stop in (~1 min))		

↑BACK to production mode

CRAD 04 0.4 − 0.5 = ~~400~~ 0.4 k

CRAD 06 2.2 = 220 k

Run # 377	Beam:	Date: May 2010
Avg. Rates	Beam Energy:	B ρ: (Seg. 8)
MCP0:	Trigger: Coin	Target:
MCP1:	Drives [mm]	Attenuation: 10
XFP:	I250X-R: MCP0	OnShift:
Live Time:	I250Y-R: MCP1	
Live Trigger:	I251Y-R: Target	
Comments: C target. 1		

Run # 378	Beam: 84Sr	Date: 28 May 2010
Avg. Rates	Beam Energy:	B ρ: 2.375 (Seg. 8)
MCP0:	Trigger: S800	Target: 7mg
MCP1:	Drives [mm]	Attenuation: 10
XFP:	I250X-R: MCP0	OnShift:
Live Time:	I250Y-R: MCP1	
Live Trigger:	I251Y-R: 239.4 Target	
Comments: No readout for HiRA		

Put FP Slits back to [4.20] & Coin. trigger.

Run # 379	Beam: 84Sr	Date: 28 May 2010
Avg. Rates	Beam Energy:	B ρ: 2.375 (Seg. 8)
MCP0:	Trigger: Coin(S800+HiRA)	Target: 25umdtz
MCP1:	Drives [mm]	Attenuation: 1
XFP:	I250X-R: 0 MCP0	OnShift:
Live Time:	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 180 Target	
Comments: CRADO4 ~ 0.4-0.5, CRADO6 ~ 1.9		

Run #380 background check
No beam, coinc.

Run # 382	Beam:	Date: 28 May 2010 Fri
Avg. Rates	Beam Energy:	B ρ: 2.30525 (Seg. 8) ✕
MCP0:	Trigger:	Target: 17mg C
MCP1:	Drives [mm]	Attenuation: 1
XFP:	I250X-R: MCP0	OnShift:
Live Time: 99%	I250Y-R: MCP1	
Live Trigger:	I251Y-R: Target	
Comments: CRADNA 8.04 : CRADO6 : 1.7		

Run 383 Is this ^{84}Se HiRA singles (30 mins)

No HiRA read out within run.

	Run #	Attn.
1 min	384	x3
	385	x10
	386	x30
2 mins	387	x100
	388	background

3:13pm Welding started ; 3:40pm Welding Stopped

Runs 388 → 390

Background runs without beam. ~5 mins each

391 Corrupted

392 - 394 RUNS ?. Zb & Bill in vault to "test" from there. MY on shift.

RUN 395 Dephased RF. ^{86}Kr beam degraded ATT = 1000. C target.

RUN 396 Same as 395 but w/ ATT = 100k. XFP eff = 100% per Jorge Pereira-Conca

RUN 397 Same as 396. Periodic outages.

RUN	
398	^{86}Kr degraded 36+ & 35+ C.S. in S800 Focal Plane 25 μm target
399	35+ & 34+ same otherwise as Run 398
400	10μm Target, 86 Kr beam 36+ and 35+ charge Ratio State
401	10μm Target 86 Kr beam 35+ and 34+ charge state

402 ^{86}Kr : changed order of clear functions in XLM. Tweeking 10 μm CH_2 target. Magnets do not appear to be matched.

403 - 404 No change in setup. Tweaks to electronics. Quasi JUNK.

405 $\frac{CRADC4}{CRADC6}$ = ratio dropped from Beginning of Run 402. Looked like transient magnet drifting. Moved slits from 4.38 to 4.58 in 2 steps. Just see tail of scattered ^{84}Kr behind beam blocker.

Run # 406	Beam: 86Kr	Date: 28 May 2010
Avg. Rates	Beam Energy: ?	B ρ: ? (Seg. 8)
MCP0:	Trigger: S800 HH.RA	Target: 10μm CH2
MCP1:	Drives [mm]	Attenuation: 1000
XFP:	I250X-R: 0 MCP0	OnShift:
Live Time:	I250Y-R: 165 MCP1	I251Y-R was enabled since 5pm.
Live Trigger:	I251Y-R: Target	
Comments: Ended w/ VME crate crash.		

I251Y-R drive was enabled.
Daniel Bazin started to match Spectrograph Dipoles, which were ~ 0.1% and 0.4% off by NMR gui.

Run # 407	Beam: 86Kr	Date: 28 May 2010
Avg. Rates	Beam Energy: 45MeV	B ρ: (Seg. 8)
MCP0:	Trigger: S800 single	Target: Mask 264.5mm
MCP1:	Drives [mm]	Attenuation: 10,000
XFP:	I250X-R: out MCP0	OnShift: Seg7 = 2.34690
Live Time:	I250Y-R: in MCP1	Seg8 = 2.30265
Live Trigger: ~40%	I251Y-R: 264.5 Target	
Comments:		

Run # 408	Beam: 86Kr	Date: 28 May 2010
Avg. Rates	Beam Energy:	Bρ: (Seg. 8)
MCP0:	Trigger: S800 singles	Target: 10 μm CH_2
MCP1:	Drives [mm]	Attenuation: 1 M
XFP:	I250X-R: 0 MCP0	OnShift: MH
Live Time:	I250Y-R: 241 MCP1	
Live Trigger:	I251Y-R: 150 Target	
Comments: MCP mask run, Swept mask.		

↑Bρ was swept in Seg. 7 to illuminate much larger area than beam spot. Analysis line

Now preparing for 86Kr (p,d) HiRA singles trigger mode to get good lines for deuteron relative to p, t, ^{3}He, etc.

Run # 409	Beam: 86Kr	Date: 28 May 2010
Avg. Rates	Beam Energy:	Bρ: (Seg. 8)
MCP0:	Trigger: S800 + HiRA Coin	Target: 10 μm CH_2
MCP1:	Drives [mm]	Attenuation: 1,000.
XFP:	I250X-R: 0 MCP0	OnShift:
Live Time:	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 150 Target	
Comments:		

Run # 410	Beam:	Date: May 2010
Avg. Rates	Beam Energy:	B ρ: (Seg. 8)
MCP0:	Trigger:	Target:
MCP1:	Drives [mm]	Attenuation:
XFP:	I250X-R: MCP0	OnShift:
Live Time:	I250Y-R: MCP1	
Live Trigger:	I251Y-R: Target	
Comments: SAME AS 409		

Run # 411	Beam: 86Kr	Date: 28 May 2010
Avg. Rates	Beam Energy:	B ρ: (Seg. 8)
MCP0:	Trigger: Coinc.	Target:
MCP1:	Drives [mm]	Attenuation:
XFP:	I250X-R: MCP0	OnShift:
Live Time:	I250Y-R: MCP1	
Live Trigger:	I251Y-R: Target	
Comments: Opened FP Slit to see 86Kr tail		

Switching to HiRA singles.

Run # 412	Beam: 86 Kr	Date: 28 May 2010
Avg. Rates	Beam Energy:	B ρ: (Seg. 8)
MCP0: off	Trigger: HiRA singles	Target: 10 μm CH2
MCP1: off	Drives [mm]	Attenuation:
XFP: 800k	I250X-R: MCP0	OnShift:
Live Time:	I250Y-R: MCP1	
Live Trigger:	I251Y-R: Target	
Comments: FP GV in.		

Run #	Beam:	Date: May 2010

RUN 413 Same as 412.

RUN414 SAME as 412.

Run # 415	Beam: 86 Kr	Date: 28 May 2010
Avg. Rates	Beam Energy: 45.5 MeV	B ρ: 2.3026 (Seg. 8)
MCP0:	Trigger: HiRA Singles	Target: 10 um CH2
MCP1:	Drives [mm]	Attenuation: 1000
XFP: ~630 KHz	I250X-R: 0 MCP0	OnShift: Brett Zibi Meredith Micha Betty Jack
Live Time: ~94%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: Should be going to coincidence soon.		

12:15 AM

Run # 416	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45.5 MeV	B ρ: 2.3026 (Seg. 8)
MCP0:	Trigger: HiRA Singles	Target: 10 um CH2
MCP1:	Drives [mm]	Attenuation: 1000
XFP: ~650 KHz	I250X-R: 0 MCP0	OnShift: Brett Zibi Meredith Micha Betty Jack
Live Time: ~94%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: MCP still off (Run ended when operators asked for beam back)		

12:25 AM

Zibi is switching the trigger back to the S800 & HiRA singles.

Turning the MCP bias voltage on.

MCP1 bias voltage = 2.3 KV

12:33 AM

Run # 417	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10 um CH2
MCP1: ~260 KHz	Drives [mm]	Attenuation: 1000
XFP: ~210 KHz	I250X-R: 0 MCP0	OnShift: Brett, Meredith, Zibi, Micha
Live Time: ~99%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: Crad 06/Crad 04 ≈ 2.0/2.5 = 0.8		

We will use this ratio as a baseline.

$$\frac{\text{Crad 06}}{\text{Crad 04}} \approx 0.8$$

1:13 AM

Run # 418	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10 um CH2
MCP1: ~250 KHz	Drives [mm]	Attenuation: 1000
XFP: ~190 KHz	I250X-R: 0 MCP0	OnShift: Micha, Brett
Live Time: ~99%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: We do not know why MCP1 > XFP		

$$\frac{\text{Crad 06}}{\text{Crad 04}} \approx \frac{1.7}{2.3} \approx 0.74$$

* Bill has noticed that the "clear" scaler is counting roughly twice what it should.

  Looking at the oscilloscope we see that this is an issue with the scaler, and in practice the electronics are working correctly.

* The MCP is running at low efficiencies, which Bill suggests is causing MCP1 > XFP

* Bill has approximated the ~~MCP1~~ XFP efficiency as ~ 50%

* We noticed the XFP rate was nearly 50% (down from > 90% just hours earlier). We turned off the MCP and turned the beam up by a factor of 2. We will call Jorge at 6:00 AM.

~~2:18 AM~~

~ 2:00 AM

Run # 419	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.3026 G (Seg. 8)
MCP0: ~	Trigger: S800 & HiRA	Target: 10um CH2
MCP1: ~ 240 KHz	Drives [mm]	Attenuation: 1000
XFP: ~190 KHz	I250X-R: 0 MCP0	OnShift: Brett, Micha, Betty, Bill
Live Time: ~ 98%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: XFP efficiency is about 50%		

* Upon turning off the MCP we abruptly ended the run.

2:18 AM

Run # 420	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10 um CH2
MCP1: ✓	Drives [mm]	Attenuation: 1000
XFP: ~400 KHz	I250X-R: 0 MCP0	OnShift: Brett, Micha, Betty, Bill
Live Time: ~98%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: Beam turned up by factor of 2, MCP turned off.		

(Note the change in beam intensity and MCP 1 was turned off)

$\frac{\text{Crad 06}}{\text{crad 04}} \approx 1.9$ (prior to intensity change)

$\frac{\text{CRAD 06}}{\text{CRAD 04}} \approx \frac{4.0}{5.2} \approx 0.76$

* Ended run to check current efficiency. Using the method recommended by Jorge!

⇒ efficiency ≈ 38% (Run 420)

2:48 AM

Run # 421	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10 um CH2
MCP1: —	Drives [mm]	Attenuation: 1000
XFP: ~340 KHz	I250X-R: 0 MCP0	OnShift: Brett, Micha
Live Time: ~98%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: Efficiency of XFP is very low!		

$\frac{\text{CRAD 06}}{\text{CRAD 04}} \approx \frac{3.1}{4.2} \approx 0.76$

3:15 AM

P.T. #1 (Pressure)	+400.5	Torr
P.T. #2 (Pressure)	+39.7	Torr
M.F.C. #1 (Flow)	40.87	sccm
M.F.C. #2 (Flow)	8.21	sccm
M.F.C. #3 (Flow)	30.62	sccm

Tower Si0	3.8	uA	BACK BIAS
Tower Si1	15.2	uA	+150 Volt
Tower Si2	12.2	uA	
Tower Si3	5.1	uA	
Tower Si4	7.92	uA	

Terminal

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- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	139.75 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.24 uA	On		00.0001
Tow0Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0002
Tow0Card6	160.00 V	4.00 uA	160.00 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.30 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	1.94 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0007
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.82 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.62 uA	On		00.0009
Tow2Card15	0.00 V	6.00 uA	0.00 V	4.44 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.64 uA	On		00.0011
Tow2Card9	0.00 V	4.00 uA	0.50 V	0.00 uA	Off		00.0012
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.38 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.68 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	150.00 V	1.38 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	70.00 V	1.14 uA	On		00.0016
Tow3Card9	0.00 V	4.00 uA	0.50 V	0.00 uA	Off		00.0017
Tow3Card6	60.00 V	4.00 uA	60.25 V	1.18 uA	On		00.0018

Channels Display/Edit Screen LocEn V0 I0 N | CAEN SY1527

Terminal

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- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.46 uA	On		00.0019
Tow4Card15	0.00 V	6.00 uA	0.00 V	0.10 uA	Off		00.0020
Tow4Card12	200,00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card9	0.00 V	4.00 uA	0.50 V	0.00 uA	Off		00.0022
Tow4Card6	120.00 V	4.00 uA	120.25 V	1.50 uA	On		00.0023
Tow4Card3	210.00 V	4.00 uA	210.25 V	3.48 uA	On		00.0024
Tow0Card1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0025
1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0026
Tow2Card1*	0.00 V	0.10 uA	0.25 V	0.00 uA	Off		00.0027
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.85 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	40.00 V	3.0 uA	39.95 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	3.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009

Channels Display/Edit Screen LocEn V0 I0 N CAEN SY1527

Terminal

File Edit View Terminal Tabs Help

- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
CsI1	40.00 V	3.0 uA	39.95 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	0.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	40.00 V	3.0 uA	39.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.2 uA	On		05.0004
CsI3	40.00 V	3.0 uA	39.80 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.65 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.85 V	0.0 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.65 V	0.0 uA	On		05.0009
PA7	0.00 V	3.0 uA	0.00 V	0.0 uA	Off		05.0010
CsI4	40.00 V	10.0 uA	39.85 V	0.2 uA	On		05.0011

Channels Display/Edit Screen LocEn V0 I0 N CAEN SY1527

efficiency of XFP ≈ 38% (Run 422)

3:29 AM

Run # 422	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10um CH2
MCP1: —	Drives [mm]	Attenuation: 1000
XFP: ~300 KHz	I250X-R: 0 MCP0	OnShift: Brett Micha
Live Time: ~98%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: CRAD 06/CRAD 04 ≈ 2.9/4.8 = 60%		

XFP efficiency ≈ 33% (Run 422)

4:17 AM

Run # 423	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10um CH2
MCP1: —	Drives [mm]	Attenuation: 1000
XFP: ~260 KHz	I250X-R: 0 MCP0	OnShift: Brett Micha
Live Time: ~98%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: CRAD 06/CRAD 04 ≈ 2.5/4.5 = 56%		

XFP efficiency ≈ 32% (Run 423)
(The beam was really sporadic near the end of this run.)

5:01 AM

Run # 424	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10 um CH2
MCP1: —	Drives [mm]	Attenuation: 1000
XFP: ~350 KHz	I250X-R: 0 MCP0	OnShift: Brett Micha
Live Time: ~99%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: CRAD 06/CRAD 04 ≈ 3.0/3.9 = 77%		

XFP efficiency ≈ 33% (Run 424

* About 5:30 AM we decided to call Jorge for a shim.

5:46 AM

Run # 425	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HRA	Target: 10 um CH2
MCP1: —	Drives [mm]	Attenuation: 1000
XFP: ~220 KHz	I250X-R: 0 MCP0	OnShift: Brooy Micha
Live Time: ~99%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: CRAD 06/CRAD 04 ≈ 2.0/3.5 = 57%		

* Run was ended after ~12 minutes when Jorge showed up to shim the beam. (About 6:00 AM)

6:37 AM

Run # 426	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HRA	Target: 10 um CH2
MCP1: —	Drives [mm]	Attenuation: 1x10^6
XFP:	I250X-R: 0 MCP0	OnShift: Brooy Micha
Live Time:	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: During the start of this run Jorge was adjusting the slits and optimizing the beam.		

I255 → I2~~00~~55 - CT
4.66 → 4.62
(From 4.66 to 4.62) Change in slits.

XFP efficiency ≈ 96%

(Jorge had measured the efficiency at 100%)

7:08 AM

Run # 427	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10 CH2
MCP1: —	Drives [mm]	Attenuation: 10000
XFP: ~215 KHz	I250X-R: 0 MCP0	OnShift: Brett
Live Time: ~99%	I250Y-R: 165 MCP1	Micha
Live Trigger:	I251Y-R: 100 Target	
Comments: Fresh data run.		

Currently: $\frac{CRAD\ 06}{CRAD\ 04} \approx \frac{2.3}{3.0} = 0.77$

7:46 AM

Run # 428	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: —	Trigger: S800 & HiRA	Target: 10 CH2
MCP1: —	Drives [mm]	Attenuation: 10000
XFP: ~220 KHz	I250X-R: 0 MCP0	OnShift: Brett
Live Time: ~97%	I250Y-R: 165 MCP1	Micha
Live Trigger:	I251Y-R: 100 Target	Mike
Comments:		

$\frac{CRAD\ 06}{CRAD\ 04} \approx \frac{2.0}{2.4} = 0.83$

XFP efficiency ≈ 95%

Run # 429	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.30265 (Seg. 8)
MCP0:	Trigger: S800 + HiRA	Target: 10 CH_2
MCP1:	Drives [mm]	Attenuation: 10,000
XFP: ~203 KHz	I250X-R: 0 MCP0	OnShift: Mike
Live Time: ~97%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments:		

$\frac{CRAD\ 06}{CRAD\ 04} \approx \frac{1.8}{2.3} \approx 0.78$

XFP efficiency ≈ 94%

Run # 430	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.3026 (Seg. 8)
MCP0:	Trigger: S800 + HiRA	Target: 10 CH_2
MCP1:	Drives [mm]	Attenuation: 10000
XFP: ~195 KHz	I250X-R: 0 MCP0	OnShift:
Live Time: ~98%	I250Y-R: 165 MCP1	Mike
Live Trigger:	I251Y-R: 100 Target	
Comments:		

$$\frac{CRAD\ 0C}{CRAD\ 04} \simeq \frac{2.0}{3.0} \simeq 0.67$$

XFP efficiency ~95%

Run # 431	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.3026 (Seg. 8)
MCP0:	Trigger: S800 + HiRA	Target: 10 CH_2
MCP1:	Drives [mm]	Attenuation: 10000
XFP: ~192 KHz	I250X-R: 0 MCP0	OnShift:
Live Time: ~96%	I250Y-R: 165 MCP1	Mike
Live Trigger:	I251Y-R: 100 Target	
Comments:		

$$\frac{CRAD\ 06}{CRAD\ 04} \simeq \frac{1.8}{2.8} \simeq 0.64$$

XFP Efficiency ~ 95 %

Run # 432	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.3026 (Seg. 8)
MCP0:	Trigger: S800 + HiRA	Target: 10 CH_2
MCP1:	Drives [mm]	Attenuation: 10,000
XFP: ~190 KHz	I250X-R: 6 MCP0	OnShift:
Live Time: ~96%	I250Y-R: 165 MCP1	Mike Enrique
Live Trigger:	I251Y-R: 100 Target	
Comments:		

$$\frac{CRAD\ 06}{CRAD\ 04} \simeq \frac{2.0}{3.0} \simeq 0.66$$

XFP efficiency ~96%

Beam tune @ 11:20 after a sudden drop in beam.

Run # 433	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.3026S (Seg. 8)
MCP0:	Trigger: S800+HiRA	Target:
MCP1:	Drives [mm]	Attenuation: 10,000
XFP: 135 kHz	I250X-R: 0 MCP0	OnShift: Mike Meredith Milan Enrique
Live Time: 96%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: MCP1 B.20 back on		

$$\frac{\text{CRADO6}}{\text{CRADO4}} \approx \frac{1.6}{1.8} \approx 0.89$$

XFP efficiency ~93%

Run 434 Daq lockeel up + required a reboot.

Run # 435	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45 MeV	B ρ: 2.3026S (Seg. 8)
MCP0:	Trigger: S800+HiRA	Target: 10 CH2
MCP1:	Drives [mm]	Attenuation: 10,000
XFP: 280 kHz	I250X-R: 0 MCP0	OnShift: Bill Milan Mike Betty Enrique Tilak
Live Time: ~99%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: Post DAQ lock up		

$$\frac{\text{CRADO6}}{\text{CRADO4}} \approx \frac{2.3}{2.9} \approx 0.88$$

XFP efficiency ~93%

MCP efficiency calibration runs.

Run # 436	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45.5	B ρ: 2.30265 (Seg. 8)
MCP0: 0	Trigger: S800 + HiRA	Target: 10 μm CH2
MCP1: 120 K	Drives [mm]	Attenuation: 10 K
XFP: 237 K	I250X-R: 0 MCP0	OnShift: Bill, Betty, Mike, Milan, Jilac Enrique
Live Time: 99%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: Short run.		

Run # 437	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45.5 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: 0	Trigger: S800 + HiRA	Target: 10 μm CH2
MCP1: 51 K	Drives [mm]	Attenuation: 30 K
XFP: 57 K	I250X-R: 0 MCP0	OnShift: Mike, Milan, Bill, Betty, Jilac, Enrique
Live Time: 99%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments:		

Run # 438	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45.5 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: None	Trigger:	Target: 10 μm CH2
MCP1: 15 K	Drives [mm]	Attenuation: 100 K
XFP: 11 K	I250X-R: 0 MCP0	OnShift: Bill, Mike, Milan Tilak, Enrique
Live Time: 100%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments:		

Run # 439	Beam: 86 Kr.	Date: 29 May 2010
Avg. Rates	Beam Energy: 45.5 MeV	B ρ: 2.30265 (Seg. 8)
MCP0: none	Trigger:	Target: 10 um CH2
MCP1: 31 K	Drives [mm]	Attenuation: 300 K
XFP: 1200 Counts	I250X-R: 0 MCP0	OnShift: Bill, Mike, Jilac, Milan, Betty, Enrique.
Live Time: 100%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments:		

Run # 440	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45.5 MeV	B ρ: 2.30265 (Seg. 8)
MCP0:	Trigger:	Target: 10 um CH2
MCP1: 27 K	Drives [mm]	Attenuation: 1 M
XFP: 2000 Counts	I250X-R: 0 MCP0	OnShift: Bill, Mike, Jilac, Milan, Betty, Enrique.
Live Time: 100%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments:		

Run # 441	Beam: NO beam	Date: 29 May 2010
Avg. Rates	Beam Energy:	B ρ: 2.30265 (Seg. 8)
MCP0: none.	Trigger:	Target: 10 um CH2
MCP1: 19 K	Drives [mm]	Attenuation: 10 K - beam stop in
XFP: 0	I250X-R: 0 MCP0	OnShift: Bill, Mike, Jilac, Milan, Betty, Enrique.
Live Time: 100%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments: Back round run		

BACK to production run.

Run # 442	Beam: 86 Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45.5 MeV	B ρ: 2.30265 (Seg. 8)
MCP0:	Trigger:	Target: 10 um CH_2
MCP1: 150 K	Drives [mm]	Attenuation: 10 K
XFP: 233 K	I250X-R: 0 MCP0	OnShift: Meredith, Mike, Enrique, Gilad
Live Time: 98%	I250Y-R: 165 MCP1	
Live Trigger:	I251Y-R: 100 Target	
Comments:		

2:15 PM SAT 29 MAY 2010

Tow0Cart15	140.00 V	4.00 uA	139.75 V	0.56 uA	On
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.24 uA	On
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.30 uA	On
Tow1Card15	410.00 V	4.00 uA	409.75 V	1.94 uA	On
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.84 uA	On
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.62 uA	On
Tow2Card15	0.00 V	6.00 uA	0.00 V	4.50 uA	Off
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.64 uA	On
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.38 uA	On
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.66 uA	On
Tow3Card15	150.00 V	4.00 uA	150.00 V	1.38 uA	On
Tow3Card12	70.00 V	4.00 uA	70.00 V	1.14 uA	On
Tow3Card6	60.00 V	4.00 uA	60.25 V	1.18 uA	On
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.46 uA	On
Tow4Card15	0.00 V	6.00 uA	0.00 V	0.10 uA	Off
Tow4Card6	120.00 V	4.00 uA	120.25 V	1.52 uA	On
Tow4Card3	210.00 V	4.00 uA	210.25 V	3.48 uA	On
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On
PA10	11.00 V	2.0 uA	10.85 V	0.0 uA	On
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On
CsI1	40.00 V	3.0 uA	39.95 V	0.0 uA	On
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On
PA17	6.00 V	2.0 uA	5.80 V	0.1 uA	On
CsI2	40.00 V	3.0 uA	39.95 V	0.3 uA	On
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On
PA2	9.00 V	2.0 uA	9.15 V	0.2 uA	On
CsI3	40.00 V	3.0 uA	39.80 V	0.2 uA	On
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.30 uA	On
Tow1Card15	410.00 V	4.00 uA	409.75 V	1.90 uA	On
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.78 uA	On
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.62 uA	On
Tow2Card15	0.00 V	6.00 uA	0.00 V	4.42 uA	Off

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0527

area/experiment/run310/run310-4096.evt

10	11.00 V	2.0 uA	10.85 V	0.0 uA	On
12	9.00 V	2.0 uA	8.80 V	0.0 uA	On
I1	40.00 V	3.0 uA	39.95 V	0.0 uA	On
19	6.00 V	2.0 uA	5.45 V	0.0 uA	On
16	7.00 V	2.0 uA	7.05 V	0.0 uA	On
18	7.00 V	2.0 uA	7.25 V	0.0 uA	On
17	6.00 V	2.0 uA	5.80 V	0.1 uA	On
I2	40.00 V	3.0 uA	39.95 V	0.3 uA	On
4	7.00 V	2.0 uA	6.90 V	0.0 uA	On
1	8.00 V	2.0 uA	7.90 V	0.1 uA	On
3	7.00 V	2.0 uA	7.05 V	0.3 uA	On
0	8.00 V	2.0 uA	8.05 V	0.3 uA	On
2	9.00 V	2.0 uA	9.15 V	0.2 uA	On
I3	40.00 V	3.0 uA	39.80 V	0.2 uA	On
9	8.00 V	2.0 uA	7.65 V	0.4 uA	On
6	11.00 V	2.0 uA	10.75 V	0.0 uA	On
8	7.00 V	2.0 uA	6.85 V	0.0 uA	On
5	7.00 V	2.0 uA	6.65 V	0.0 uA	On
I4	40.00 V	10.0 uA	39.85 V	0.2 uA	On
w0Card3	245.00 V	4.00 uA	245.00 V	1.30 uA	On
w1Card15	410.00 V	4.00 uA	409.75 V	1.90 uA	On

03.0003
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Si

Tower	0	3.8 μA
	1	15.3 mA
	2	12.3 mA
	3	5.1 mA
	4	7.77 μA

MCP Foil → 1 kV
det → 2.3 kV

Run 446 No beam on 10

447 ~~beam on~~ junk

448 ~~beam on~~ beam on 10k. 1:02

449 beam off 10k 1:04

450 beam on 10k 1:01

451 beam on 30k 1:02

452 beam off 30k 1:02

453 beam on 30k 1:00

454 beam off 30k 1:07

455 beam on 100k 1:02

456 beam off 100k 1:01

457 beam on 100k 1:03

458 beam off 100k 1:01

459 beam on 10k 1:61

460 beam off 10k 1:00 ~2k

461 beam on 10k 1:01

462 beam off 10k 1:01

463 beam off 100k 1:00

464 beam on 100k 1:01

465 beam off 100k 1:01

466 beam on 30k 1:61

Run # 468	Beam: 86Kr	Date: 29 May 2010
Avg. Rates	Beam Energy: 45.5	B ρ: _____ (Seg. 8)
MCP0: _____	Trigger:	Target: _____
MCP1: 15K	Drives [mm]	Attenuation: 100K
XFP: 1.8M	I250X-R: 0 MCP0	OnShift:
Live Time: 99	I250Y-R: 89 MCP1	
Live Trigger: _____	I251Y-R: 150 Target	
Comments:		

beam on Al foil in MCP1

10 μm CH_2 target

Run # 469	Beam: ~~86Kr~~ no beam!	Date: _____ May 2010
Avg. Rates	Beam Energy: _____	B ρ: _____ (Seg. 8)
MCP0: _____	Trigger:	Target: _____
MCP1: _____	Drives [mm]	Attenuation: _____
XFP: _____	I250X-R: _____ MCP0	OnShift:
Live Time: _____	I250Y-R: _____ MCP1	
Live Trigger: _____	I251Y-R: _____ Target	
Comments: junk, detectors unbiased		

End of experiment

chamber pressure: 2.8×10^{-6} torr

SI voltages & currents 5/29/10 3:30pm

Si	Voltage(V)	Current(μA)	Status
0	150	3.3	on
1	13.6	4.4	off
2	150	11.00	on
3	150	4.2	on
4	90	4.2	on

5/29/10 Testing after mounting MCP's in chamber

	MCP0	MCP1
HV	110	51
Anode	88	40.6
Back	72	33.4
Middle	29	12.9
(input:	~+110V	~+50V)

Open chamber at 4pm. Sat 5/29/10

1. Andy Thelen regenerate cryo
2. Venting as normal & C-foil blown off.
3. Fix connection problem of MCP0 (out side cable problem)
4. ~~Installed MCP1~~ Replace MCP1 with spare
5. Fix cable problem ~~on~~ for P12, P8, E cables as well as ~~on~~ power cable
6. Replace thermo-couple distribution box
7. Install camera to watch @ MCP1 foil position to check if C foil would be damaged during pump down
8. Install ~~Th~~ α source
10. ~~Sunday~~ Replace thin (CH$_2$)$_n$ target with (CO$_2$)$_n$ target. Sunday 5/30/10
8. Check ΔE, E's α calib. & bias O.K.
9. Replace C-foil (45 μg/cm^2)
10. Install pin sources

