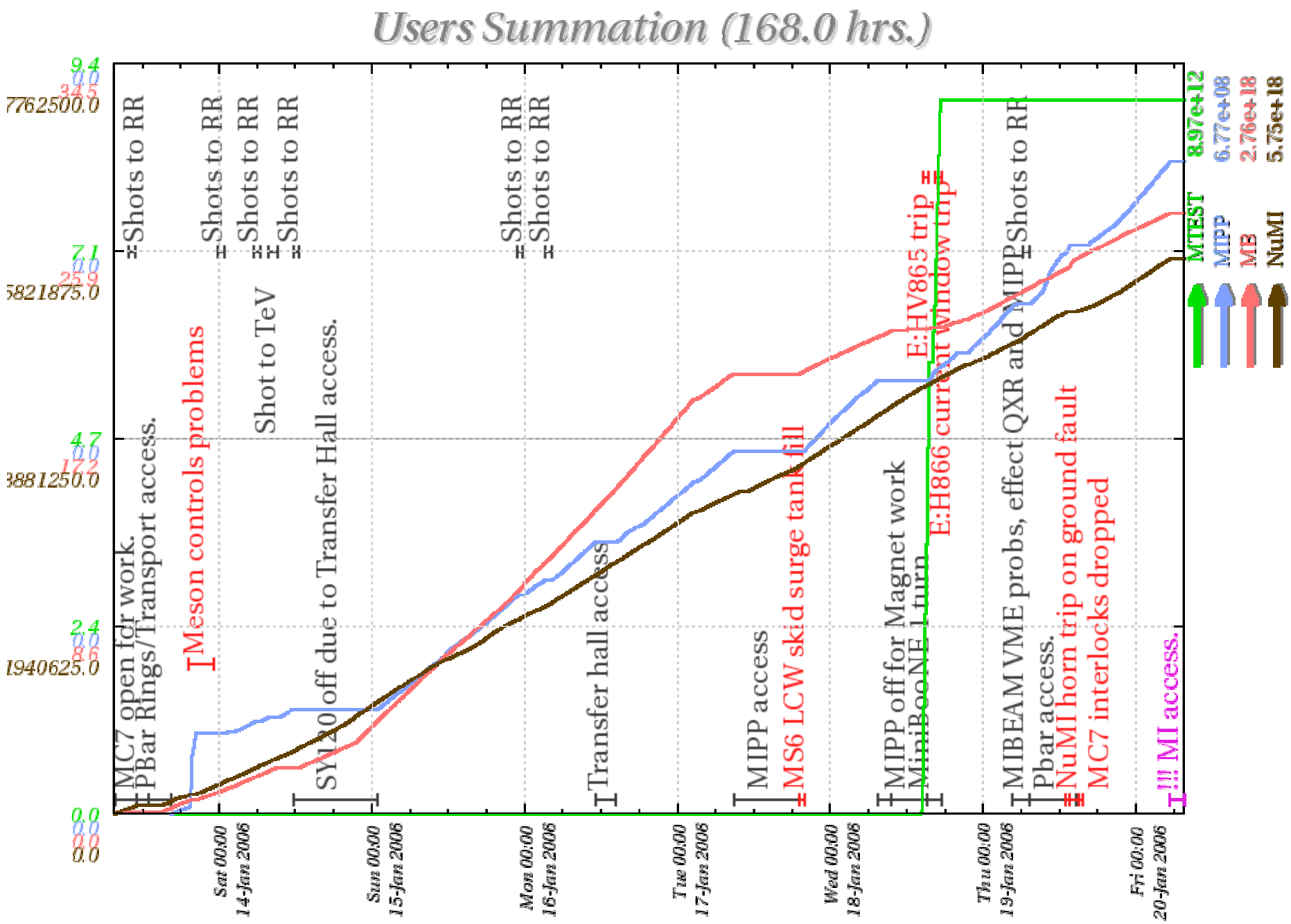
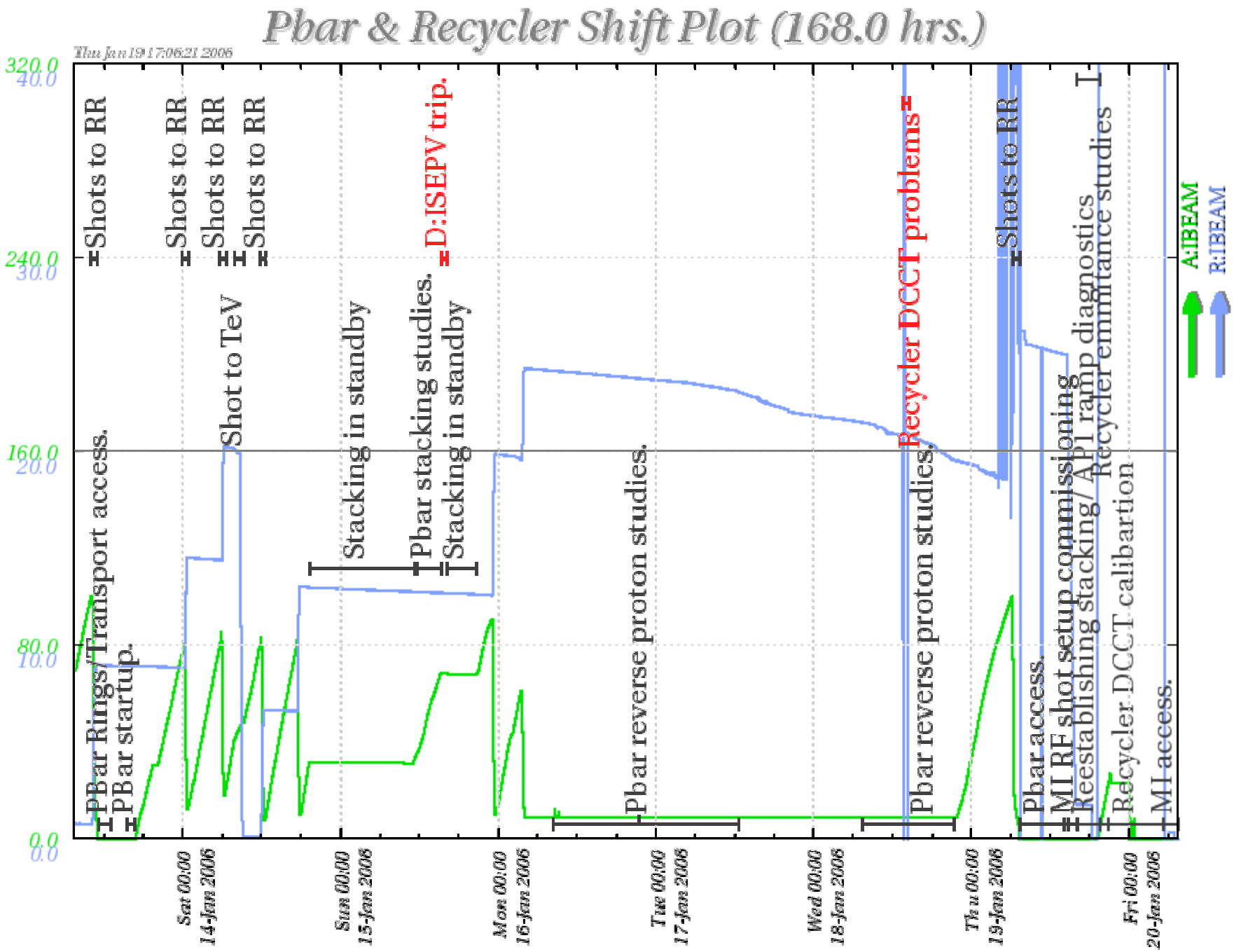
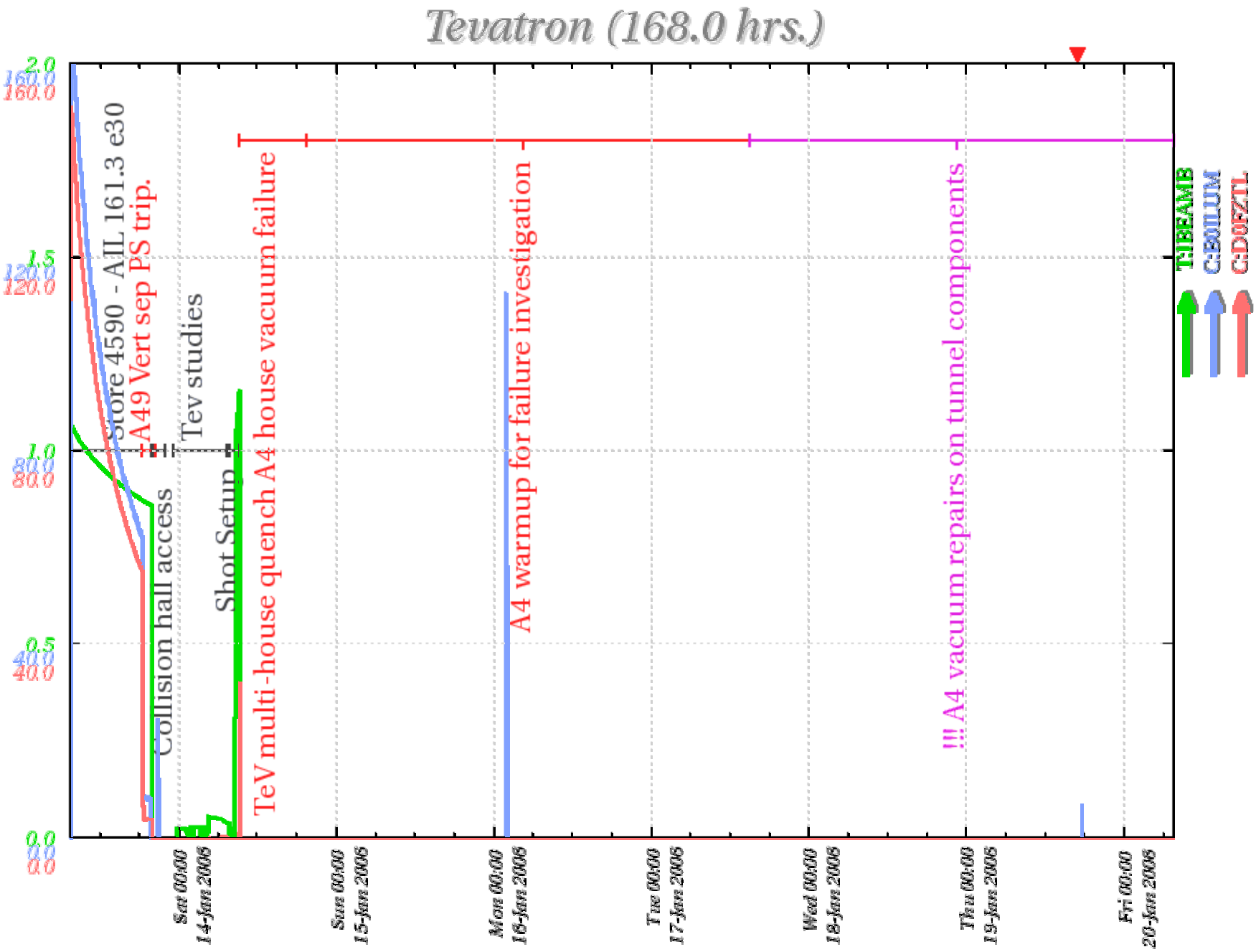
Accelerator Week in Review

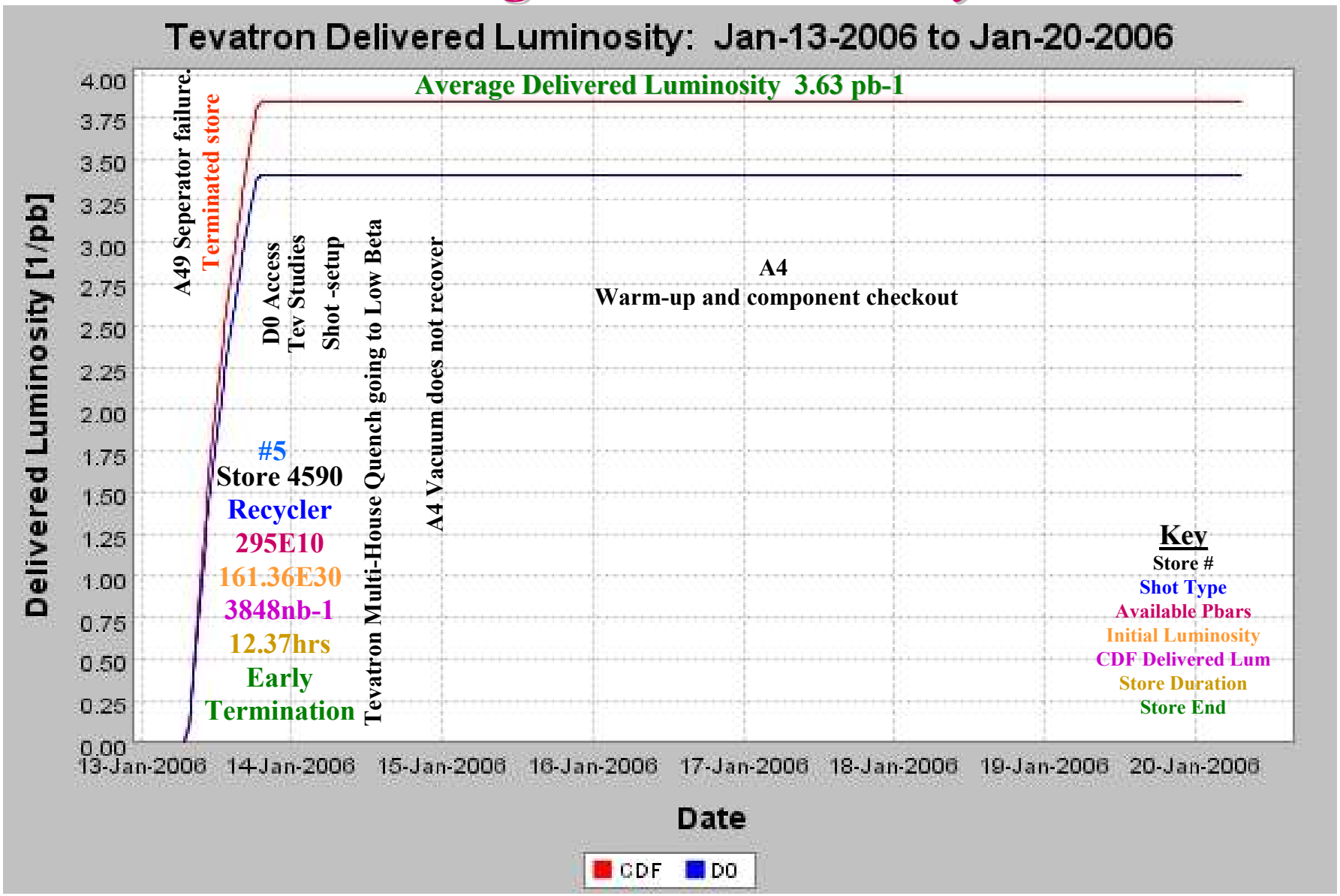
- Part I: Regular 9am Scheduling Meeting
  - Crew Chief Summary
  - 48 hour machine summaries and study requests – Machine Coordinators
  - Operational Plan – Brian Drendel
