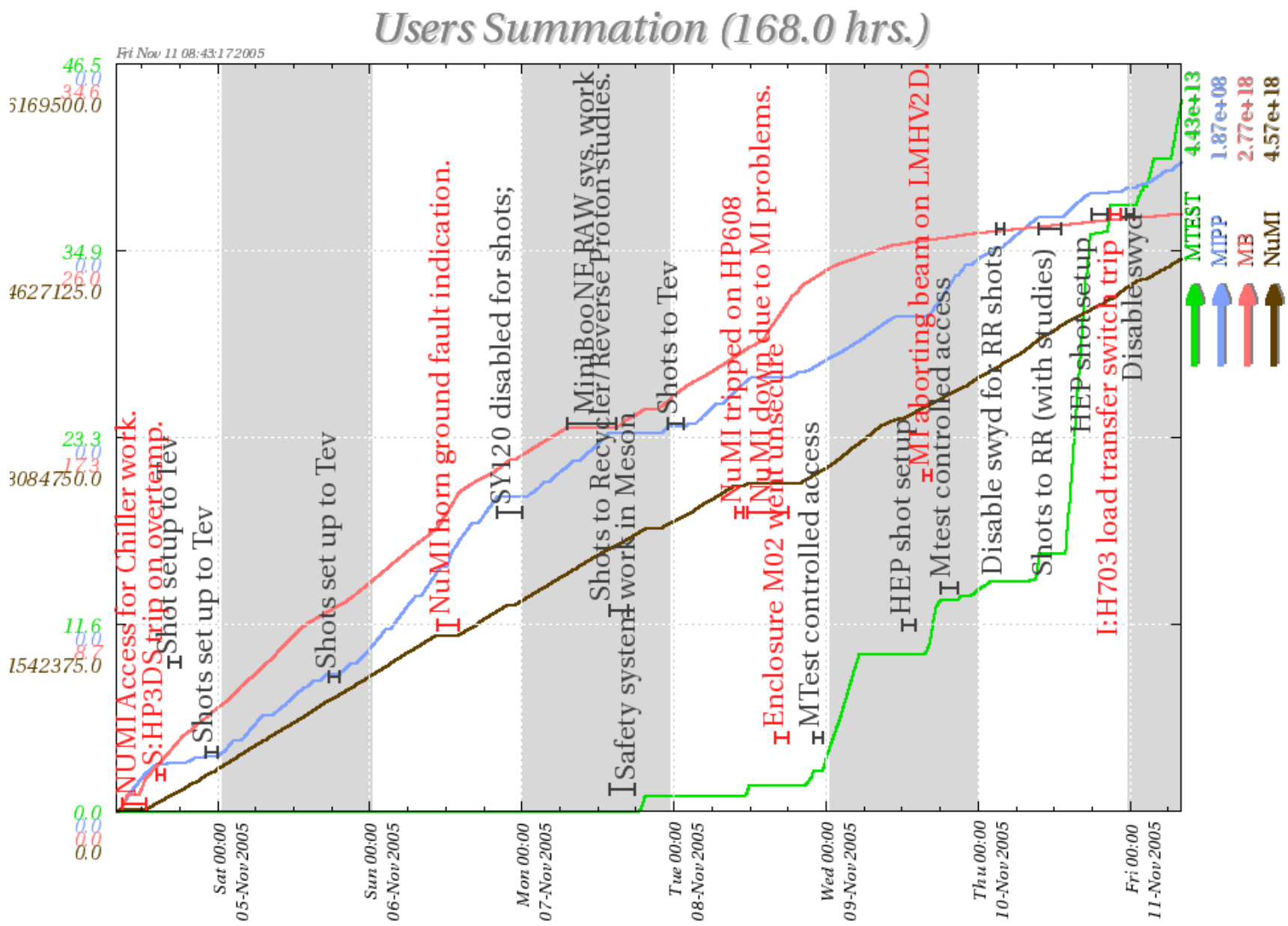
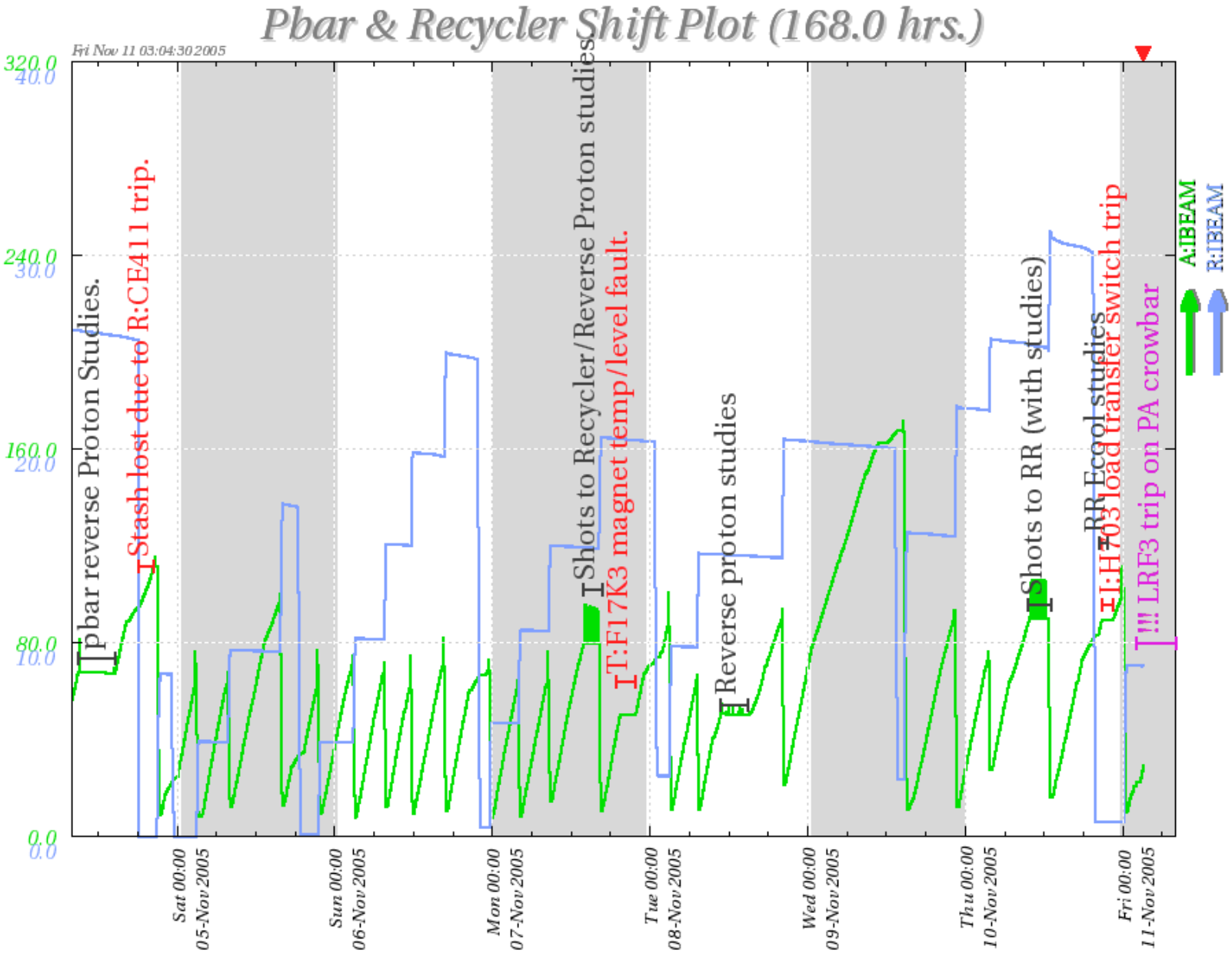