E06035

30 May 2010

RUN # 500 PULSER RAMP ON DE's (no bias)

0 - 2 V, 21 steps

RUN # 501 PULSER RAMP ON DE's (no bias)

0.2 - 0 V, 21 steps

RUN # 502 PULSER RAMP ON DE's (w/ bias)

0.2 - 0 V, 21 steps

RUN # 503 PULSER RAMP ON DE's (w/ bias)

0 - 2 V, 21 steps

Looking at HiRA OR

① no daq running ~ 3.5 μs OR

② readout running ~ 7 μs - 10 μs (most of the time)

~ 70 μs (occasionally)

(triggering xtm)

5/29/10 ~~/~~ Test: after mounting MCP's in chamber

	MCP0	MCP1
HV	110	51
Anode	88	40.6
Back	72	33.4
Middle	29	12.9
(input:	~+110V	~+50V)

Open chamber at 4pm. Sat 5/29/10

1. Andy ~~Thalin~~ regenerate cryo
2. Venting as normal & C-foil blown off.
3. Fix connection problem of MCP∅ (outside cable problem)
4. ~~Install MCP1~~ Replace MCP1 with spare
5. Fix cable problem ~~on~~ for P12, P8, E cables as well as ~~as~~ power cable
6. Replace thermo-couple distribution box
7. Install camera to watch ~~B~~ MCP1 foil position to check if C foil will ~~be~~ be damaged during pump down
8. Install ~~228~~ Th α source
10. ~~Sunday~~ Replace thin $(CH_2)_n$ targets with $(CD_2)_n$ target. Sunday 5/30/10
8. Check ΔE, E's α calib. & bias O.K.
9. Replace C-foil (45 μg/cm²)
10. Install pin sources

TRIGGERING ON EOE (THRESHOLDS HIGH)

SHP OUT 1 goes to ECL 3 & 4

MB #0

TRIG ON SHP 1 (EOE)

~3.5 µs

EOE comes before BUSY goes OFF then OR refires ONCE with width ~3.5 µs

TRIG ON OR

~3.5 µs

sometimes ~6 µs, 3.5 µs

Y - OR
B - EOE
P - BUSY
G - MASTER

MB #1

same as MB #0

~3.5 µs

sometimes ~6 µs, 3.5 µs

MB #2

rarely see retriggering after EOE

only ~3.5 µs

MB #3

~6 µs

NO retriggering after EOE

MB #4

rarely see refiring after EOE

3.5 µs

mostly most of the triggers 50-80% ~6 µs

CD_2 target thickness measurement

Source : ^{241}Am (α energy = 5.486 MeV)

Bias : 50 volt

Peak w/o target : 896.09 channel

Calibration : 6.122 KeV / Ch

Position	Peak
84 mm	844.25
82 mm	842.14
80 mm	841.96
86 mm	844.00

ch diff ~ 52
= 318 KeV

Thickness
= 375 $\mu g/cm^2$
= 4.78 micron

	Multiplexer Map		Thursday 3:32AM -JRW
0	Big Brother	16	XLM slot12 complete latch
1	CSI_OR TOW2	17	XLM complete latch coincidence (bar)
2	CSI_OR TOW3	18	XLM slot12 global enable
3	DE_OR	19	S800 E1
4	EB_OR	20	Pulser Trigger
5	EF_OR	21	S800+HiRA
6	CSI-Multout-linear	22	HiRA OR
7	Master	23	MB0 Shaper
8	Busy OR	24	MB1 Shaper
9	S800 Busy	25	MB2 Shaper
10	Prompt Busy	26	MB3 Shaper
11	Computer EOE	27	MCP0 C0 HG
12	MCP1 C0 HG	28	MCP0 C0 LG
13	???	29	MB6 Shaper
14	MCP Gate	30	CSI
15	XLM trigger	31	XFP
	This file is mxer.xlsx, on the desktop of the windows pc		
	Please update it as necessary		

29 May 2018

Rad Survey by Rachel Hodges

Background ~ 20 cpm (10-25 cpm)

Near MCP1: 25 cpm

MCP0: 19 cpm

~ 425 PM — No high rad areas in chamber

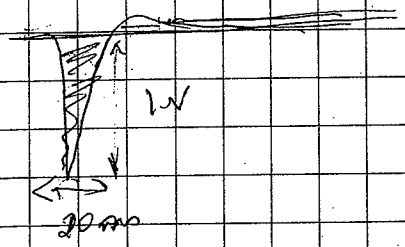
14127 May 31st (Memorial day holiday)

Vacuum ~ 4.5×10^{-6}

Made Capacitors for decoupling the MCP's

Put in ~ 87 ns of delay for MCP signals &

Possible effect of cap. if QDD does not restore d.c. quickly is baseline shift



$200k \times 10ns = 2 \times 10^{5} \times 10^{-8} = 2 \times 10^{-3}$

$\Rightarrow$ 2 mV shift

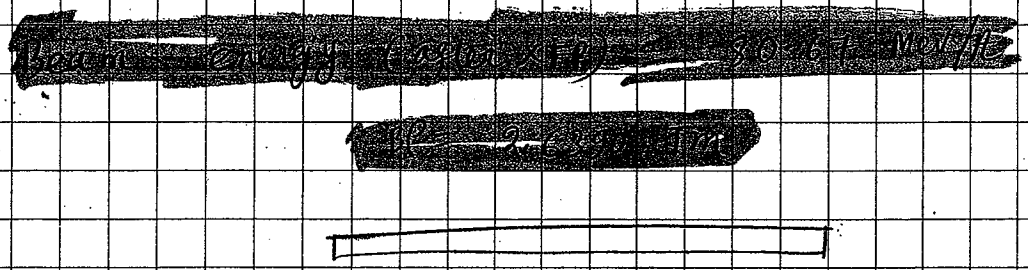
June 2

1. plugged the cable into PA 8 more securely seems to work now
2. put MCP coincidence ~~into~~ now into Scaler channel 11 of Scaler Slot 9
   " " Coincidence +Live in to channel 12 " " slot 9
   put mcp coincidence timing in TDC channel 3
3. Widened Mcp bgi signals to 100 ns
4. made Mcp coincidence and put it into 7 above channels
5. Checked Mcp or timing for Mcp downscaler trigger.
6. made timing for MCP0 = to that of Mcp1
7. removed caps from high gains. or inserted caps into low gain DC signal
8. ~~Put the~~ Checked the new bit file v306 from W4. Does it solve the problem. Put in a discriminator window at ~2 us - 28 us after the OR
9. The bias coming out ~~for~~ of PA 7 is positive which is the WRONG Polarity. Check after the experiment
10.

Run 511	Data	(calib)	coin	S800	(HiRA)	Date: 06/02/10
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader Zibi
E/A=80 MeV	blank	carbon	mask	(other)		
(alpha source)	scaler (rates)		livetime			I251Y-Target
XFP	MCP0		MCP1			I250Y-R MCP1
master	S800		CSI_OR			I250X-R MCP0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)	Attenuation:					Bias log Y/N : NO
comments: Alpha runs for DEs and two Es (P8 and P15)						

Run 513	Data	(calib)	coin	(S800)	HiRA	Date: 06/02/10
Beam: (56Ni); 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader ajlarc
E/A=80 MeV	(blank)	carbon	mask	other		
alpha source	scaler (rates)		livetime			I251Y-Target 0
XFP	MCP0		MCP1			I250Y-R MCP1
master 120	S800 0.757		CSI_OR			I250X-R MCP0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8) 2.6390	Attenuation: 100 K					Bias log Y/N N
comments: 1% momentum in slit at A1900.						

Run 514	Data	(calib)	coin	(S800)	HiRA	Date: 06/02/10
Beam: (56Ni) 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader
E/A=80 MeV	(blank)	carbon	mask	other		
alpha source	scaler (rates)		livetime 34%			I251Y-Target
XFP	MCP0		MCP1			I250Y-R MCP1
master	S800 34%		CSI_OR			I250X-R MCP0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8) 2.6390	Attenuation: 100 K					Bias log Y/N : N
comments: 0.5% momentum in slit at A1900						

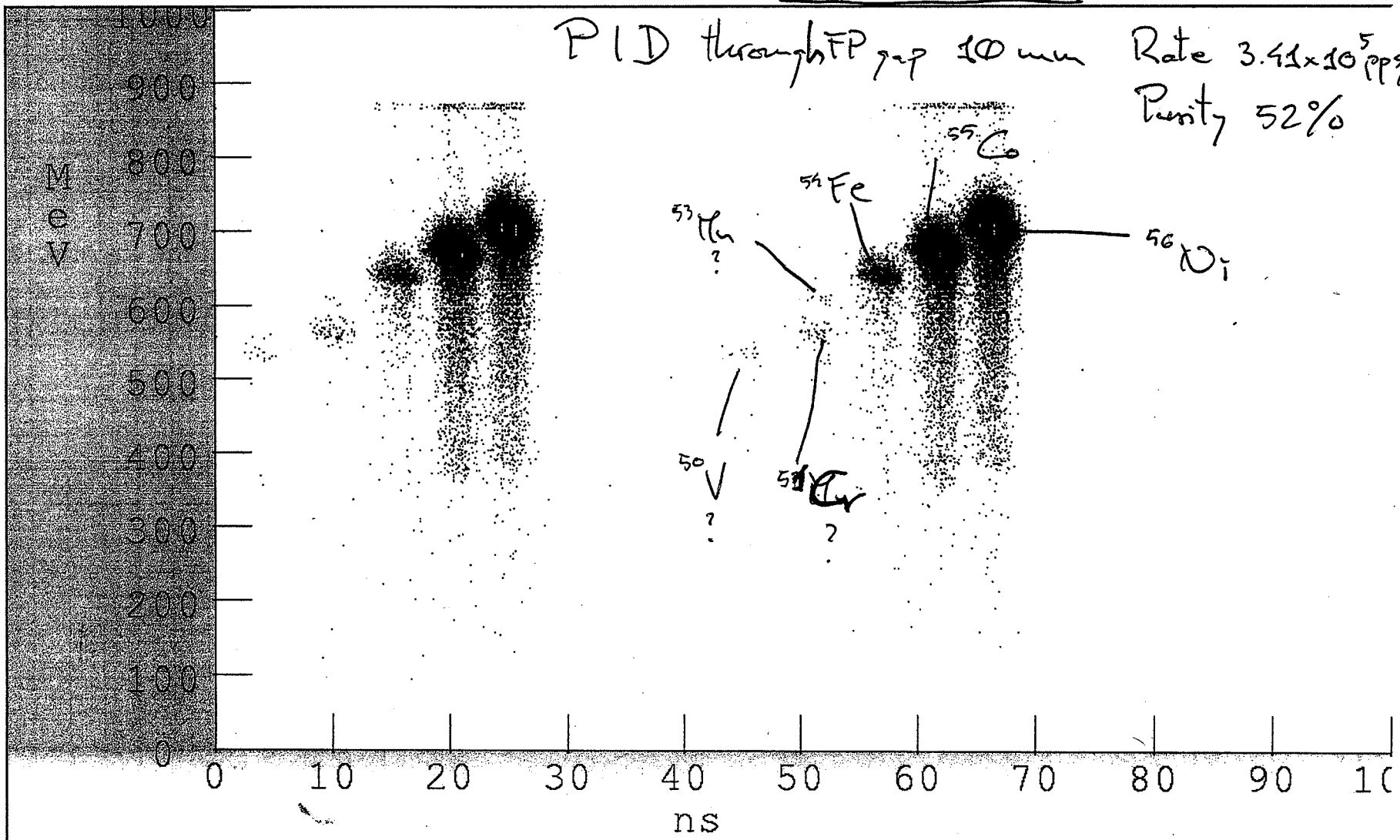


Run 517	Data	(calib)	coin	(S800)	HiRA	Date: 06/ /10
Beam: 56Ni; 58Ni E/A=80 MeV alpha source	viewer blank	CH2(100) carbon	(CD2 (2) mask	(CD2 (1)) other		Shift leader
	scaler (rates)		livetime 40%			I251Y-Target 150 mm
XFP 900	MCP0 NA		MCP1 NA			I250Y-R MCP1
master	S800 800		CSI_OR			I250X-R MCP0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)		Attenuation:				Bias log Y/N
comments:						

Run 516	Data	(calib)	coin	(S800)	HiRA	Date: 06/ /10
Beam: 56Ni; 58Ni E/A=80 MeV alpha source	viewer blank	CH2(100) carbon	(CD2 (2) mask	(CD2 (1)) other		Shift leader
	scaler (rates)		livetime 42%			I251Y-Target
XFP 1010	MCP0		MCP1			I250Y-R MCP1
master	S800		CSI_OR			I250X-R MCP0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)		Attenuation:				Bias log Y/N
comments:						

From A1900 | Run 5576

PID through FP gap 10 mm Rate 3.41×10^5 pps/pA
Purity 52%



[73] PID::FP.PIN.DE_VS_TOF.RF1|FPSLITS : 2 [0, 100 : 1000] X [0, 1000 : 1000] GATED ON : FPSLITS {A1900.TOF.RF1, A1900.FP.PIN.DE}

Spectrum 73 | X 65.82 | Y 0.50 | Counts 0

run5576-forExperimenters.png

Run 517	Data	(calib)	coin	(S800)	HiRA	Date: 06/02/10
Beam: 56Ni; 58Ni	viewer	(CH2(100))	CD2 (2)	CD2 (1)		Shift leader Betty
E/A=80 MeV	blank	carbon	mask	other		
alpha source	scaler (rates)		livetime 39%			I251Y-Target 50 mm
XFP 835	MCP0		MCP1			I250Y-R MCP1
master	S800		CSI_OR			I250X-R MCP0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)	Attenuation: 100K					Bias log Y/N
comments:						

Run 518	Data	calib	coin	S800	HiRA	Date: 06/02/10
Beam: 56Ni; 58Ni	(viewer)	CH2(100)	CD2 (2)	CD2 (1)		Shift leader Betty
E/A=80 MeV	blank	carbon	mask	other		
alpha source	scaler (rates)		livetime 43%			I251Y-Target
XFP	MCP0		MCP1			I250Y-R MCP1
master	S800		CSI_OR			I250X-R MCP0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)	Attenuation:					Bias log Y/N
comments:						

Run 519	Data	(calib)	coin	(S800)	HiRA	Date: 06/2/10
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader Betty
E/A=80 MeV	blank	(carbon)	mask	other		Tilak, Bill
alpha source	scaler (rates)		livetime 40%			I251Y-Target 239.6
XFP	MCP0		MCP1			I250Y-R MCP1
master	S800		CSI_OR			I250X-R MCP0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)	Attenuation:					Bias log Y/N
comments:						

Run 520	Data	calib	coin	S800	HiRA	Date: 06/ /10
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader Betty, Bill
E/A=80 MeV	blank	carbon	mask	other		Tilak
alpha source	scaler (rates)		livetime 3[illegible]%			I251Y-Target 200
XFP	MCP0		MCP1			I250Y-R MCP1 e 165
master	S800		CSI_OR			I250X-R MCP0 foil 143
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)		Attenuation:				Bias log Y/N
comments:						

Run 521	Data	calib	coin	S800	HiRA	Date: 06/ /10
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader Betty
E/A=80 MeV	blank	carbon	mask	other		Bill, Tilak
alpha source	scaler (rates)		livetime			I251Y-Target blank 200
XFP	MCP0		MCP1			I250Y-R MCP1 foil 89
master	S800		CSI_OR			I250X-R MCP0 foil 143
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)		Attenuation:				Bias log Y/N
comments: forgot to end run ~~data~~ while dip a lot of changes. data is good for 1st 2 min.						

turn on bright and viewer to view beam.

Run 522	Data	calib	coin	S800	HiRA	Date: 06/ /10
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader
E/A=80 MeV	blank	carbon	mask	other		
alpha source	scaler (rates)		livetime 64%			I251Y-Target CH_2 50 mm
XFP 164 IC	MCP0		MCP1			I250Y-R MCP1 Foil 143 mm
master	S800		CSI_OR			I250X-R MCP0 Carbon 165 mm
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8) 2.57300		Attenuation: 100 IC				Bias log Y/N
comments:						

Biasing all dE and E detector.

Back side of silicon (E) :- +ve bias

Tower 0: 150 volt 3.6 μA

Tower 1: 0 volt

Tower 2: 150 volt

Tower 3: 150 volt

Tower 4: 100 volt

Terminal

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- Main Utility Setup Groups View Admin

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.18 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.64 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.22 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	1.64 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.32 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.58 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	190.00 V	5.42 uA	On		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	3.54 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.30 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.34 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.10 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.12 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.16 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.52 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.80 uA	On		00.0021
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.48 uA	On		00.0023

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

Terminal

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- Main Utility Setup Groups View Admin

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	210.00 V	4.00 uA	210.00 V	0.98 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.15 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.00 V	0.2 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

PA0	8.00 V	2.0 uA	8.00 V	0.3 uA	On	05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On	05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On	05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On	05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On	05.0007
PA8	7.00 V	2.0 uA	6.85 V	0.0 uA	On	05.0008
PA5	7.00 V	2.0 uA	6.65 V	0.0 uA	On	05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On	05.0011

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

Run S27	Data	calib	coin	S800 HiRA
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)
E/A=80 MeV	blank	carbon	mask	other
alpha source	**scaler (rates)**		**livetime**	
XFP 255k	**MCP0**		**MCP1**	
master ~~220~~ 20	**S800** 10-15		**CSI_OR** 0	
CRAD04	**CRAD06**		**CRAD04/CRAD06**	
Brho (segment 8)	Attenuation:			Bias log Y/N

Date: 06/ /10

Shift leader Wayne.

I251Y-Target blank

I250Y-R MCP1 out

I250X-R MCP0 out

comments:
No target no mcp foils with beam to look for interactions with ~~beam~~ ? ⇒ shadow bar

MCP1		

Run529	Data	calib	coin	S800	HiRA	Date: 06/2/10
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader
E/A=80 MeV	blank	carbon	mask	other		
alpha source	scaler (rates)		livetime			I251Y-Target Blank 200, 241
XFP	MCP0 out		MCP1 in/on			I250Y-R MCP1 ~~241~~
master	S800		CSI_OR			I250X-R MCP0 5.0
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)		Attenuation:				Bias log Y/N
comments: Looking @ mask!!! MCP						

Run530	Data	calib	coin	S800	HiRA	Date: 06/2/10
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader
E/A=80 MeV	blank	carbon	mask	other		
alpha source	scaler (rates)		livetime			I251Y-Target 200
XFP	MCP0 X		MCP1 Foil			I250Y-R MCP1 165
master	S800		CSI_OR			I250X-R MCP0 5
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)		Attenuation: 100				Bias log Y/N
comments:						

Recalibrating MCP0 (I250X-R) drive

Run531	Data	calib	coin	S800	HiRA	Date: 06/2/10
Beam: 56Ni; 58Ni	viewer	CH2(100)	CD2 (2)	CD2 (1)		Shift leader
E/A=80 MeV	blank	carbon	mask	other		
alpha source	scaler (rates)		livetime			I251Y-Target
XFP	MCP0		MCP1			I250Y-R MCP1
master	S800		CSI_OR			I250X-R MCP0 153 ← not normal
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)		Attenuation:				Bias log Y/N
comments: Junk						

11 PM

Moving MCP0 slightly (+5mm) from nominal "Foil" position (143→148) got rid of funny horizontal line on ~~AEC~~ CRDC x vs y spectra.

Going to the chamber to patch out mcp0 signals.

Run 532	Data	calib	coin	S800	HiRA	Date: 06/2/10
Beam: 56Ni; 58Ni E/A=80 MeV alpha source	viewer blank	CH2(100) carbon	CD2 (2) mask	CD2 (1) other		Shift leader
	scaler (rates)		**livetime**			I251Y-Target I250Y-R MCP1 I250X-R MCP0
XFP	**MCP0**		**MCP1**			
master	**S800**		**CSI_OR**			
CRAD04	**CRAD06**		**CRAD04/CRAD06**			
Brho (segment 8)		Attenuation:				Bias log Y/N
comments: Junk						

Run533	Data	calib	coin	S800	HiRA	Date: 06/2/10
Beam: 56Ni; 58Ni E/A=80 MeV alpha source	viewer blank	CH2(100) carbon	CD2 (2) mask	CD2 (1) other		Shift leader
	scaler (rates)		**livetime**			I251Y-Target I250Y-R MCP1 I250X-R MCP0
XFP	**MCP0**		**MCP1**			
master	**S800**		**CSI_OR**			
CRAD04	**CRAD06**		**CRAD04/CRAD06**			
Brho (segment 8)		Attenuation:				Bias log Y/N
comments: Junk						

- Loaded Thresholds that Zibi saved this morning.
- Temp on Tower 2 is high (~40°)

Went to vault.

* It is observed that temparature of tower 2 is high (38.6°C). & CsI power was switched off for a while. NO change in temparature, so power was back on.

* Tel P8 shows huge (6.3 MA) current. From it gives noise too. Front bias is switched off for this telescope.

* For MCPO, Capacitors are removed from the high gain signals.

* switched off the target drives.

Went to vault

* switched on the target drives
* MCPO LAO was changed to channel 8 to channel 6 of QDC. (QDC Read out was changed to 16 to 12).
* Biased to all DE detectors.

Run 538	Data	(calib)	coin	S800	(HiRA)	Date: 06/ /10
Beam: 56Ni; 58Ni	viewer	(CH2(100))	CD2 (2)	CD2 (1)		Shift leader
E/A=80 MeV	blank	carbon	mask	other		
alpha source	scaler (rates)		livetime 52%			I251Y-Target 100 um CH_2 / 50 mm
XFP 222000	MCP0 223000		MCP1 192000			I250Y-R MCP1 C foil / 165 mm
master 270	S800 720		CSI_OR ..92			I250X-R MCP0 mask 219
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)	Attenuation:					Bias log Y/N
comments: the MCP1 to look at MCP0. Swapped input channels for MCP0 and Swapped QDC2 channels 8 & 9.						

Run 539	Data	calib	coin	(S800)	HiRA	Date: 06/03/10
Beam: (56Ni); 58Ni	viewer	(CH2(100))	CD2 (2)	CD2 (1)		Shift leader Micha
E/A=80 MeV	blank	carbon	mask	other		
alpha source	scaler (rates)		livetime			I251Y-Target CH_2 (100 um)
XFP 171 K	MCP0		MCP1			I250Y-R MCP1 C foil
master 150	S800 120		CSI_OR			I250X-R MCP0 mylar foil
CRAD04	CRAD06		CRAD04/CRAD06			
Brho (segment 8)	Attenuation:					Bias log Y/N
comments:						

We found that MCP0, LG1 vs HG1 spectra is not resonable. Signals were fine, seems to be problem with electronics. swapped the QDC channels LG0 ⇔ LG1, didn't work.

Betty wanted to be MCP0 should be working, it is reauired for beam tuning. so, MCP0 position signals were fed to MCP1 electronics.

~~MCP0 MCP1~~ ⇒ this was done in the FAST AMP where the raw signals from MCPs go.

Runs 540, 541:
Switched the trigger cable for preamp enable, so we were trying to trigger off 2 triggers. Half the DE's missing as a result. We fixed the cabling and see all the DE's.

Run 542	(Data)	calib	coin	S800	(HiRA)	Date: 06/3/10
Beam: (56Ni); 58Ni	viewer	(CH2(100))	CD2 (2)	CD2 (1)	Shift leader
E/A=80 MeV	blank	carbon	mask	other	Micha
alpha source	scaler (rates)		livetime 99%		I251Y-Target 100 μm CH2 (50 mm)
XFP ~100k	MCP0 120k		MCP1 100k		I250Y-R MCP1 165 (Carbon foil)
master 250	S800 80		CSI_OR 25		I250X-R MCP0 143 (foil)
CRAD04 0.15	CRAD06 1.8		CRAD04/CRAD06		
Brho (segment 8) 2.573	Attenuation:				Bias log Y/N
comments: Data taking to see punchthroughs on PID					

Efficiency: 39% by spectd.

Run 543	(Data)	calib	coin	S800	(HiRA)	Date: 06/3/10
Beam: (56Ni); 58Ni	viewer	(CH2(100))	CD2 (2)	CD2 (1)	Shift leader Micha
E/A=80 MeV	blank	carbon	mask	other	
alpha source	scaler (rates)		livetime 99		I251Y-Target 50
XFP 140k	MCP0 140k		MCP1 —		I250Y-R MCP1 165
master 150	S800 95		CSI_OR 35		I250X-R MCP0 143
CRAD04	CRAD06		CRAD04/CRAD06		
Brho (segment 8) 2.573	Attenuation:				Bias log Y/N
comments: continuing #542. MCP #1 turned off.					

Run #: 544	Date: 06/3/10		Your Name: Rachel	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) CD2 (1) CD2 (2) Blank carbon mask		Position: 50 (mm)	Master: 145
Trigger: (HiRA Singles) S800 Singles S800+HiRA CsI Singles	MCP Singles alpha pulser junk			MCP0: 134,000
Attenuation: 10	**MCP Target Drive Positions**			MCP1: 0
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar) mask	143 mm	CSI_OR: 33
Printed Bias Log Y N	MCP1 I250Y-R	mylar (carbon) mask	165 mm	CRAD04: 0.15
Comments:				CRAD06: 1.7
				CRAD Ratio (4/6):
				Trigger Live time: 99 %

Run #: 545	Date: 06/3/10	Your Name: Rachel			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: 50 (mm)	Master: 150
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	S800+HiRA pulser	CsI Singles junk		MCP0: 120,000
Attenuation: 10	MCP Target Drive Positions				MCP1: 0
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar) mask		143 mm	CSI_OR: 30
Printed Bias Log Y N	MCP1 I250Y-R	mylar (carbon) mask		165 mm	CRAD04: 0.15
Comments: Data run after increasing most CsI thresholds by 1.					CRAD06: 0.8
					CRAD Ratio (4/6):
					Trigger Live time: 99 %

Run #: 546	Date: 06/3/10	Your Name: Rachel			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: 50 (mm)	Master: 150
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	S800+HiRA pulser	CsI Singles junk		MCP0: 130,000
Attenuation: 10	MCP Target Drive Positions				MCP1: 0
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar) mask		143 mm	CSI_OR: 33
Printed Bias Log Y N	MCP1 I250Y-R	mylar (carbon) mask		165 mm	CRAD04:
Comments: Data run after adjustment of DE thresholds.					CRAD06:
					CRAD Ratio (4/6):
					Trigger Live time: 99 %

7:05 AM

Run #: 547	Date: 06/3/10	Your Name: Rachel			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: 50 (mm)	Master: 150
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	S800+HiRA pulser	CsI Singles junk		MCP0: 120,000
Attenuation:	MCP Target Drive Positions				MCP1: 0
Bρ (segment 8):	MCP0 I250X-R	(mylar) mask		143 mm	CSI_OR: 30
Printed Bias Log Y N	MCP1 I250Y-R	mylar (carbon) mask		165 mm	CRAD04:
Comments: Further adjustment of DE thresholds. Data run to check.					CRAD06:
					CRAD Ratio (4/6):
					Trigger Live time: 99 %

Made (hopefully) final adjustment of DE thresholds.
File saved as e06035-de_06-03.setup.
Runs to check DE thresholds

Run #: 548-550	Date: 06/3/10	Your Name: Rachel			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: 50 (mm)	Master: 150
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	S800+HiRA pulser	CsI Singles junk		MCP0: 125,000
Attenuation: 10	MCP Target Drive Positions				MCP1: 0
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar) mask		143 mm	CSI_OR: 35
Printed Bias Log Y N	MCP1 I250Y-R	mylar (carbon) mask		165 mm	CRAD04: 0.14
Comments:					CRAD06: 1.6
					CRAD Ratio (4/6):
					Trigger Live time: 98 %

- Runs 548, 549 are v. short runs to check DE thresholds.
- Run 550 is a data run after our final DE threshold change.

Run #: 551	Date: 06/3/10	Your Name: Rachel
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask	Position: 50 (mm)
Trigger: (HiRA Singles) MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk		
Attenuation: 10	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask	143 mm
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask	165 mm
Comments:		

Raw Scaler Rates	
Master:	145
MCP0:	110,000
MCP1:	0
CSI_OR:	35
CRAD04:	0.12
CRAD06:	1.4
CRAD Ratio (4/6):	
Trigger Live time:	99 %

Ended for beam focusing.

XFP eff. ~100% according to Jorge. He said we calculate the efficiency in a wrong way. We should be looking at E1 w. E2 triggered on XFP sigal (wt TOF)

~9 am

Jorge noticed that the quads are underpowered. This changes the optics. However the problem appeared ~ 8:40 am so it can't fix our problem with the beam.

