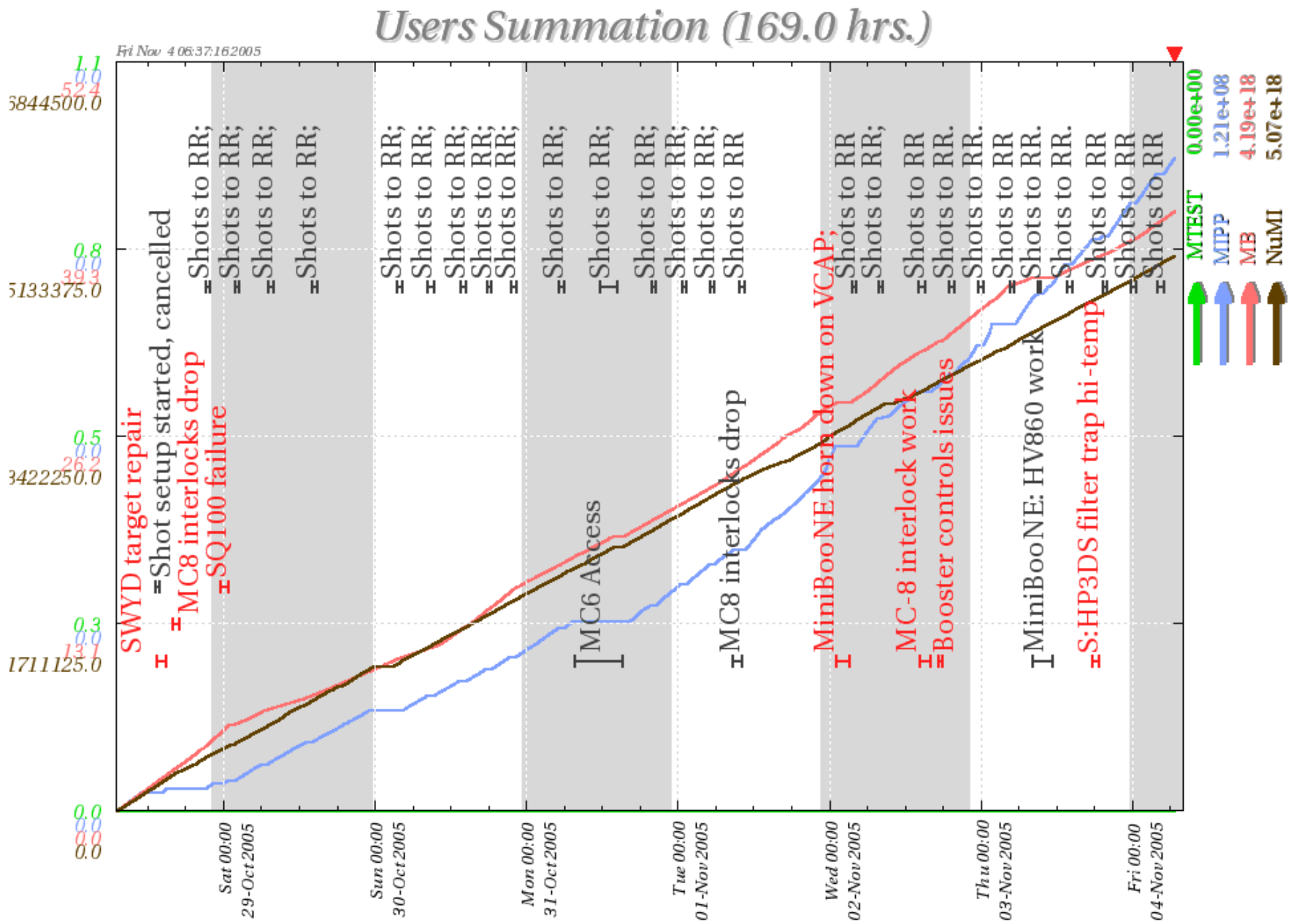
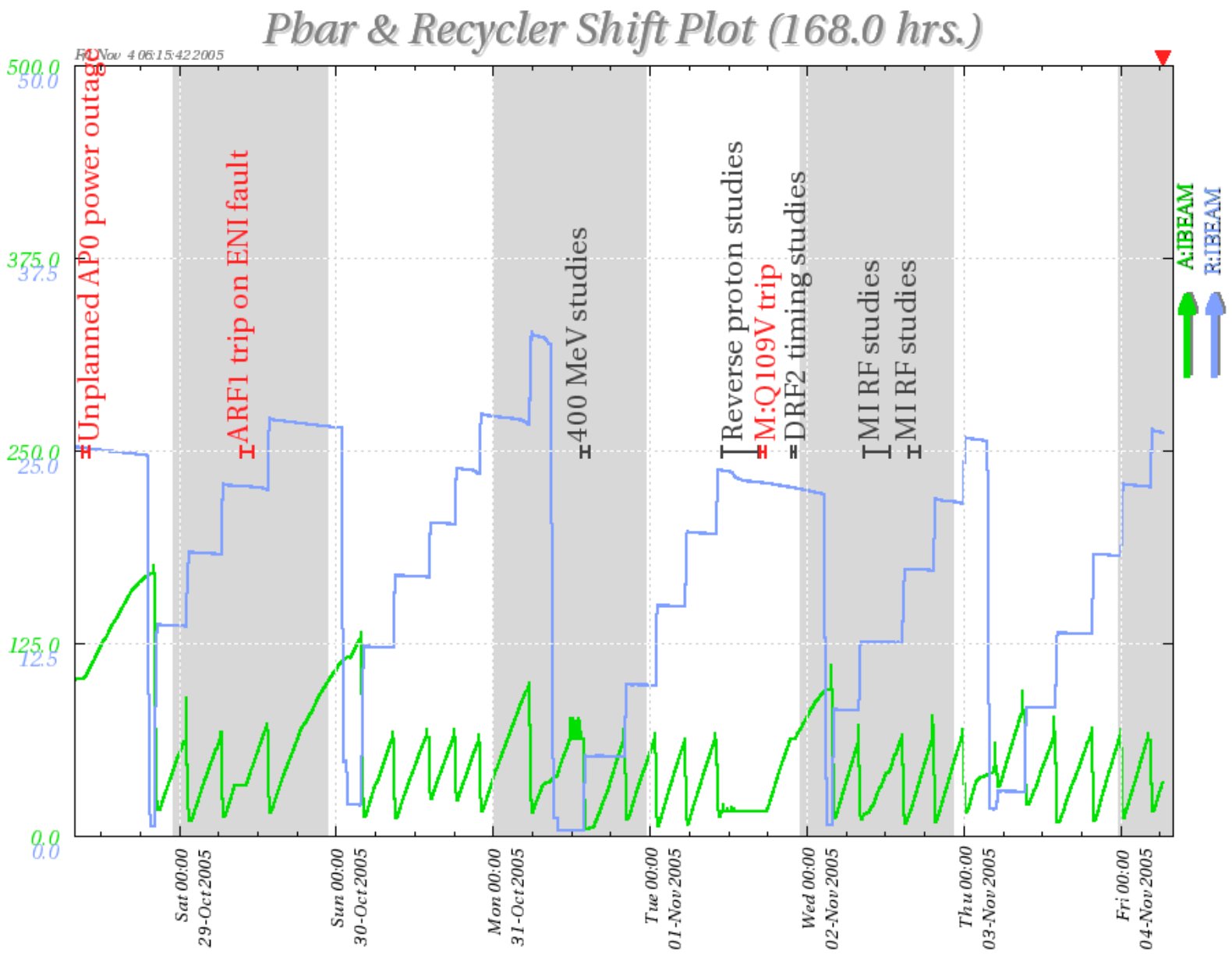