- Part II: Weekly Machine Reports
  - Weekly Operational Summary – Salah Chaurize
    - User, Pbar and Tevatron weekly operational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

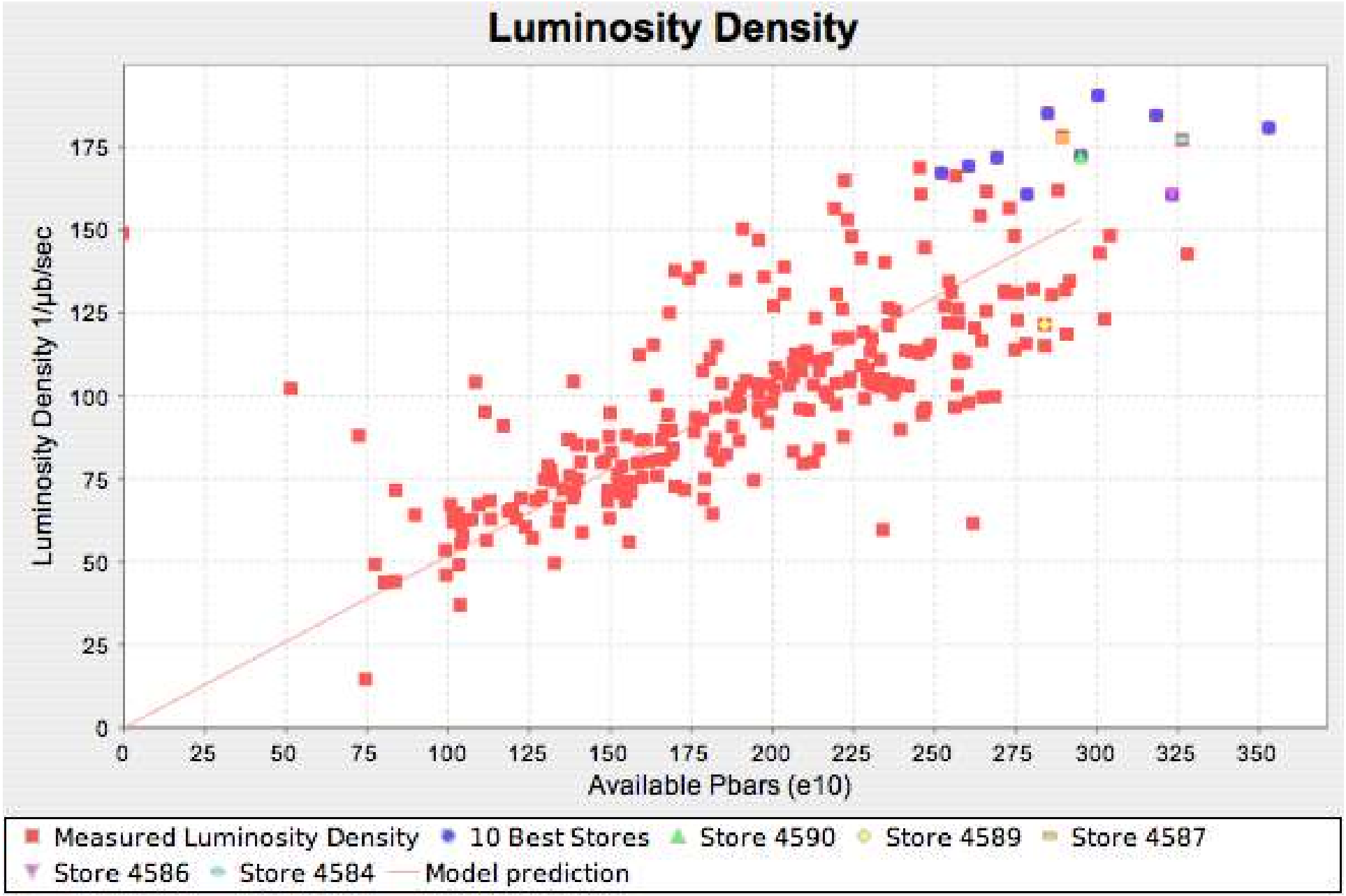

Users Summation (168.0 hrs.)
MC7 open for work.
PBar Rings/Transport access.
Meson controls problems
Shots to RR
Shots to RR