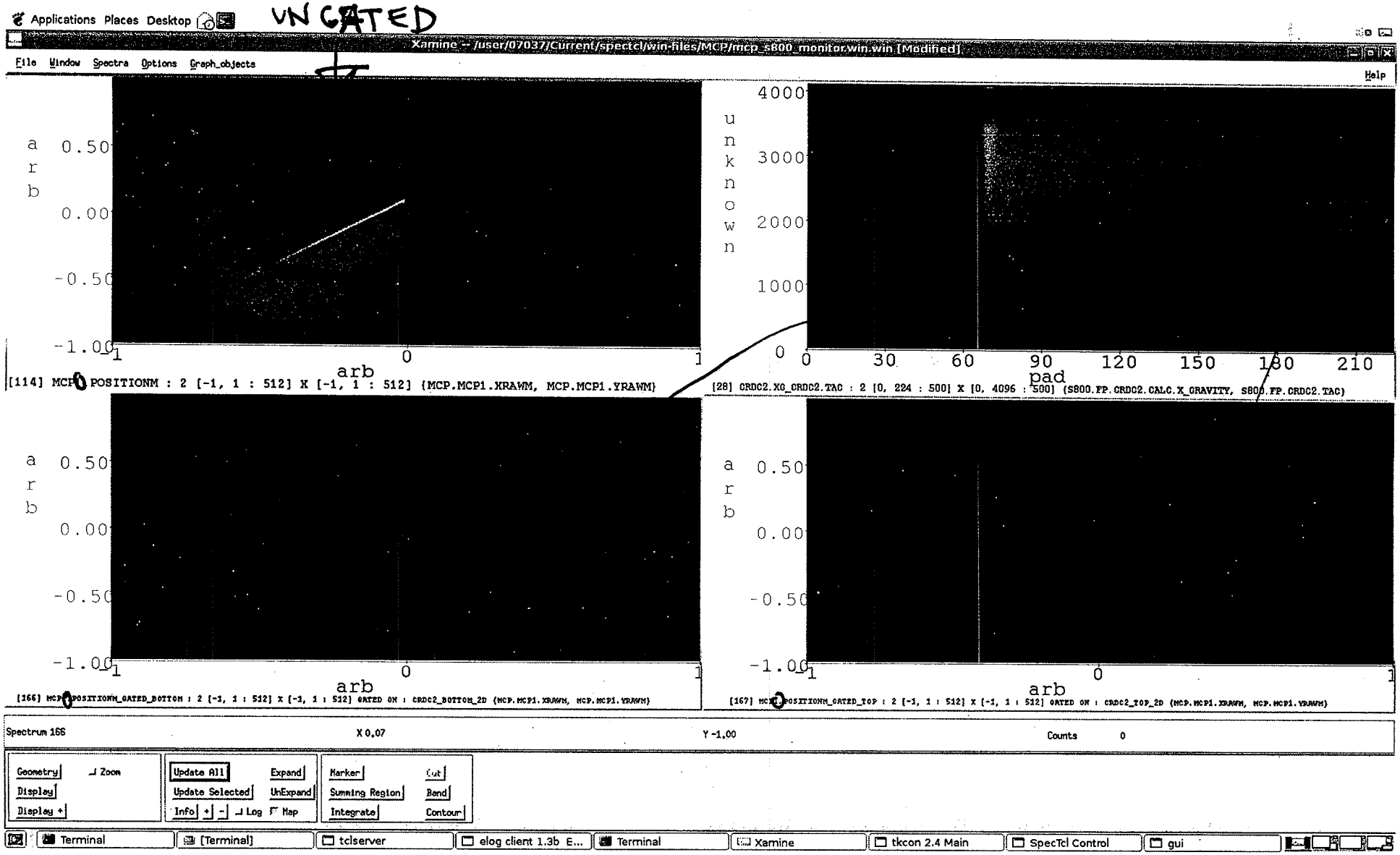
→ Cryogenic problem → fixed ~ 9:16 am

10:30 am - Done w/ the beam tuning, at least for now. We saw beam scatter less on the frame of MCP0 but we also have some scattering on the frame of MCP1

Run #: 552	Date: 06/3/10	Your Name: AJB
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask	Position: (mm)
Trigger: (HiRA Singles) MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk		
Attenuation: 10	**MCP Target Drive Positions**	
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask	mm
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask	mm
Comments:		

Raw Scaler Rates	
Master:	145
MCP0:	195 k
MCP1:	0
CSI_OR:	39
CRAD04:	
CRAD06:	
CRAD Ratio (4/6):	
Trigger Live time:	99 %

AFTER TUNING THE BEAM



Run #: 553	Date: 06/3/10	Your Name: Zhigang	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask	Position: (mm)	Master: 145
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, S800+HiRA, pulser, CsI Singles, junk			MCP0: 145k
			MCP1: 0
			CSI_OR: 37
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R	mylar mask mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 89 %

Increased thresholds on EF ~~Telescope~~ Tele P16 from -20 to -23 to reduce the triggering on the plastic.

Run #: 554	Date: 06/3/10	Your Name: Z.	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask	Position: (mm)	Master: 148
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, S800+HiRA, pulser, CsI Singles, junk			MCP0: 165k
			MCP1:
			CSI_OR:
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R	mylar mask mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 99 %

Run #: 555	Date: 06/3/10	Your Name: Z	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask	Position: (mm)	Master: 210
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, S800+HiRA, pulser, CsI Singles, junk			MCP0: 156k
			MCP1: 0
			CSI_OR:
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R	mylar mask mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 99 %

Run # 556 JUNK

Run #: 557	Date: 06/3/10	Your Name: Z	Raw Scaler Rates
Beam: ^{66}Ni ^{58}Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 24÷20
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk			MCP0: 150k
Attenuation: 10	MCP Target Drive Positions		MCP1:
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04: 0.62
Comments: HiRA + S800 : 12÷20			CRAD06: 1.6
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

RUNS 558, 559, 560 - JUNK

Run #: 561	Date: 06/ /10	Your Name: Z	Raw Scaler Rates
Beam: ^{66}Ni ^{58}Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 20
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk			MCP0: 150 k
Attenuation:	MCP Target Drive Positions		MCP1: 150 k
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 96 %

Run #: 562, 3	Date: 06/3/10	Your Name: Z.	Raw Scaler Rates
Beam: ^{66}Ni ^{58}Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 30
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk			MCP0: 300 k
Attenuation:	MCP Target Drive Positions		MCP1: 295 k
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments: We got more beam X2			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 90%

Run 562. Stopped because the readout & scalers were frozen. Restarting DAQ fixed the problem.

Run 563: Readout frozen again. Rebooting again 20.

Run 563 is not in [illegible]

~~I 275 SHS~~ 4:50 ~~4:49~~ Read

CRDC mask run with ~~Bρ 2.5783 (p,d) reaction~~

→ 564 Bill, Alisher & Tilak go into the vault

Run #: 565	Date: 06/03/10	Your Name:	**Raw Scaler Rates**
Beam: (^{56}Ni circled) ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, (CD_2 (2) circled) mask	Position: 100 (mm)	Master: 167
			MCP0: 207
Trigger: HiRA Singles, MCP Singles 32, (S800 Singles circled) 34, alpha, S800+HiRA, pulser, CsI Singles, junk			MCP1: 179
			CSI_OR:
Attenuation: 10 K.	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar circled) mask	143 mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R mylar (carbon circled) mask	145 mm	CRAD Ratio (4/6):
Comments: Bρ for CD2, no blocker			Trigger Live time: 77 %

MCP0 and MCP1 detector and Electronics are same now.

Run #: 566	Date: 06/3/10	Your Name: Brett	**Raw Scaler Rates**
Beam: (^{56}Ni circled) ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, (CD_2 (2) circled) mask	Position: (mm)	Master: 360
			MCP0: 50 K
Trigger: HiRA Singles, MCP Singles, (S800 Singles circled), alpha, S800+HiRA, pulser, CsI Singles, junk			MCP1: 50 K
			CSI_OR: 0
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar circled) mask	mm	CRAD06: 55 K (XFP)
Printed Bias Log Y N	MCP1 I250Y-R mylar (carbon circled) mask	mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 18 %

4:01 PM

Run #: 567	Date: 06/3/10	Your Name: Brett	**Raw Scaler Rates**
Beam: (^{56}Ni circled) ^{58}Ni α other:	**Target:** CH_2 Blank, (CD_2 (1) circled) carbon, CD_2 (2) mask	Position: (mm)	Master: 380
			MCP0: 50 K
Trigger: HiRA Singles, MCP Singles, (S800 Singles circled), alpha, S800+HiRA, pulser, CsI Singles, junk			MCP1: 40 K
			CSI_OR: 0
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar circled) mask	mm	CRAD06: (XFP)
Printed Bias Log Y N	MCP1 I250Y-R (mylar circled) carbon mask	mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 16 %

4:05

Run #: 568	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 CD2 (1) CD2 (2) Position: Blank (carbon) mask (mm)		Master: 38K
Trigger: HiRA Singles MCP Singles	(S800 Singles) alpha S800+HiRA pulser CsI Singles junk		MCP0: 60 K
Attenuation: 10	MCP Target Drive Positions		MCP1: 45 K
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask mm		CSI_OR: ~0
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04:
Comments:			CRAD06: (xFP) 50K
			CRAD Ratio (4/6):
			Trigger Live time: 16 %

~ 4:08 (Junk Run ⇒ 569)

Run #: 569	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other: (Junk)	Target: CH2 CD2 (1) CD2 (2) Position: Blank (carbon) mask (mm)		Master:
Trigger: HiRA Singles MCP Singles	(S800 Singles) alpha S800+HiRA pulser CsI Singles junk		MCP0:
Attenuation: 10	MCP Target Drive Positions		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

4:11 PM (CRDC 1 Mask)

Run #: 570	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 CD2 (1) CD2 (2) Position: Blank (carbon) mask (mm)		Master:
Trigger: HiRA Singles MCP Singles	(S800 Singles) alpha S800+HiRA pulser CsI Singles junk		MCP0:
Attenuation: 10	MCP Target Drive Positions		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04:
Comments: CRDC 1 Calibration (mask)			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

4:16 PM (CRDC 2 Mask)

Run #: 571	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 CD2 (1) CD2 (2) Position: Blank (carbon) mask (mm)		Master:
Trigger: HiRA Singles MCP Singles	(S800 Singles) alpha S800+HiRA pulser CsI Singles junk		MCP0:
Attenuation: ~~270~~ 410	MCP Target Drive Positions		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04:
Comments: CRDC 2 Mask calibration (17 mg/cm² CH2 + 5 micron CD2)			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

when CD2 (.5um) is put over 3 hr intervals.

4:27 PM

572 ~~222~~ CRDC2.

We think this was a junk run.

~4:27 PM

Run #: 573	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 CD_2 (1) CD_2 (2) Position: (mm) (Blank) (carbon) mask		Master:
Trigger: HiRA Singles (S800 Singles) S800+HiRA CsI Singles MCP Singles alpha pulser junk			MCP0:
Attenuation: 10	**MCP Target Drive Positions**		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04:
Comments: CRDC2 Mask Calibration			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Switched to Carbon after a few minutes. (Initially Blank)

4:40 PM

Run #: 574	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 CD_2 (1) (CD_2 (2)) Position: (mm) Blank carbon mask		Master:
Trigger: HiRA Singles S800 Singles (S800+HiRA + MCP) CsI Singles MCP Singles alpha pulser junk			MCP0:
Attenuation: 10	**MCP Target Drive Positions**		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04:
Comments: Switch to coincidence did not work			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Junk

(Run Failed)

4:43 PM

Run #: 575	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: 56Ni 58Ni α other:	**Target:** CH_2 CD_2 (1) (CD_2 (2)) Position: (mm) Blank carbon mask		Master:
Trigger: HiRA Singles S800 Singles (S800+HiRA + MCP) CsI Singles MCP Singles alpha pulser junk			MCP0:
Attenuation: 10	**MCP Target Drive Positions**		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04:
Comments: Run Killed b/c readout would not run			CRAD06:
Turns out Daniel Bazin's trigger was still set to S800 singles			CRAD Ratio (4/6):
			Trigger Live time: %

Junk

~4:50

Run #: 576	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 15
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles + MCP junk			MCP0: 320 K
Attenuation: 10	**MCP Target Drive Positions**		MCP1: 260 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 0
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04:
Comments: Data Run			CRAD06: (XFP) 300 K
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

5:04 PM

Switched MCP1 back to Carbon foil.

Run #: 577	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 15
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles + MCP junk			MCP0: 330 K
Attenuation: 10	**MCP Target Drive Positions**		MCP1: 280 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 0
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask — mm		CRAD04:
Comments: Switched to carbon foil on MCP			CRAD06: (XFP) 300 K
			CRAD Ratio (4/6):
			Trigger Live time: 95 %

5:24 PM

Returned to S800 singles and switched MCP1 back to the Al mylar foil.

Run #: 578	Date: 06/ /10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master:
Trigger: HiRA Singles; MCP Singles; (S800 Singles) alpha; S800+HiRA pulser; CsI Singles junk			MCP0:
Attenuation: 10	**MCP Target Drive Positions**		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Switched ATTN to 100

5:34 PM

Attenuation back to 10
Back to coincidences S800 + HiRA + MCP

Run #: 579	Date: 06/3/10	Your Name:	**Raw Scaler Rates**
Beam: **^{56}Ni** ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; **CD_2 (2)** mask	Position: (mm)	Master:
			MCP0:
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, **S800+HiRA** + MCP, pulser, CsI Singles, junk			MCP1:
			CSI_OR:
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8): 2.704	MCP0 I250X-R: **mylar** mask	mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R: **mylar** carbon mask	mm	CRAD Ratio (4/6):
Comments: Note changes to ATTN and trigger.			Trigger Live time: %

Ended run b/c Dan said we were having dE troubles.

5:40 PM

Run #: 580	Date: 06/3/10	Your Name:	**Raw Scaler Rates**
Beam: **^{56}Ni** ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; **CD_2 (2)** mask	Position: (mm)	Master:
			MCP0:
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, **S800+HiRA** + MCP, pulser, CsI Singles, junk			MCP1:
			CSI_OR:
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8): 2.704	MCP0 I250X-R: **mylar** mask	mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R: **mylar** carbon mask	mm	CRAD Ratio (4/6):
Comments: Reloaded dE setup file in an attempt to make the dE's "stop going crazy".			Trigger Live time: %

Before run 581, tried to set dE thresholds so some channels would stop firing, ended up turning off ~15 chans, because at any threshold they were firing in > 1/3 of events. Bill also in vault looking @ MCP gate.

Bill & Tilake went into vault; patch out the new scalers MCPØ & MCP1 on MCP gate

MCP OR, MCP Gate signals are patched out.
MCP_2us scalor is removed.

Run #: 581	Date: 06/03/10	Your Name: [illegible]	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask; Position: (mm)		Master: 17
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 318 K
Attenuation: 10	**MCP Target Drive Positions**		MCP1: 245 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 20
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

~~Beam blocker~~

Run #: 582	Date: 06/03/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask; Position: (mm)		Master: 18
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 0
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 0
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 65
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 0.32
Comments: NO MCP, charge state blocker is used in S800.			CRAD06: 8.5
			CRAD Ratio (4/6): 0037
			Trigger Live time: 85 %

Right now the XFP is 100% efficient but accidentals introduce ≤ 8% of wrong peaks it seems this should be checked. by computer in 450ns we have a ~~1mH~~ $1\times10^{6}\times1.5\times10^{-9}$ ↓ 15% chance of accidentals → makes sense

Run #: 583	Date: 06/03/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask; Position: (mm)		Master: 18
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 0
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 0
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 66
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 0.32
Comments: XFP -766 K			CRAD06: 7.6
			CRAD Ratio (4/6): 0.042
			Trigger Live time: 98 %

Run #: 584	Date: 06/03/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 11
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk			MCP0: 375 K
Attenuation: 10	**MCP Target Drive Positions**		MCP1: 272 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 24
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04: 0.12
Comments: MCPs are turned on. Bias: 2.2 kV in each			CRAD06: 3.1
XFP = 296 K			CRAD Ratio (4/6): 0.038
			Trigger Live time: 98 %

9:35 PM

Run #: 585	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 11
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk			MCP0: 345 K
Attenuation: 10	**MCP Target Drive Positions**		MCP1: 250 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 0
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04: 0.1
Comments: Same as prior run.			CRAD06: 2.7
			CRAD Ratio (4/6): 0.037
			Trigger Live time: 98 %

10:00PM

HV/leakage Current log		
	Voltage	uA
Si0	150 V	3.7
Si1	0 V	5.7
Si2	150 V	12.6
Si3	150 V	5.0
Si4	100 V	8.15
MCP0	1001 V	0.00
MCP1	1002 V	0.00

P.T. #1 (Pressure) +299.4 Torr
P.T. #2 (Pressure) +39.6 Torr
M.F.C. #1 (Flow) 22.81 sccm
M.F.C. #2 (Flow) 8.28 sccm
M.F.C #3 (Flow) 30.34 sccm

Terminal

File Edit View Terminal Tabs Help

- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.22 uA	On		00.0001
Tow0Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0002
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	1.92 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.25 V	0.74 uA	On		00.0006
Tow1Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0007
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.40 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.64 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.78 uA	On		00.0011
Tow2Card9	0.00 V	4.00 uA	0.50 V	0.00 uA	Off		00.0012
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.40 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.70 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.38 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0017
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018

Channels Display/Edit Screen LocEn V0 I0 N ◇| CAEN SY1527

Terminal

File Edit View Terminal Tabs Help

- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.38 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.56 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0022
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	210.00 V	4.00 uA	210.00 V	3.24 uA	On		00.0024
Tow0Card1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0025
1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0026
Tow2Card1*	0.00 V	0.10 uA	0.25 V	0.00 uA	Off		00.0027
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	3.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009

Channels Display/Edit Screen LocEn V0 I0 N ◇| CAEN SY1527

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Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	0.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.85 V	0.0 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.65 V	0.0 uA	On		05.0009
PA7	0.00 V	3.0 uA	0.00 V	0.0 uA	Off		05.0010
CsI4	30.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

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* We noticed that P.T. # 1 (Pressure) is down from ~400 Torr during the 86Kr and 84Se experiments to ~300 Torr at the start of 56Ni.

10:45 PM

Dan & Bill went into vault

→ get every RF

→ delayed commonstop

Previously, our efficiency of RF in the TDC was ~60%, since we are common stop. So we gated the RF TDC signal on the master, which required two gates, and the common stop was delayed by 80ns to make sure we always got the RF. Also delayed the S800 time 80ns.

Run #: 586	Date: 06/3/10	Your Name: MH	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)		Master: 11.3
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA pulser); CsI Singles junk			MCP0: 370 K
			MCP1: 284 K
			CSI_OR: .9
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R: (mylar); mask; 143 mm		CRAD06:
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar); carbon; mask; 89 mm		CRAD Ratio (4/6):
Comments:			Trigger Live time: 99 %

Run #: 587	Date: 06/03/10	Your Name:	Raw Scaler Rates
Beam: (⁵⁶Ni circled) ⁵⁸Ni α other:	Target: CH₂ Blank, CD₂ (1) carbon, CD₂ (2) mask (CD₂ (2) circled)	Position: (mm)	Master: 10
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, S800+HiRA (circled), pulser, CsI Singles, junk			MCP0: 353 K
			MCP1: 254 K
			CSI_OR: 23
Attenuation: 10	MCP Target Drive Positions		CRAD04: 0.10
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar (circled) mask	mm	CRAD06: 2.7
Printed Bias Log Y N	MCP1 I250Y-R: mylar (circled) carbon mask	mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 99 %

MCP0 efficiency ~ 95%
MCP1 efficiency ~ 70% } Bill says.
So, we increased bias of MCP1 to 2.3 kV. Both of these were running at 2.2 K. ~~A~~

Run #: 588	Date: 06/3/10	Your Name:	Raw Scaler Rates
Beam: (⁵⁶Ni circled) ⁵⁸Ni α other:	Target: CH₂ Blank, CD₂ (1) carbon, CD₂ (2) ~~mask~~ (CD₂ (2) circled)	Position: (mm)	Master: 12
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, S800+HiRA (circled), ~~pulser~~, CsI Singles, junk			MCP0: 336 K
			MCP1: 275 K
			CSI_OR: 21
Attenuation: 10	MCP Target Drive Positions		CRAD04: 0.12
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar (circled) mask	mm	CRAD06: 2.8
Printed Bias Log Y N (N circled)	MCP1 I250Y-R: mylar (circled) carbon mask	mm	CRAD Ratio (4/6):
Comments: MCP1 bias upped to 2.3 kV!			Trigger Live time: 99 %

measured eff

MCP0: $\frac{62}{81} \sim 75\%$ MCP1: $\frac{61}{80} \sim 75\%$

← I don't know if the technique is accurate at this rate ⟺ some difficulty in determ. the location of the peak ← time jitter for master ~40 ns for XFP ~20 ns for MCP

I think it would be a good idea to decrease the width of the MCP logic signals to ~ 40 ns the ~~eff~~ electronics dead time at this rate is $3 \times 10^5 \times 1 \times 10^{-7} = 3\%$

Actually I exclude two mcp signals shifted by about 20 ns or more from the valid category during the last measurement ⟺ the 75% eff could be ~~just~~ the beam containment effect. I think the efficiency must be higher

Run #: 589	Date: 06/03/10	Your Name: Tilak	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 12
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 335 K
Attenuation: 10	**MCP Target Drive Positions**		MCP1: 280 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 20
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04: 0.11
Comments:			CRAD06: 2.7
			CRAD Ratio (4/6): 0.037
			Trigger Live time: 99 %

Run #: 590	Date: 06/03/10	Your Name: Tilak	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 3
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 306 K
Attenuation: 10	**MCP Target Drive Positions**		MCP1: 260 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 22
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04: 0.12
Comments: Pulser trigger and MCP delayed – or taken out from master.			CRAD06: 2.7
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Run #: 591	Date: 06/03/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 4
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 313 K
Attenuation: 10	**MCP Target Drive Positions**		MCP1: 266 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 24
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04: 0.14
Comments:			CRAD06: 2.7
			CRAD Ratio (4/6): 0.051
			Trigger Live time: %

HV/leakage Current log		
	Voltage	uA
Si0		3.8
Si1		
Si2		12.6
Si3		5.1
Si4		3.5
MCP0		26
MCP1		74

Found during the previous run that the common stop mode for the TDC was introducing a dead time of 700 ns per start signal. Normally this is not a problem, but with the high rate of the Xfp, MCP's and the OR, it is causing a strong inefficiency, which while calculable is not acceptable.

~~Our~~ After run 591, we put a gated discriminator between the start and the TDC which is gated on the Master. We put about 50 ns of delay in MCP & MCP OR and XFP but 100 ns on MCPØ. Then we gated with the master.

Now the efficiencies of the MCPØ, MCP1, MCPOR and XFP are close to unity

run 592

Comparison Scalers ~~MCPØ+Live~~ = ~~30~~ Master ~~[illegible]~~ = 9833

Spectra Mcp1 time = 9818 McP1 time = 9798 McP OR = ~~[illegible]~~ 9798

~~E1 time~~ = 9824 XFP = 9830 ↑ is this a ?

~~E OR~~ HiRA-OR = 9683 S800+HiRA = 9834 XOR = 9834

HiRA ~~Commonstop~~ = 9834 Mcp PØ = 9822

Run #: 592	Date: 06/4/10	Your Name:	**Raw Scaler Rates**
Beam: (⁵⁶Ni circled) ⁵⁸Ni α other:	**Target:** CH₂ Blank, CD₂ (1) carbon, (CD₂ (2) circled) mask	Position: (mm)	Master: 4
			MCP0: 323 K
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA circled), pulser, CsI Singles, junk			MCP1: 288 K
			CSI_OR: 1
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R: (mylar circled) mask	mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar circled) carbon mask	mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 98 %

✓ ~~1~~ finish out 1 hour at this rate

Run Plan 2: ~~Double beam~~ increase MCP0 to 800K, run for ~~1 hour~~ 45 min

✓ 1. Decrease by 10 Run for 10 minutes

✓ 2. Run ~~for~~ no beam for 5 minutes

✓ 3. ~~Double beam run for 1 hour turn of MCP0~~

✓ 4 Decrease by 30 run for 5 minutes

✓ 5. ~~Turn of OTC~~ Run no beam for 5 minutes

in progress Turn of MCP's and run at 1 MHz in XFP

Run #: 593	Date: 06/4/10	Your Name: Jack	**Raw Scaler Rates**
Beam: (^{56}Ni circled) ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, (CD_2 (2) mask circled)	Position: (mm)	Master: 4
			MCP0: 240 K
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA circled), pulser, CsI Singles, junk			MCP1: 210 K
			CSI_OR: 1
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R: (mylar circled) mask	mm	CRAD06:
Printed Bias Log Y (N circled)	MCP1 I250Y-R: mylar (carbon circled) mask	mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 99.7 %

Run #: 594	Date: 06/4/10	Your Name: Jack	**Raw Scaler Rates**
Beam: (^{56}Ni circled) ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, (CD_2 (2) mask circled)	Position: 100 (mm)	Master: 10
			MCP0: 500 K
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA circled), pulser, CsI Singles, junk			MCP1: 425 K
			CSI_OR: 1
Attenuation: 10	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R: mylar mask	143 mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask	89 mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 99.8 %

Run #: 595	Date: 06/4/10	Your Name: Jack	**Raw Scaler Rates**
Beam: (^{56}Ni circled) ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, (CD_2 (2) mask circled)	Position: (mm)	Master: 1
			MCP0: 60 K
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA circled), pulser, CsI Singles, junk			MCP1: 55 K
			CSI_OR: 0
Attenuation: 100	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R: (mylar circled) ~~mask~~	mm	CRAD06:
Printed Bias Log Y (N circled)	MCP1 I250Y-R: (mylar circled) ~~carbon~~ ~~mask~~	mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: %

Run #: 596	Date: 06/4/10	Your Name: Jack	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: (mm)	Master: 0
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 60
Attenuation:	**MCP Target Drive Positions**		MCP1: 7
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask	mm	CSI_OR: 8
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask	mm	CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Runs 597-598, see elog run comments

→ Run 599 ch, XFP at ~800kHz.

Run #: 599	Date: 06/4/10	Your Name: Jack	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: (mm)	Master: 24
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 10
Attenuation: 1	**MCP Target Drive Positions**		MCP1: 0
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar mask	mm	CSI_OR: 3
Printed Bias Log Y (N)	MCP1 I250Y-R: mylar carbon mask	mm	CRAD04:
Comments: MCP's off			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Run #: 600	Date: 06/4/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)	Master: 20
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 6
Attenuation: 1	**MCP Target Drive Positions**		MCP1: 0
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask	143 mm	CSI_OR: 4
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask	89 mm	CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

6.40 AM

Run #: 601	Date: 06/4/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)	Master: 20
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 8
Attenuation: 1	**MCP Target Drive Positions**		MCP1: 0
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask	143 mm	CSI_OR: 3
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask	89 mm	CRAD04: 0.4
Comments:			CRAD06: 9.0
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

7:40 AM

6:50 AM Running Run 6008

Terminal

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Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.22 uA	On		00.0001
Tow0Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0002
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	1.98 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.25 V	0.72 uA	On		00.0006
Tow1Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0007
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.42 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.64 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.80 uA	On		00.0011
Tow2Card9	0.00 V	4.00 uA	0.50 V	0.00 uA	Off		00.0012
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.40 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.70 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0017
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018

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Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card9	3.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0017
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.42 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.58 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0022
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	210.00 V	4.00 uA	210.00 V	3.54 uA	On		00.0024
Tow0Card1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0025
1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0026
Tow2Card1*	0.00 V	0.10 uA	0.25 V	0.00 uA	Off		00.0027
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006

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Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	0.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
PA7	0.00 V	3.0 uA	0.00 V	0.0 uA	Off		05.0010
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Channels Display/Edit Screen LocEn V0 I0 N ◇| CAEN SY1527

- XFP TOF information missing, informed T. Baumann @ 8AM.
- can see TOF info from Run 589, but missing in 590 onward.
Something changed at ~1AM.

8:40AM

Run #: 602	Date: 06/4/10	Your Name: Rachel	
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)	
Trigger: HiRA Singles, MCP Singles; S800 Singles, alpha; (S800+HiRA), pulser; CsI Singles, junk			
Attenuation: 1	**MCP Target Drive Positions**		
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar) mask	143 mm
Printed Bias Log Y N	MCP1 I250Y-R	(mylar) carbon mask	89 mm
Comments:			

Raw Scaler Rates	
Master:	20
MCP0:	6
MCP1:	0
CSI_OR:	4
CRAD04:	0.4
CRAD06:	8.5
CRAD Ratio (4/6):	
Trigger Live time:	97 %

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1	[illegible]0	[illegible]0
Si2	150	12.6
Si3	149	5.1
Si4	100	8.6
MCP0	0	0
MCP1	0	0

9:00 AM

Run #: 603	Date: 06/4/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask	Position: 100 (mm)	Master: 20
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk	MCP0: 7
Attenuation: 1	MCP Target Drive Positions		MCP1: 0
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 3
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Run #: 604	Date: 06/4/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask	Position: 100 (mm)	Master: 20
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk	MCP0: 5
Attenuation: 1	MCP Target Drive Positions		MCP1: 0
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 3
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

10:02 AM

Run #: 605	Date: 06/4/10	Your Name: Rachel	Raw Scaler Rates
Beam: 56Ni 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask	Position: 100 (mm)	Master: 20
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk	MCP0: 7
Attenuation: 1	MCP Target Drive Positions		MCP1: 6
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 4
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04: 0.3
Comments:			CRAD06: 8.8
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

11:02 AM

~~Beam intensity reduced by factor of 3.~~

- Daniel Bazin came and had a look at S800 info, he can see the TOF. We are also getting TOF in the electronics, so we assume the problem is with SpecTcl and are not concerned.