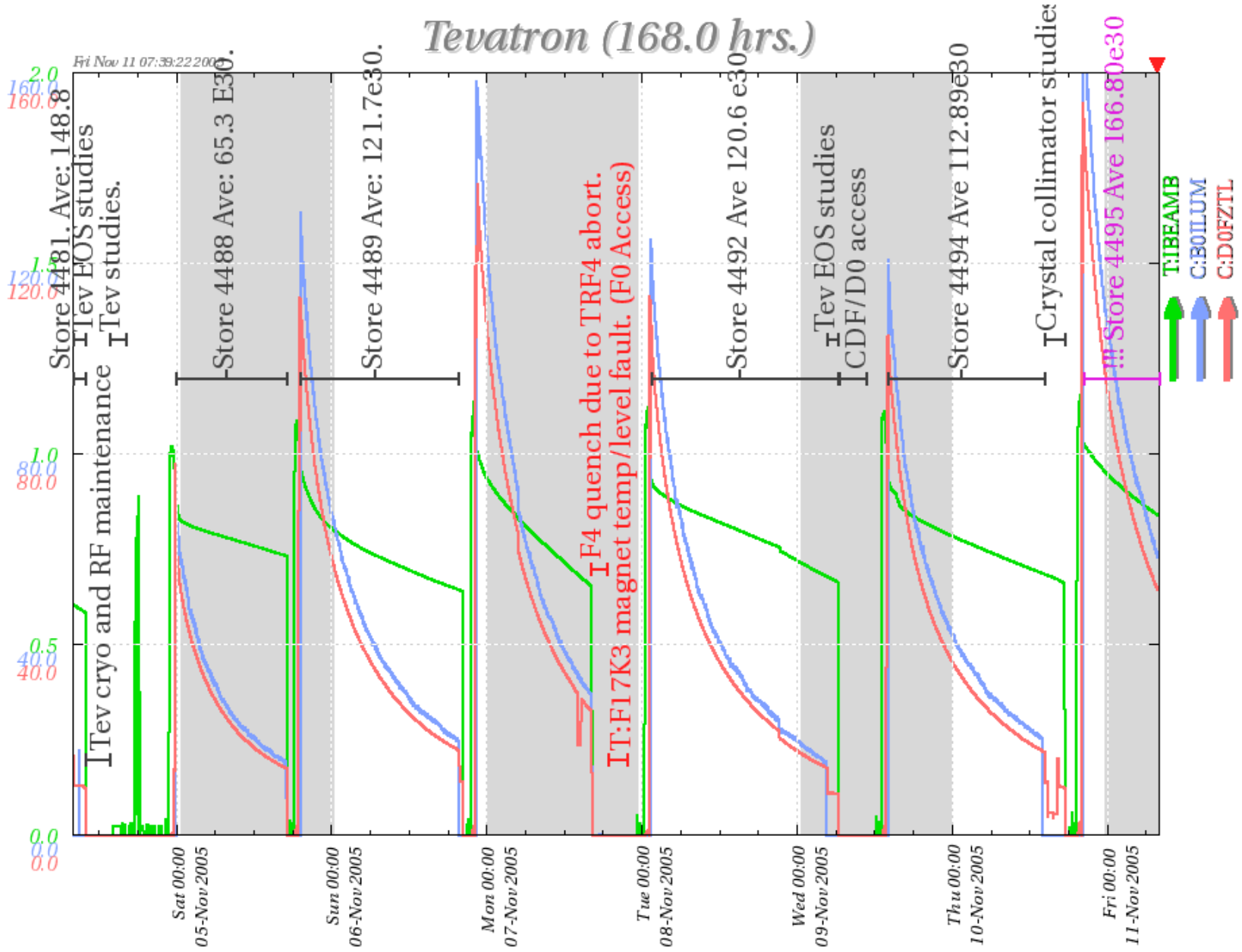
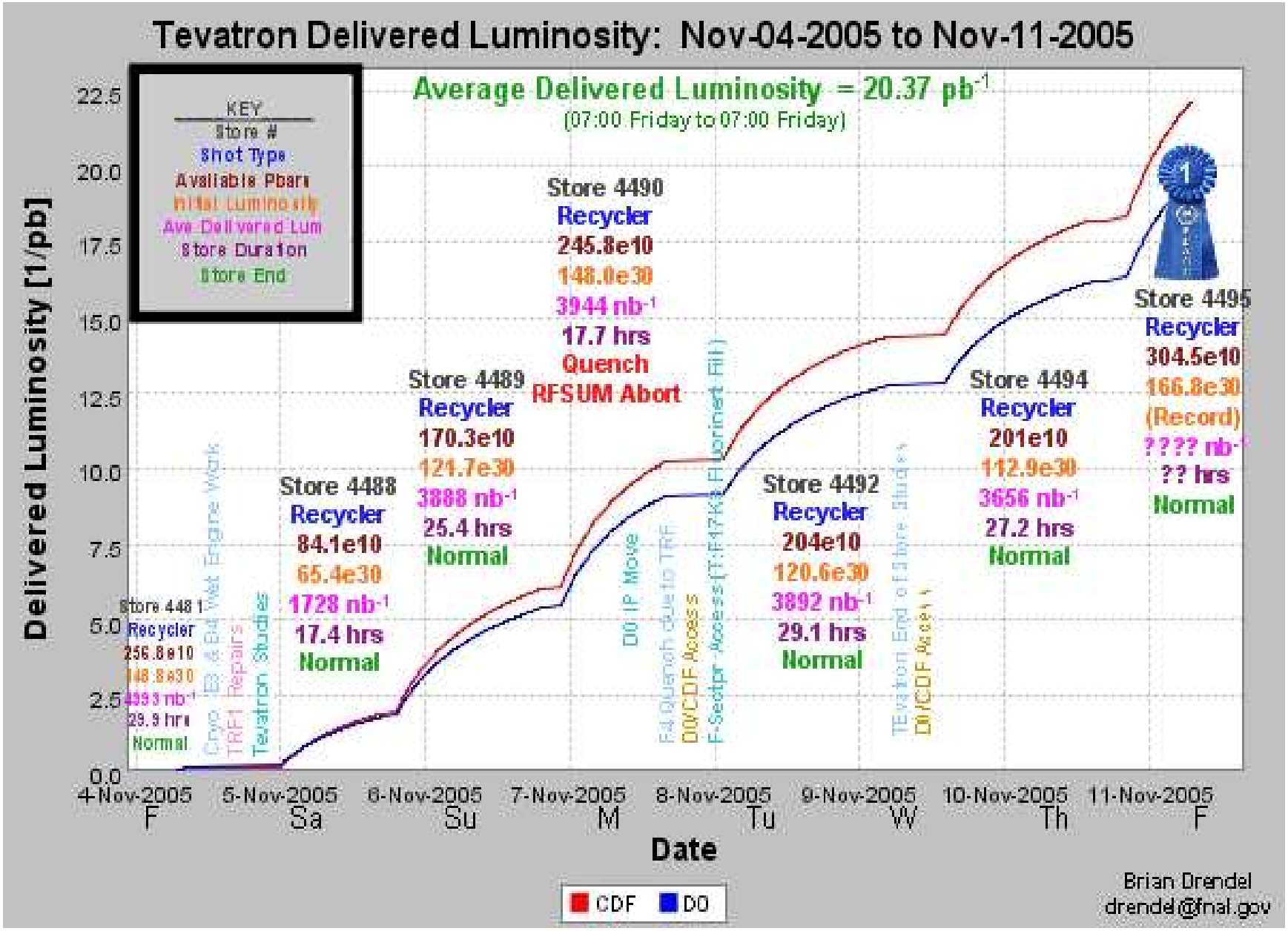
Accelerator Week in Review