Shots to RR
Shots to RR
Shot to TeV
SY120 off due to Transfer Hall access.
Shots to RR
Shots to RR
Transfer hall access
MIPP access
MS6 LCW skid surge tank fill
MIPP off for Magnet work
MiniBooNE 1 turn
E:HV865 trip
E:H866 current window trip
MIBEAM VME probs, effect QXR and MIPP
Shots to RR
Pbar access.
NuMI horn trip on ground fault
MC7 interlocks dropped
!!! MI access.
MTEST 8.97e+12
MIPP 6.77e+08
MB 2.76e+18
NuMI 5.75e+18
Sat 00:00 14-Jan 2006
Sun 00:00 15-Jan 2006
Mon 00:00 16-Jan 2006
Tue 00:00 17-Jan 2006
Wed 00:00 18-Jan 2006
Thu 00:00 19-Jan 2006
Fri 00:00 20-Jan 2006
0.0
1940625.0
3881250.0
5821875.0
7762500.0

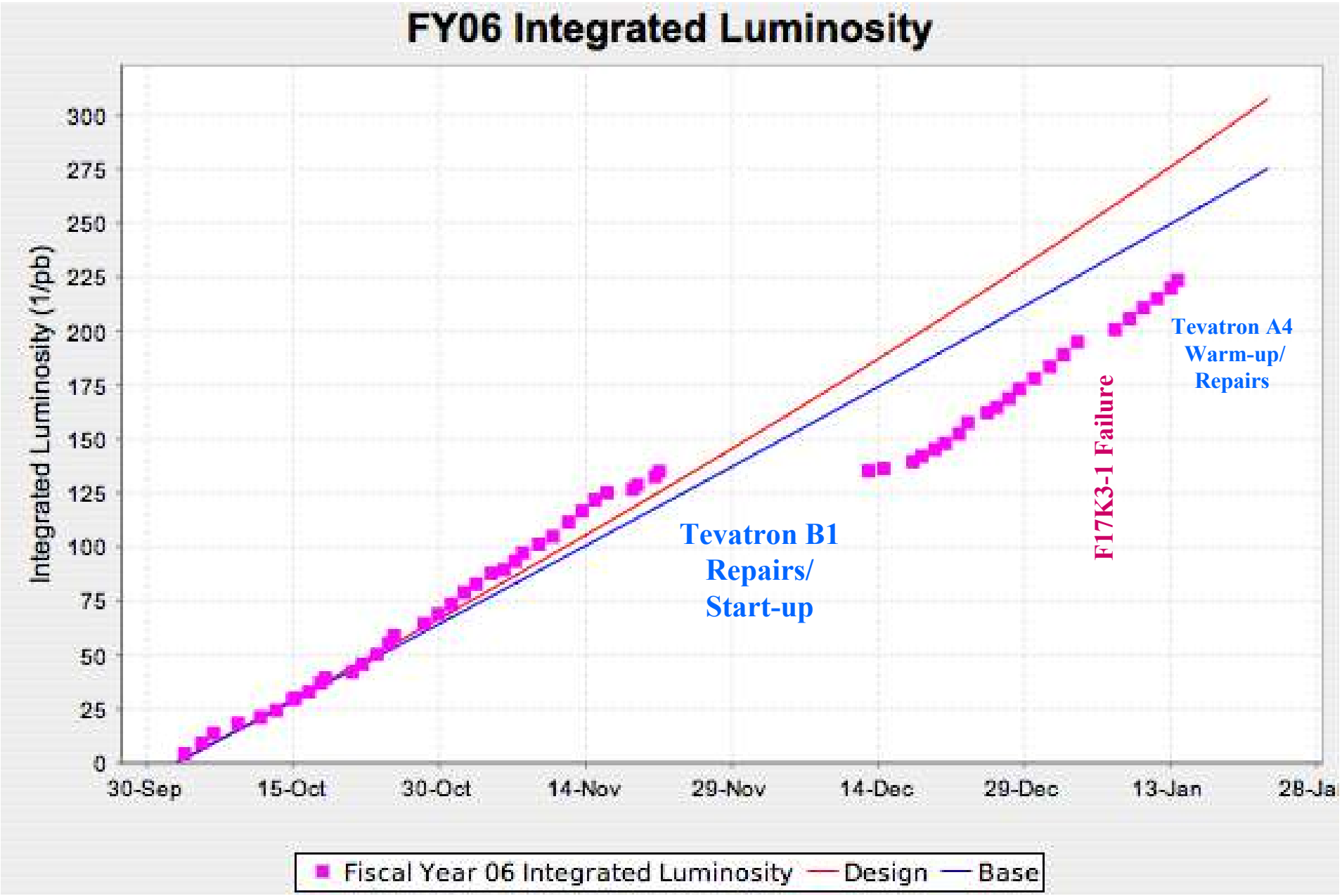

Pbar & Recycler Shift Plot (168.0 hrs.)