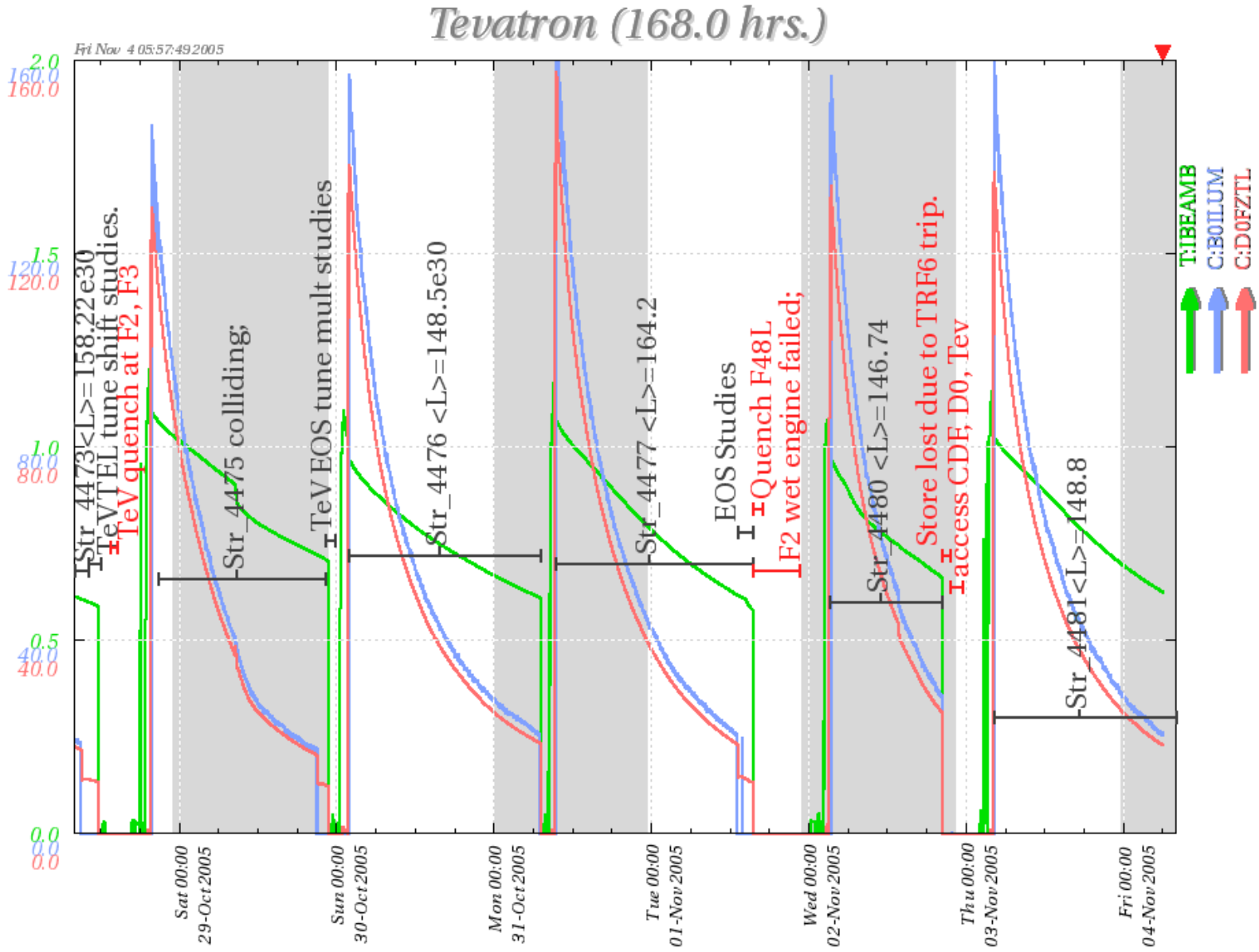
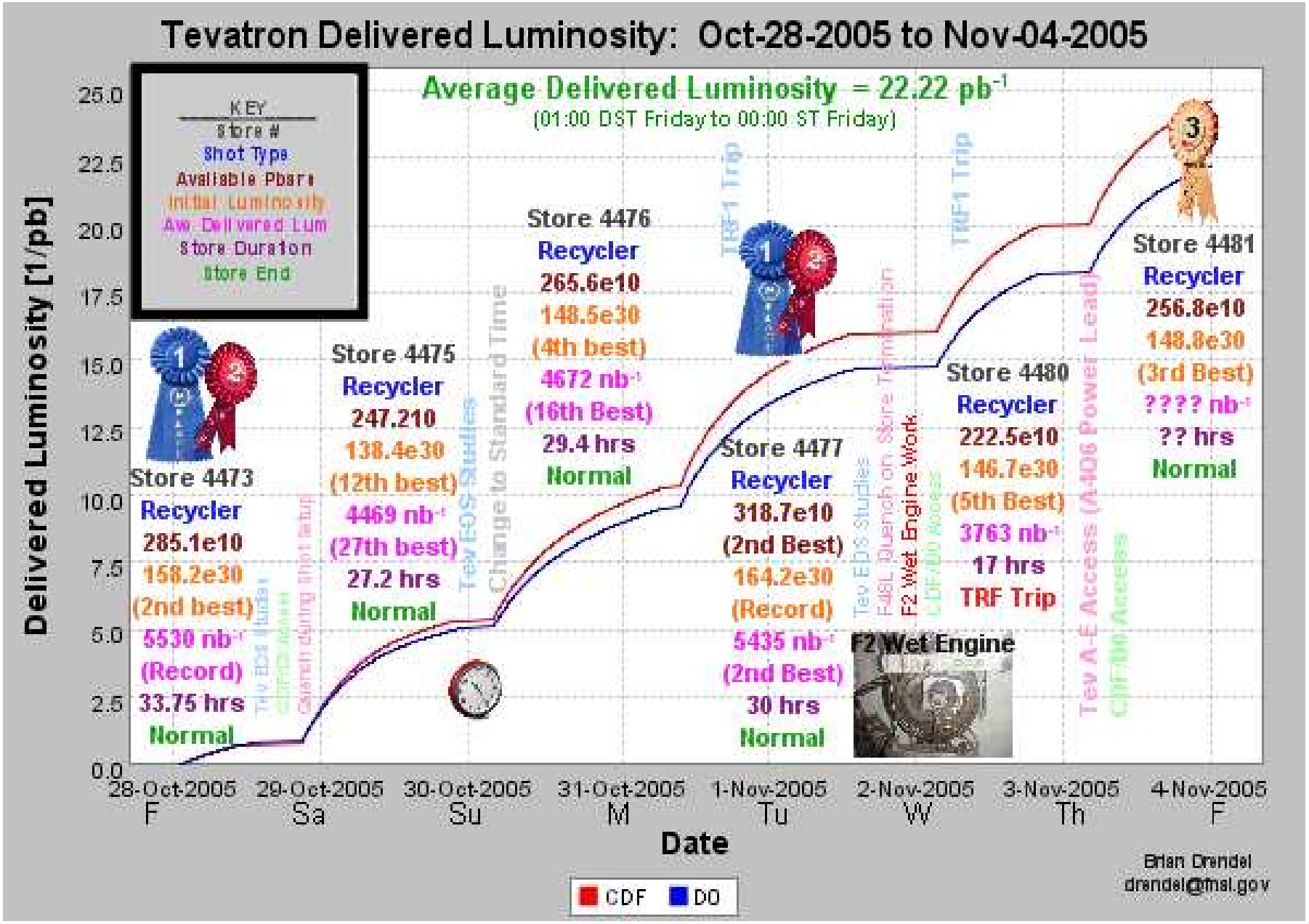
# *Accelerator Week in Review*