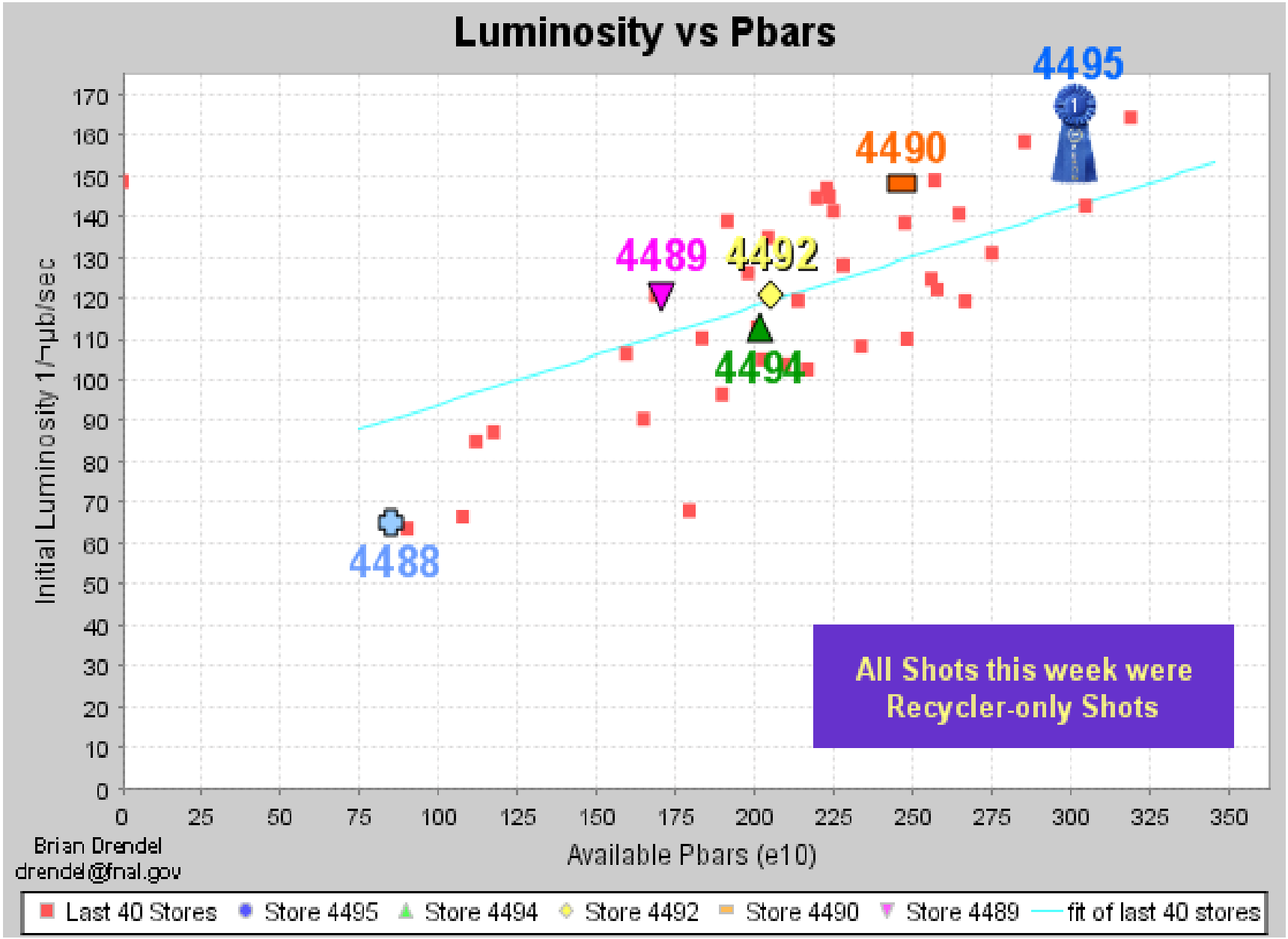
- Part I: Regular 9am Scheduling Meeting
  - Crew Chief Summary
  - 48 hour machine summaries and study requests – Machine Coordinators
  - Operational Plan – Brian Drendel
- Part II: Weekly Machine Reports
  - Weekly Operational Summary – Brian Drendel
    - User, Pbar and Tevatron weekly operational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