Thu Jan 19 17:06:21 2006
320.0
40.0
240.0
30.0
160.0
20.0
80.0
10.0
0.0
0.0
Shots to RR
Shots to RR
Shots to RR
Shots to RR
D:ISEPV trip.
Recycler DCCT problems
Shots to RR
Shot to TeV
Stacking in standby
Pbar stacking studies.
Stacking in standby
Pbar reverse proton studies.
Pbar reverse proton studies.
Pbar Rings/Transport access.
PBar startup.
Pbar access.
MI RF shot setup commissioning
Reestablishing stacking/ AP1 ramp diagnostics
Recycler emittance studies
Recycler DCCT calibartion
MI access.
A:IBEAM
R:IBEAM
Sat 00:00 14-Jan 2006
Sun 00:00 15-Jan 2006
Mon 00:00 16-Jan 2006
Tue 00:00 17-Jan 2006
Wed 00:00 18-Jan 2006
Thu 00:00 19-Jan 2006
Fri 00:00 20-Jan 2006

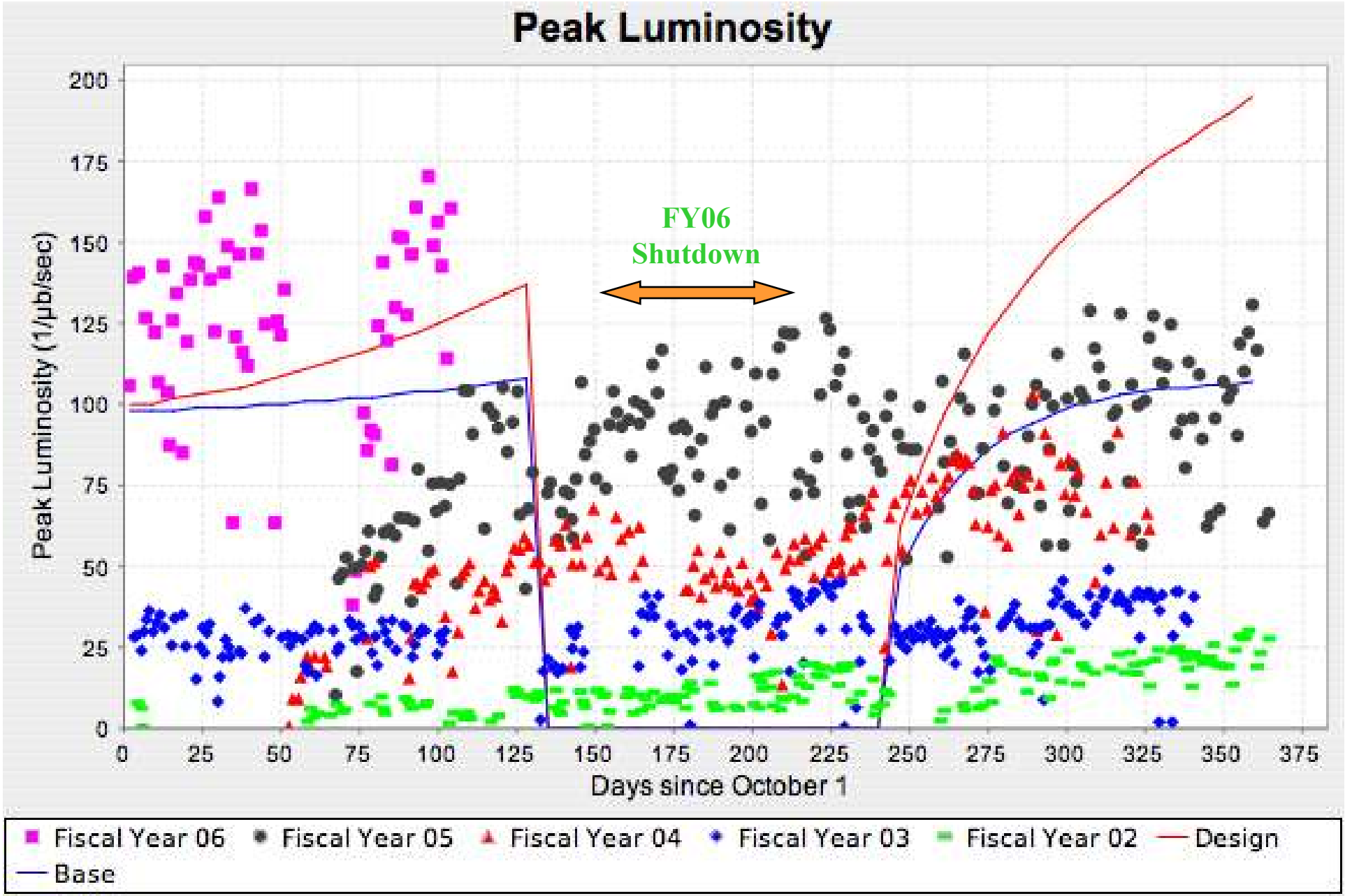

Tevatron (168.0 hrs.)