Lost beam; turned on MCPs while beam operators work on beam.
Beam intensity back: ~300k

Run #: 606, 607, 608	Date: 06/4/10	Your Name: Z	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask	Position: (mm)	Master: 91
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk	MCP0: 37k
Attenuation:	MCP Target Drive Positions		MCP1: 30k
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

Target mask calibrations

Run #: 609	Date: 06/04/10	Your Name: Jilan
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank, CD2 (1) carbon, CD2 (2) (mask); Position: 264.5 (mm)	
Trigger: HiRA Singles (S800 Singles) S800+HiRA CsI Singles MCP Singles alpha pulser junk		
Attenuation:	MCP Target Drive Positions	
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask	143 mm
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask	89 mm
Comments: Target mask calibration XFP=234K		

Raw Scaler Rates	
Master:	
MCP0:	330 K
MCP1:	280 K
CSI_OR:	
CRAD04:	
CRAD06:	
CRAD Ratio (4/6):	
Trigger Live time:	%

MCP0 mask calibrations

Run #: 610	Date: 06/04/10	Your Name: Jilan
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank, CD2 (1) carbon, (CD2 (2)) mask; Position: 100 (mm)	
Trigger: HiRA Singles (S800 Singles) S800+HiRA CsI Singles MCP Singles alpha pulser junk		
Attenuation:	MCP Target Drive Positions	
Bρ (segment 8): 2.704	MCP0 I250X-R mylar (mask)	219 mm
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask	89 mm
Comments: MCP 0 mask calibrations, XFP ~ 180 K		

Raw Scaler Rates	
Master:	
MCP0:	250 K
MCP1:	170 K
CSI_OR:	
CRAD04:	
CRAD06:	
CRAD Ratio (4/6):	
Trigger Live time:	%

MCP1 mask calibrations

Run #: 611	Date: 06/04/10	Your Name: Jilan
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank, CD2 (1) carbon, (CD2 (2)) mask; Position: 100 (mm)	
Trigger: HiRA Singles (S800 Singles) S800+HiRA CsI Singles MCP Singles alpha pulser junk		
Attenuation:	MCP Target Drive Positions	
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask	143 mm
Printed Bias Log Y N	MCP1 I250Y-R mylar carbon (mask)	241 mm
Comments: MCP1 mask calibrations, XFP ~ 210		

Raw Scaler Rates	
Master:	
MCP0:	347
MCP1:	275
CSI_OR:	
CRAD04:	
CRAD06:	
CRAD Ratio (4/6):	
Trigger Live time:	%

Dan and Bill went to vault. Added 3 channels in TDC.
13. MCP0 raw delayed by 450 ns; 14. MCP1 raw delayed by 450 ns.
15. XFP.

Carbon background run

Run #: 612	Date: 06/04/10	Your Name:			**Raw Scaler Rates**
Beam: (56Ni) 58Ni	**Target:** CH2 Blank	CD2 (1) (carbon)	CD2 (2) mask	Position: 233.6(mm)	Master: 0
α other:					MCP0: 0 (turned off)
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 0 (")
MCP Singles	alpha	pulser	junk		CSI_OR: 573
Attenuation: 1	**MCP Target Drive Positions**				CRAD04: 4.2
Bρ (segment 8): 2.676	MCP0 I250X-R	(mylar)	mask	143 mm	CRAD06: 6.0
Printed Bias Log Y N	MCP1 I250Y-R	(mylar) carbon	mask	89 mm	CRAD Ratio (4/6): 0.7
Comments: C(17 mg/cm²) background run XFP ~ 500 K					Trigger Live time: 95 %

Run #: 613	Date: 06/04/10	Your Name:			**Raw Scaler Rates**
Beam: (56Ni) 58Ni	**Target:** CH2 Blank	CD2 (1) (carbon)	CD2 (2) mask	Position: (mm)	Master:
α other:					MCP0: 360 K
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 300 K
MCP Singles	alpha	pulser	junk		CSI_OR: 300
Attenuation: 3	**MCP Target Drive Positions**				CRAD04: 2.0
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CRAD06: 3.0
Printed Bias Log Y N	MCP1 I250Y-R	(mylar) carbon	mask	mm	CRAD Ratio (4/6): 0.67
Comments:					Trigger Live time: 97%

Run #: 614	Date: 06/04/10	Your Name:			**Raw Scaler Rates**
Beam: (66Ni) 58Ni	**Target:** CH2 Blank	CD2 (1) (carbon)	CD2 (2) mask	Position: (mm)	Master: 53-8
α other:					MCP0: 336 K
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 289 K
MCP Singles	alpha	pulser	junk		CSI_OR: 300
Attenuation: 3	**MCP Target Drive Positions**				CRAD04: 2.0
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CRAD06: 3.0
Printed Bias Log Y N	MCP1 I250Y-R	(mylar) carbon	mask	mm	CRAD Ratio (4/6): 0.67
Comments:					Trigger Live time: 97 %

Run #: 615	Date: 06/4/10	Your Name: MH.	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank, CD_2 (1) (carbon), CD_2 (2) (mask)	Position: (mm)	Master: 55
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA pulser), CsI Singles, junk			MCP0: 340k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 295k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask	mm	CSI_OR:
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask	mm	CRAD04: 2.2k
Comments: Same as 614			CRAD06: 315k
			CRAD Ratio (4/6):
			Trigger Live time: %

Takes ~ 13 seconds to initialize Readout before data starts. But "Elapsed Active Time" resets at start of data taking.

Run #: 616	Date: 06/4/10	Your Name: MH	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank, CD_2 (1) (carbon), CD_2 (2) (mask)	Position: (mm)	Master: 52
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA pulser), CsI Singles, junk			MCP0: 320k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 280k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask	mm	CSI_OR:
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask	mm	CRAD04: 2.0
Comments:			CRAD06: 2.9
			CRAD Ratio (4/6):
			Trigger Live time: %

CRAD04 1.0 = 1k
CRAD06 1.0 = 100k units.

Run 613 XFP eff measured w/ L=1
~161769/165751 ~ 98%

Run 614 ~ 151747/155583 = 98%

Run 615 ~ 92792/95019 = 98%

Run 616 ~ 97120/99395 = 98%

8:43 PM

Run #: 617	Date: 06/4/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH_2 CD_2 (1) (CD (2)) Blank (carbon) mask	Position: (mm)	Master: 50
Trigger: HiRA Singles S800 Singles (S800+HiRA) CsI Singles MCP Singles alpha pulser junk			MCP0: 290 K
Attenuation: 3	MCP Target Drive Positions		MCP1: 260 K
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask mm		CSI_OR: 16
Printed Bias Log Y (N)	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04: 1.5
Comments:			CRAD06: 2.2
			CRAD Ratio (4/6): 0.68
			Trigger Live time: 92 %

8:57 PM

HV/leakage Current log		
	Voltage(V)	uA
Si0	150	3.8
Si1	~~~	
Si2	150	12.3
Si3	149	5.1
Si4	108	5.37
MCP0	1001	0
MCP1	1002	0

Terminal

File Edit View Terminal Tabs Help

- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.22 uA	On		00.0001
Tow0Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0002
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.02 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0007
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.48 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.62 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.74 uA	On		00.0011
Tow2Card9	0.00 V	4.00 uA	0.50 V	0.00 uA	Off		00.0012
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.36 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0017
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018

Channels Display/Edit Screen LocEn V0 I0 N ◇ CAEN SY1527

Terminal

File Edit View Terminal Tabs Help

- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.44 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.58 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0022
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	210.00 V	4.00 uA	0.00 V	0.42 uA	Off	I-Tripped	00.0024
Tow0Card1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0025
1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0026
Tow2Card1*	0.00 V	0.10 uA	0.25 V	0.00 uA	Off		00.0027
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.80 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	3.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009

Channels Display/Edit Screen LocEn V0 I0 N ◇| CAEN SY1527

Terminal

File Edit View Terminal Tabs Help

- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	0.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.2 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
PA7	0.00 V	3.0 uA	0.00 V	0.0 uA	Off		05.0010
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Channels Display/Edit Screen LocEn V0 I0 N ◇| CAEN SY1527

9:16 PM

Run #: 618	Date: 06/4/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank; CD2 (1) (carbon); ~~CD2 (2)~~ ~~mask~~; Position: (mm)		Master: 48
Trigger: HiRA Singles MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 300 K
Attenuation: 3	MCP Target Drive Positions		MCP1: 260 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 14
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 1.9
Comments:			CRAD06: 2.7
			CRAD Ratio (4/6): 0.70
			Trigger Live time: 97 %

Run #: 619	Date: 06/4/10	Your Name: Jack	Raw Scaler Rates
Beam: 56Ni 58Ni α other:	Target: CH2 Blank; CD2 (1) (carbon); ~~CD2 (2)~~ mask; Position: (mm)		Master: 56
Trigger: HiRA Singles MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0:
Attenuation: 3	MCP Target Drive Positions		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 15
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

BACK TO DATA RUN

Noticed target drive I251X-R was not changed to CD_2 as thought!

Run #: 620	Date: 06/04/10	Your Name: Jack	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask; Position: 143(mm)		Master: 14
Trigger: HiRA Singles MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 286
Attenuation:	MCP Target Drive Positions		MCP1: 254
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask 89 mm		CSI_OR: 21
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask ~~100~~ mm		CRAD04: 2.1
Comments:			CRAD06: 2.9
			CRAD Ratio (4/6):

Run #: 621	Date: 06/04/10	Your Name: Jack	Raw Scaler Rates
Beam: 56Ni 58Ni α other:	Target: CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask; Position: 100 (mm)		Master: 10
Trigger: HiRA Singles MCP Singles; S800 Singles alpha; ~~S800+HiRA~~ pulser; CsI Singles junk			MCP0: 290K
Attenuation: 3	MCP Target Drive Positions		MCP1: 260 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 1
Printed Bias Log (Y) N	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04: 265 K
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

HV/leakage Current log		
	Voltage	uA
Si0	+150	3.8
Si1	+ 0	
Si2	+150	12.3
Si3	+150	5.1
Si4	+100	5.36
MCP0	+2.2 kV	74
MCP1	+2.3 kV	78

Run #: 622 | Date: 06/5/10 | Your Name: Jack

Beam: (56Ni) 58Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles | alpha | (S800+HiRA) | pulser | CsI Singles | junk

Attenuation: 3

Bρ (segment 8):

Printed Bias Log Y (N)

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	mylar	carbon mask	89 mm

Raw Scaler Rates

Master:	10
MCP0:	300K
MCP1:	270K
CSI_OR:	21
CRAD04:	280K
CRAD06:	
CRAD Ratio (4/6):	
Trigger Live time:	%

Run #: 623 | Date: 06/5/10 | Your Name: Enrique

Beam: (56Ni) 58Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles | alpha | (S800+HiRA) | pulser | CsI Singles | junk

Attenuation: 3

Bρ (segment 8):

Printed Bias Log Y (N)

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon mask	89 mm

Raw Scaler Rates

Master:	13
MCP0:	300K
MCP1:	265K
CSI_OR:	23
CRAD04:	2.1
CRAD06:	2.6
CRAD Ratio (4/6):	
Trigger Live time:	%

Run #: 624 | Date: 06/5/10 | Your Name: Enrique

Beam: (56Ni) 58Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles | alpha | (S800+HiRA) | pulser | CsI Singles | junk

Attenuation: 3

Bρ (segment 8):

Printed Bias Log Y (N)

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon mask	89 mm

Raw Scaler Rates

Master:	10
MCP0:	300K
MCP1:	267K
CSI_OR:	23
CRAD04:	2.3
CRAD06:	2.9
CRAD Ratio (4/6):	
Trigger Live time:	%

Run #: 625	Date: 06/5/10	Your Name: Enrique	Raw Scaler Rates
Beam: (86Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)		Master:
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 290 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 260 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 24
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04: 2.1
Comments:			CRAD06: 2.7
			CRAD Ratio (4/6):
			Trigger Live time: %

3:40AM

Run #: 626	Date: 06/5/10	Your Name: Rachel	Raw Scaler Rates
Beam: (86Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100(mm)		Master: 10
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 280 k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 250 k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04: 2.2
Comments:			CRAD06: 2.8
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

4:40 AM

Run #: 627	Date: 06/5/10	Your Name: Rachel	Raw Scaler Rates
Beam: (86Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100(mm)		Master: 10
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 280k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 250k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR:
Printed Bias Log (Y) N	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

Terminal

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- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.22 uA	On		00.0001
Tow0Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0002
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.04 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0007
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.52 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.58 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.00 V	4.70 uA	On		00.0011
Tow2Card9	0.00 V	4.00 uA	0.50 V	0.00 uA	Off		00.0012
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0017
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018

Channels Display/Edit Screen LocEn V0 I0 N ◇| CAEN SY1527

Terminal

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- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow3Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0017
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.46 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.58 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0022
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	210.00 V	4.00 uA	0.00 V	0.42 uA	Off	I-Tripped	00.0024
Tow0Card1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0025
1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0026
Tow2Card1*	0.00 V	0.10 uA	0.25 V	0.00 uA	Off		00.0027
PA14	8.00 V	2.0 uA	8.15 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007

Channels Display/Edit Screen LocEn V0 I0 N ◇| CAEN SY1527

Terminal

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- Main Utility Setup Groups View Admin

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	0.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
PA7	3.00 V	3.0 uA	0.00 V	0.0 uA	Off		05.0010
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Channels Display/Edit Screen LocEn V0 I0 N ◇| CAEN SY1527

Run #: 628	Date: 06/5/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / CD_2 (2) mask	Position: 100 (mm)	Master: 12
Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk			MCP0: 270k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 240k
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar / mask	143 mm	CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: mylar / carbon / mask	89 mm	CRAD04: 2.0
Comments:			CRAD06: 2.6
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

5:30 am

Run #: 629	Date: 06/5/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / CD_2 (2) mask	Position: 100 (mm)	Master: 10
Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk			MCP0: 240k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 220k
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar / mask	143 mm	CSI_OR: 2
Printed Bias Log Y N	MCP1 I250Y-R: mylar / carbon / mask	89 mm	CRAD04: 2.1
Comments: Restart DAQ. Proceeding smoothly			CRAD06: 2.4
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

6:35 am

Run #: 630	Date: 06/5/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / CD_2 (2) mask	Position: 100 (mm)	Master: 10
Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk			MCP0: 260k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 220k
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar / mask	143 mm	CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: mylar / carbon / mask	89 mm	CRAD04: 1.8
Comments:			CRAD06: 2.2
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

7:30 am

Tele P19: EB bias −100 V
V = 310 V
I = 1.74 μA

EF bias −180 V − 1.7 μA
190 V − 2.4 μA
200 V − 3.08 μA
210 V − 3.70 μA

Run #: 631	Date: 06/5/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / CD_2 (2) mask	Position: 100 (mm)	Master: 10
Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk			MCP0: 230k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 210k
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar / mask	143 mm	CSI_OR: 2
Printed Bias Log Y N	MCP1 I250Y-R: mylar / carbon / mask	89 mm	CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

8:13 am

Run #: e32	Date: 06/5/10	Your Name: Rachel	Raw Scaler Rates
Beam: ^{56}Ni ^{58}Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)	Master: 13
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 260k
Attenuation: 3	MCP Target Drive Positions		MCP1:
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD04:
Comments: ended in daq crash. Junk.			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

e33: No MCP1 data coming in — tripped.
Biased MCP1. DAQ looks okay.

Run #: e34	Date: 06/5/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) ^{58}Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 60 (mm)	Master: 10
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 240k
Attenuation: 3	MCP Target Drive Positions		MCP1: 220k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD04:
Comments: ended in DAQ crash. JUNK.			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Run #: e35	Date: 06/5/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) ^{58}Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)	Master: 11
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 250k
Attenuation: 3	MCP Target Drive Positions		MCP1: 230k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD04:
Comments: Rebooted ucpc2 prior to this run.			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

Asked for beam tune.

Run #: e36	Date: 06/5/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) ^{58}Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)	Master: 12
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 350k
Attenuation: 3	MCP Target Drive Positions		MCP1: 320k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CSI_OR: 4
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD04: 3.0
Comments:			CRAD06: 3.8
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Beam: (56Ni circled) 58Ni α other: | Target: CH2 Blank | CD2 (1) carbon | (CD2 (2) circled) mask | Position: 100 (mm) | Master: 10

Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA circled), pulser, CsI Singles, junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions		
MCP0 I250X-R	(mylar circled) mask	143 mm
MCP1 I250Y-R	(mylar circled) carbon mask	89 mm

Raw Scaler Rates	
Master:	10
MCP0:	330k
MCP1:	310k
CSI_OR:	2
CRAD04:	2.7
CRAD06:	3.4
CRAD Ratio (4/6):	0.80
Trigger Live time:	98 %

Run #: 638 | Date: 06/5/10 | Your Name: Mike

Beam: (56Ni circled) 58Ni α other:

Target: CH2 Blank, CD2 (1) carbon, (CD2 (2) circled) mask | Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA circled), pulser, CsI Singles, junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions		
MCP0 I250X-R	(mylar circled) mask	143 mm
MCP1 I250Y-R	(mylar circled) carbon mask	89 mm

Raw Scaler Rates	
Master:	12
MCP0:	300 K
MCP1:	280 K
CSI_OR:	1
CRAD04:	2.5
CRAD06:	3.2
CRAD Ratio (4/6):	0.78
Trigger Live time:	98 %

Brett's ~~eang~~ calculation shows XFP efficiency ~ 100%.

HV/leakage Current log	Voltage	uA
Si0	150	3.8
Si1	15.4	~~[illegible]~~ 6
Si2	150	12.2
Si3	149	5.1
Si4	100	6.5
MCP0	2200	74
MCP1	2300	79

12:05 pm

Run #: 639 | Date: 06/5/10 | Your Name: Mike

Beam: (56Ni circled) 58Ni α other:

Target: CH2 Blank, CD2 (1) carbon, (CD2 (2) circled) mask | Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA circled), pulser, CsI Singles, junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions		
MCP0 I250X-R	(mylar circled) mask	143 mm
MCP1 I250Y-R	(mylar circled) carbon mask	89 mm

Raw Scaler Rates	
Master:	13
MCP0:	310 K
MCP1:	290 K
CSI_OR:	1
CRAD04:	2.5
CRAD06:	3.3
CRAD Ratio (4/6):	0.78
Trigger Live time:	97 %

Run #: ~~640~~ 643 | Date: 06/5/10 | Your Name: Mike

Beam: (56Ni circled) 58Ni α other:

Target: CH2 Blank, CD2 (1) carbon, (CD2 (2) circled) mask | Position: (mm)

Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA circled), pulser, CsI Singles, junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions		
MCP0 I250X-R	(mylar circled) mask	143 mm
MCP1 I250Y-R	(mylar circled) carbon mask	89 mm

Raw Scaler Rates	
Master:	10
MCP0:	289 K
MCP1:	269 K
CSI_OR:	1
CRAD04:	2.3
CRAD06:	3.0
CRAD Ratio (4/6):	0.78
Trigger Live time:	98 %

Info on 640-642 next page

Dan was trying out a modified readout + ~~S~~ ~~f~~
the runs 640-642 were junk error runs.

Run #: 646	Date: 06/5/10	Your Name: Z	**Raw Scaler Rates**
Beam: (^{56}Ni circled) ^{58}Ni α other	**Target:** CH_2 Blank CD_2 (1) carbon (CD_2 (2) circled) mask	Position: 100 (mm)	Master: 10.0
			MCP0: 300k
Trigger: HiRA Singles, S800 Singles, (S800+HiRA circled), CsI Singles, MCP Singles, alpha, pulser, junk			MCP1: 280k
			CSI_OR: 0.5
Attenuation: 3	**MCP Target Drive Positions**		CRAD04: 2.3
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar circled) mask	193 mm	CRAD06: 3.0
Printed Bias Log Y N	MCP1 I250Y-R: (mylar circled) carbon mask	89 mm	CRAD Ratio (4/6): 0.77
Comments:			Trigger Live time: 94 %

3:45

HV/leakage Current log	Voltage	uA
Si0	150	3.8
Si1	—	—
Si2	150	12.2
Si3	149	5.2
Si4	100	6.59
MCP0	~~100~~ 2.2K	0
MCP1	~~100~~ 2.3K	0

Terminal

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- Main Utility Setup Groups View User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.04 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.56 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.58 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.68 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.48 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.60 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	180.00 V	5.00 uA	180.25 V	1.78 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000

Display/Edit Group 02 LocEn V0 I0 N CAEN SY1527

Terminal

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- Main Utility Setup Groups View — User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.48 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.60 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	180.00 V	5.00 uA	180.25 V	1.68 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.80 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001

Display/Edit Group 02 — LocEn V0 I0 — N ◇| CAEN SY1527

Terminal

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- Main Utility Setup Groups View — User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.85 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Display/Edit Group 02 — LocEn V0 I0 — N ◇| CAEN SY1527

P.T. #1	299.9	Torr
P.T. #2	40.0	Torr
M.F.C. #1	22.25	sccm
M.F.C. #2	8.03	sccm
M.F.C. #3	30.37	sccm

3:56 PM

Run #: 647	Date: 06/ /10	Your Name: Brett
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: (mm)
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask	mm
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask	mm
Comments:		

Raw Scaler Rates	
Master:	8
MCP0:	300 K
MCP1:	280 K
CSI_OR:	0.5
CRAD04:	2.5
CRAD06:	3.2
CRAD Ratio (4/6):	0.78
Trigger Live time:	98 %

4:48 PM

Run #: 648	Date: 06/05/10	Your Name: Tilak
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask	143 mm
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask	89 mm
Comments:		

Raw Scaler Rates	
Master:	14
MCP0:	318 K
MCP1:	294K
CSI_OR:	1.0
CRAD04:	2.6
CRAD06:	3.3
CRAD Ratio (4/6):	0.78
Trigger Live time:	97 %

5:40 PM

Run #: 649	Date: 06/05/10	Your Name: Gilac
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask	143 mm
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask	89 mm
Comments:		

Raw Scaler Rates	
Master:	12
MCP0:	349 K
MCP1:	339 K
CSI_OR:	1
CRAD04:	2.8
CRAD06:	3.4
CRAD Ratio (4/6):	0.77
Trigger Live time:	97 %

6:33 PM

Run #: 650	Date: 06/05/10	Your Name: Yilan			**Raw Scaler Rates**
Beam: (56Ni) 58Ni	**Target:** CH2 Blank	CD2 (1) carbon	(CD2 (2)) mask	Position: 100 (mm)	Master: 14
α other:					MCP0: 362 K
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 331 K
MCP Singles	alpha	pulser	junk		CSI_OR: 1.5
Attenuation: 3	**MCP Target Drive Positions**				CRAD04: 2.6
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	143 mm	CRAD06: 3.6
Printed Bias Log Y N	MCP1 I250Y-R	(mylar)	carbon mask	89 mm	CRAD Ratio (4/6): 0.72
Comments: XFP efficiency ~ 97%					Trigger Live time: 97 %

7:18 PM

Run #: 651	Date: 06/05/10	Your Name: Yilan			**Raw Scaler Rates**
Beam: (56Ni) 58Ni	**Target:** CH2 Blank	CD2 (1) carbon	(CD2 (2)) mask	Position: 100 (mm)	Master: 12
α other:					MCP0: 358 K
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 340 K
MCP Singles	alpha	pulser	junk		CSI_OR: 1.5
Attenuation: 3	**MCP Target Drive Positions**				CRAD04: 2.9
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	143 mm	CRAD06: 3.7
Printed Bias Log Y N	MCP1 I250Y-R	(mylar)	carbon mask	89 mm	CRAD Ratio (4/6):
Comments: XFP ~ 329.					Trigger Live time: 98 %

Run #: 652	Date: 06/05/10	Your Name: Yilan			**Raw Scaler Rates**
Beam: (56Ni) 58Ni	**Target:** CH2 Blank	CD2 (1) carbon	(CD2 (2)) mask	Position: (mm)	Master: 9
α other:					MCP0: 309 K
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 286 K
MCP Singles	alpha	pulser	junk		CSI_OR: 1
Attenuation: 3	**MCP Target Drive Positions**				CRAD04: 2.4
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CRAD06: 3.3
Printed Bias Log Y N	MCP1 I250Y-R	(mylar)	carbon mask	mm	CRAD Ratio (4/6):
Comments:					Trigger Live time: %

Run #: 653	Date: 06/5/10	Your Name: MH	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)	Master: 10-16
Trigger: HiRA Singles, MCP Singles; S800 Singles, alpha; (S800+HiRA), pulser; CsI Singles, junk			MCP0: ~~350k~~ 380k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: ~~350k~~ 370k
Bρ (segment 8):	MCP0 I250X-R: (mylar), mask — 143 mm		CSI_OR: 2
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar), carbon, mask — 89 mm		CRAD04:
Comments: Good Run			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 96 %

Switching to do CRDC mask calibration.

Beam Blocker: I255 Slits

9:50pm 6/5/10

{CT : 6.84
{CB : 4.80

For production Run

Run #: 654	Date: 06/05/10	Your Name: ajlau	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: 100 (mm)	Master: 15
Trigger: HiRA Singles, MCP Singles; S800 Singles, alpha; (S800+HiRA), pulser; CsI Singles, junk			MCP0: 338 K
Attenuation:	**MCP Target Drive Positions**		MCP1: 326 K
Bρ (segment 8):	MCP0 I250X-R: mylar, mask — 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: mylar, carbon, mask — 89 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

CRDC MASK CALIBRATIONS

Run #: 655	Date: 06/5/10	Your Name: T				**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank	CD_2 (1) (carbon)	CD_2 (2) mask	Position: 239.6 (mm)		Master: 10
Trigger: HiRA Singles MCP Singles	(S800 Singles) alpha	S800+HiRA pulser	CsI Singles junk			MCP0: 308
Attenuation: 3	**MCP Target Drive Positions**					MCP1: 295
Bρ (segment 8):	MCP0 I250X-R	(mylar)	mask	143 mm		CSI_OR: 15
Printed Bias Log Y N	MCP1 I250Y-R	(mylar)	carbon	mask	89 mm	CRAD04:
Comments: CRDC1 mask Calibration XFP ~ 341 K with C						CRAD06:
						CRAD Ratio (4/6):
						Trigger Live time: 98 %

Run #: 656	Date: 06/5/10	Your Name: T				**Raw Scaler Rates**
Beam: 56Ni 58Ni α other:	**Target:** CH_2 Blank	CD_2 (1) (carbon)	CD_2 (2) mask	Position: 239.6(mm)		Master: 7
Trigger: HiRA Singles MCP Singles	(S800 Singles) alpha	S800+HiRA pulser	CsI Singles junk			MCP0: 196 K
Attenuation: 10	**MCP Target Drive Positions**					MCP1: 186 K
Bρ (segment 8):	MCP0 I250X-R	(mylar)	mask	mm		CSI_OR: 9
Printed Bias Log Y N	MCP1 I250Y-R	(mylar)	carbon	mask	mm	CRAD04:
Comments: CRDC 2 mask calibrations, XFP ~ 200 K +Blank						CRAD06:
						CRAD Ratio (4/6):
						Trigger Live time: 98 %

Run #: 657	Date: 06/5/10	Your Name: T				**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 (Blank)	CD_2 (1) carbon	CD_2 (2) mask	Position: 200 (mm)		Master: 3
Trigger: HiRA Singles MCP Singles	(S800 Singles) alpha	S800+HiRA pulser	CsI Singles junk			MCP0: 315
Attenuation:	**MCP Target Drive Positions**					MCP1: 305
Bρ (segment 8): 2.704	MCP0 I250X-R	mylar	mask	mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R	mylar	carbon	mask	mm	CRAD04:
Comments: CRDC1 with blank						CRAD06:
						CRAD Ratio (4/6):
						Trigger Live time: %

BACK TO DATA RUN (α, ^{3}He)

Run #: 658	Date: 06/05/10	Your Name: TiLak	**Raw Scaler Rates**
Beam: (^{56}Ni) ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)		Master: 10
Trigger: HiRA Singles, MCP Singles; S800 Singles, alpha; (S800+HiRA), pulser; CsI Singles, junk			MCP0: 317 K
Attenuation: 3 ~~2.704~~	**MCP Target Drive Positions**		MCP1: 296 K
Bρ (segment 8): ~~2.704~~	MCP0 I250X-R: (mylar), mask, 143 mm		CSI_OR: 1
Printed Bias Log (Y) N	MCP1 I250Y-R: (mylar), carbon, mask, 89 mm		CRAD04: 9.7
Comments: XFP ~ 359 K.			CRAD06: 3.8
			CRAD Ratio (4/6): 0.71
			Trigger Live time: 97 %

HV/leakage Current log

	Voltage	uA
Si0	150	3.8
Si1	154	[illegible]
Si2	150	12.2
Si3	149	5.2
Si4	100	6.9
(MCP0)	2.30 kV	0.79
(MCP1)	2.19 kV	0.74

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\- Main Utility Setup Groups View — User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.26 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.68 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.06 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.58 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.66 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.58 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.68 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.60 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.52 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.60 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	180.00 V	5.00 uA	180.25 V	2.02 uA	On	← watch,	00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.2 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

Run #: 659	Date: 06/5/10	Your Name: MH	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 13
Trigger: HiRA Singles, MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 330 k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 318 k
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 2.8
Comments:			CRAD06: 3.8
			CRAD Ratio (4/6): .7
			Trigger Live time: 97%

Run #: 660	Date: 06/06/10	Your Name: Tilak	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 10
Trigger: HiRA Singles, MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 273 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 266 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 2.4
Comments:			CRAD06: 2.9
			CRAD Ratio (4/6): 0.80
			Trigger Live time: 97%

Run #: 661	Date: 06/06/10	Your Name: T	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 10
Trigger: HiRA Singles, MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 261 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 250 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1.5
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 2.3
Comments:			CRAD06: 2.9
			CRAD Ratio (4/6): 0.79
			Trigger Live time: 98 %

Run #: 662	Date: 06/06/10	Your Name: T	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)		Master: 9
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk			MCP0: 984 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 273 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 0.5
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 2.2
Comments:			CRAD06: 28
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

Run #: 663	Date: 06/06/10	Your Name: Tilak	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)		Master: 12
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk			MCP0: 337 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 327 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 2.9
Comments:			CRAD06: 3.8
			CRAD Ratio (4/6):
			Trigger Live time: %

Run #: 664	Date: 06/6/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)		Master: 14
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk			MCP0: 320k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 310k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1
Printed Bias Log (Y) N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

4:54 am

Run #: 665	Date: 06/6/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)		Master: 12
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk			MCP0: 330k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 330k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 3.0
Comments:			CRAD06: 3.9
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.24 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.30 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.06 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.62 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.58 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.68 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.52 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.60 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023

Display/Edit Group 02 LocEn V0 I0 N ◇ | CAEN SY1527

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.52 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.60 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	180.00 V	5.00 uA	180.50 V	1.96 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.15 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.80 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.85 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000

Display/Edit Group 02 LocEn V0 I0 N ◇ | CAEN SY1527

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.85 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.20 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.5 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.2 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

Run #: 6666 | Date: 06/6/10 | Your Name: Rachel

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles | alpha | (S800+HiRA) | pulser | CsI Singles | junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Comments: U6PC2 will not attach SpecTcl online, but will attach to previous runs.