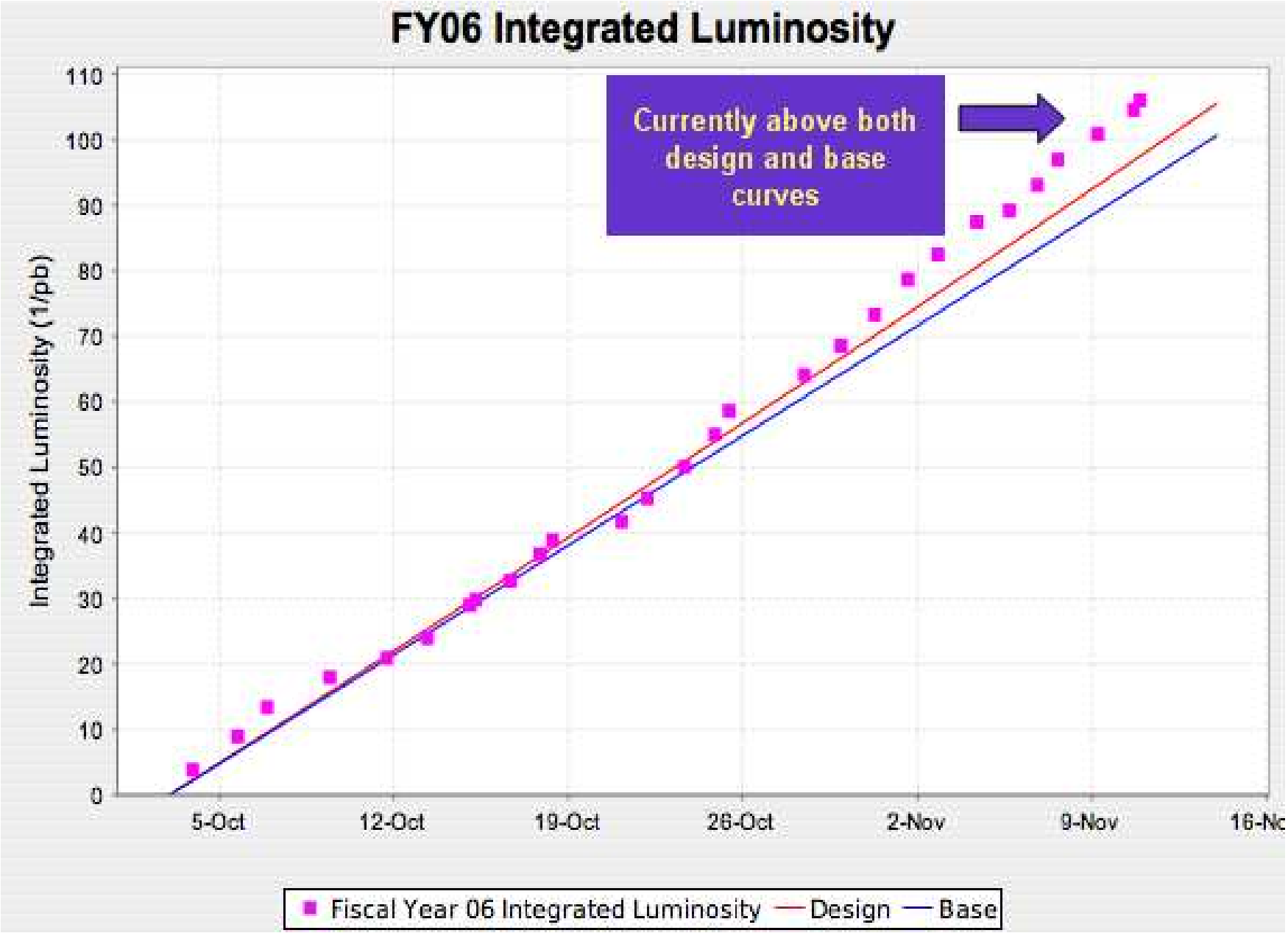

Users Summation (168.0 hrs.)
Fri Nov 11 08:43:17 2005
46.5
0.0
34.6
5169500.0
34.9
0.0
26.0
4627125.0
23.3
0.0
17.3
3084750.0
11.6
0.0
8.7
1542375.0
0.0
0.0
0.0
0.0
0.0
Sat 00:00 05-Nov 2005
Sun 00:00 06-Nov 2005
Mon 00:00 07-Nov 2005
Tue 00:00 08-Nov 2005
Wed 00:00 09-Nov 2005
Thu 00:00 10-Nov 2005
Fri 00:00 11-Nov 2005
NUMI Access for Chiller work.
S:HP3D Strip on overtemp.
Shot setup to Tev
Shots set up to Tev
Shots set up to Tev
NuMI horn ground fault indication.
SY120 disabled for shots;
MiniBooNE RAW sys. work
Shots to Recycler/Reverse Proton studies.
Safety system work in Meson
Shots to Tev
NuMI tripped on HP608
NuMI down due to MI problems.
Enclosure M02 went unsecure
MTest controlled access
HEP shot setup
MI aborting beam on LMHV2D.
Mtest controlled access
Disable swyd for RR shots
Shots to RR (with studies)
HEP shot setup
I:H703 load transfer switch trip
Disable swyd
MTEST 4.43e+13
MIPP 1.87e+08
MB 2.77e+18
NuMI 4.57e+18