Store 4590 - AIL 161.3 e30
A49 Vert sep PS trip.
Tev studies
Collision hall access
Shot Setup
TeV multi-house quench A4 house vacuum failure
A4 warmup for failure investigation
!!! A4 vacuum repairs on tunnel components
T:IBEAMB
C:B0ILUM
C:D0FZIL
2.0
160.0
160.0
1.5
120.0
120.0
1.0
80.0
80.0
0.5
40.0
40.0
0.0
0.0
0.0
Sat 00:00 14-Jan 2006
Sun 00:00 15-Jan 2006
Mon 00:00 16-Jan 2006
Tue 00:00 17-Jan 2006
Wed 00:00 18-Jan 2006
Thu 00:00 19-Jan 2006
Fri 00:00 20-Jan 2006

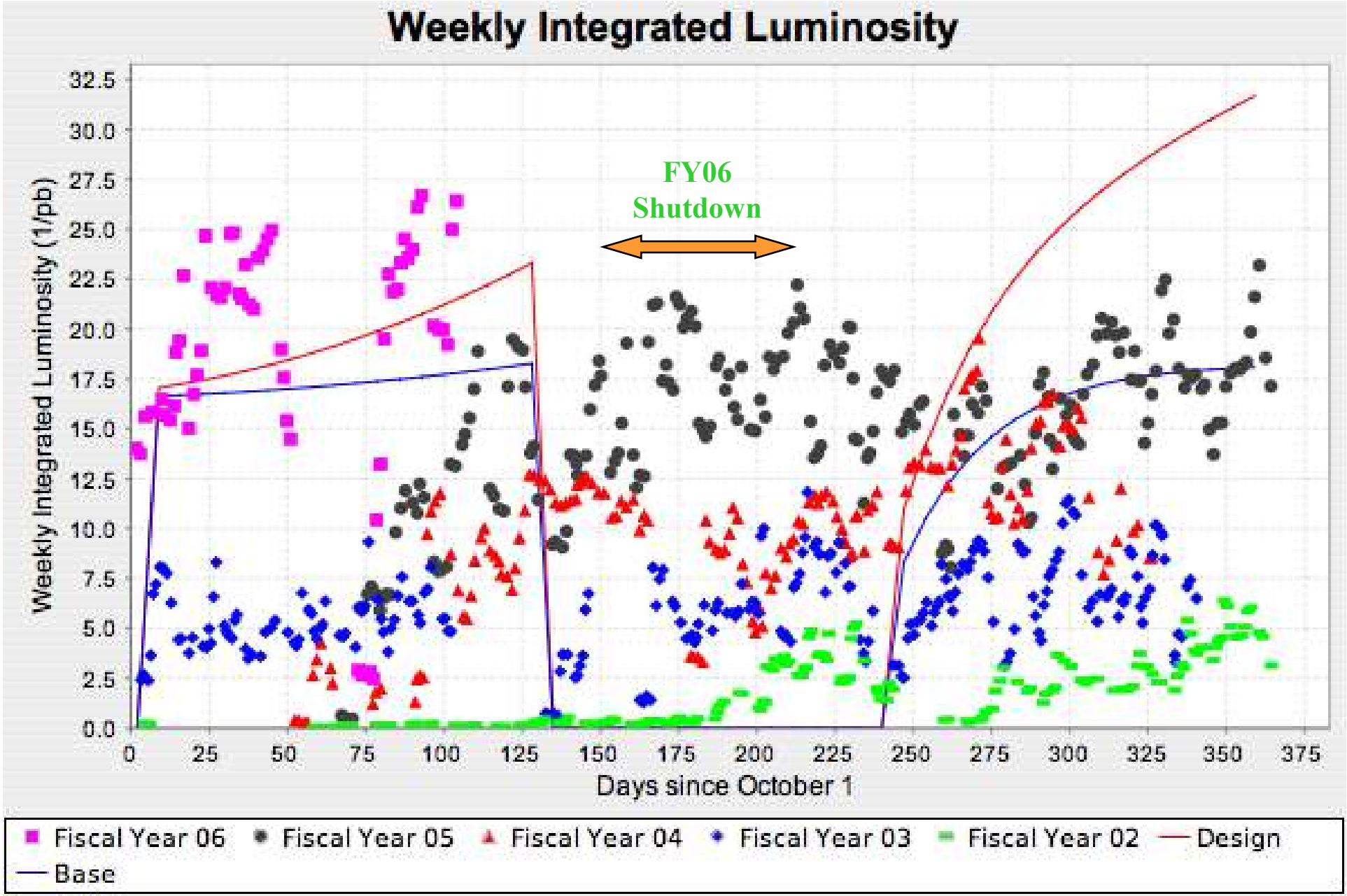
Integrated Luminosity

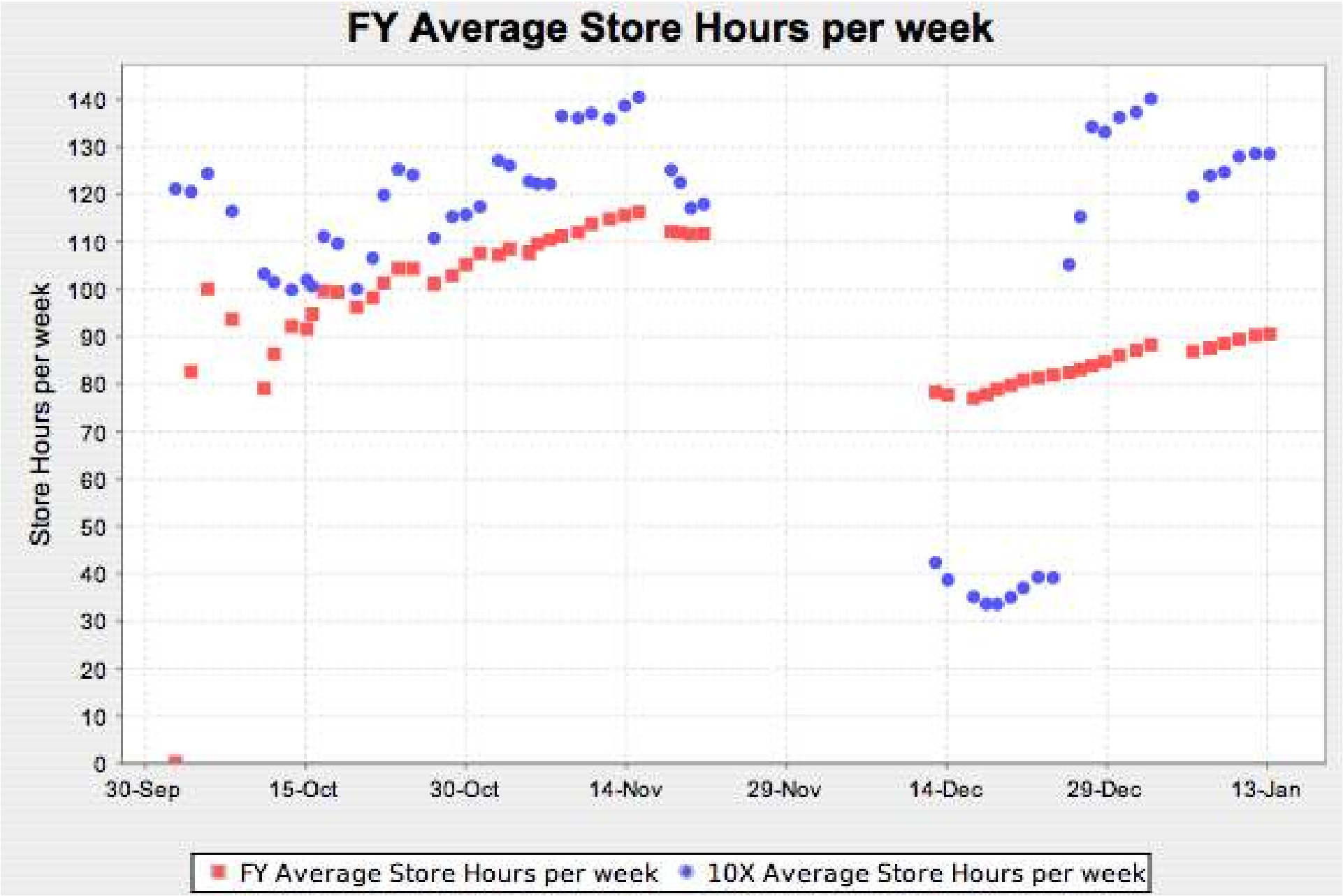


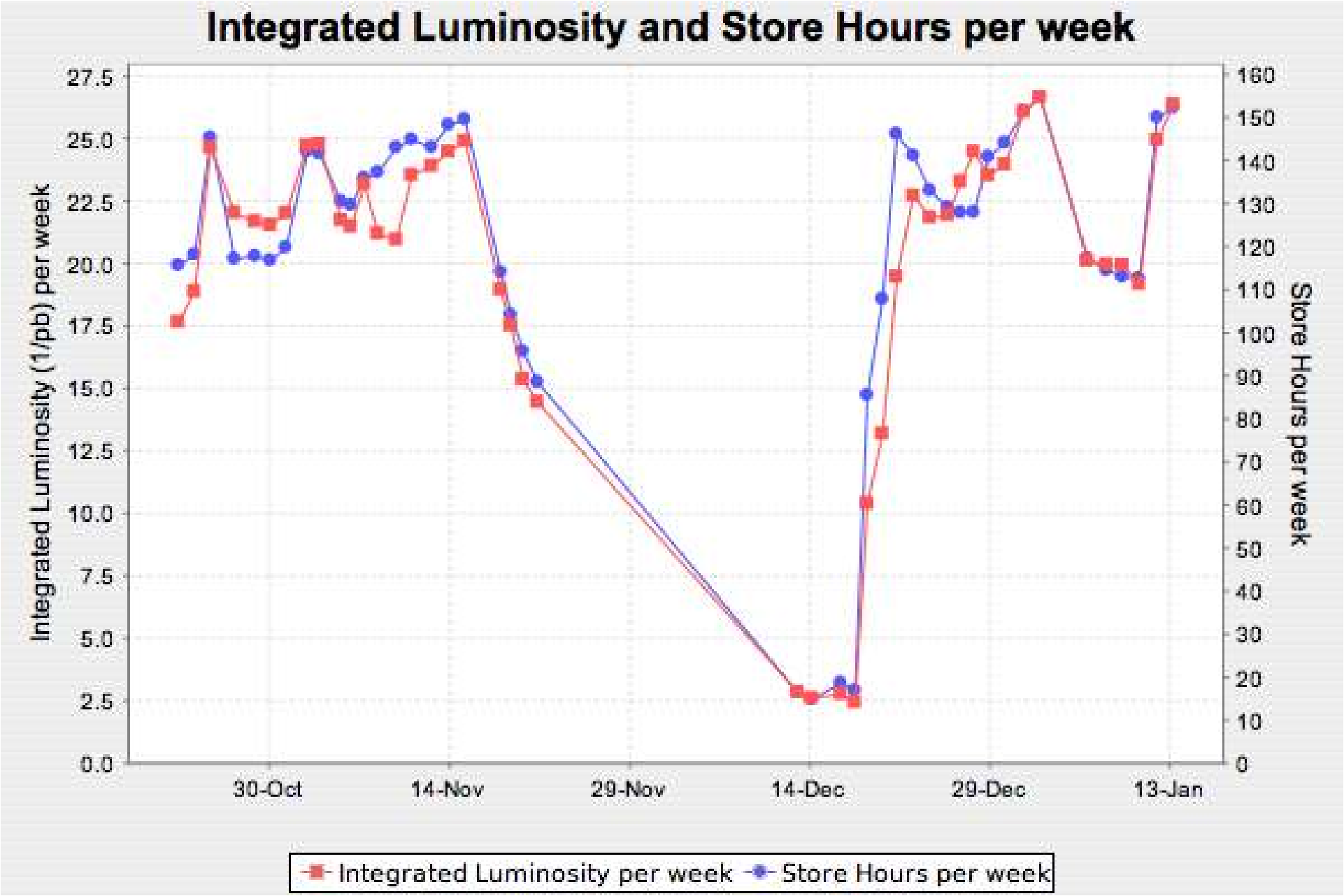

Luminosity Density
Luminosity Density 1/μb/sec