Raw Scaler Rates

Master: 12
MCP0: 330k
MCP1: 320k
CSI_OR: 2
CRAD04: 3.0
CRAD06: 3.9
CRAD Ratio (4/6):
Trigger Live time: 98 %

Run #: 6667 | Date: 06/6/10 | Your Name: Rachel

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles | alpha | (S800+HiRA) | pulser | CsI Singles | junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Comments:

Raw Scaler Rates

Master: 15
MCP0: 320k
MCP1: 310k
CSI_OR: 1
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: 98 %

Run #: 6668 | Date: 06/6/10 | Your Name: Rachel

Beam: 56Ni 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles | alpha | (S800+HiRA) | pulser | CsI Singles | junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Comments:

Raw Scaler Rates

Master: 15
MCP0: 330k
MCP1: 320k
CSI_OR: 1
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: 98 %

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1		
Si2	156	12.3
Si3	149	5.2
Si4	100	7.1
MCP0	2.19 k	0.074 (mA) = 74 μA
MCP1	2.3 k	0.079 (mA) = 79 μA

Voltmeter reads 0.74
" " 0.79

6:42 am

Run #: 6069 | Date: 06/6/10 | Your Name: Rachel

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH_2 Blank, CD_2 (1) carbon, CD_2 (2) mask, Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R	mylar	mask	143 mm
MCP1 I250Y-R	mylar	carbon mask	89 mm

Raw Scaler Rates

Master:	15
MCP0:	320k
MCP1:	310k
CSI_OR:	1
CRAD04:	2.9
CRAD06:	3.8
CRAD Ratio (4/6):	
Trigger Live time:	98 %

Rebooted uCepc2 after it froze up, now it attaches online. Controller informs us that they rebooted a VME crate just prior to run 6069, it should not affect the data.

7:37 am

Run #: 6070 | Date: 06/6/10 | Your Name: Rachel

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH_2 Blank, CD_2 (1) carbon, CD_2 (2) mask, Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R	mylar	mask	143 mm
MCP1 I250Y-R	mylar	carbon mask	89 mm

Raw Scaler Rates

Master:	15
MCP0:	300k
MCP1:	300k
CSI_OR:	1
CRAD04:	
CRAD06:	
CRAD Ratio (4/6):	
Trigger Live time:	98 %

8:30 am

Run #: 6071 | Date: 06/6/10 | Your Name: Rachel

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH_2 Blank, CD_2 (1) carbon, CD_2 (2) mask, Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R	mylar	mask	143 mm
MCP1 I250Y-R	mylar	carbon mask	89 mm

Raw Scaler Rates

Master:	
MCP0:	
MCP1:	
CSI_OR:	
CRAD04:	
CRAD06:	
CRAD Ratio (4/6):	
Trigger Live time:	%

Dan and Zibi spent a while lowering thresholds especially on EB. The ASIC control thresholds vary far more than I expected; some channels are set at +15 and others at -15, and they appear to correspond to the same energy threshold. Vary by CB, not channel individually

After this, the chipboard in MB3 slot 5 spontaneously changed gain. Loading the original setup file and cycling the power both failed to restore it. Changing the E offset also increased the gain somewhat, so we'll run like this for a bit. If it fixes itself, the E Offset must be changed back from 950 to 688. Otherwise, a new calibration is needed.

Run #: 672	Date: 06/6 /10	Your Name: Dan	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)		Master: 12
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA), pulser, CsI Singles, junk			MCP0: 300 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 296 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 30
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 2.6 kHz
Comments: See above. Also variable beam rate.			CRAD06: 3.3 kHz
			CRAD Ratio (4/6): .79
			Trigger Live time: 97 %

XFP Efficiency ~ 97%

Run #: 673	Date: 06/6 /10	Your Name: Dan	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 13
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA), pulser, CsI Singles, junk			MCP0: 327 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 324 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask: mm		CSI_OR: 27
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

XFP Efficiency ~ 97%

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1	15.4	6.1
Si2	150	12.2
Si3	149	5.7
Si4	100	17.2
MCP0	2200	74
MCP1	2300	~~78~~

11:57 ish

12:15 PM

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Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.24 uA	On		00.0001
Tow0Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0002
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.06 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card9	0.00 V	4.00 uA	0.00 V	0.00 uA	Off		00.0007
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.64 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.58 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.68 uA	On		00.0011
Tow2Card9	0.00 V	4.00 uA	0.50 V	0.00 uA	Off		00.0012
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0017
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018

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Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.54 uA	On		00.0019
Tow4Card15	250.00 V	6.00 uA	250.00 V	1.60 uA	On		00.0020
Tow4Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		00.0021
Tow4Card9	0.00 V	4.00 uA	0.25 V	0.00 uA	Off		00.0022
Tow4Card6	120.00 V	4.00 uA	120.00 V	1.52 uA	On		00.0023
Tow4Card3	180.00 V	5.00 uA	180.25 V	2.24 uA	On		00.0024
Tow0Card1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0025
1	0.00 V	0.00 uA	0.00 V	0.00 uA	Off		00.0026
Tow2Card1*	0.00 V	0.10 uA	0.25 V	0.00 uA	Off		00.0027
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.85 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	3.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009

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Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
pa15	0.00 V	3.0 uA	0.00 V	0.0 uA	Off	I-Tripped	03.0009
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.85 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
PA7	0.00 V	3.0 uA	0.00 V	0.0 uA	Off		05.0010
CsI4	30.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

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P.T. #1 (Pressure) +300.1 Torr
P.T. #2 (Pressure) + 39.7 Torr
M.F.C. #1 (Flow) 26.62 sccm
M.F.C. #2 (Flow) 7.92 sccm
M.F.C. #3 (Flow) 31.30 sccm

12:37 PM

Run #: 674	Date: 06/6/10	Your Name:		**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 8.0
Trigger: HiRA Singles, MCP Singles	S800 Singles, alpha	(S800+HiRA), pulser	CsI Singles, junk		MCP0: 350 K
Attenuation: 3[illegible]	**MCP Target Drive Positions**				MCP1: 350 K
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 2.0
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar), carbon	mask	mm	CRAD04: 2.8
Comments:					CRAD06: 4.0
					CRAD Ratio (4/6): 0.7
					Trigger Live time 97 %

XFP Efficiency = 97%

1:28 PM

Run #: 675	Date: 06/6/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 15
Trigger: HiRA Singles MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 340 K
Attenuation: 3	MCP Target Drive Positions		MCP1: 340 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 1.0
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 3.2
Comments:			CRAD06: 4.0
			CRAD Ratio (4/6): 0.8
			Trigger Live time: 99 %

XFP Efficiency = 97%

12:16 PM

Run #: 676	Date: 06/6/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 15
Trigger: HiRA Singles MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 315 K
Attenuation: 3	MCP Target Drive Positions		MCP1: 315 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 1.0
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 3.0
Comments:			CRAD06: 3.9
			CRAD Ratio (4/6): 0.769
			Trigger Live time: 97%

XFP Efficiency = 97%

We ended the run because the leakage currents were varying by up to 0.25 μA. We turned off the bias to Tower 8 and 4 from the module and biased the front from Caen. (All Tower 4 increased by 100 V)

Tow 4 Card 15 = 350 V Tow 4 Card 6 = 220 V
Tow 4 Card 3 = 280 V
Tow 4 Card 12 = 300 V

This seems to have improved the issue, but we were not satisfied. Zibi tried going to Tow 4 Card 3 = 290 V, but this made the leakage current increase by 0.5 μA (Previously: Tow 4 Card 3 = 180 V)

* Now it is only changing by 0.05 μA so this is marked improvement.

3:05 PM

Run #: 677	Date: 06/6/10	Your Name:
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)	
Trigger: HiRA Singles, MCP Singles; S800 Singles, alpha; (S800+HiRA) pulser; CsI Singles, junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm	
Printed Bias Log (Y) N	MCP1 I250Y-R: (mylar) carbon mask mm	
Comments: We now are biasing Tow 4 front from Caen.		

Raw Scaler Rates	
Master:	17.5
MCP0:	350 K
MCP1:	350 K
CSI_OR:	2.0
CRAD04:	3.2
CRAD06:	4.2
CRAD Ratio (4/6)	0.76
Trigger Live time:	98 %

XFP Efficiency = 96.7%

3:25 PM

HV/leakage Current log		
	Voltage	uA
Si0	150	3.82
Si1	0	6.17
Si2	150	12.25
Si3	149	5.25
Si4	0	6.69
MCP0	2200	0.74
MCP1	2300	0.79

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.24 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.30 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.06 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.64 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.58 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.66 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.54 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.75 V	1.60 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.84 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.75 V	1.54 uA	On		00.0023

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Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	280.00 V	5.00 uA	280.00 V	1.68 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.85 V	0.2 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

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3:50 PM

Run #: 678	Date: 06/6/10	Your Name:
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: (mm)
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask	mm
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask	mm
Comments: Data Run		

Raw Scaler Rates	
Master:	15,0
MCP0:	355 K
MCP1:	335 K
CSI_OR:	1.5
CRAD04:	3.2
CRAD06:	4.3
CRAD Ratio (4/6)	0.74
Trigger Live time:	97 %

Lost Beam so I killed the run.
(Beam operators said K1200 shut down)
XFP Efficiency = 96.8%

- The beam operators came and took the Key at 4:28 PM. This might take some time.

On restart of ASIC E Controller
Slot 12 Errors: token_out is not high (false) as it should be after reset with no token in!
Working now low (true)
All pass otherwise

Run #: 679	Date: 06/6/10	Your Name:
Beam: 56Ni 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask	Position: (mm)
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask	mm
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask	mm
Comments:		

Raw Scaler Rates	
Master:	14
MCP0:	333
MCP1:	330
CSI_OR:	2
CRAD04:	
CRAD06:	
CRAD Ratio (4/6):	
Trigger Live time:	96 %

XFP Efficiency = 97%

5:38 PM

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1	150	12.0
Si2	—	6.0
Si3	150	5.1
Si4	—	6.7
MCP0	2200	0.74
MCP1	2300	0.78

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.24 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.08 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.54 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.66 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.48 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.52 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.42 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.38 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.75 V	1.60 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.84 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.75 V	1.54 uA	On		00.0023

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	280.00 V	5.00 uA	280.00 V	1.80 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.15 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.85 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
PA10	11.00 V	2.0 uA	10.85 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.85 V	0.2 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Display/Edit Group 02 — LocEn V0 I0 — N ◇| CAEN SY1527

6:11 PM

Run #: 680	Date: 06/6/10	Your Name:	**Raw Scaler Rates**
Beam: (⁵⁶Ni) ⁵⁸Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 13.5
Trigger: HiRA Singles; S800 Singles; (S800+HiRA); CsI Singles; MCP Singles; alpha; pulser; junk			MCP0: 320 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 320 K
Bp (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 1.5
Printed Bias Log (Y) N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04: 2.9
Comments:			CRAD06: 3.7
			CRAD Ratio (4/6): 0.78
			Trigger Live time: 96 %

XFP eff. 96.84%

We realized that the E offset for Tow 3 slot 5 had not been changed in the save file so I reset it back to 950 to hopefully, mostly fix that problem.

Mike

We are also seeing new issues in the dE's since the reboot.

Run #: 681	Date: 06/6/10	Your Name: Mike	Raw Scaler Rates
XFP eff. 96.9%	**Beam:** ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)	Master: 11
			MCP0: 330 K
	Trigger: HiRA Singles, MCP Singles; S800 Singles, alpha; S800+HiRA, pulser; CsI Singles, junk		MCP1: 330 K
			CSI_OR: 1.5
	Attenuation: 3	**MCP Target Drive Positions**	CRAD04:
	Bρ (segment 8): 2.704	MCP0 I250X-R: mylar, mask, mm	CRAD06:
	Printed Bias Log Y N	MCP1 I250Y-R: mylar, carbon, mask, mm	CRAD Ratio (4/6):
	Comments:		Trigger Live time: 96 %

Run #: 682	Date: 06/6/10	Your Name: Mike	Raw Scaler Rates
XFP eff. 96.78%	**Beam:** ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)	Master: 11
			MCP0: 310 K
	Trigger: HiRA Singles, MCP Singles; S800 Singles, alpha; S800+HiRA, pulser; CsI Singles, junk		MCP1: 310 K
			CSI_OR: 1
	Attenuation: 3	**MCP Target Drive Positions**	CRAD04: 2.9
	Bρ (segment 8): 2.704	MCP0 I250X-R: mylar, mask, mm	CRAD06: 3.5
	Printed Bias Log Y N	MCP1 I250Y-R: mylar, carbon, mask, mm	CRAD Ratio (4/6): 0.81
	Comments:		Trigger Live time: 96 %

17:06PM Myself to Fix the problem with dEs firing too fast. They did not load properly before.

Also, I ~~reset~~ undid the changes to the MB3 Slot 5 Energy offset because I realized the P14 is in Tower 3 which is Motherboard 4 in the ASIC control page. As such I had accidentally changed the energy offset in the wrong MB. This has been fixed.

The XLM locked up after a power cycle on the dE Motherboards so we are resetting the VME crate.

Now we are physically rest

Run #: 683 | Date: 06/ 6/10 | Your Name: Mike

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: (mm)

Trigger: HiRA Singles, MCP Singles | S800 Singles, alpha | (S800+HiRA), pulser | CsI Singles, junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

MCP Target Drive Positions:
MCP0 I250X-R mylar mask mm
MCP1 I250Y-R mylar carbon mask mm

Comments:

Raw Scaler Rates
- Master: 13
- MCP0: 290 K
- MCP1: 286 K
- CSI_OR: 1
- CRAD04:
- CRAD06:
- CRAD Ratio (4/6):
- Trigger Live time: 96 %

XFP eff. 97.14%

Still having issues w/ the dE motherboards. Zibi is coming in to take a look. ~~&~~ We rebooted (physically) spdaq20, restarted the VME & loaded everything up still to no avail.

Run #: 684 | Date: 06/06/10 | Your Name:

Beam: 56Ni 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: (mm)

Trigger: (HiRA Singles), MCP Singles | S800 Singles, alpha | S800+HiRA, pulser | CsI Singles, junk

Attenuation: 3

Bρ (segment 8):

Printed Bias Log Y N

MCP Target Drive Positions:
MCP0 I250X-R (mylar) mask mm
MCP1 I250Y-R (mylar) carbon mask mm

Comments: Debugging.

Raw Scaler Rates
- Master:
- MCP0:
- MCP1:
- CSI_OR:
- CRAD04:
- CRAD06:
- CRAD Ratio (4/6):
- Trigger Live time: %

~~XFP eff.~~

BACK to DATA RUN

Run #: 685 | Date: 06/06/10 | Your Name: T

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles | S800 Singles, alpha | (S800+HiRA), pulser | CsI Singles, junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

MCP Target Drive Positions:
MCP0 I250X-R (mylar) mask 143 mm
MCP1 I250Y-R (mylar) carbon mask 89 mm

Comments: Back to data run

Raw Scaler Rates
- Master: 13
- MCP0: 314 K
- MCP1: 313 K
- CSI_OR: 1
- CRAD04: 2.8
- CRAD06: 3.5
- CRAD Ratio (4/6): 0.8
- Trigger Live time: 97%

XFP eff. 97.37

9:57 PM

Run #: 686	Date: 06/06/10	Your Name: Jilan	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 CD2 (1) (CD2 (2)) Position: Blank carbon mask 100 (mm)		Master: 12
Trigger: HiRA Singles MCP Singles S800 Singles alpha (S800+HiRA) pulser CsI Singles junk			MCP0: 271 K
Attenuation: 3	MCP Target Drive Positions		MCP1: 269 K
Bρ (segment 8): 2.704	MCP0 I250X-R (mylar) mask 143 mm		CSI_OR: 1.0
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask 89 mm		CRAD04: 2.4
Comments:			CRAD06: 3.0
			CRAD Ratio (4/6): 0.8
			Trigger Live time: 97 %

XFP eff. 97.19%

It is observed that in this run, energy offset for telescope P14 has once again changed. We could fix that by changing the offset as suggested by Dan (see run # 671).

But.."no. no...-no debugging any more" Betty says.

10:45 PM

Run #: 687	Date: 06/06/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 CD2 (1) (CD2 (2)) Position: Blank carbon mask (mm)		Master: 12
Trigger: HiRA Singles MCP Singles S800 Singles alpha (S800+HiRA) pulser CsI Singles junk			MCP0: 333 K
Attenuation: 3	MCP Target Drive Positions		MCP1: 332 K
Bρ (segment 8):	MCP0 I250X-R (mylar) mask mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R (mylar) carbon mask mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

XFP eff. 96.84%

11:59 pm

Run #: 688	Date: 06/6/10	Your Name: Enrique
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)	
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar mask mm	
Printed Bias Log Y (N)	MCP1 I250Y-R: mylar carbon mask mm	
Comments:		

Raw Scaler Rates	
Master:	12
MCP0:	3.22K
MCP1:	330K
CSI_OR:	1.5
CRAD04:	3.2
CRAD06:	3.9
CRAD Ratio (4/6):	0.82
Trigger Live time:	97 %

XFP eff. 96.89%

XFP Efficiency (Run 688) = 96.9%

12:19 AM

Run #: 689	Date: 06/6/10	Your Name:
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)	
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar mask mm	
Printed Bias Log Y (N)	MCP1 I250Y-R: mylar carbon mask mm	
Comments:		

Raw Scaler Rates	
Master:	16.0
MCP0:	350K
MCP1:	350K
CSI_OR:	1.0
CRAD04:	2.9
CRAD06:	3.8
CRAD Ratio (4/6):	0.76
Trigger Live time:	98 %

XFP eff. 96.66%

12:52 AM

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8 MA
Si1	—	6.1
Si2	150	12.2
Si3	150	5.2
Si4	—	7
MCP0	2.2K	74
MCP1	2.3K	79

PT #1: 300 Torr

PT #2: 40 Torr

MFC #1: 24 sccm

MFC #2: 8

MFC #3: 30

Terminal

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.24 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.08 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.25 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.60 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.54 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.62 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.56 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.50 V	1.66 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.92 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.50 V	1.60 uA	On		00.0023

LocEn V0 I0 N ◇| CAEN SY1527

Display/Edit Group 02

Terminal

File Edit View Terminal Tabs Help

Admin

- Main Utility Setup Groups View

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	280.00 V	5.00 uA	280.00 V	1.76 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	3.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	30.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

LocEn V0 I0 N ◇| CAEN SY1527

Display/Edit Group 02

1:15 AM

Run #: 690	Date: 06/7/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 16.5
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 300 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 300 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 1.0
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 2.7
Comments:			CRAD06: 3.5
			CRAD Ratio (4/6): 0.77
			Trigger Live time: 99 %

XFP Efficiency = 97.2%

1:58 AM

Run #: 691	Date: 06/7/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 13.0
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 280 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 280 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 1.0
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 2.5
Comments:			CRAD06: 3.3
			CRAD Ratio (4/6): 0.76
			Trigger Live time: 99 %

(About 2:40 AM - Beam is becoming sporadic)

XFP Efficiency = 97.5%

Run #: 692	Date: 06/7/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 13.0
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 260 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 260 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 0.5
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 3.4
Comments:			CRAD06: 3.0
			CRAD Ratio (4/6): 0.85
			Trigger Live time: 98 %

* MCP rates seem to be dropping. This trend seems to match changes in the ~~me~~ XFP so I assume this is due to changes in beam intensity.

XFP Efficiency = 96.8%

110

3:40 AM

Run #: 693	Date: 06/7/10	Your Name: Enrique	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: (mm)		Master: 12
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 330 K
Attenuation: 3	MCP Target Drive Positions		MCP1: 330 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — mm		CSI_OR: 2
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — mm		CRAD04: 3
Comments:			CRAD06: 4
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

Run #: 694	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 15
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 320 k
Attenuation: 3	MCP Target Drive Positions		MCP1: 340 k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD04: 3.0
Comments:			CRAD06: 3.8
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

4:35 am

Run #: 695	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 15
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 320k
Attenuation: 3	MCP Target Drive Positions		MCP1: 330 k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD04: 3.0
Comments:			CRAD06: 4.0
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

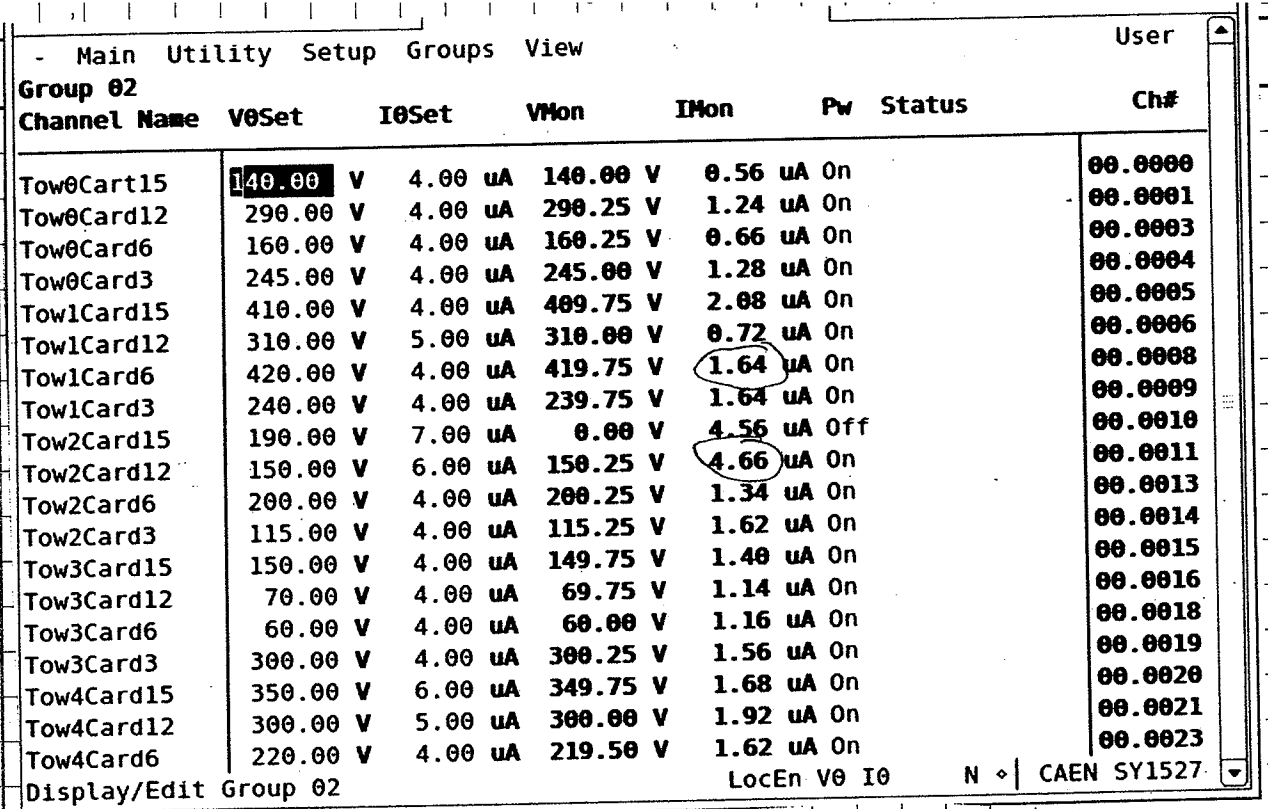
5:30 am

Run #: 696	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 15
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 320 k
Attenuation: 3	MCP Target Drive Positions		MCP1: 330 k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD04: 3.1
Comments:			CRAD06: 4.0
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

6:12 am

Run #: 697	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 12
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 320 k
Attenuation: 3	MCP Target Drive Positions		MCP1: 330k
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CSI_OR: 2
Printed Bias Log (Y) N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD04: 3.0
Comments:			CRAD06: 4.0
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

7:12 am



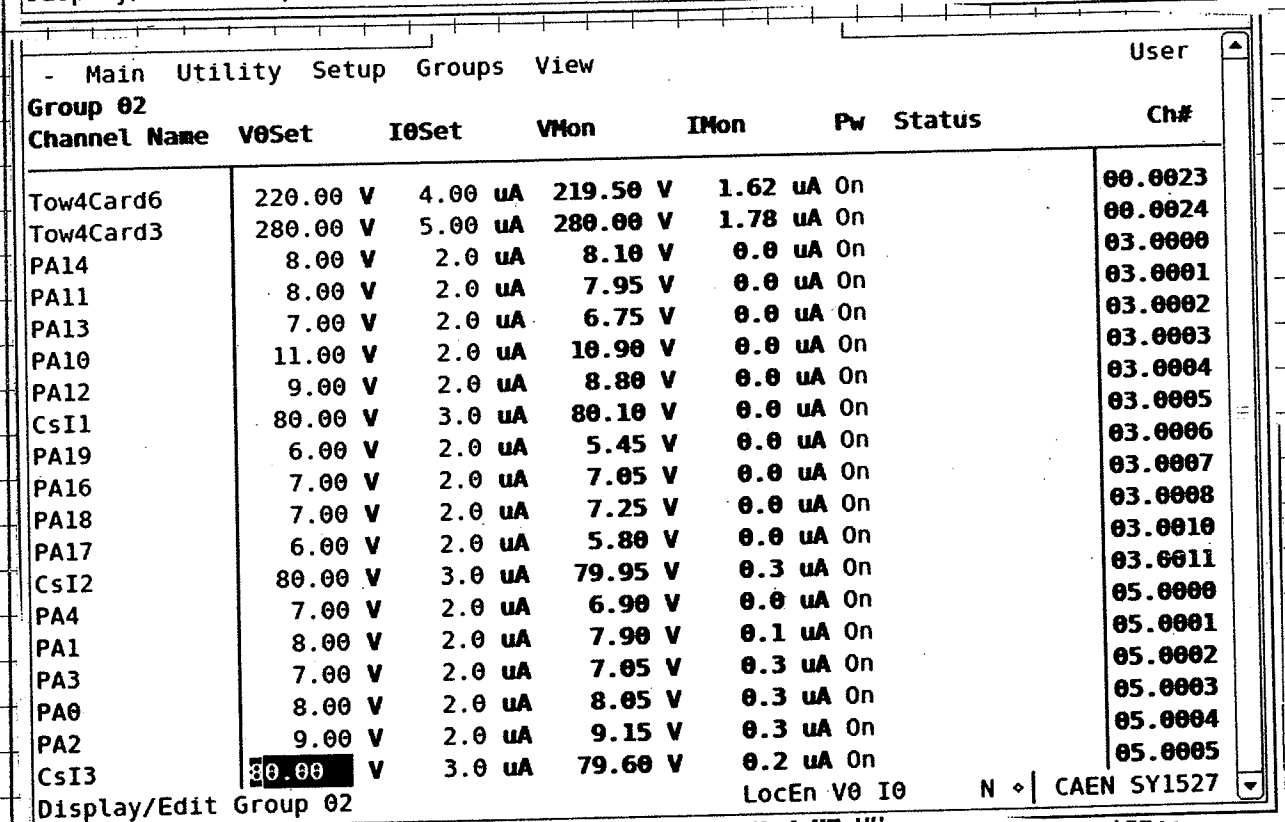
- Main Utility Setup Groups View

User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.24 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.08 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.64 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.56 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.66 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.56 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.75 V	1.68 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.92 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.50 V	1.62 uA	On		00.0023

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527



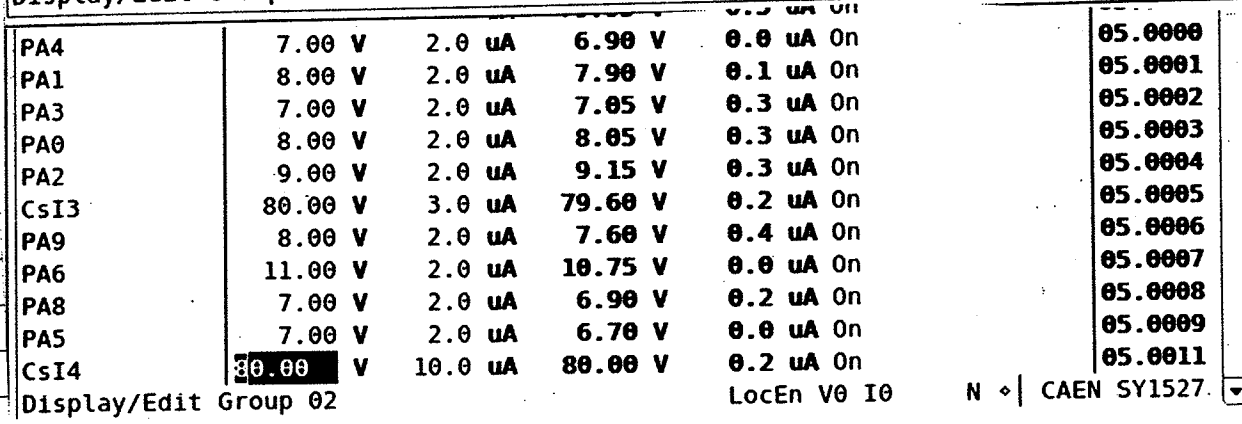
- Main Utility Setup Groups View

User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card6	220.00 V	4.00 uA	219.50 V	1.62 uA	On		00.0023
Tow4Card3	280.00 V	5.00 uA	280.00 V	1.78 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527



PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.2 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

112

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1		~~6.1~~
Si2	156	12.2
Si3	150	5.3
Si4	—	6.98
MCP0	2.19k	74
MCP1	2.30k	78

8:00 AM

8:20AM

Run #: 698 | Date: 06/~~0~~7/10 | Your Name: Rachel

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon mask	89 mm

Raw Scaler Rates

Master:	17
MCP0:	330k
MCP1:	340k
CSI_OR:	1
CRAD04:	3.3
CRAD06:	4.0
CRAD Ratio (4/6):	
Trigger Live time:	98 %

9:15am

Run #: 699 | Date: 06/~~0~~7/10 | Your Name: Rachel

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon mask	89 mm

Raw Scaler Rates

Master:	16
MCP0:	320k
MCP1:	340k
CSI_OR:	1
CRAD04:	3.4
CRAD06:	4.2
CRAD Ratio (4/6):	
Trigger Live time:	98 %

10:12am

Run #: 700 | Date: 06/~~0~~7/10 | Your Name: Rachel

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon mask	89 mm

Raw Scaler Rates

Master:	15
MCP0:	320k
MCP1:	330k
CSI_OR:	1
CRAD04:	3.1
CRAD06:	4.0
CRAD Ratio (4/6):	
Trigger Live time:	98 %

11:07am

Run #: 701 | Date: 06/7/10 | Your Name: Rachel

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 3

Bρ (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon mask	89 mm

Raw Scaler Rates

Master:	15
MCP0:	310k
MCP1:	320k
CSI_OR:	1
CRAD04:	3.0
CRAD06:	3.9
CRAD Ratio (4/6):	
Trigger Live time:	98 %

Run #: 702	Date: 06/7/10	Your Name: Mike
Beam: (66Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100(mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA pulser); CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm	
Comments:		

Raw Scaler Rates	
Master:	13
MCP0:	325 K
MCP1:	335 K
CSI_OR:	1
CRAD04:	3.1
CRAD06:	4.0
CRAD Ratio (4/6):	
Trigger Live time:	96 %

12:04

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1		
Si2	150	17.2
Si3	150	5.3
Si4		
MCP0	2200	74
MCP1	2300	79

12:10 PM

Run #: 703	Date: 06/7/10	Your Name: Mike
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA pulser); CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm	
Comments:		

Raw Scaler Rates	
Master:	13
MCP0:	245 K
MCP1:	250 K
CSI_OR:	1
CRAD04:	2.3
CRAD06:	3.0
CRAD Ratio (4/6):	
Trigger Live time:	97 %

Run #: 704	Date: 06/7/10	Your Name: Jon
Beam: (56Ni) ~~58Ni~~ α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100 (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA pulser); CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm	
Comments:		

Raw Scaler Rates	
Master:	14
MCP0:	300 K
MCP1:	310 K
CSI_OR:	1
CRAD04:	3.0
CRAD06:	3.8
CRAD Ratio (4/6):	
Trigger Live time:	97 %

XFP efficiency = 94.3%

Run #: 705	Date: 06/ 7/10	Your Name: Mike	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 11
Trigger: HiRA Singles, MCP Singles / S800 Singles, alpha / (S800+HiRA), pulser / CsI Singles, junk			MCP0: 330 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 345 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 3.4
Comments:			CRAD06: 4.0
			CRAD Ratio (4/6):
			Trigger Live time: 95 %

Run #: 706	Date: 06/7/10	Your Name: M.L	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 13
Trigger: HiRA Singles, MCP Singles / S800 Singles, alpha / (S800+HiRA), pulser / CsI Singles, junk			MCP0: 280 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 290 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 3.0
Comments:			CRAD06: 3.8
			CRAD Ratio (4/6):
			Trigger Live time: 96 %

Run #: 707	Date: 06/7/10	Your Name: Mike	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 14
Trigger: HiRA Singles, MCP Singles / S800 Singles, alpha / (S800+HiRA), pulser / CsI Singles, junk			MCP0: 315 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 330 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 3.0
Comments:			CRAD06: 3.9
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

XFP eff. for Run 707 = 92.8%

XFP eff. for Run 708 = 93.3%

Run #: 708	Date: 06/7 /10	Your Name: MH	**Raw Scaler Rates**
Beam: 56Ni 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: (mm)		Master:
Trigger: HiRA Singles, MCP Singles / S800 Singles, alpha / S800+HiRA, pulser / CsI Singles, junk			MCP0:
Attenuation: 3	**MCP Target Drive Positions**		MCP1:
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask: mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Run #: 709	Date: 06/7/10	Your Name: MH	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** CH_2 Blank; (CD_2 (1) carbon); CD_2 (2) mask; Position: 100 (mm)		Master: 16
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA pulser); CsI Singles junk	**MCP Target Drive Positions**		MCP0: 340k
Attenuation: 3	MCP0 I250X-R: mylar mask — 143 mm		MCP1: 370k
Bρ (segment 8): 2.704	MCP1 I250Y-R: mylar carbon mask — 89 mm		CSI_OR: 1.5
Printed Bias Log Y (N)			CRAD04: 3.4
Comments: A little RF sparking.			CRAD06: 4.3
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

XFP eff Run 709 = 92.8 %

Run #: 710	Date: 06/7/10	Your Name: MH	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2) mask); Position: 100 (mm)		Master: 19
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA pulser); CsI Singles junk	**MCP Target Drive Positions**		MCP0: 320k
Attenuation: 3	MCP0 I250X-R: mylar mask — 143 mm		MCP1: 340k
Bρ (segment 8):	MCP1 I250Y-R: mylar carbon mask — 89 mm		CSI_OR: 1
Printed Bias Log Y (N)			CRAD04: 3.2
Comments:			CRAD06: 4.1
			CRAD Ratio (4/6):
			Trigger Live time: 96 %

Mike has allegedly been checking the CAEN terminal.

XFP Efficiency = 92.2%

Run #: 711	Date: 06/7/10	Your Name: Tilak	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2) mask); Position: 100 (mm)		Master: 14
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA pulser); CsI Singles junk	**MCP Target Drive Positions**		MCP0: 333
Attenuation: 3	MCP0 I250X-R: (mylar) mask — 143 mm		MCP1: 342
Bρ (segment 8): 2.704	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CSI_OR: 1.5
Printed Bias Log Y N			CRAD04: 3.2
Comments:			CRAD06: 4.2
			CRAD Ratio (4/6):
			Trigger Live time: 97%

(XFP Efficiency = 91.6%

Run #: 712	Date: 06/ /10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 17.5
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA) pulser; CsI Singles; junk			MCP0: 357 K
Attenuation: (3)	**MCP Target Drive Positions**		MCP1: 428 K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 1.0
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 3.5
Comments: XFP ~ 390 K, MCP down scale 1.5			CRAD06: 4.1
			CRAD Ratio (4/6):
			Trigger Live time: 97 %

* Change of MCP down scale from 300^2 to 600^2.
* Discriminator width of scalar is changed from 350ns to 40ns.
* Added 300 ns to MCP down scale trigger.

Run #: 713	Date: 06/ /10	Your Name:	Raw Scaler Rates
Beam: 56Ni 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 10
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; S800+HiRA pulser; CsI Singles; junk			MCP0: 190 K
Attenuation: (10)	**MCP Target Drive Positions**		MCP1: 228 K
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR: 0.5
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments: XFP 200 K			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 97%

Run #: 714	Date: 06/ /10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 0
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; S800+HiRA pulser; CsI Singles; junk — NO BEAM			MCP0: 25
Attenuation:	**MCP Target Drive Positions**		MCP1: 02
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR: 0
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Run #: 715	Date: 06/ /10	Your Name:	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) ~~mask~~; Position: (mm)		Master: 3
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) ~~pulser~~; CsI Singles junk			MCP0: 56 K
Attenuation: (30)	**MCP Target Drive Positions**		MCP1: 67 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 0
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 0.4
Comments: XFP ~ 58 K			CRAD06: 0.6
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Run #: 716	Date: 06/ /10	Your Name:	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 0.5
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 16 K
Attenuation: (100)	**MCP Target Drive Positions**		MCP1: 19 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 0
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 0.10
Comments: XFP ~ 170			CRAD06: 0.15
			CRAD Ratio (4/6):
			Trigger Live time: 100%

Run #: 717	Date: 06/ /10	Your Name:	**Raw Scaler Rates**
Beam: 56Ni 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master:
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; S800+HiRA ~~pulser~~; CsI Singles junk			MCP0: 29
Attenuation: NO BEAM	**MCP Target Drive Positions**		MCP1: 5
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR: 0
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04: 0
Comments:			CRAD06: 0
			CRAD Ratio (4/6):
			Trigger Live time: 100 %

Run #: 718	Date: 06/7/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 35
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk			MCP0: 537 K
Attenuation:	**MCP Target Drive Positions**		MCP1: 653 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) ~~mask~~ mm		CSI_OR: 1.5
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 4.8
Comments: XFP ~ 634 K			CRAD06: 6
			CRAD Ratio (4/6):
			Trigger Live time: 94 %

Run #: 719	Date: 06/7/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: ~~20~~ 29
Trigger: HiRA Singles; MCP Singles; S800 Singles; alpha; (S800+HiRA); pulser; CsI Singles; junk			MCP0: 512 K
Attenuation: 1	**MCP Target Drive Positions**		MCP1: 629 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 1.5
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 5.3
Comments: XFP ~ 624 K			CRAD06: 6.4
			CRAD Ratio (4/6):
			Trigger Live time: 94%

10:52 PM

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1	—	6.2
Si2	150	12.3
Si3	150	5.3
Si4	—	7.08
MCP0	2.2 K	74
MCP1	2.3K	79

P. T. #1 (Pressure) + 2996 Torr
P. T. #2 (Pressure) + 39.6 Torr
M. F. C. #1 (Flow) 22.58 sccm
M. F. C. #2 (Flow) 8.46 sccm
M. F. C. #3 (Flow) 31.67 sccm

Terminal

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- Main Utility Setup Groups View Admin

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.26 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.30 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	410.00 V	2.12 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	420.00 V	1.72 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.66 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.58 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.70 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.42 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.16 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.60 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.75 V	1.68 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.94 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.75 V	1.62 uA	On		00.0023

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

Terminal

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	280.00 V	5.00 uA	280.00 V	1.74 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.15 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.3 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

Terminal

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- Main Utility Setup Groups View Admin

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.4 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.3 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.85 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On		05.0011

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

Tom came to shim the XFP. We stopped the run and key is handed over to Tom.

We decided to bias down the MCP's and the MCP foils so that we can turn up the beam intensity.

Run #: 720	Date: 06/7/10		Your Name:		Raw Scaler Rates
Beam: ^{56}Ni ^{58}Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	CD_2 (2) mask	Position: (mm)	Master:
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	S800+HiRA pulser	CsI Singles junk		MCP0:
Attenuation:	MCP Target Drive Positions				MCP1:
Bp (segment 8): 10.92 KM	MCP0 I250X-R	mylar	mask	mm	CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon	mask	mm	CRAD04:
Comments: BACK Ground run while Tom shim XFP					CRAD06:
					CRAD Ratio (4/6):
					Trigger Live time: %

12:13 AM

Tom shimmed the beam and adjusted the slits to block one of the unwanted charge states. Opened CB some and closed CT.

1:02 AM

Run #: 722	Date: 06/8/10		Your Name:				**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)			Master: 25.0
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	S800+HiRA pulser	CsI Singles junk				MCP0: off
Attenuation: 1	**MCP Target Drive Positions**						MCP1: off
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm			CSI_OR: 3.0
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon	mask	mm		CRAD04: 1.2
Comments: XFP Efficiency = 92.8 %							CRAD06: 10.4
							CRAD Ratio (4/6): 0.12
							Trigger Live time: 93 %

1:36 AM

Run #: 723	Date: 06/8/10		Your Name:				**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)			Master: 27.5
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk				MCP0: off
Attenuation: 1	**MCP Target Drive Positions**						MCP1: off
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm			CSI_OR: 3.5
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon	mask	mm		CRAD04: 1.2
Comments: XFP Efficiency = 92.8%							CRAD06: 10.8
							CRAD Ratio (4/6): 0.11
							Trigger Live time: 92 %

2:13 AM

Run #: 724	Date: 06/8/10		Your Name:				**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)			Master: 23.0
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk				MCP0: off
Attenuation: 2.704	**MCP Target Drive Positions**						MCP1: off
Bρ (segment 8): 1	MCP0 I250X-R	(mylar)	mask	mm			CSI_OR: 2.5
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon	mask	mm		CRAD04: 1.2
Comments: XFP Efficiency = 93.1 %							CRAD06: 10.0
							CRAD Ratio (4/6): 0.12
							Trigger Live time: 93 %

2:50 AM

Run #: 725	Date: 06/8/10		Your Name:				**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)			Master: 19.5
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk				MCP0: off
Attenuation: 1	**MCP Target Drive Positions**						MCP1: off
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm			CSI_OR: 3.0
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon	mask	mm		CRAD04: 1.1
Comments: XFP Efficiency = 92.9%							CRAD06: 9.6
							CRAD Ratio (4/6): 0.11
							Trigger Live time: 94%

122

3:19 AM

Run #: 726	Date: 06/8/10	Your Name:	Raw Scaler Rates
Beam: (58Ni) 58Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / (CD_2 (2)) mask / Position: (mm)		Master: 24.5
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: off
Attenuation: 1	**MCP Target Drive Positions**		MCP1: off
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 1.0
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 1.1
Comments:			CRAD06: 9.9
			CRAD Ratio (4/6): 0.11
			Trigger Live time: 93%

XFP-Eff = 93%

4:06 AM

Run #: 727	Date: 06/8/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / (CD_2 (2)) mask / Position: (mm)		Master: 18.0
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: off
Attenuation: 1	**MCP Target Drive Positions**		MCP1: off
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 3.0
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 0.8
Comments:			CRAD06: 8.9
			CRAD Ratio (4/6): 0.09
			Trigger Live time: 94%

We ended the run to get the beam rate on the XFP back up near 1 million.

XFP-Efficiency = 93.2%

4:50 AM

Run #: 728	Date: 06/8/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / (CD_2 (2)) mask / Position: (mm)		Master: 25.5
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: off
Attenuation: 1	**MCP Target Drive Positions**		MCP1: off
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 1.0
Printed Bias Log (Y) (N)	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 1.6
Comments:			CRAD06: 12.4
			CRAD Ratio (4/6): 0.13
			Trigger Live time: 92%

- Main Utility Setup Groups View — User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.25 V	1.26 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.30 uA	On		00.0004

- Main Utility Setup Groups View — User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.12 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	420.00 V	1.74 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	239.75 V	1.66 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.58 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.70 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.42 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.18 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.25 V	1.60 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.75 V	1.68 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.94 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.75 V	1.62 uA	On		00.0023
Tow4Card3	280.00 V	5.00 uA	280.00 V	1.82 uA	On	←	00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002

Display/Edit Group 02 — LocEn V0 I0 — N ◇| CAEN SY1527

PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On	03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On	03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On	03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On	03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On	03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On	03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On	03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.3 uA	On	03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On	05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.1 uA	On	05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On	05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.3 uA	On	05.0003
PA2	9.00 V	2.0 uA	9.15 V	0.3 uA	On	05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.2 uA	On	05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On	05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On	05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.2 uA	On	05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On	05.0009
CsI4	80.00 V	10.0 uA	80.00 V	0.2 uA	On	05.0011

Display/Edit Group 02 — LocEn V0 I0 — N ◇| CAEN SY1527

5.20 cm

Run #: 729 | Date: 06/16/10 | Your Name: Rachel

Beam: (86Ni) 58Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | (CD_2 (2)) mask | Position: (100) (mm)

Trigger: HiRA Singles | S800 Singles | (S800+HiRA) pulser | CsI Singles junk | MCP Singles alpha

Attenuation: 1

Bp (segment 8): 2.704

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon mask	89 mm

Raw Scaler Rates

Master:	25
MCP0:	—
MCP1:	—
CSI_OR:	1
CRAD04:	1.3
CRAD06:	10.8
CRAD Ratio (4/6):	
Trigger Live time:	93 %

124

5:50 am

Run #: 730	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask	Position: 100 (mm)	Master: 24
Trigger: (HiRA Singles) MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: —
Attenuation: 1	MCP Target Drive Positions		MCP1: —
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 2
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04: 1.3
Comments:			CRAD06: 10.3
			CRAD Ratio (4/6): 0.13
			Trigger Live time: 92 %

6:20 am

Run #: 731	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask	Position: 100 (mm)	Master: 26
Trigger: (HiRA Singles) MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: —
Attenuation: 1	MCP Target Drive Positions		MCP1: —
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 3
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04: 1.3
Comments:			CRAD06: 10.9
			CRAD Ratio (4/6):
			Trigger Live time: 92 %

6:51 am

Run #: 732	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask	Position: 100 (mm)	Master: 24
Trigger: (HiRA Singles) MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: —
Attenuation: 1	MCP Target Drive Positions		MCP1: —
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 4
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04: 1.2
Comments:			CRAD06: 9.7
			CRAD Ratio (4/6):
			Trigger Live time: 93 %

7:22 am

Run #: 733	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask	Position: 100 (mm)	Master: 24
Trigger: (HiRA Singles) MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: —
Attenuation: 1	MCP Target Drive Positions		MCP1: —
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR: 2
Printed Bias Log Y (N)	MCP1 I250Y-R: (mylar) carbon mask 89 mm		CRAD04: 1.3
Comments:			CRAD06: 9.7
			CRAD Ratio (4/6):
			Trigger Live time: 94 %

7:52 am

Run #: 734	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank; CD2 (1) carbon; (CD2 (2)) mask	Position: 100 (mm)	Master: 15
Trigger: (HiRA Singles) MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: —
Attenuation:	MCP Target Drive Positions		MCP1: —
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask mm		CSI_OR: 2
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask mm		CRAD04: 0.7
Comments:			CRAD06: 6.7
			CRAD Ratio (4/6):
			Trigger Live time: 95 %

Control worked on tuning the beam up during Run 734
XFP rate had dropped down to 600k now back up to 1.0-1.1M.

Run #: 735 | Date: 06/8/10 | Your Name: Rachel

Beam: (56Ni) 58Ni | α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Raw Scaler Rates

Master: 24
MCP0: —
MCP1: —
CSI_OR: 2
CRAD04: 1.4
CRAD06: 11.6
CRAD Ratio (4/6):
Trigger Live time: 92 %

8:23am

Run #: 736 | Date: 06/8/10 | Your Name: Rachel

Beam: (56Ni) 58Ni | α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments: restart daq

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Raw Scaler Rates

Master: 28
MCP0: —
MCP1: —
CSI_OR: 3
CRAD04: 1.2
CRAD06: 10.6
CRAD Ratio (4/6):
Trigger Live time: 91 %

9:35am

Run #: 737 | Date: 06/8/10 | Your Name: Rachel

Beam: (56Ni) 58Ni | α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Raw Scaler Rates

Master: 25
MCP0: —
MCP1: —
CSI_OR: 2
CRAD04: 1.3
CRAD06: 11.4
CRAD Ratio (4/6):
Trigger Live time: 92 %

9:18 AM

Run #: 738 | Date: 06/8/10 | Your Name: Rachel

Beam: (56Ni) 58Ni | α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Raw Scaler Rates

Master: 26
MCP0: —
MCP1: —
CSI_OR: 4
CRAD04: 1.4
CRAD06: 12.3
CRAD Ratio (4/6):
Trigger Live time: 92 %

9:48 AM

Run #: 739 | Date: 06/8/10 | Your Name: Rachel

Beam: (56Ni) 58Ni | α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles, MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments:

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	143 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Raw Scaler Rates

Master: 25
MCP0: —
MCP1: —
CSI_OR: 2
CRAD04: 1.4
CRAD06: 11.0
CRAD Ratio (4/6):
Trigger Live time: 92 %

10:18 AM

Run #: 741	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 188
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk			MCP0: 89
Attenuation:	**MCP Target Drive Positions**		MCP1: 97
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR: 92
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments: CRDC Mask 1 Calibration			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 84 %

Attenuation: 1 → 100 → 10 → 1 Target: CD_2 (2) → Carbon

I255 Slits CT = 4.00
CB = 4.78

Run #: 742	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master:
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk			MCP0:
Attenuation:	**MCP Target Drive Positions**		MCP1:
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments: ~~CRDC~~ CRDC 2 Mask Calibration			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Target: Carbon → Blank

Run #: 743	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master:
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk			MCP0:
Attenuation:	**MCP Target Drive Positions**		MCP1:
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments: can't CRDC 2 Mask Calibration			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Target: Blank → Carbon → CH_2 → CD_2 (2)

Run #: 744	Date: 06/8/10	Your Name: Rachel	Raw Scaler Rates
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: 100 (mm)		Master: 24
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; S800+HiRA pulser; CsI Singles junk			MCP0: —
Attenuation: 1	**MCP Target Drive Positions**		MCP1: —
Bρ (segment 8): 2.704	MCP0 I250X-R: mylar mask 143 mm		CSI_OR: 4
Printed Bias Log Y (N)	MCP1 I250Y-R: mylar carbon mask 89 mm		CRAD04: 1.1
Comments: Normal Data Run.			CRAD06: 10.5
			CRAD Ratio (4/6):
			Trigger Live time: 93 %

11:35 AM

Run #: 745	Date: 06/8/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: 100(mm)		Master: 21
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: —
			MCP1: —
Attenuation: 1	**MCP Target Drive Positions**		CSI_OR: 5
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask — 143 mm		CRAD04:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask — 89 mm		CRAD06:
Comments:			CRAD Ratio (4/6):
			Trigger Live time: 93 %

12:04 PM

BACK to Ni(P,d) data after the one hour cyclotron shut down.

Run #: 746	Date: 06/ /10	Your Name:	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** (CH_2) Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: (mm)		Master: 30
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 425 K
			MCP1: 500 K
Attenuation: Junk	**MCP Target Drive Positions**		CSI_OR:
Bρ (segment 8):	MCP0 I250X-R: (myla) mask — mm		CRAD04:
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask — mm		CRAD06:
Comments: setting up for (P,d) reaction.			CRAD Ratio (4/6):
			Trigger Live time: %

2:32 pm

Chiller was flushed during the break.

Run #: 747	Date: 06/8/10	Your Name: Tilak.	**Raw Scaler Rates**
Beam: 56Ni 58Ni; α other:	**Target:** (CH_2) Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: 50 (mm)		Master: 80
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 460 K
			MCP1: 520 K
Attenuation: 3	**MCP Target Drive Positions**		CSI_OR: 16
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask — 143 mm		CRAD04: 0.7
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask — 165 mm		CRAD06: 7.4
Comments: XFP: 700 K			CRAD Ratio (4/6):
			Trigger Live time: 99%

Run #: 748	Date: 06/8/10	Your Name: M.H	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** (CH_2) Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: 50 (mm)		Master: 75
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 370k
			MCP1: 440k
Attenuation: 3	**MCP Target Drive Positions**		CSI_OR: 15
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask — mm		CRAD04: 0.6 (=600)
Printed Bias Log Y (N)	MCP1 I250Y-R: mylar (carbon) mask — mm		CRAD06: 7.3 (=730.00)
Comments:			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Xfp eff. ~ 93.2%

XFP eff. ~ 92.4% ↓

Run #: 749	Date: 06/8/10		Your Name: MH		**Raw Scaler Rates**
Beam: (56Ni) 58Ni	**Target:** (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: 50(mm)	Master: 75
α other:					MCP0: 370k
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 440k
MCP Singles	alpha	pulser	junk		CSI_OR: 15
Attenuation: 3	**MCP Target Drive Positions**				CRAD04: 0.6
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	143 mm	CRAD06: 7.3
Printed Bias Log Y (N)	MCP1 I250Y-R	mylar	(carbon)	mask 165 mm	CRAD Ratio (4/6):
Comments:					Trigger Live time: 99 %

Run 750 XFP eff. = 91.8%

Run #: 750	Date: 06/8/10		Your Name: MH		**Raw Scaler Rates**
Beam: (56Ni) 58Ni	**Target:** (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)	Master: 70
α other:					MCP0: 400k
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 490k
MCP Singles	alpha	pulser	junk		CSI_OR: 12
Attenuation: 3	**MCP Target Drive Positions**				CRAD04: 0.500
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	143 mm	CRAD06: 5.9
Printed Bias Log Y (N)	MCP1 I250Y-R	mylar	(carbon)	mask 165 mm	CRAD Ratio (4/6):
Comments:					Trigger Live time: 99 %

Ended run so Tom Ginter (1/1900) could shim XFP to improve efficiency for the night. ~5 pm (Tom said XFP Eff ≈ 95%)

Run #: 751	Date: 06/8/10		Your Name: MH		**Raw Scaler Rates**
Beam: (56Ni) 58Ni	**Target:** (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)	Master: 75
α other:					MCP0: 416 k
Trigger: HiRA Singles	S800 Singles	(S800+HiRA)	CsI Singles		MCP1: 499 k
MCP Singles	alpha	pulser	junk		CSI_OR: 15
Attenuation: 3	**MCP Target Drive Positions**				CRAD04: 1.1
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	mm	CRAD06: 7.1
Printed Bias Log Y N	MCP1 I250Y-R	mylar	(carbon)	mask mm	CRAD Ratio (4/6):
Comments: First run after Ginter shimmed XFP					Trigger Live time: 98 %

XFP Eff = 99.3%

Run #: 752	Date: 06/8/10	Your Name: M.Z.
Beam: (⁵⁸Ni) ⁵⁸Ni α other:	**Target:** (CH₂) Blank; CD₂ (1) carbon; CD₂ (2) mask; Position: (mm)	
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: mylar, mask — mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar, (carbon), mask — mm	
Comments:		

Raw Scaler Rates	
Master:	75
MCP0:	420 K
MCP1:	520 K
CSI_OR:	15
CRAD04:	1.1
CRAD06:	7.5
CRAD Ratio (4/6):	
Trigger Live time:	98 %

Run 752 XFP Eff ~ 94.8%

Run #: 753	Date: 06/8/10	Your Name:
Beam: (⁵⁸Ni) ⁵⁸Ni α other:	**Target:** (CH₂) Blank; CD₂ (1) carbon; CD₂ (2) mask; Position: 50 (mm)	
Trigger: HiRA Singles, MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar), mask — 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar, (carbon), mask — 165 mm	
Comments: XFP_Eff = 94.9% XFP ~ 750K		

Raw Scaler Rates	
Master:	80
MCP0:	432 K
MCP1:	530 K
CSI_OR:	15
CRAD04:	1.3
CRAD06:	7.8
CRAD Ratio (4/6):	
Trigger Live time:	99 %

Terminal

File Edit View Terminal Tabs Help

7:30 PM

Terminal | Terminal

- Main Utility Setup Groups View User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	140.00 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.50 V	1.24 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.12 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.70 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.68 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	240.00 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.48 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.56 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.00 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.00 V	1.60 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.50 V	1.64 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.88 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.50 V	1.56 uA	On		00.0023

Display/Edit Group 02 LocEn V0 I0 N | CAEN SY1527

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card6	220.00 V	4.00 uA	219.50 V	1.56 uA	On		00.0023
Tow4Card3	280.00 V	5.00 uA	280.00 V	2.02 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.15 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.1 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.80 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.85 V	0.1 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.4 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.0 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.2 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.20 V	0.2 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.1 uA	On		05.0005

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CsI3	80.00 V	3.0 uA	79.60 V	0.1 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.80 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	80.00 V	10.0 uA	80.05 V	0.2 uA	On		05.0011

Display/Edit Group 02 — LocEn V0 I0 — N ◇ | CAEN SY1527

HV/leakage Current log		
	Voltage	uA
Si0	+150	3.8
Si1	0	6.3
Si2	150	12.1
Si3	150	5.3
Si4	0	7.19
MCP0	2200	75
MCP1	2360	79

Run #: 754	Date: 06/8/10	Your Name: Remi
Beam: α (56Ni) 58Ni other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask; Position: 50 (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask — mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask — mm	
Comments: XFP-Eff = 95.6% XFP ~ 700K		

Raw Scaler Rates	
Master:	70
MCP0:	400K
MCP1:	500K
CSI_OR:	13
CRAD04:	1.1
CRAD06:	7.0
CRAD Ratio (4/6):	
Trigger Live time:	98 %

Ended for mask calibration mcp0

Run #: 755	Date: 06/8/10	Your Name: Remi
Beam: α (56Ni) 58Ni other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask; Position: (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: mylar (mask) — mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask — mm	
Comments: XFP-Eff = 94.5%		

Raw Scaler Rates	
Master:	70
MCP0:	400K
MCP1:	800K
CSI_OR:	22
CRAD04:	1.1
CRAD06:	7.0
CRAD Ratio (4/6):	
Trigger Live time:	98 %

run 755 was a junk. Wanted to move MCP0 mask to 219 but erroneously moved MCP1 mask to 219