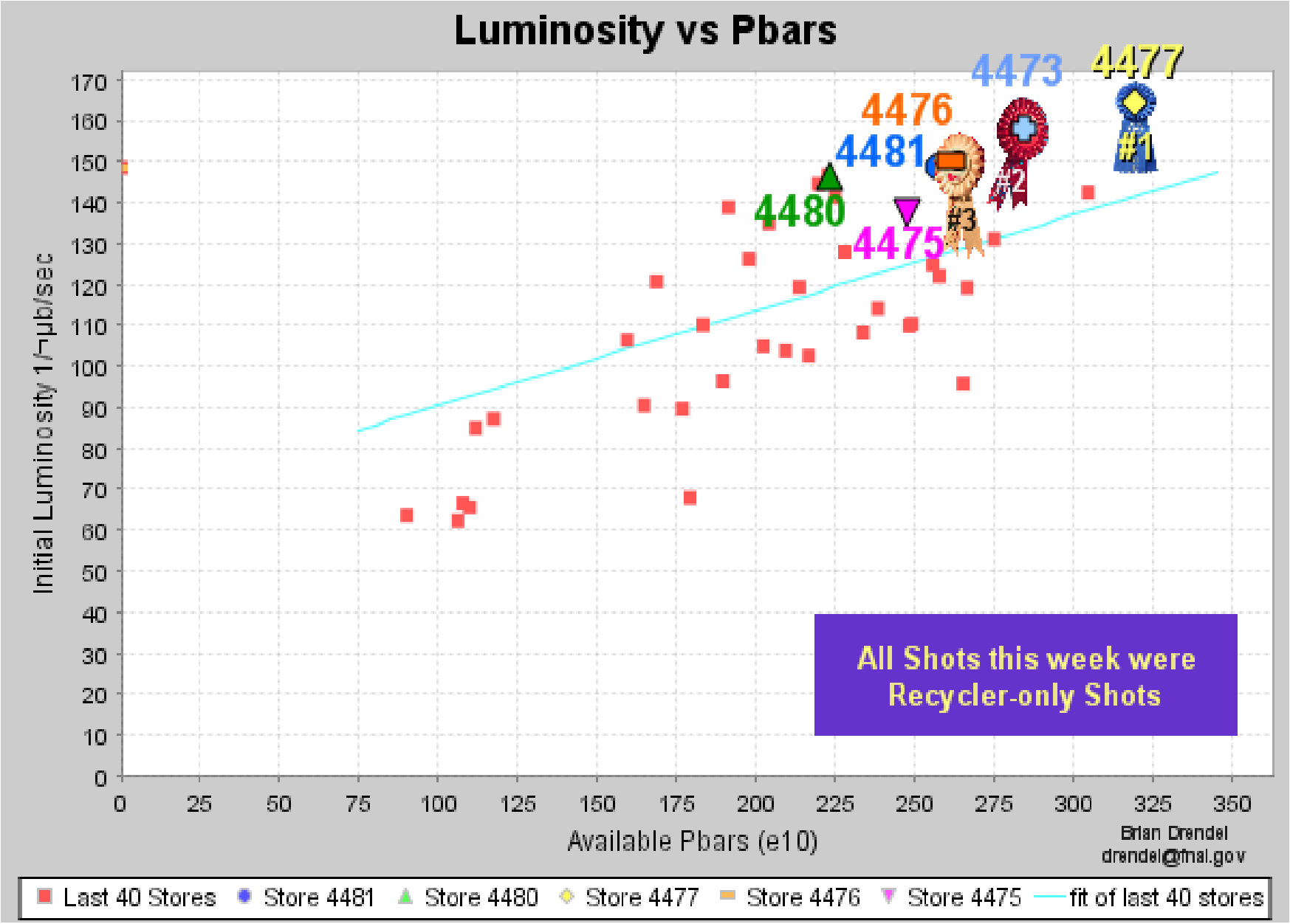
- Part I: Regular 9am Scheduling Meeting
  - 48 hour Operational Summary – Crew Chief
  - 48 hour machine summaries & study requests - Machine Coordinators
  - Operational Plan – Salah Chaurize
- Part II: Weekly Machine Reports
  - Weekly Operational Summary – Brian Drendel
    - User, Pbar and Tevatron weekly operational plots
    - Collider shot summary
    - NuMI beam summary
    - MiniBooNE beam summary
  - Weekly Machine Reports – Machine Coordinators