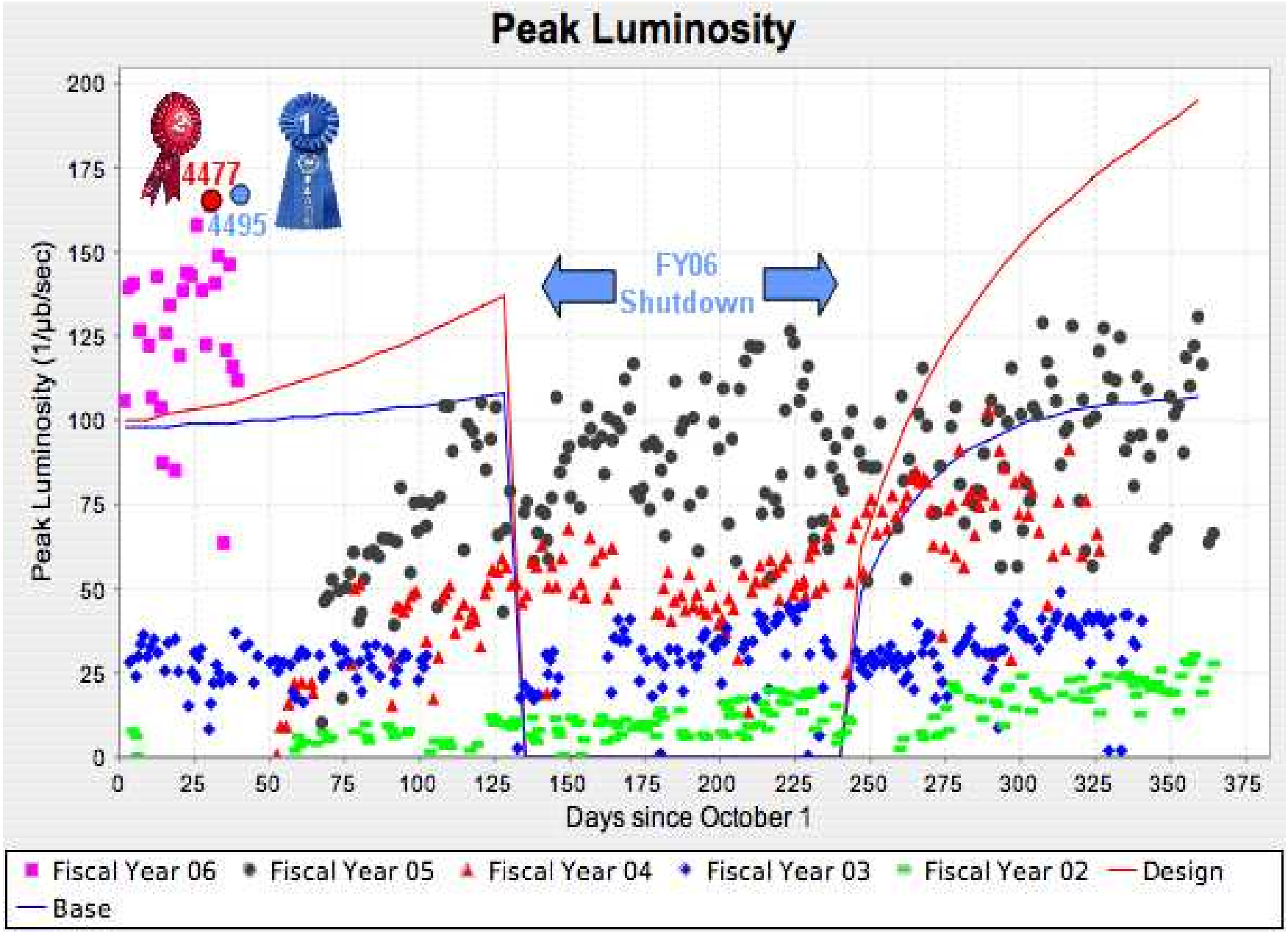

Pbar & Recycler Shift Plot (168.0 hrs.)
Fri Nov 11 03:04:30 2005
320.0
240.0
160.0
80.0
0.0
40.0
30.0
20.0
10.0
0.0
Pbar reverse Proton Studies.
Stash lost due to R:CE411 trip.
Shots to Recycler/Reverse Proton studies
T:F17K3 magnet temp/level fault.
Reverse proton studies
Shots to RR (with studies)
RR Ecool studies
H:H703 load transfer switch trip
!!! LRF3 trip on PA crowbar
A:IBEAM
R:IBEAM
Sat 00:00 05-Nov 2005
Sun 00:00 06-Nov 2005
Mon 00:00 07-Nov 2005
Tue 00:00 08-Nov 2005
Wed 00:00 09-Nov 2005
Thu 00:00 10-Nov 2005
Fri 00:00 11-Nov 2005