Run #: 756	Date: 06/8/10	Your Name: Remi
Beam: α (56Ni) 58Ni other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask; Position: 50 (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask — 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask — 165 mm	
Comments: XFP ~ 710K		

Raw Scaler Rates	
Master:	75
MCP0:	410K
MCP1:	480K
CSI_OR:	15
CRAD04:	1.1
CRAD06:	7.1
CRAD Ratio (4/6):	
Trigger Live time:	98 %

Run #: 757	Date: 06/8/10	Your Name: Remi
Beam: α (56Ni) 58Ni other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask; Position: (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 3	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask — 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask — 165 mm	
Comments: XFP ~ 720K		

Raw Scaler Rates	
Master:	80
MCP0:	400K
MCP1:	480K
CSI_OR:	16
CRAD04:	1.04
CRAD06:	7.4
CRAD Ratio (4/6):	
Trigger Live time:	99%

10.308

Run #: 758	Date: 06/ /10	Your Name: Remi	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / CD_2 (2) mask / Position: (mm)		Master: 70
Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk			MCP0: 400K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 480K
Bρ (segment 8): 2.573	MCP0 I250X-R: mylar mask 143 mm		CSI_OR: 18
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask 165 mm		CRAD04: 1.1
Comments: ~740K			CRAD06: 7.2
			CRAD Ratio (4/6):
			Trigger Live time: 98%

11:58 PM

Run #: 759	Date: 06/8/10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / CD_2 (2) mask / Position: (mm)		Master: 76.5
Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk			MCP0: 385 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 470K
Bρ (segment 8): 2.573	MCP0 I250X-R: mylar mask mm		CSI_OR: 12.0
Printed Bias Log Y (N)	MCP1 I250Y-R: mylar carbon mask mm		CRAD04: 1.0
Comments:			CRAD06: 7.0
			CRAD Ratio (4/6): 0.14
			Trigger Live time: 84%

1:02 AM

Run #: 760	Date: 06/9/10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / CD_2 (2) mask / Position: (mm)		Master:
Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk			MCP0:
Attenuation:	**MCP Target Drive Positions**		MCP1:
Bρ (segment 8):	MCP0 I250X-R: mylar mask mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask mm		CRAD04:
Comments: Run did not start ... skipped to 761			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

1:02 AM

Run #: 761	Date: 06/9/10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank / CD_2 (1) carbon / CD_2 (2) mask / Position: (mm)		Master: 78.0
Trigger: HiRA Singles, MCP Singles, S800 Singles alpha, S800+HiRA pulser, CsI Singles junk			MCP0: 365 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 460K
Bρ (segment 8): 2.573	MCP0 I250X-R: mylar mask mm		CSI_OR: 15.5
Printed Bias Log Y (N)	MCP1 I250Y-R: mylar carbon mask mm		CRAD04: 1.0
Comments:			CRAD06: 7.3
			CRAD Ratio (4/6): 0.14
			Trigger Live time: 84%

1:59 AM

Run #: 762	Date: 06/9/10	Your Name:			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)	Master: 79
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 355K
Attenuation: 3	MCP Target Drive Positions				MCP1: 450K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 14.0
Printed Bias Log Y (N)	MCP1 I250Y-R	mylar	(carbon)	mask mm	CRAD04:
Comments:					CRAD06: 6.8
					CRAD Ratio (4/6):
					Trigger Live time: %

2:44 AM

Run #: 763	Date: 06/9/10	Your Name:			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)	Master: 70
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 340K
Attenuation: 3	MCP Target Drive Positions				MCP1: 430K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 12.5
Printed Bias Log Y (N)	MCP1 I250Y-R	mylar	(carbon)	mask mm	CRAD04:
Comments:					CRAD06: 6.4
					CRAD Ratio (4/6):
					Trigger Live time: %

3:36 AM

Run #: 764	Date: 06/9/10	Your Name:			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)	Master:
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0:
Attenuation:	MCP Target Drive Positions				MCP1:
Bρ (segment 8):	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R	mylar	(carbon)	mask mm	CRAD04:
Comments: Ended with elog error.					CRAD06:
					CRAD Ratio (4/6):
					Trigger Live time: %

3:36 AM

Run #: 765	Date: 06/9/10	Your Name:			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)	Master: 69
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 370 K
Attenuation: 3	MCP Target Drive Positions				MCP1: 420 K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 17485
Printed Bias Log Y (N)	MCP1 I250Y-R	mylar	(carbon)	mask mm	CRAD04: 0.9
Comments:					CRAD06: 6.7
					CRAD Ratio (4/6): 0.13
					Trigger Live time: %

134

9:15 AM

Run #: 766	Date: 06/9/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) CD2 (1) CD2 (2) Position: Blank carbon mask (mm)		Master: 6e6
Trigger: HiRA Singles S800 Singles (S800+HiRA) CsI Singles MCP Singles alpha pulser junk			MCP0: 320k
Attenuation: 3	**MCP Target Drive Positions**		MCP1: 350k
Bp (segment 8): 2.573	MCP0 I250X-R	(mylar) mask mm	CSI_OR: 13
Printed Bias Log (Y) N	MCP1 I250Y-R	mylar (carbon) mask mm	CRAD04: 0.9
Comments: XFP Efficiency = 95.9%			CRAD06: 6.0
			CRAD Ratio (4/6):
			Trigger Live time: 85 %

4:22 AM

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1	—	6.3
Si2	150	12.3
Si3	150	5.3
Si4	—	7.18
MCP0	2.2K	75
MCP1	2.3K	78

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	139.75 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.50 V	1.26 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.12 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.74 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	240.00 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.54 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.64 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.62 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.00 V	1.60 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.50 V	1.64 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.86 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.50 V	1.56 uA	On		00.0023

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	280.00 V	5.00 uA	280.00 V	2.14 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.1 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.90 V	0.4 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.0 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.2 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.20 V	0.2 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.1 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.3 uA	On		05.0006

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PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On	05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On	05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On	05.0009
CsI4	80.00 V	10.0 uA	80.05 V	0.1 uA	On	05.0011

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

5:01 AM

Run #: 767 | Date: 06/9/10 | Your Name:

Beam: (56Ni) 58Ni α other:

Target: (CH2) Blank | CD2 (1) carbon | CD2 (2) mask | Position: (mm)

Trigger: HiRA Singles | S800 Singles | (S800+HiRA) pulser | CsI Singles | MCP Singles | alpha | junk

Attenuation: 2.573

Bρ (segment 8): 3

Printed Bias Log Y (N)

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	mm
MCP1 I250Y-R	mylar	(carbon)	mask mm

Comments: XFP Efficiency = 96.0%

Raw Scaler Rates	
Master:	66.0
MCP0:	330 K
MCP1:	420 K
CSI_OR:	14.0
CRAD04:	0.9
CRAD06:	6.0
CRAD Ratio (4/6):	0.15
Trigger Live time:	86 %

5:43 AM

Run #: 768 | Date: 06/9/10 | Your Name: Rachel

Beam: (56Ni) 58Ni α other:

Target: (CH2) Blank | CD2 (1) carbon | CD2 (2) mask | Position: 50 (mm)

Trigger: HiRA Singles | S800 Singles | (S800+HiRA) pulser | CsI Singles | MCP Singles | alpha | junk

Attenuation: 3

Bρ (segment 8): 2.573

Printed Bias Log Y (N)

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	100 mm
MCP1 I250Y-R	mylar	(carbon)	mask 165 mm

Comments: XFP Efficiency = 96.0%

Raw Scaler Rates	
Master:	660
MCP0:	320k
MCP1:	410k
CSI_OR:	12
CRAD04:	0.8
CRAD06:	5.6
CRAD Ratio (4/6):	0.14
Trigger Live time:	85 %

6:28 AM

Run #: 769	Date: 06/9/10	Your Name:				Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)		Master:	56.5
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk			MCP0:	320K
Attenuation: 3	MCP Target Drive Positions					MCP1:	410 K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	(mask)	mm		CSI_OR:	15.0
Printed Bias Log Y (N)	MCP1 I250Y-R	mylar	(carbon)	mask	mm	CRAD04:	0.8
Comments: XFP Efficiency = 96.0%						CRAD06:	5.1
						CRAD Ratio (4/6):	0.16
						Trigger Live time:	86 %

7:17 AM

Run #: 770	Date: 06/9/10	Your Name:				Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)		Master:	75
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk			MCP0:	315 K
Attenuation: 3	MCP Target Drive Positions					MCP1:	400 K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	mm		CSI_OR:	14.0
Printed Bias Log Y (N)	MCP1 I250Y-R	mylar	(carbon)	mask	mm	CRAD04:	0.8
Comments: XFP Efficiency = 95.9%						CRAD06:	5.9
						CRAD Ratio (4/6):	0.14
						Trigger Live time:	84%

7:59 AM

Run #: 771	Date: 06/9/10	Your Name:				Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: (mm)		Master:	63.5
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk			MCP0:	320 K
Attenuation: 3	MCP Target Drive Positions					MCP1:	410 K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	mm		CSI_OR:	13.5
Printed Bias Log Y N	MCP1 I250Y-R	mylar	(carbon)	mask	mm	CRAD04:	0.9
Comments:						CRAD06:	6.1
						CRAD Ratio (4/6):	0.15
						Trigger Live time:	86 %

8:44AM

Run #: 772	Date: 06/9/10	Your Name: Rachel				Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: 50 (mm)		Master:	67
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk			MCP0:	320 K
Attenuation: 3	MCP Target Drive Positions					MCP1:	340 K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	143 mm		CSI_OR:	11
Printed Bias Log Y (N)	MCP1 I250Y-R	mylar	(carbon)	mask	165 mm	CRAD04:	
Comments:						CRAD06:	
						CRAD Ratio (4/6):	
						Trigger Live time:	85 %

beam INTENSITY RAMP

AHn
3
no beam
10
NB
30
NB
100
NB

Run #: 773	Date: 06/9/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank / CD2 (1) carbon / CD2 (2) mask	Position: 50 (mm)	Master: 79
Trigger: (HiRA Singles) MCP Singles / S800 Singles alpha / (S800+HiRA) pulser / CsI Singles junk			MCP0: 315k
Attenuation: 3	MCP Target Drive Positions		MCP1: 360k
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask	143 mm	CSI_OR: 18
Printed Bias Log Y (N)	MCP1 I250Y-R: mylar (carbon) mask	163 mm	CRAD04: 1.0
Comments: Normal Data Run to compare after slight beam tuning to get stable intensity Atten. 3.			CRAD06: 3.6
			CRAD Ratio (4/6):
			Trigger Live time: 84 %

Run #: 774	Date: 06/9/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank / CD2 (1) carbon / CD2 (2) mask	Position: 50 (mm)	Master:
Trigger: (HiRA Singles) MCP Singles / S800 Singles alpha / S800+HiRA pulser / CsI Singles junk			MCP0:
Attenuation:	MCP Target Drive Positions		MCP1:
Bρ (segment 8):	MCP0 I250X-R: mylar mask	mm	CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon mask	mm	CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Run #: 775	Date: 06/9/10	Your Name: Rachel	Raw Scaler Rates
Beam: 56Ni 58Ni α other:	Target: (CH2) Blank / CD2 (1) carbon / CD2 (2) mask	Position: 50 (mm)	Master: 45
Trigger: HiRA Singles MCP Singles / S800 Singles alpha / S800+HiRA pulser / CsI Singles junk			MCP0: 200k
Attenuation: 10	MCP Target Drive Positions		MCP1: 265k
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask	143mm	CSI_OR: 8
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask	163mm	CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 91 %

Run #: 776 | Date: 06/9/10 | Your Name:

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | CD_2 (2) mask | Position: (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | S800+HiRA pulser | CsI Singles junk

Attenuation:

Bρ (segment 8):

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R		mylar	mask	mm
MCP1 I250Y-R	mylar	carbon	mask	mm

Raw Scaler Rates

Master:
MCP0:
MCP1:
CSI_OR:
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: %

Run #: 777 | Date: 06/9/10 | Your Name:

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | CD_2 (2) mask | Position: 50 (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | S800+HiRA pulser | CsI Singles junk

Attenuation: 30

Bρ (segment 8):

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R		mylar	mask	143 mm
MCP1 I250Y-R	mylar	carbon	mask	165 mm

Raw Scaler Rates

Master: 10
MCP0: 60 k
MCP1: 87 k
CSI_OR: 2.5
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: 98%

Run #: 778 | Date: 06/9/10 | Your Name:

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | CD_2 (2) mask | Position: (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | S800+HiRA pulser | CsI Singles junk

Attenuation:

Bρ (segment 8):

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R		mylar	mask	mm
MCP1 I250Y-R	mylar	carbon	mask	mm

Raw Scaler Rates

Master:
MCP0:
MCP1:
CSI_OR:
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: %

Run #: 779 | Date: 06/9/10 | Your Name:

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | CD_2 (2) mask | Position: 50 (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | S800+HiRA pulser | CsI Singles junk

Attenuation: 100

Bρ (segment 8):

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R		mylar	mask	143 mm
MCP1 I250Y-R	mylar	carbon	mask	165 mm

Raw Scaler Rates

Master: 4
MCP0: 17 k
MCP1: 24 k
CSI_OR: 0.5
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: 99 %

Run #: 780 | Date: 06/9/10 | Your Name:

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH_2 Blank | CD_2 (1) carbon | CD_2 (2) mask | Position: (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | S800+HiRA pulser | CsI Singles junk

Attenuation:

Bρ (segment 8):

Printed Bias Log Y N

Comments:

MCP Target Drive Positions

MCP0 I250X-R		mylar	mask	mm
MCP1 I250Y-R	mylar	carbon	mask	mm

Raw Scaler Rates

Master:
MCP0:
MCP1:
CSI_OR:
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: %

End intensity ramp.
Tonight: HiRA singles.

Run #: 781	Date: 06/9/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) CD2 (1) CD2 (2) Blank carbon mask	Position: 50 (mm)	Master: 400
Trigger: (HiRA Singles) S800 Singles S800+HiRA CsI Singles MCP Singles alpha pulser junk			MCP0: 260k
Attenuation: 3	MCP Target Drive Positions		MCP1: 290k
Bρ (segment 8): 2.573	MCP0 I250X-R (mylar) mask 143 mm		CSI_OR: 2
Printed Bias Log Y (N)	MCP1 I250Y-R mylar (carbon) mask 165 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

MCP's turned off, foils left in position
& Noticed voltage off on MCP foils.

Run #: 782	Date: 06/9/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) CD2 (1) CD2 (2) Blank carbon mask	Position: 50 (mm)	Master: 420
Trigger: (HiRA Singles) S800 Singles S800+HiRA CsI Singles MCP Singles alpha pulser junk			MCP0: —
Attenuation: 3	MCP Target Drive Positions		MCP1: —
Bρ (segment 8): 2.573	MCP0 I250X-R (mylar) mask 143 mm		CSI_OR: 2
Printed Bias Log Y N	MCP1 I250Y-R mylar (carbon) mask 165 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Asked for beam increase by factor of 2

Run #: 783	Date: 06/9/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) CD2 (1) CD2 (2) Blank carbon mask	Position: 50 (mm)	Master: 520
Trigger: (HiRA Singles) S800 Singles S800+HiRA CsI Singles MCP Singles alpha pulser junk			MCP0: —
Attenuation: 3	MCP Target Drive Positions		MCP1: —
Bρ (segment 8): 2.573	MCP0 I250X-R (mylar) mask 143 mm		CSI_OR: 2
Printed Bias Log Y (N)	MCP1 I250Y-R mylar (carbon) mask 165 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

Run #: 784	Date: 06/9/10	Your Name: Rachel	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) CD2 (1) CD2 (2) Blank carbon mask	Position: 50 (mm)	Master: 530
Trigger: (HiRA Singles) S800 Singles S800+HiRA CsI Singles MCP Singles alpha pulser junk			MCP0: —
Attenuation: 3	MCP Target Drive Positions		MCP1: —
Bρ (segment 8): 2.573	MCP0 I250X-R (mylar) mask 143mm		CSI_OR: 5
Printed Bias Log Y N	MCP1 I250Y-R mylar (carbon) mask 165mm		CRAD04: 0
Comments:			CRAD06: 10.7
			CRAD Ratio (4/6):
			Trigger Live time: %

11:00 AM

Run #: 11:38	Date: 06/9/10	Your Name: Rachel	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask	Position: 30 (mm)	Master: 330
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, S800+HiRA, pulser, CsI Singles, junk			MCP0:
			MCP1:
Attenuation:	**MCP Target Drive Positions**		CSI_OR: 2
Bρ (segment 8):	MCP0 I250X-R	mylar mask 143 mm	CRAD04: 0
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask 165 mm	CRAD06: 10.7
Comments:			CRAD Ratio (4/6):
			Trigger Live time: %

Run #: 786	Date: 06/9/10	Your Name: Mike	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask	Position: 50 (mm)	Master: 500
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, S800+HiRA, pulser, CsI Singles, junk			MCP0:
			MCP1:
Attenuation: 1	**MCP Target Drive Positions**		CSI_OR: 2 live
Bρ (segment 8): 2.573	MCP0 I250X-R	mylar mask 143 mm	CRAD04: 0
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask 165 mm	CRAD06: 10
Comments:			CRAD Ratio (4/6):
			Trigger Live time: 99 %

MCP biases are turned on.

MCP0 = 2200 volt

MCP1 = 2300 volt

Foil = 0 volt

DAQ Readout is now only S800 and MCPs.

MCP0 mask foil calibration

Run #: 787	Date: 06/9/10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask	Position: 50 (mm)	Master:
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, S800+HiRA, pulser, CsI Singles, junk			MCP0:
			MCP1:
Attenuation: 3	**MCP Target Drive Positions**		CSI_OR:
Bρ (segment 8): 2.573	MCP0 I250X-R	mylar mask 219 mm	CRAD04:
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask 165 mm	CRAD06:
Comments: no foil bias			CRAD Ratio (4/6):
			Trigger Live time: %

Run #: 788	Date: 06/9 /10	Your Name:	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask	Position: 50 (mm)	Master:
Trigger: HiRA Singles; MCP Singles; (S800 Singles alpha); S800+HiRA pulser; CsI Singles junk			MCP0: ~300 K
Attenuation: 3	**MCP Target Drive Positions**		MCP1: ~280 K
Bρ (segment 8): 2.573	MCP0 I250X-R: mylar (mask) mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask mm		CRAD04:
Comments: MCP 0 mask calibration with foil bias = 1000 V			CRAD06: XFP ~300 K
			CRAD Ratio (4/6):
			Trigger Live time: 15 %

Run #: 789	Date: 06/9 /10	Your Name:	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask	Position: (mm)	Master:
Trigger: HiRA Singles; MCP Singles; (S800 Singles alpha); S800+HiRA pulser; CsI Singles junk			MCP0: 128 K
Attenuation: 2.573	**MCP Target Drive Positions**		MCP1: 112 K
Bρ (segment 8):	MCP0 I250X-R: mylar (mask) mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask mm		CRAD04: XFP ~100 K
Comments: Same as 788 with beam intensity reduced by factor of 3.			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 29 %

Run #: 790	Date: 06/9 /10	Your Name:	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask	Position: 50 (mm)	Master: 930
Trigger: HiRA Singles; MCP Singles; (S800 Singles alpha); S800+HiRA pulser; CsI Singles junk			MCP0: 810 K
Attenuation:	**MCP Target Drive Positions**		MCP1: 128 K
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon (mask) 241 mm		CRAD04:
Comments: MCP1 mask calibrations with foil bias OFF.			CRAD06:
			CRAD Ratio (4/6): XFP ~ 89 K
			Trigger Live time: %

Run #: 791	Date: 06/9/10	Your Name:	**Raw Scaler Rates**
Beam: 56Ni 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask	Position: 50 (mm)	Master: 946
Trigger: HiRA Singles; MCP Singles; (S800 Singles alpha); S800+HiRA pulser; CsI Singles junk			MCP0: 78 K
Attenuation:	**MCP Target Drive Positions**		MCP1: 120 K
Bρ (segment 8):	MCP0 I250X-R: (mylar) mask 143 mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: mylar carbon (mask) 241 mm		CRAD04:
Comments: MCP1 mask Calibrations with foil bias on			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 33 %

Back to Ni(p,d) reaction with MCP foil bias 1000volt

To

Run #: 792	Date: 06/9/10	Your Name:
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask; Position: 50 (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation:	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask 165 mm	
Comments:		

Raw Scaler Rates	
Master:	75
MCP0:	570 K
MCP1:	650 K
CSI_OR:	15
CRAD04:	1.1
CRAD06:	7.6
CRAD Ratio (4/6):	
Trigger Live time:	98 %

Run #: 793	Date: 06/9 /10	Your Name: Mike
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask; Position: 50 (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 1	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask 165 mm	
Comments:		

Raw Scaler Rates	
Master:	70
MCP0:	510 K
MCP1:	630 K
CSI_OR:	15
CRAD04:	1.0
CRAD06:	6.6
CRAD Ratio (4/6):	
Trigger Live time:	98 %

Run #: 794	Date: 06/9 /10	Your Name: Jon
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask; Position: 50 (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 1	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask 165 mm	
Comments:		

Raw Scaler Rates	
Master:	60
MCP0:	409 K
MCP1:	525 K
CSI_OR:	13
CRAD04:	.8
CRAD06:	5.2
CRAD Ratio (4/6):	
Trigger Live time:	98 %

↑ XFP eff. = 94.7%

Run #: 795	Date: 06/9 /10	Your Name: Jon
Beam: (56Ni) 58Ni α other:	**Target:** (CH2) Blank; CD2 (1) carbon; CD2 (2) mask; Position: 50 (mm)	
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk		
Attenuation: 1	**MCP Target Drive Positions**	
Bρ (segment 8): 2.573	MCP0 I250X-R: (mylar) mask 143 mm	
Printed Bias Log Y N	MCP1 I250Y-R: mylar (carbon) mask 165 mm	
Comments:		

Raw Scaler Rates	
Master:	83
MCP0:	550 K
MCP1:	650 K
CSI_OR:	18
CRAD04:	.7
CRAD06:	5.0
CRAD Ratio (4/6):	
Trigger Live time:	98 %

Run #: 796	Date: 06/ /10	Your Name: Soo			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: 50 (mm)	Master: 80
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 550 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 690 K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	143 mm	CSI_OR: 17
Printed Bias Log Y N	MCP1 I250Y-R	mylar	(carbon)	mask 165 mm	CRAD04: 1.0
Comments:					CRAD06: 7.3
					CRAD Ratio (4/6):
					Trigger Live time: 98 %

Run #: 797	Date: 06/ 9/10	Your Name: Soo			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: (CH2) Blank	CD2 (1) carbon	CD2 (2) mask	Position: 50 (mm)	Master: 83
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 570 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 700 K
Bρ (segment 8): 2.573	MCP0 I250X-R	(mylar)	mask	143 mm	CSI_OR: 15
Printed Bias Log Y N	MCP1 I250Y-R	mylar	(carbon)	mask 165 mm	CRAD04: 1.1
Comments:					CRAD06: 8.3
					CRAD Ratio (4/6):
					Trigger Live time: 98 %

6:25 pm BACK to Ni(d, 3He) run.

Run #: 798	Date: 06/9/10	Your Name: T			Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH2 Blank	CD2 (1) carbon	(CD2 (2)) mask	Position: 100 (mm)	Master: 30
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: ~~690~~ 690 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 840 K
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	143 mm	CSI_OR: 2.5
Printed Bias Log Y N	MCP1 I250Y-R	(mylar)	carbon	mask 89 mm	CRAD04: ~~0~~ 0.6
Comments: XFP ~ 1040 K.					CRAD06: 10.9
					CRAD Ratio (4/6):
					Trigger Live time: 99 %

Terminal

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- Main Utility Setup Groups View — User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	139.75 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.50 V	1.24 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.14 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.72 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.80 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	240.00 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.54 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.66 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.00 V	1.60 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.00 V	1.62 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.50 V	1.64 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.86 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.50 V	1.56 uA	On		00.0023

Display/Edit Group 02 — LocEn V0 I0 N ◇ | CAEN SY1527

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- Main Utility Setup Groups View — User

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	280.00 V	5.00 uA	280.00 V	2.12 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.80 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.1 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.4 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.0 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.2 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.20 V	0.2 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.1 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006

Display/Edit Group 02 — LocEn V0 I0 N ◇ | CAEN SY1527

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.0 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.4 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.0 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.2 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.20 V	0.2 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.1 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.3 uA	On		05.0006
PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	30.00 V	10.0 uA	80.05 V	0.1 uA	On		05.0011

Display/Edit Group 02 — LocEn V0 I0 — N ◇ | CAEN SY1527

Run #: 799 | Date: 06/9/10 | Your Name: Mike

Beam: ^{56}Ni ^{58}Ni α other:

Target: ~~CH$_2$~~ Blank | CD$_2$ (1) carbon | CD$_2$ (2) mask | Position: 100 (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | S800+HiRA pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.709

Printed Bias Log Y N

MCP Target Drive Positions

MCP0 I250X-R	mylar		mask	143 mm
MCP1 I250Y-R	mylar	carbon	mask	89 mm

Comments:

Raw Scaler Rates

Master: 27

MCP0: 680 K

MCP1: 930 K

CSI_OR: 2

CRAD04: 0.5

CRAD06: 10.1

CRAD Ratio (4/6):

Trigger Live time: 99 %

Run #: 800 | Date: 06/9/10 | Your Name: Patrick

Beam: ^{56}Ni ^{58}Ni α other:

Target: CH$_2$ Blank | ~~CD$_2$ (1)~~ carbon | CD$_2$ (2) mask | Position: 100 (mm)

Trigger: HiRA Singles MCP Singles | S800 Singles alpha | S800+HiRA pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2704

Printed Bias Log Y N

MCP Target Drive Positions 143

MCP0 I250X-R	mylar		mask	~~143~~ mm
MCP1 I250Y-R	mylar	carbon	mask	89 mm

Comments:

Raw Scaler Rates

Master: 322

MCP0: 650 K

MCP1: 870K

CSI_OR: 2.5

CRAD04: .4

CRAD06: 9.7

CRAD Ratio (4/6): .04

Trigger Live time: 99.5 %

7.5 P

Run #: 801		Date: 06/9/10		Your Name: Remi		Raw Scaler Rates	
Beam: (56Ni circled) 58Ni α other:		Target: CH_2 Blank	CD_2 (1) carbon	CD_2 (2) mask (circled)	Position: 101 (mm)	Master: 26	MCP0: 670K
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA circled) pulser	CsI Singles junk			MCP1: 938K	CSI_OR: 3.0
Attenuation: 1		MCP Target Drive Positions				CRAD04: 0.6	
Bρ (segment 8): 2.704		MCP0 I250X-R	(mylar circled) mask		143 mm	CRAD06: 11.1	
Printed Bias Log Y N		MCP1 I250Y-R	(mylar circled) carbon mask		89 mm	CRAD Ratio (4/6):	
Comments:		XFP ~ 1100K				Trigger Live time: 98 %	

9.40 P

Run #: 802		Date: 06/ /10		Your Name:		Raw Scaler Rates	
Beam: (56Ni circled) 58Ni α other:		Target: CH_2 Blank	CD_2 (1) carbon	CD_2 (2) mask (circled)	Position: 100 (mm)	Master: 35	MCP0: 655 K
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA circled) pulser	CsI Singles junk			MCP1: 907K	CSI_OR: 3
Attenuation:		MCP Target Drive Positions				CRAD04:	
Bρ (segment 8): 2.704		MCP0 I250X-R	(mylar circled) mask		143mm	CRAD06:	
Printed Bias Log Y N		MCP1 I250Y-R	(mylar circled) carbon mask		89mm	CRAD Ratio (4/6):	
Comments:		XFP ~ 1168K				Trigger Live time: 95 %	

Run #: 803		Date: 06/ /10		Your Name:		Raw Scaler Rates	
Beam: (56Ni circled) 58Ni α other:		Target: CH_2 Blank	CD_2 (1) carbon	CD_2 (2) mask (circled)	Position: 100 (mm)	Master: 1105	MCP0: 231K
Trigger: HiRA Singles MCP Singles	(S800 Singles circled) alpha	S800+HiRA pulser	CsI Singles junk			MCP1: 19K	CSI_OR: 0.5
Attenuation: 100		MCP Target Drive Positions				CRAD04:	
Bρ (segment 8): 2.704		MCP0 I250X-R	mylar (mask circled)		219 mm	CRAD06:	
Printed Bias Log Y N		MCP1 I250Y-R	(mylar circled) carbon mask		89 mm	CRAD Ratio (4/6):	
Comments:						Trigger Live time: 30 %	

Run #: 804		Date: 06/ /10		Your Name:		Raw Scaler Rates	
Beam: (56Ni circled) 58Ni α other:		Target: CH_2 Blank	CD_2 (1) carbon	CD_2 (2) mask (circled)	Position: 100 (mm)	Master: 4753	MCP0: 240 K
Trigger: HiRA Singles MCP Singles	(S800 Singles circled) alpha	S800+HiRA pulser	CsI Singles junk			MCP1: 211 K	CSI_OR: 12
Attenuation: 10		MCP Target Drive Positions				CRAD04:	
Bρ (segment 8): 2.704		MCP0 I250X-R	mylar (mask circled)		219 mm	CRAD06:	
Printed Bias Log Y N		MCP1 I250Y-R	(mylar circled) carbon mask		89 mm	CRAD Ratio (4/6):	
Comments: same as 803, with higher MCP rate 240K						Trigger Live time: 11 %	

Tom came to ~~Chang~~ shim the XFP.