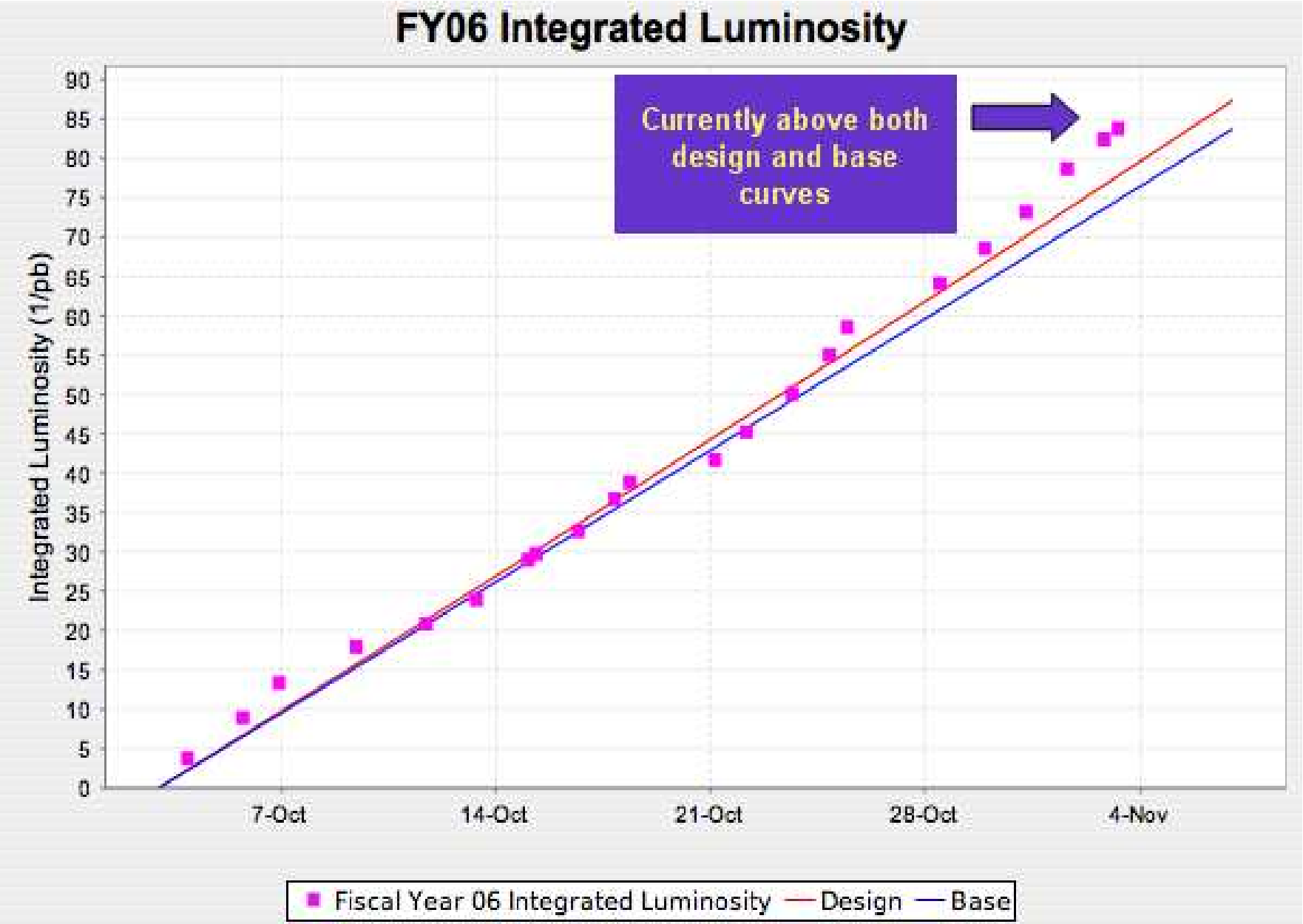

Users Summation (169.0 hrs.)
Fri Nov 4 06:37:16 2005
1.1
0.0
52.4
5844500.0
0.8
0.0
39.3
5133375.0
0.5
0.0
26.2
3422250.0
0.3
0.0
13.1
1711125.0
0.0
0.0
0.0
0.0
Sat 00:00 29-Oct 2005
Sun 00:00 30-Oct 2005
Mon 00:00 31-Oct 2005
Tue 00:00 01-Nov 2005
Wed 00:00 02-Nov 2005
Thu 00:00 03-Nov 2005
Fri 00:00 04-Nov 2005
SWYD target repair
Shot setup started, cancelled
MC8 interlocks drop
SQ100 failure
Shots to RR;
MC6 Access
MC8 interlocks drop
MiniBooNE horn down on VCAP;
MC-8 interlock work
Booster controls issues
MiniBooNE: HV860 work
S:HP3DS filter trap hi-temp
MTEST 0.00e+00
MIPP 1.21e+08
MB 4.19e+18
NuMI 5.07e+18