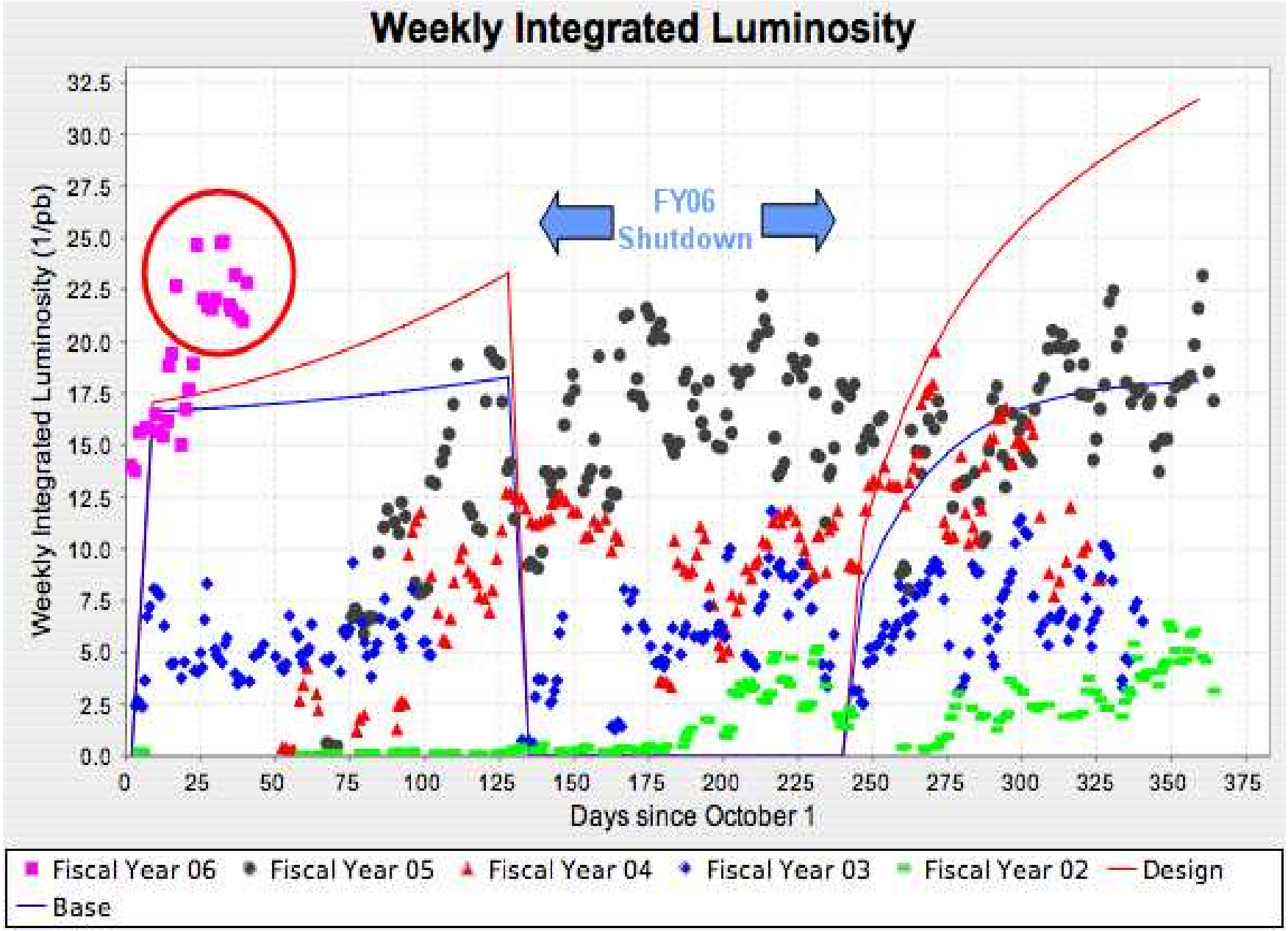

Tevatron (168.0 hrs.)
Fri Nov 11 07:39:22 2005
Store 4481. Ave: 148.8
Tev EOS studies
Tev studies.
Tev cryo and RF maintenance
Store 4488 Ave: 65.3 E30.
Store 4489 Ave: 121.7e30.
F4 quench due to TRF4 abort.
T:F17K3 magnet temp/level fault. (F0 Access)
Store 4492 Ave 120.6 e30
Tev EOS studies
CDF/D0 access
Store 4494 Ave 112.89e30
Crystal collimator studies
!!! Store 4495 Ave 166.80e30
T:IBEAMB
C:B0ILUM
C:D0FZTL
Sat 00:00 05-Nov 2005
Sun 00:00 06-Nov 2005
Mon 00:00 07-Nov 2005
Tue 00:00 08-Nov 2005
Wed 00:00 09-Nov 2005
Thu 00:00 10-Nov 2005
Fri 00:00 11-Nov 2005

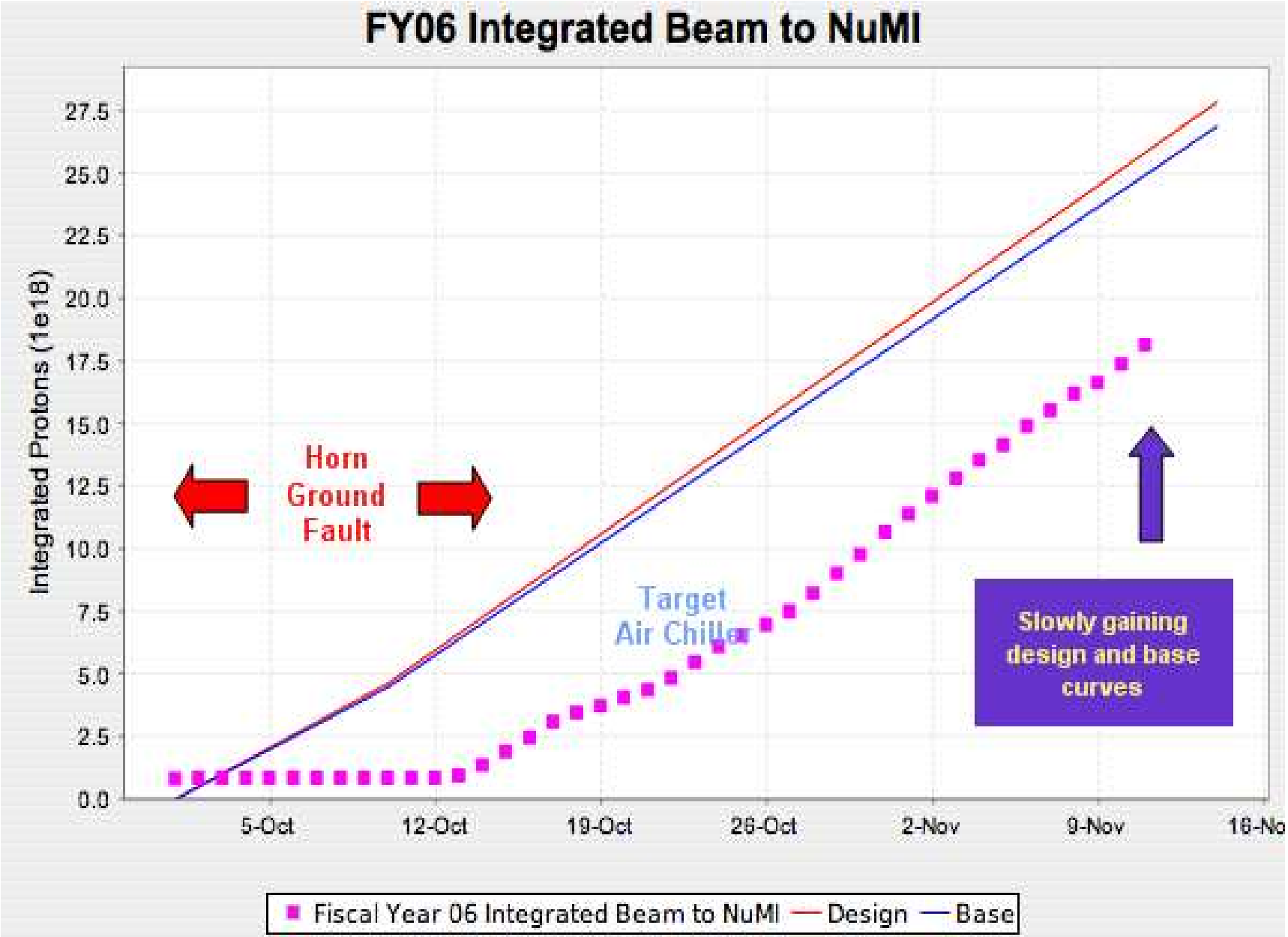

Tevatron Delivered Luminosity: Nov-04-2005 to Nov-11-2005
Average Delivered Luminosity = 20.37 pb-1
(07:00 Friday to 07:00 Friday)
KEY
Store #
Shot Type
Available Pbars
Initial Luminosity
Ave Delivered Lum
Store Duration
Store End
Delivered Luminosity [1/pb]
Date
Store 4481
Recycler
256.8e10
148.8e30
4993 nb-1
29.9 hrs
Normal
Cryo, EB & B4 Wet Engine Work
TRF1 Repairs
Tevatron Studies
Store 4488
Recycler
84.1e10
65.4e30
1728 nb-1
17.4 hrs
Normal
Store 4489
Recycler
170.3e10
124.7e30
3888 nb-1
25.4 hrs
Normal
Store 4490
Recycler
245.8e10
148.0e30
3944 nb-1
17.7 hrs
Quench
RFSUM Abort
D0 IP Move
F4 Quench due to TRF
D0/CDF Access
F-Sector Access (T:F17K3 Fluorinert Fill)
Store 4492
Recycler
204e10
120.6e30
3892 nb-1
29.1 hrs
Normal
TEvatron End of Store Studies
D0/CDF Access
Store 4494
Recycler
201e10
112.9e30
3656 nb-1
27.2 hrs
Normal
Store 4495
Recycler
304.5e10
166.8e30
(Record)
???? nb-1
?? hrs
Normal
CDF
D0
Brian Drendel
drendel@fnal.gov