Run #: 805	Date: 06/9/10	Your Name: Remi	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: 100 (mm)		Master: 30
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA) pulser, CsI Singles, junk			MCP0: 700K
Attenuation: 1	**MCP Target Drive Positions**		MCP1: 980K
Bρ (segment 8): 2.700	MCP0 I250X-R: (mylar) mask: 143 mm		CSI_OR: 3
Printed Bias Log Y N	MCP1 I250Y-R: (mylar) carbon mask: 89 mm		CRAD04: 0.9
Comments: XFP ~ 1120K			CRAD06: 12.5
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

Yom said XFP efficiency went to 85%. Now it is 100%.

11:57 PM

Run #: 806	Date: 06/9/10	Your Name:	**Raw Scaler Rates**
Beam: (56Ni) 58Ni α other:	**Target:** CH2 Blank / CD2 (1) carbon / (CD2 (2)) mask / Position: (mm)		Master: 30.0
Trigger: HiRA Singles, MCP Singles, S800 Singles, alpha, (S800+HiRA) pulser, CsI Singles, junk			MCP0: 660K
Attenuation: 1	**MCP Target Drive Positions**		MCP1: 960K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar) mask: mm		CSI_OR: 3.5
Printed Bias Log (Y) (N)	MCP1 I250Y-R: (mylar) carbon mask: mm		CRAD04: 0.7
Comments: ~~XFP~~ Efficiency ≈ 94%			CRAD06: 11.7
			CRAD Ratio (4/6): 0.06
			Trigger Live time: 92 %

12:22 AM

HV/leakage Current log		
	Voltage	uA
Si0	150	3.8
Si1	—	6.4
Si2	150	12.3
Si3	150	5.3
Si4	—	7.30
MCP0	2.2K	75
MCP1	2.3K	79

P.T. #1 (Pressure)	+300.5	Torr
P.T. #2 (Pressure)	+40.0	Torr
M.F.C. #1 (Flow)	27.82	Sccm
M.F.C. #2 (Flow)	8.24	Sccm
M.F.C. #3 (Flow)	29.18	Sccm

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow0Cart15	140.00 V	4.00 uA	139.75 V	0.56 uA	On		00.0000
Tow0Card12	290.00 V	4.00 uA	290.50 V	1.24 uA	On		00.0001
Tow0Card6	160.00 V	4.00 uA	160.25 V	0.66 uA	On		00.0003
Tow0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On		00.0004
Tow1Card15	410.00 V	4.00 uA	409.75 V	2.14 uA	On		00.0005
Tow1Card12	310.00 V	5.00 uA	310.00 V	0.70 uA	On		00.0006
Tow1Card6	420.00 V	4.00 uA	419.75 V	1.82 uA	On		00.0008
Tow1Card3	240.00 V	4.00 uA	240.00 V	1.64 uA	On		00.0009
Tow2Card15	190.00 V	7.00 uA	0.00 V	4.54 uA	Off		00.0010
Tow2Card12	150.00 V	6.00 uA	150.25 V	4.64 uA	On		00.0011
Tow2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On		00.0013
Tow2Card3	115.00 V	4.00 uA	115.25 V	1.60 uA	On		00.0014
Tow3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On		00.0015
Tow3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On		00.0016
Tow3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On		00.0018
Tow3Card3	300.00 V	4.00 uA	300.00 V	1.64 uA	On		00.0019
Tow4Card15	350.00 V	6.00 uA	349.50 V	1.64 uA	On		00.0020
Tow4Card12	300.00 V	5.00 uA	300.00 V	1.86 uA	On		00.0021
Tow4Card6	220.00 V	4.00 uA	219.50 V	1.54 uA	On		00.0023

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Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	280.00 V	5.00 uA	280.00 V	2.30 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.10 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.80 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.1 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.4 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.0 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.2 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.20 V	0.2 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.1 uA	On		05.0005
PA9	3.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006

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PA6	11.00 V	2.0 uA	10.75 V	0.0 uA	On		05.0007
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On		05.0008
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On		05.0009
CsI4	30.00 V	10.0 uA	80.05 V	0.1 uA	On		05.0011

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

(All leakage currents look stable over the past 24 hrs.

12:47 AM

Run #: 807	Date: 06/10/10	Your Name:		Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 24.5
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 600 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 870 K
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 4.0
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon mask	mm	CRAD04: 0.7
Comments: XFP Efficiency = 93.8%					CRAD06: 10.8
					CRAD Ratio (4/6): 0.06
					Trigger Live time: 93 %

1:33 AM

Run #: 808	Date: 06/16/10	Your Name:		Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: ~~CH_2~~ Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 27.0
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 600 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 870 K
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 3.5
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon mask	mm	CRAD04: 0.8
Comments: XFP Efficiency = 94.5%					CRAD06: 10.7
					CRAD Ratio (4/6): 0.07
					Trigger Live time: 93 %

2:19 AM

Run #: 809	Date: 06/10/10	Your Name:		Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 23.5
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 580 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 860 K
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 4.5
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon mask	mm	CRAD04: 0.8
Comments: XFP Efficiency = 94.1%					CRAD06: 10.4
					CRAD Ratio (4/6): 0.08
					Trigger Live time: 92 %

3:08 AM

Run #: 810	Date: 06/10/10	Your Name:		Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 25.6
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 600 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 875 K
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 2.0
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon mask	mm	CRAD04: 0.6
Comments: XFP Efficiency = 94.2%					CRAD06: 10.6
					CRAD Ratio (4/6): 0.06
					Trigger Live time: 93 %

4:00 AM

Run #: 811	Date: 06/10/10	Your Name:		Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 21.5
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 570 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 820 K
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 4.0
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar)	carbon mask	mm	CRAD04: 0.6
Comments:					CRAD06: 9.8
					CRAD Ratio (4/6): 0.06
					Trigger Live time: 93 %

150

4:50 AM

Run #: 812 | Date: 06/10/10 | Your Name: MH

Beam: ^{56}Ni (^{58}Ni) α other:

Target: CH$_2$ Blank | CD$_2$ (1) carbon | (CD$_2$ (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8):

Printed Bias Log Y (N)

Comments: XFP Efficiency = 94.1 %

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	43 mm
MCP1 I250Y-R	(mylar)	carbon mask	89 mm

Raw Scaler Rates

Master: 28
MCP0: 550k
MCP1: 790k
CSI_OR: 1
CRAD04: .7
CRAD06: 10.7
CRAD Ratio (4/6):
Trigger Live time: 94 %

5:36 AM

Run #: 813 | Date: 06/10/10 | Your Name:

Beam: (56Ni) 58Ni α other:

Target: CH$_2$ Blank | CD$_2$ (1) carbon | (CD$_2$ (2)) mask | Position: (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments: XFP Efficiency = 93.9%

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	mm
MCP1 I250Y-R	(mylar)	carbon mask	mm

Raw Scaler Rates

Master: 19.5
MCP0: 580 K
MCP1: 880 K
CSI_OR: 2.5
CRAD04: 0.75
CRAD06: 11.1
CRAD Ratio (4/6): 0.07
Trigger Live time: 93 %

6:40 AM

Run #: 814 | Date: 06/10/10 | Your Name:

Beam: (56Ni) 58Ni α other:

Target: CH$_2$ Blank | CD$_2$ (1) carbon | (CD$_2$ (2)) mask | Position: (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments: XFP Efficiency = 94.0 %

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	mm
MCP1 I250Y-R	(mylar)	carbon mask	mm

Raw Scaler Rates

Master: 20.0
MCP0: 575 K
MCP1: 870 K
CSI_OR: 3.5
CRAD04: 0.7
CRAD06: 10.8
CRAD Ratio (4/6): 0.06
Trigger Live time: 92 %

7:30 AM

Run #: 815 | Date: 06/10/10 | Your Name:

Beam: 56Ni 58Ni α other:

Target: CH$_2$ Blank | CD$_2$ (1) carbon | (CD$_2$ (2)) mask | Position: (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments: XFP: 94%

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	mm
MCP1 I250Y-R	(mylar)	carbon mask	mm

Raw Scaler Rates

Master: 24.5
MCP0: 565 K
MCP1: 850 K
CSI_OR: 1.5
CRAD04: 0.7
CRAD06: 11.1
CRAD Ratio (4/6): 0.06
Trigger Live time: 93%

8:20 AM

Run #: 816 | Date: 06/10/10 | Your Name: Rachel

Beam: 56Ni 58Ni α other:

Target: CH$_2$ Blank | CD$_2$ (1) carbon | (CD$_2$ (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | S800 Singles alpha | (S800+HiRA) pulser | CsI Singles junk

Attenuation: 1

Bρ (segment 8): 2.704

Printed Bias Log Y (N)

Comments: XFP: 94%

MCP Target Drive Positions

MCP0 I250X-R	(mylar)	mask	mm
MCP1 I250Y-R	(mylar)	carbon mask	mm

Raw Scaler Rates

Master: 30
MCP0: 500k
MCP1: 780k
CSI_OR: 3
CRAD04: 0.6
CRAD06: 10.5
CRAD Ratio (4/6):
Trigger Live time: 93 %

151

Run #: 817	Date: 06/10/10	Your Name: Rachel		Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: 100 (mm)	Master: 24
Trigger: (HiRA Singles) MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 440k
Attenuation: 1	MCP Target Drive Positions				MCP1: ~~740~~ 740k
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	143 mm	CSI_OR: 3
Printed Bias Log Y (N)	MCP1 I250Y-R	(mylar) carbon	mask	89 mm	CRAD04: 0.5
Comments: XFP: 95%					CRAD06: 9.6
					CRAD Ratio (4/6):
					Trigger Live time: 94 %

9:10 AM

Run #: 818	Date: 06/10/10	Your Name: Rachel		Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 24
Trigger: HiRA Singles (MCP Singles)	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 480 k
Attenuation: 1	MCP Target Drive Positions				MCP1: 750k
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 2
Printed Bias Log Y N	MCP1 I250Y-R	(mylar) carbon	mask	mm	CRAD04: 0.5
Comments: XFP efficiency: 94%					CRAD06: 8.1
					CRAD Ratio (4/6):
					Trigger Live time: 94 %

10:00 AM

Run #: 819	Date: 06/10/10	Your Name: Rachel		Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 35
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 500 k
Attenuation: 1	MCP Target Drive Positions				MCP1: 700k
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 2
Printed Bias Log Y N	MCP1 I250Y-R	(mylar) carbon	mask	mm	CRAD04: 0.6
Comments:					CRAD06: 9.3
					CRAD Ratio (4/6):
					Trigger Live time: %

10:54 AM

92%

Run #: 820	Date: 06/10/10	Your Name: Dan		Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 25
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 500 K
Attenuation: 1	MCP Target Drive Positions				MCP1: 700 K
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 2
Printed Bias Log Y N	MCP1 I250Y-R	(mylar) carbon	mask	mm	CRAD04: 0.6
Comments:					CRAD06: 9.1
					CRAD Ratio (4/6):
					Trigger Live time: 95 %

Run #: 821	Date: 06/ /10 10	Your Name: Mike		Raw Scaler Rates	
Beam: (56Ni) 58Ni α other:	Target: CH_2 Blank	CD_2 (1) carbon	(CD_2 (2)) mask	Position: (mm)	Master: 25
Trigger: HiRA Singles MCP Singles	S800 Singles alpha	(S800+HiRA) pulser	CsI Singles junk		MCP0: 493
Attenuation: 1	MCP Target Drive Positions				MCP1: 774
Bρ (segment 8): 2.704	MCP0 I250X-R	(mylar)	mask	mm	CSI_OR: 1
Printed Bias Log Y N	MCP1 I250Y-R	(mylar) carbon	mask	mm	CRAD04: 0.5
Comments:					CRAD06: 9.7
					CRAD Ratio (4/6):
					Trigger Live time: 98 %

XFP eff
94.5%

12:25PM

MCP0 mask calebration.

Run #: 822 | Date: 06/10/10 | Your Name:

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: 100 (mm)

Trigger: HiRA Singles | MCP Singles | (S800 Singles alpha) | S800+HiRA pulser | CsI Singles junk

Attenuation: 10

Bρ (segment 8):

Printed Bias Log Y N

MCP Target Drive Positions

MCP0 I250X-R	mylar	(mask)	219 mm
MCP1 I250Y-R	(mylar)	carbon	mask 89 mm

Comments: XFP~169K. MCP0 mask calebration.

Raw Scaler Rates

Master: 400
MCP0: 180 K
MCP1: 170 K
CSI_OR: 5
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: 55 %

Run #: 823 | Date: 06/10/10 | Your Name:

Beam: 56Ni 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: (mm)

Trigger: HiRA Singles | MCP Singles | (S800 Singles alpha) | S800+HiRA pulser | CsI Singles junk

Attenuation:

Bρ (segment 8):

Printed Bias Log Y N

MCP Target Drive Positions

MCP0 I250X-R	mylar	(mask)	mm
MCP1 I250Y-R	(mylar)	carbon	mask mm

Comments: Defocussing the beam / MCP0 S800~250

Raw Scaler Rates

Master:
MCP0: 226 K
MCP1: 149 K
CSI_OR:
CRAD04:
CRAD06: XFP~300K
CRAD Ratio (4/6):
Trigger Live time: %

Run #: 824 | Date: 06/10/10 | Your Name:

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: (mm)

Trigger: HiRA Singles | MCP Singles | (S800 Singles alpha) | S800+HiRA pulser | CsI Singles junk

Attenuation:

Bρ (segment 8):

Printed Bias Log Y N

MCP Target Drive Positions

MCP0 I250X-R	mylar	(mask)	mm
MCP1 I250Y-R	(mylar)	carbon	mask mm

Comments: Steering beam downwards.

Raw Scaler Rates

Master:
MCP0:
MCP1:
CSI_OR:
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: %

Run #: 825, 826 | Date: 06/10/10 | Your Name:

Beam: (56Ni) 58Ni α other:

Target: CH2 Blank | CD2 (1) carbon | (CD2 (2)) mask | Position: (mm)

Trigger: HiRA Singles | MCP Singles | (S800 Singles alpha) | S800+HiRA pulser | CsI Singles junk

Attenuation:

Bρ (segment 8):

Printed Bias Log Y N

MCP Target Drive Positions

MCP0 I250X-R	mylar	(mask)	mm
MCP1 I250Y-R	(mylar)	carbon	mask mm

Comments: MCP0 mask calubration.

Raw Scaler Rates

Master:
MCP0: 241 K
MCP1: 145 K
CSI_OR:
CRAD04:
CRAD06:
CRAD Ratio (4/6):
Trigger Live time: %

Run #: 827	Date: 06/10/10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni (circled) ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, CD_2 (2) (circled) mask	Position: (mm)	Master:
			MCP0:
Trigger: HiRA Singles, MCP Singles	S800 Singles (circled), alpha	S800+HiRA, pulser, CsI Singles, junk	MCP1:
			CSI_OR:
Attenuation:	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R	mylar mask (circled) mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R	mylar (circled) carbon mask mm	CRAD Ratio (4/6):
Comments: MCP0 mask calibration			Trigger Live time: %

MCP1 mask calibration.

Run #: 828, 829	Date: 06/10/10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, CD_2 (2) (circled) mask	Position: 100 (mm)	Master:
			MCP0: 210 K
Trigger: HiRA Singles, MCP Singles	S800 Singles, alpha	S800+HiRA, pulser, CsI Singles, junk	MCP1: 162 K
			CSI_OR:
Attenuation:	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R	mylar (circled) mask 143 mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask (circled) 241 mm	CRAD Ratio (4/6):
Comments: Stopped run as beam vanishes.			Trigger Live time: %

Run #: 830, 831	Date: 06/ /10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, CD_2 (2) (circled) mask	Position: (mm)	Master:
			MCP0:
Trigger: HiRA Singles, MCP Singles	S800 Singles, alpha	S800+HiRA, pulser, CsI Singles, junk	MCP1:
			CSI_OR:
Attenuation:	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R	mylar (circled) mask mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask (circled) mm	CRAD Ratio (4/6):
Comments: MCP1 mask calibration			Trigger Live time: %

Run #: 832	Date: 06/ /10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni (circled) ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, CD_2 (2) (circled) mask	Position: (mm)	Master:
			MCP0: 192 K
Trigger: HiRA Singles, MCP Singles	S800 Singles, alpha	S800+HiRA, pulser, CsI Singles, junk	MCP1:
			CSI_OR:
Attenuation:	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R	mylar (circled) mask mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R	mylar carbon mask (circled) mm	CRAD Ratio (4/6):
Comments: MCP1 with out foil bias.			Trigger Live time: %

Run #: 833	Date: 06/ /10	Your Name:	**Raw Scaler Rates**
Beam: ^{56}Ni (circled) ^{58}Ni α other:	**Target:** CH_2 Blank, CD_2 (1) carbon, CD_2 (2) (circled) mask	Position: 100 (mm)	Master: 1656
			MCP0: 180 K
Trigger: HiRA Singles, MCP Singles	S800 Singles (circled), alpha	S800+HiRA, pulser, CsI Singles, junk	MCP1: 149 K
			CSI_OR:
Attenuation:	**MCP Target Drive Positions**		CRAD04:
Bρ (segment 8):	MCP0 I250X-R	mylar mask (circled) 219 mm	CRAD06:
Printed Bias Log Y N	MCP1 I250Y-R	mylar (circled) carbon mask 89 mm	CRAD Ratio (4/6):
Comments: MCP0 mask calibration without foil bias.			Trigger Live time: %

154

Run #: 834	Date: 06/10/10	Your Name:	Raw Scaler Rates
Beam: (56Ni) 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) mask; Position: 100 (mm)		Master: 255
Trigger: HiRA Singles; (S800 Singles) alpha; MCP Singles; S800+HiRA pulser; CsI Singles junk			MCP0: 312
Attenuation:	**MCP Target Drive Positions**		MCP1: 330
Bρ (segment 8):	MCP0 I250X-R: (mylar); mask; 143 mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar); carbon; mask; 89 mm		CRAD04:
Comments: XFP- 300,			CRAD06:
			CRAD Ratio (4/6): *
			Trigger Live time: %

offset mask calibration.

Run #: 835	Date: 06/ /10	Your Name:	Raw Scaler Rates
Beam: 56Ni 58Ni α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; CD_2 (2) (mask); Position: 26.45 (mm)		Master:
Trigger: HiRA Singles; (S800 Singles) alpha; MCP Singles; S800+HiRA pulser; CsI Singles junk			MCP0: 20 K
Attenuation:	**MCP Target Drive Positions**		MCP1: 26 K
Bρ (segment 8):	MCP0 I250X-R: (mylar); mask; 143 mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar); carbon; mask; 89 mm		CRAD04:
Comments: Target mask calibrations			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 45%

BACK to production run (d, ^3He)

Terminal

le Edit View Terminal Tabs Help

Main Utility Setup Groups View

oup 02

annel Name	V0Set	I0Set	VMon	IMon	Pw	Status
w0Cart15	140.00 V	4.00 uA	139.75 V	0.56 uA	On	
w0Card12	290.00 V	4.00 uA	290.50 V	1.24 uA	On	
w0Card6	160.00 V	4.00 uA	160.25 V	0.64 uA	On	
w0Card3	245.00 V	4.00 uA	245.00 V	1.28 uA	On	
w1Card15	410.00 V	4.00 uA	409.75 V	2.16 uA	On	
w1Card12	310.00 V	5.00 uA	310.00 V	0.70 uA	On	
w1Card6	420.00 V	4.00 uA	419.75 V	1.86 uA	On	
w1Card3	240.00 V	4.00 uA	240.00 V	1.64 uA	On	
w2Card15	190.00 V	7.00 uA	0.00 V	4.54 uA	Off	
w2Card12	150.00 V	6.00 uA	150.25 V	4.64 uA	On	
w2Card6	200.00 V	4.00 uA	200.25 V	1.34 uA	On	
w2Card3	115.00 V	4.00 uA	115.00 V	1.62 uA	On	
w3Card15	150.00 V	4.00 uA	149.75 V	1.40 uA	On	
w3Card12	70.00 V	4.00 uA	69.75 V	1.14 uA	On	
w3Card6	60.00 V	4.00 uA	60.00 V	1.16 uA	On	
w3Card3	300.00 V	4.00 uA	300.00 V	1.64 uA	On	
w4Card15	350.00 V	6.00 uA	349.50 V	1.64 uA	On	
w4Card12	300.00 V	5.00 uA	300.00 V	1.86 uA	On	
w4Card6	220.00 V	4.00 uA	219.50 V	1.56 uA	On	

splay/Edit Group 02 LocEn V0 I0 N ◇| CAEN

PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On	
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On	
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On	
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On	
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On	
PA17	6.00 V	2.0 uA	5.80 V	0.1 uA	On	
CsI2	80.00 V	3.0 uA	79.95 V	0.4 uA	On	
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On	
PA1	8.00 V	2.0 uA	7.90 V	0.0 uA	On	
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On	
PA0	8.00 V	2.0 uA	8.05 V	0.2 uA	On	
PA2	9.00 V	2.0 uA	9.20 V	0.2 uA	On	
CsI3	80.00 V	3.0 uA	79.60 V	0.1 uA	On	
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On	
PA6	11.00 V	2.0 uA	10.80 V	0.0 uA	On	
PA8	7.00 V	2.0 uA	6.90 V	0.1 uA	On	
PA5	7.00 V	2.0 uA	6.70 V	0.0 uA	On	
CsI4	80.00 V	10.0 uA	80.05 V	0.1 uA	On	

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

Terminal

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Main Utility Setup Groups View

Admin

Group 02 Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow4Card3	280.00 V	5.00 uA	280.00 V	2.34 uA	On		00.0024
PA14	8.00 V	2.0 uA	8.15 V	0.0 uA	On		03.0000
PA11	8.00 V	2.0 uA	7.95 V	0.0 uA	On		03.0001
PA13	7.00 V	2.0 uA	6.75 V	0.0 uA	On		03.0002
PA10	11.00 V	2.0 uA	10.90 V	0.0 uA	On		03.0003
PA12	9.00 V	2.0 uA	8.80 V	0.0 uA	On		03.0004
CsI1	80.00 V	3.0 uA	80.10 V	0.0 uA	On		03.0005
PA19	6.00 V	2.0 uA	5.45 V	0.0 uA	On		03.0006
PA16	7.00 V	2.0 uA	7.05 V	0.0 uA	On		03.0007
PA18	7.00 V	2.0 uA	7.25 V	0.0 uA	On		03.0008
PA17	6.00 V	2.0 uA	5.80 V	0.1 uA	On		03.0010
CsI2	80.00 V	3.0 uA	79.95 V	0.4 uA	On		03.0011
PA4	7.00 V	2.0 uA	6.90 V	0.0 uA	On		05.0000
PA1	8.00 V	2.0 uA	7.90 V	0.0 uA	On		05.0001
PA3	7.00 V	2.0 uA	7.05 V	0.2 uA	On		05.0002
PA0	8.00 V	2.0 uA	8.05 V	0.2 uA	On		05.0003
PA2	9.00 V	2.0 uA	9.20 V	0.2 uA	On		05.0004
CsI3	80.00 V	3.0 uA	79.60 V	0.1 uA	On		05.0005
PA9	8.00 V	2.0 uA	7.60 V	0.4 uA	On		05.0006

Display/Edit Group 02 LocEn V0 I0 N ◇| CAEN SY1527

05.0008
05.0009
05.0011

Run #: 836	Date: 06/ /10	Your Name:	Raw Scaler Rates
Beam: (56Ni circled) 58Ni α other:	Target: CH2 CD2 (1) (CD2 (2) circled) Blank carbon mask	Position: 100 (mm)	Master: 32
Trigger: HiRA Singles S800 Singles (S800+HiRA circled) CsI Singles MCP Singles alpha pulser junk			MCP0: 816 K
			MCP1: 914 K
			CSI_OR: 5
Attenuation:	MCP Target Drive Positions		CRAD04: 0.5
Bρ (segment 8):	MCP0 I250X-R (mylar circled) mask	143 mm	CRAD06: 11.2
Printed Bias Log Y N	MCP1 I250Y-R (mylar circled) carbon mask	89 mm	CRAD Ratio (4/6):
Comments: XFP ~ 1 million.			Trigger Live time: 99 %

X – XFP @ 94%

Marc raised the bias for XFP, efficiency is 100%, he says.

Run #: 837	Date: 06/10/10	Your Name: Mike	Raw Scaler Rates
Beam: (56Ni circled) 58Ni α other:	Target: CH2 CD2 (1) (CD2 (2) circled) Blank carbon mask	Position: 100 (mm)	Master: 20
Trigger: HiRA Singles S800 Singles (S800+HiRA circled) CsI Singles MCP Singles alpha pulser junk			MCP0: 500 K
			MCP1: 790 K
			CSI_OR: 2
Attenuation: 1	MCP Target Drive Positions		CRAD04: 0.5
Bρ (segment 8): 2.7009	MCP0 I250X-R (mylar circled) mask	143 mm	CRAD06: 9.7
Printed Bias Log Y N	MCP1 I250Y-R (mylar circled) carbon mask	89 mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 99 %

Run #: 838	Date: 06/10/10	Your Name: Mike	Raw Scaler Rates
Beam: (56Ni circled) 58Ni α other:	Target: CH2 CD2 (1) (CD2 (2) circled) Blank carbon mask	Position: 100 (mm)	Master: 30
Trigger: HiRA Singles S800 Singles (S800+HiRA circled) CsI Singles MCP Singles alpha pulser junk			MCP0: 540 K
			MCP1: 847 K
			CSI_OR: 1.8
Attenuation: 1	MCP Target Drive Positions		CRAD04: 0.5
Bρ (segment 8): 2.7009	MCP0 I250X-R (mylar circled) mask	143 mm	CRAD06: 10.6
Printed Bias Log Y N	MCP1 I250Y-R mylar (carbon circled) mask	89 mm	CRAD Ratio (4/6):
Comments: XFP eff. = 94.2% from S800 spectra			Trigger Live time: 98 %

Run #: 839	Date: 06/10/10	Your Name:	Raw Scaler Rates
Beam: (56Ni circled) 58Ni α other:	Target: CH2 (CD2 (1) circled) CD2 (2) Blank carbon mask	Position: 100 (mm)	Master: 23
Trigger: HiRA Singles S800 Singles (S800+HiRA circled) CsI Singles MCP Singles alpha pulser junk			MCP0: 550 k
			MCP1: 860 k
			CSI_OR: 2.5
Attenuation: 1	MCP Target Drive Positions		CRAD04: 0.5
Bρ (segment 8):	MCP0 I250X-R (mylar circled) mask	143 mm	CRAD06: 10.5
Printed Bias Log Y N	MCP1 I250Y-R mylar (carbon circled) mask	89 mm	CRAD Ratio (4/6):
Comments:			Trigger Live time: 99 %

HV/leakage Current log		
	Voltage	uA
Si0		3.8
Si1		6.5
Si2		12.2
Si3		5.4
Si4		7.4
MCP0	2220 V	75
MCP1	2320 V	79

← 7:30 PM

Run #: 840	Date: 06/10/10	Your Name: Remi	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** CH_2 Blank; (CD_2 (1)) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 23
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 500K
Attenuation: 1	**MCP Target Drive Positions**		MCP1: 800K
Bρ (segment 8): 2.704	MCP0 I250X-R: (mylar); mask; mm		CSI_OR: 2.5
Printed Bias Log Y N	MCP1 I250Y-R: (mylar); carbon; mask; mm		CRAD04: 0.5
Comments:			CRAD06: 10
			CRAD Ratio (4/6):
			Trigger Live time: 99 %

xfp ~ 1022K

Run #: 841	Date: 06/10/10	Your Name: Remi	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** CH_2 Blank; (CD_2 (1)) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 24
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 560 K
Attenuation:	**MCP Target Drive Positions**		MCP1: 860 K
Bρ (segment 8):	MCP0 I250X-R: (mylar); mask; mm		CSI_OR: 3
Printed Bias Log Y N	MCP1 I250Y-R: (mylar); carbon; mask; mm		CRAD04: 0.6
Comments:			CRAD06: 11
			CRAD Ratio (4/6):
			Trigger Live time: 98 %

xfp ~ 950K

FP Slits CT = 4.00 CB = 4.80 I255 Slits in S800

Run #: 842, 843	Date: 06/10/10	Your Name: Tilak	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** CH_2 Blank; CD_2 (1) carbon; (CD_2 (2)) mask; Position: (mm)		Master: 9
Trigger: HiRA Singles; MCP Singles; S800 Singles alpha; (S800+HiRA) pulser; CsI Singles junk			MCP0: 188 K
Attenuation:	**MCP Target Drive Positions**		MCP1: 287 K
Bρ (segment 8):	MCP0 I250X-R: (mylar); mask; mm		CSI_OR:
Printed Bias Log Y N	MCP1 I250Y-R: (mylar); carbon; mask; mm		CRAD04:
Comments: New slit setting to get more unreacted beam			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: %

Took run 843

Run #: 844	Date: 06/10/10	Your Name: Tilak	**Raw Scaler Rates**
Beam: (56Ni) 58Ni; α other:	**Target:** CH_2 Blank; (CD_2 (1)) carbon; CD_2 (2) mask; Position: 239.6 (mm)		Master: 18
Trigger: HiRA Singles; MCP Singles; (S800 Singles) alpha; S800+HiRA pulser; CsI Singles junk			MCP0: 500 K
Attenuation:	**MCP Target Drive Positions**		MCP1: 782 K
Bρ (segment 8):	MCP0 I250X-R: (mylar); mask; 143 mm		CSI_OR: 56
Printed Bias Log Y N	MCP1 I250Y-R: (mylar); carbon; mask; 89 mm		CRAD04:
Comments:			CRAD06:
			CRAD Ratio (4/6):
			Trigger Live time: 94 %

CRDC1 mask calebration