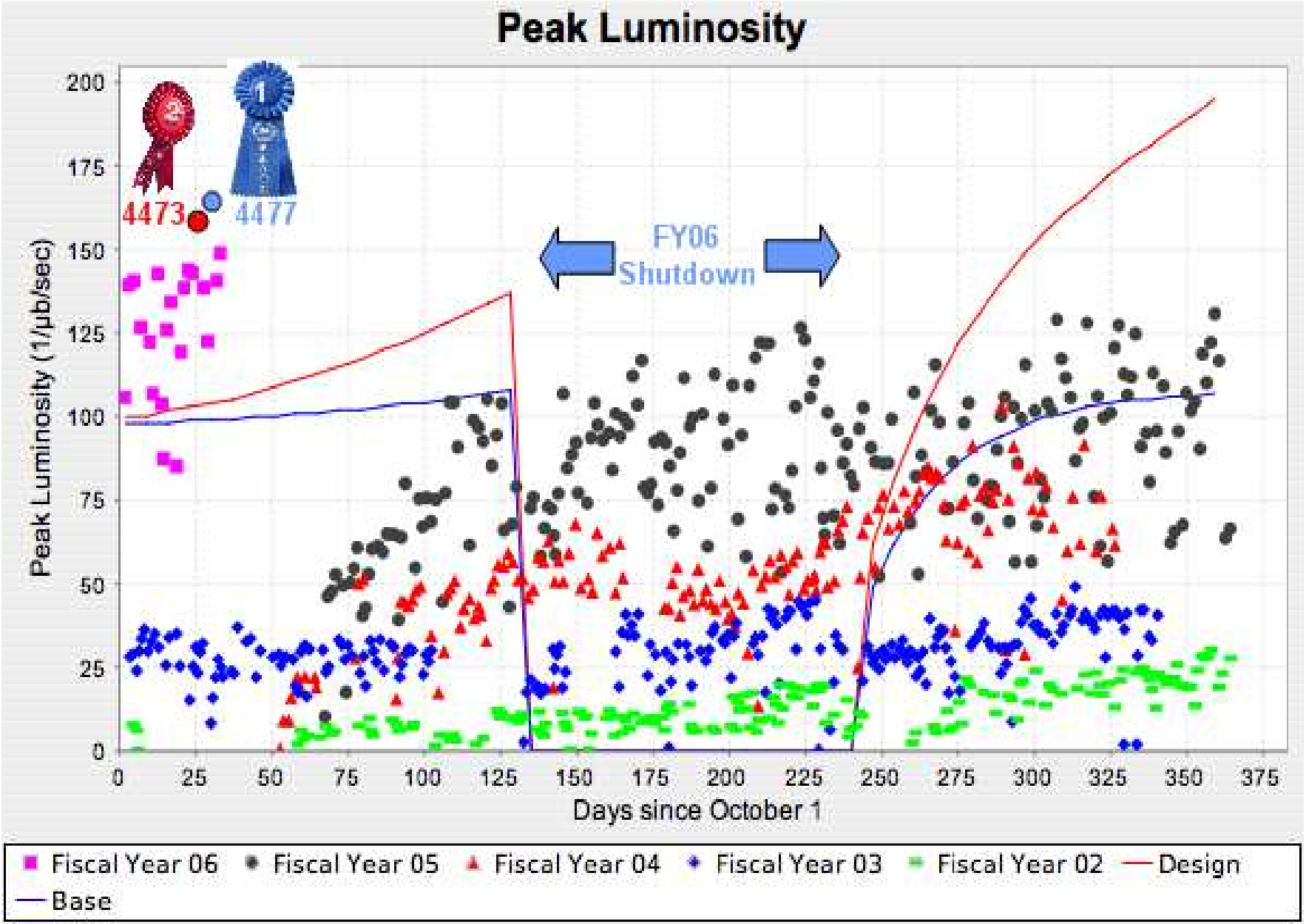

Pbar & Recycler Shift Plot (168.0 hrs.)
Fri Nov 4 06:15:42 2005
500.0
50.0
375.0
37.5
250.0
25.0
125.0
12.5
0.0
0.0
Unplanned AP0 power outage
ARF1 trip on ENI fault
400 MeV studies
Reverse proton studies
M:Q109V trip
DRF2 timing studies
MI RF studies
MI RF studies
A:IBEAM
R:IBEAM
Sat 00:00 29-Oct 2005
Sun 00:00 30-Oct 2005
Mon 00:00 31-Oct 2005
Tue 00:00 01-Nov 2005
Wed 00:00 02-Nov 2005
Thu 00:00 03-Nov 2005
Fri 00:00 04-Nov 2005