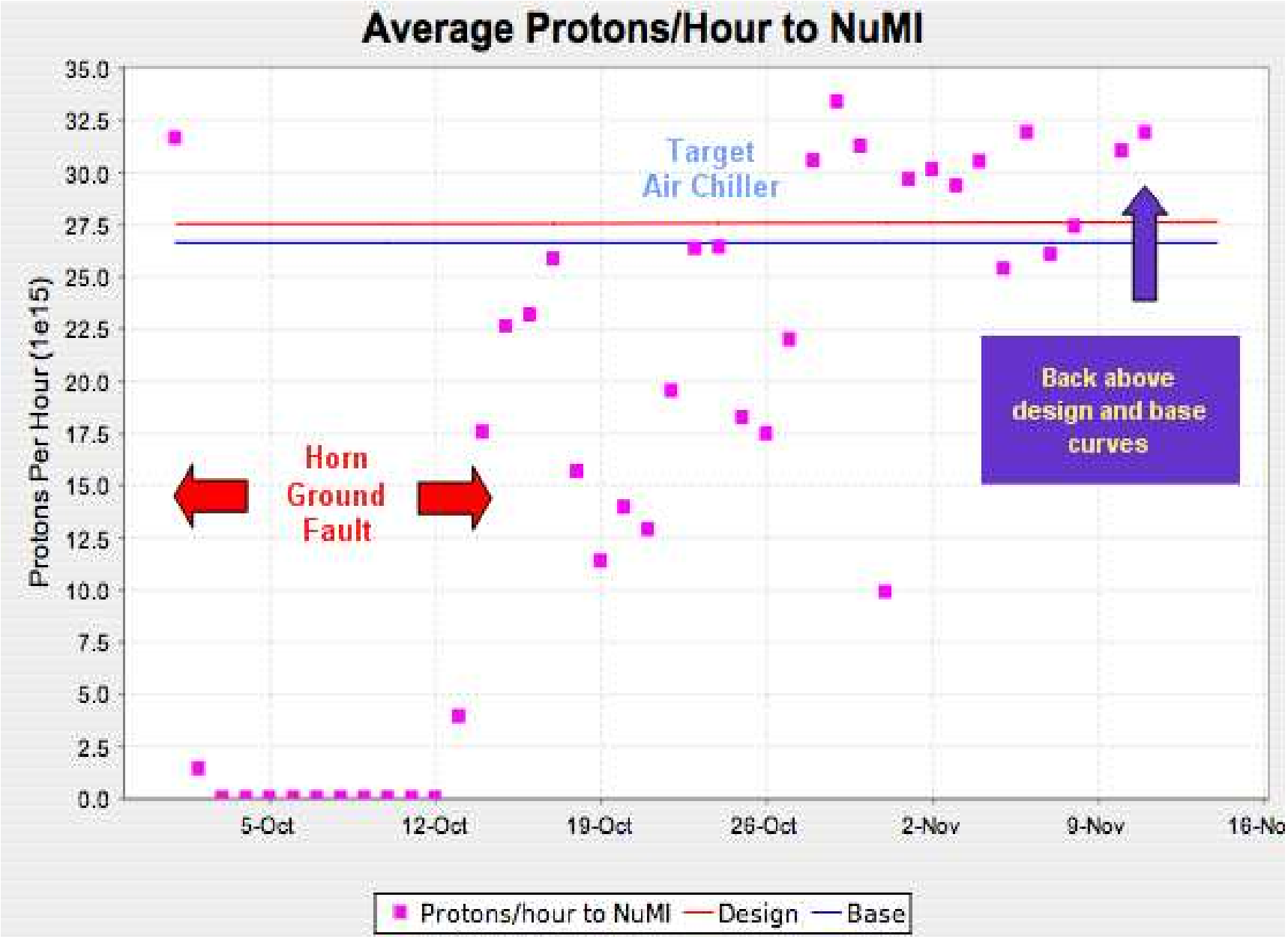

Luminosity vs Pbars
4495
4490
4489
4492
4494
4488
Initial Luminosity 1/¬µb/sec
Available Pbars (e10)
All Shots this week were Recycler-only Shots
Brian Drendel
drendel@fnal.gov
Last 40 Stores
Store 4495
Store 4494
Store 4492
Store 4490
Store 4489
fit of last 40 stores

