

20/6/12/06: Tuesday

RMF run with SDD in CC

SEC detector in CC

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SDD: (01) ~10AM, Noise f.b.

10:25AM: Getting 2 c/s when Helicon ant is energized

(02)

BUT no breakdown occurs!

No breakdown, but significant X-rays. 2.5W forward power.

~1kV peak antenna.

(crazy-high X-rays freq!)

sporadic. 10s of seconds go by with zero counts.

10:48AM: Getting a few c/s ~1/2-2 when everything is off. These are false counts.

(03)

10:45AM RMF on. Getting real counts, including dozen spectral lines.

(04)

Aperture 1.

10:52AM RMF on. Aperture 2.

(05)

11:10AM Helicon high power. (06), 20,000 c/s total, 150 c/s above ch 128

11:36AM Helicon low power (07) ~10 c/s total. Aperture 1.

11:40AM RMF, ~20W. (08) 16-22W. 2,000 c/s, 100 c/s input. Ap 1.

11:53AM RMF. (09) ~200 c/s. 30 c/s input. Aperture 2. 16-22W, ~13W

L-field ⁸³
~~83A~~ ↑
63A ↓

Post calibration

factors where beam can
see fan

12:18PM (10) RMF, low B. 300 c/s. Aperture 2

12:29PM (11) RMF, low B. 600 c/s. Aperture 2. More stable RMF.

HEY. 2,000 c/s is 400,000 c/s in the pulse. $\frac{100 \text{ ns}}{1} \cdot 400,000 \text{ c/s} = 4 \cdot 10^5 \cdot 10^{-7} = 4 \cdot 10^{-2}$, 4% of
counts are false pickup! Not ok. Need to close down the aperture.

L-field 47A

1:02PM (12) 47A B, RMF. 300 c/s Aperture 2.

Significant counts out to Ch1024!! Noisy magnet.

1:14PM (13) 47A RMF 2 c/s Aperture 4

1:58PM (14) 47A RMF 10 c/s Aperture 3 More shielding a bit.

2:09: (15) 47A RMF 300 c/s, Input 63,000 c/s Read the 80%!
Too much noise!

2:10PM (16) 47A RMF 200 c/s, input 100 c/s. Aperture 2.

L-field 103

2:27PM (17) 103A RMF 100 c/s. Aperture 2.

2:45PM (18) 103A RMF @ 50 c/s. Aperture 2. Bulldog clips on shroud.

2:57PM (19) 103A RMF + helicon. 8,000 c/s. Aperture 2.

3:41PM (20) ~236W RMF, Low helicon. Aperture 2.

4:03PM (21) lower pressure ~350 μT Aperture 2. ~80 c/s