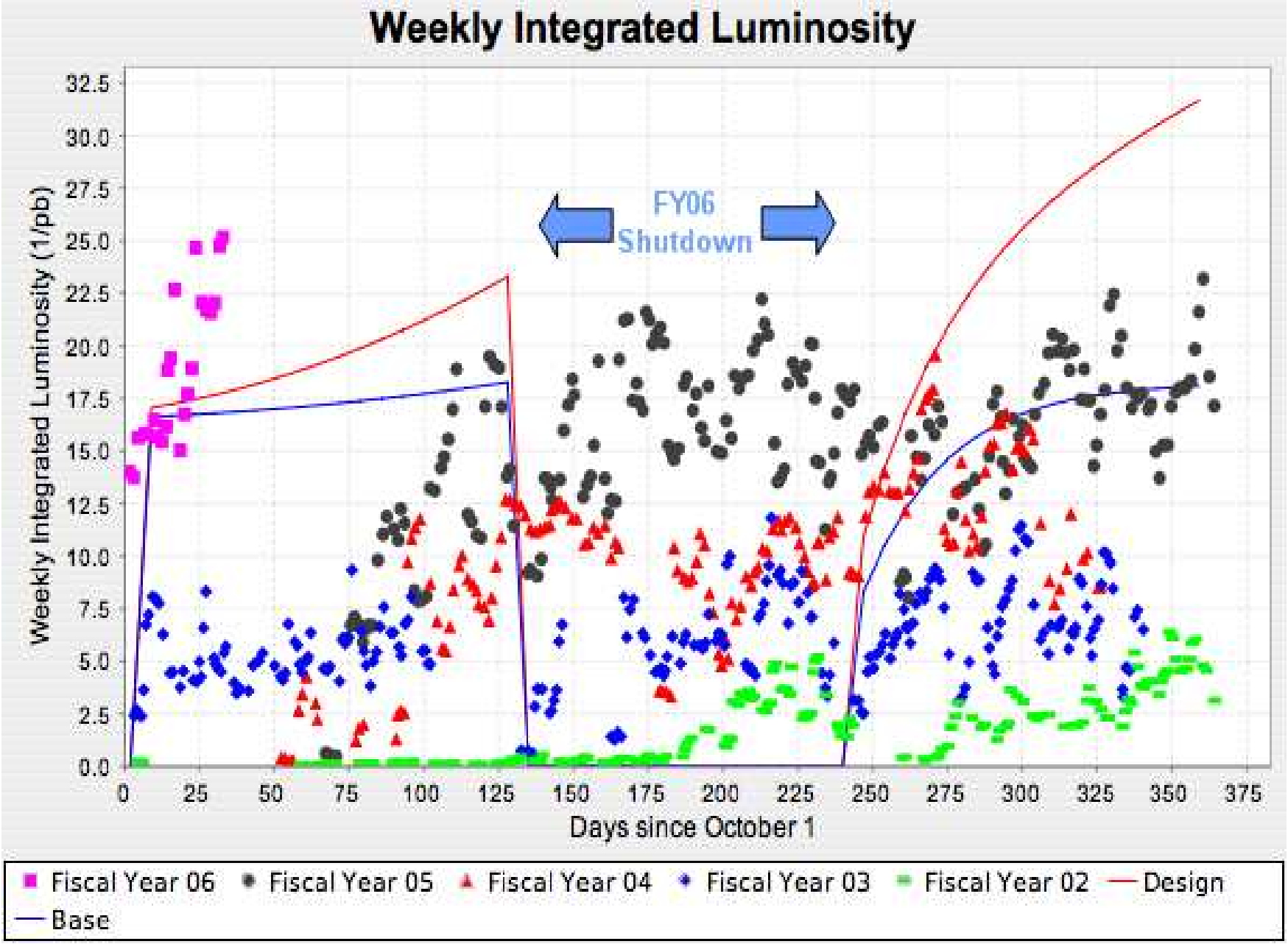

Tevatron (168.0 hrs.)
Fri Nov 4 05:57:49 2005
2.0
160.0
160.0
1.5
120.0
120.0
1.0
80.0
80.0
0.5
40.0
40.0
0.0
0.0
0.0
Str_4473<L>=158.22e30
TeVTEL tune shift studies.
TeV quench at F2, F3
Str_4475 colliding;
TeV EOS tune mult studies
Str_4476 <L>=148.5e30
Str_4477 <L>=164.2
EOS Studies
Quench F48L
F2 wet engine failed;
Str_4480 <L>=146.74
Store lost due to TRF6 trip.
access CDF, D0, Tev
Str_4481<L>=148.8
Sat 00:00 29-Oct 2005
Sun 00:00 30-Oct 2005
Mon 00:00 31-Oct 2005
Tue 00:00 01-Nov 2005
Wed 00:00 02-Nov 2005
Thu 00:00 03-Nov 2005
Fri 00:00 04-Nov 2005
T:IBEAMB
C:B0ILUM
C:D0FZTL

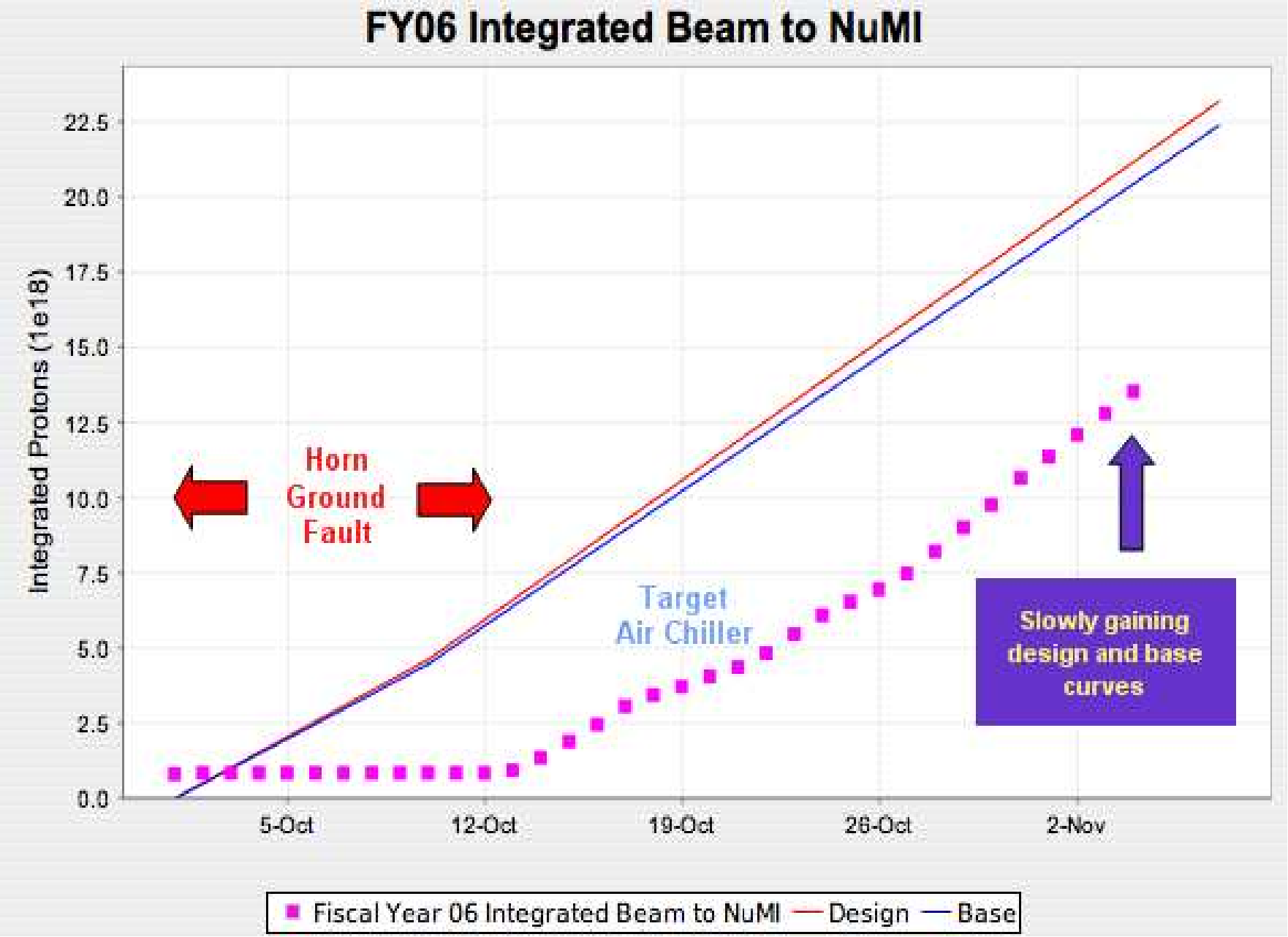

Tevatron Delivered Luminosity: Oct-28-2005 to Nov-04-2005
Average Delivered Luminosity = 22.22 pb-1
(01:00 DST Friday to 00:00 ST Friday)
KEY
Store #
Shot Type
Available Pbars
Initial Luminosity
Avg Delivered Lum
Store Duration
Store End
Delivered Luminosity [1/pb]
Date
Store 4473
Recycler
285.1e10
158.2e30
(2nd best)
5530 nb-1
(Record)
33.75 hrs
Normal
Store 4475
Recycler
247.210
138.4e30
(12th best)
4469 nb-1
(27th best)
27.2 hrs
Normal
Store 4476
Recycler
265.6e10
148.5e30
(4th best)
4672 nb-1
(16th Best)
29.4 hrs
Normal
Store 4477
Recycler
318.7e10
(2nd Best)
164.2e30
(Record)
5435 nb-1
(2nd Best)
30 hrs
Normal
Store 4480
Recycler
222.5e10
146.7e30
(5th Best)
3763 nb-1
17 hrs
TRF Trip
Store 4481
Recycler
256.8e10
148.8e30
(3rd Best)
???? nb-1
?? hrs
Normal
Tev EDS Studies
Change to Standard Time
TRF-1 Trip
F49L Quench on Store Termination
F2 Wet Engine Work
CDF/D0 Access
Tev A-E Access (A406 Power Lead)
F2 Wet Engine
Brian Drendel
drendel@msi.gov
CDF
D0