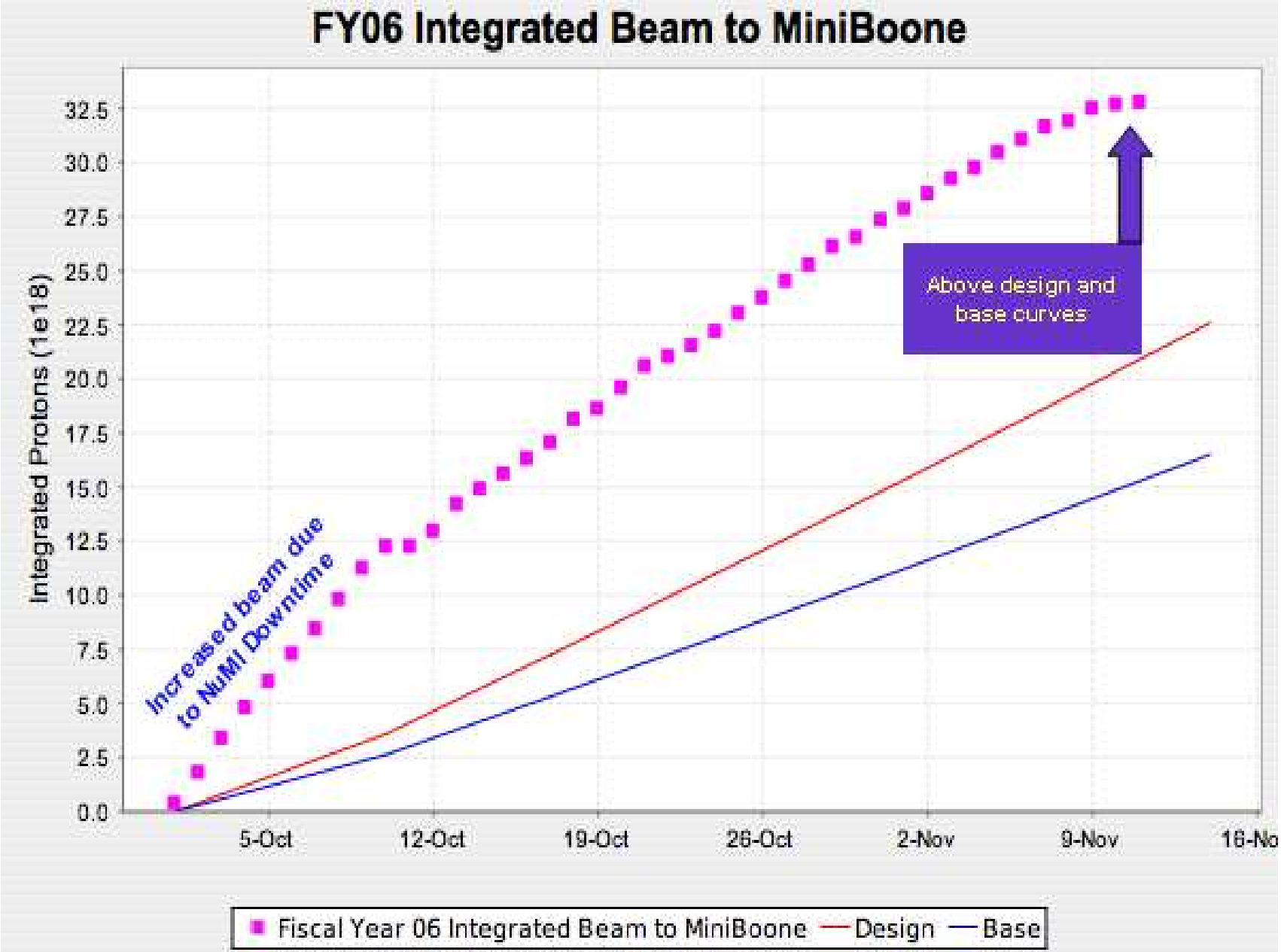

FY06 Integrated Luminosity
Currently above both design and base curves
Integrated Luminosity (1/pb)
110
100
90
80
70
60
50
40
30
20
10
0
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nc
Fiscal Year 06 Integrated Luminosity
Design
Base

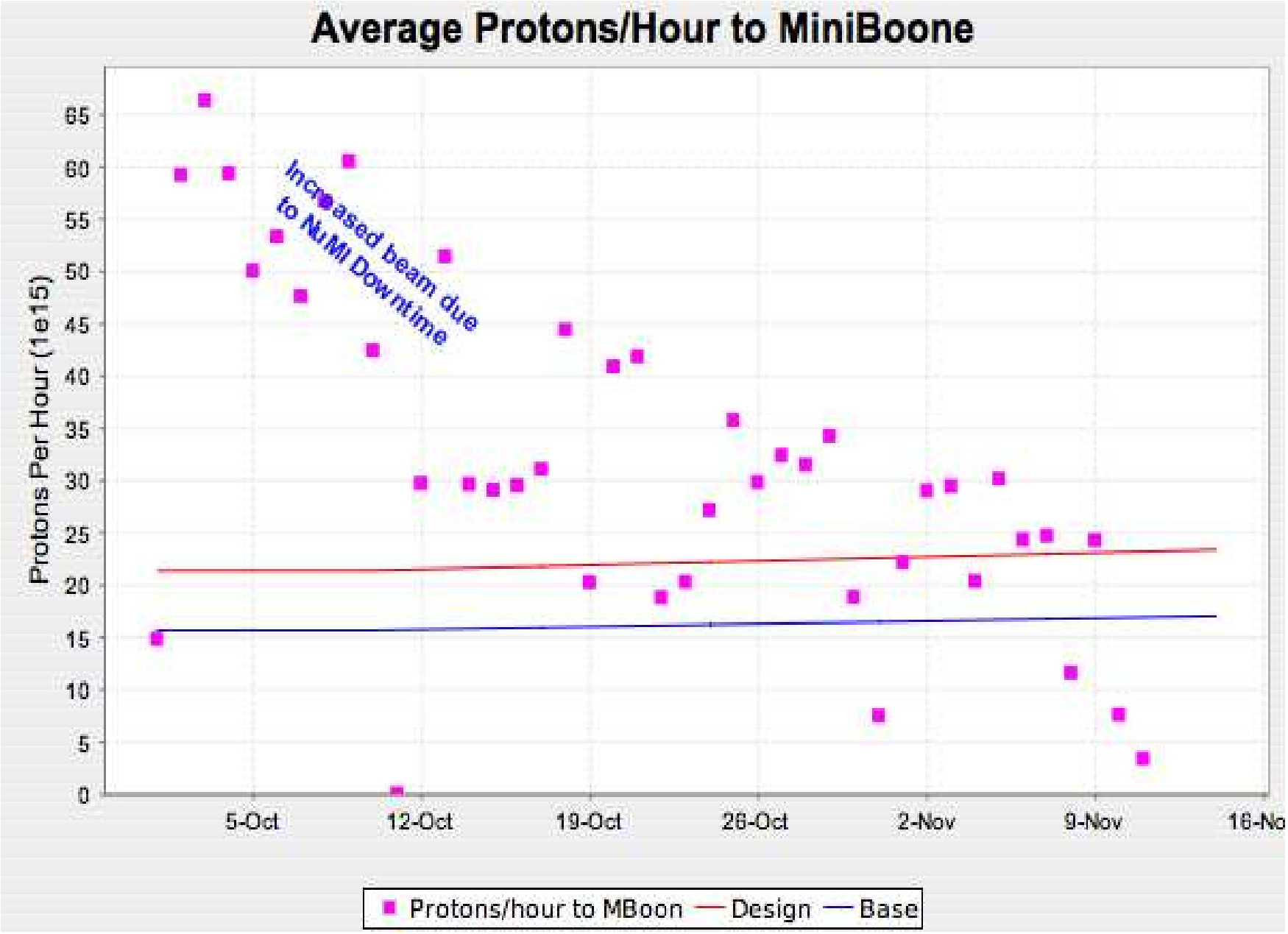

Peak Luminosity
Peak Luminosity (1/μb/sec)
Days since October 1
4477
4495
FY06
Shutdown
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


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)
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
9-Nov
16-No
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
9-Nov
16-No
Target
Air Chiller
Horn
Ground
Fault
Back above
design and base
curves
Protons/hour to NuMI
Design
Base


FY06 Integrated Beam to MiniBoone
Integrated Protons (1e18)
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
9-Nov
16-No
Increased beam due to NuMI Downtime
Above design and base curves
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
9-Nov
16-No
Increased beam due to NuMI Downtime
Protons/hour to MBoon
Design
Base