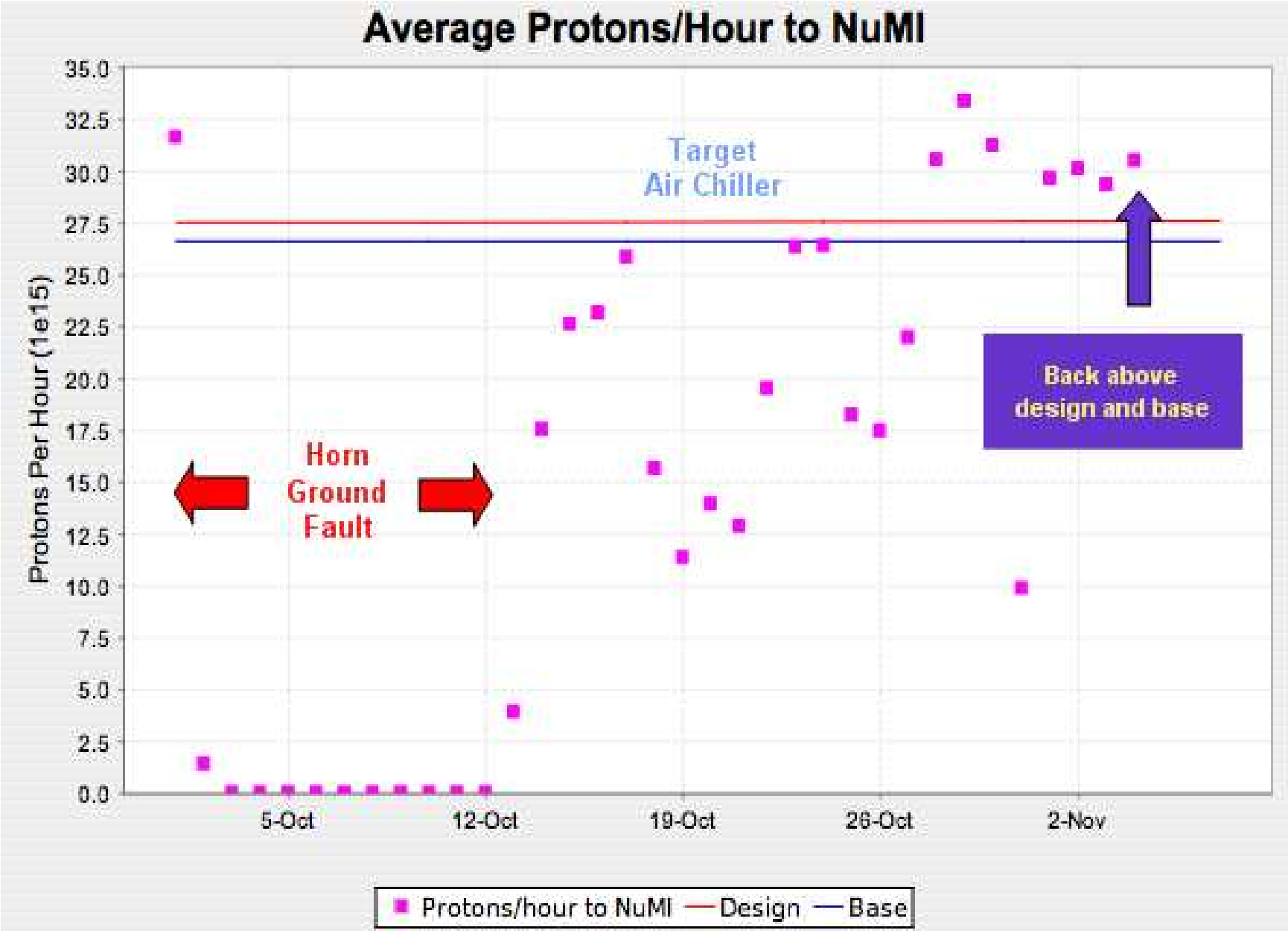

Luminosity vs Pbars
Initial Luminosity 1/¬µb/sec
Available Pbars (e10)
4477
4473
4476
4481
4480
4475
#1
#2
#3
All Shots this week were Recycler-only Shots
Brian Drendel
drendel@fnal.gov
Last 40 Stores
Store 4481
Store 4480
Store 4477
Store 4476
Store 4475
fit of last 40 stores

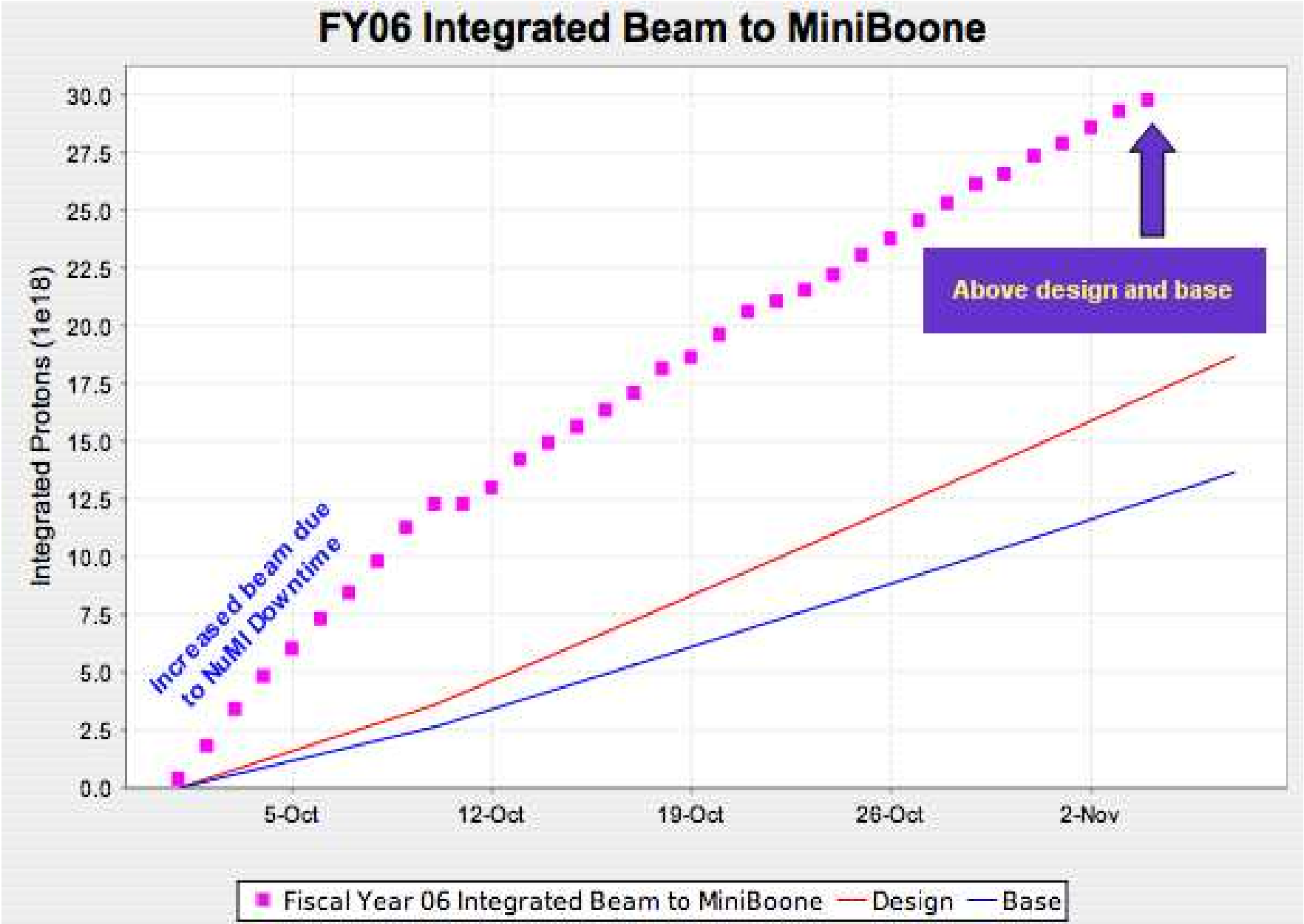

FY06 Integrated Luminosity
Currently above both design and base curves
Integrated Luminosity (1/pb)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
7-Oct
14-Oct
21-Oct
28-Oct
4-Nov
Fiscal Year 06 Integrated Luminosity
Design
Base

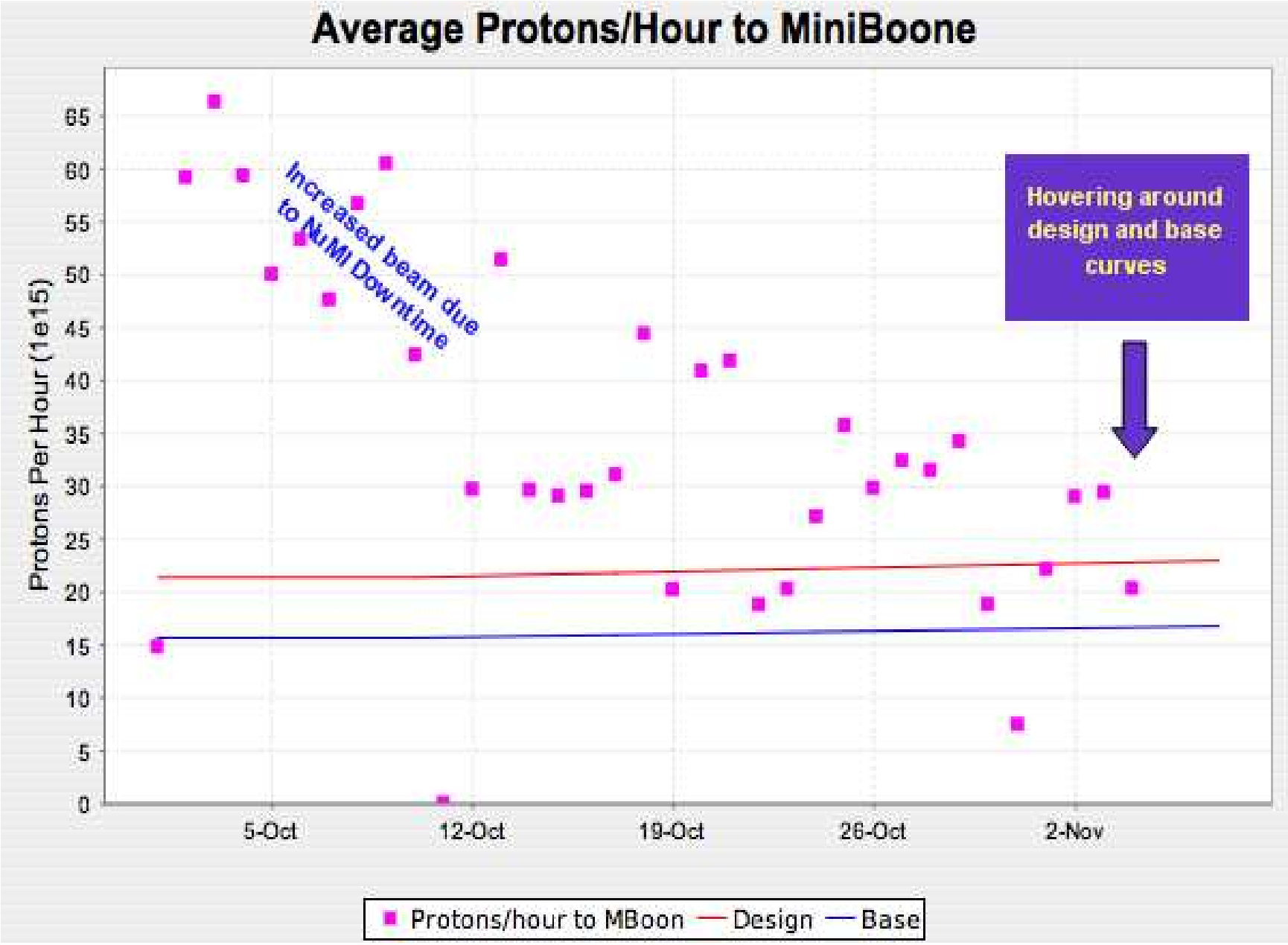

Peak Luminosity
Peak Luminosity (1/μb/sec)
Days since October 1
4473
4477
FY06
Shutdown
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


Weekly Integrated Luminosity
Weekly Integrated Luminosity (1/pb)
32.5
30.0
27.5
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Days since October 1
FY06
Shutdown
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


FY06 Integrated Beam to NuMI
Integrated Protons (1e18)
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
Horn
Ground
Fault
Target
Air Chiller
Slowly gaining
design and base
curves
Fiscal Year 06 Integrated Beam to NuMI
Design
Base


Average Protons/Hour to NuMI
Protons Per Hour (1e15)
35.0
32.5
30.0
27.5
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
Target
Air Chiller
Horn
Ground
Fault
Back above
design and base
Protons/hour to NuMI
Design
Base


FY06 Integrated Beam to MiniBoone
Integrated Protons (1e18)
30.0
27.5
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
Above design and base
Increased beam due to NuMI Downtime
Fiscal Year 06 Integrated Beam to MiniBoone
Design
Base


Average Protons/Hour to MiniBoone
Protons Per Hour (1e15)
65
60
55
50
45
40
35
30
25
20
15
10
5
0
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
Increased beam due to NuMI Downtime
Hovering around design and base curves
Protons/hour to MBoon
Design
Base