0
25
50
75
100
125
150
175
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
Available Pbars (e10)
Measured Luminosity Density
10 Best Stores
Store 4590
Store 4589
Store 4587
Store 4586
Store 4584
Model prediction

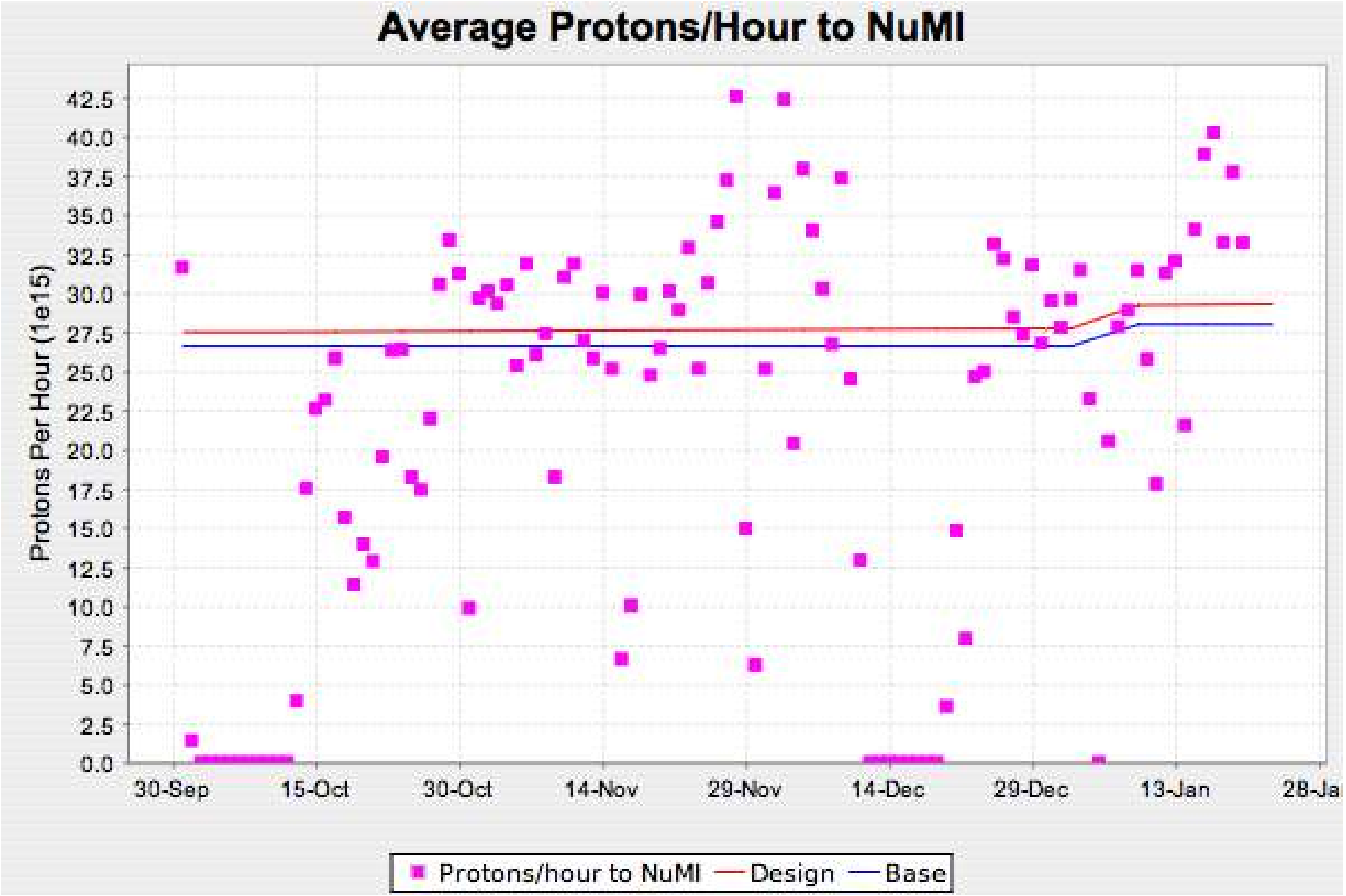

FY06 Integrated Luminosity
Integrated Luminosity (1/pb)
300
275
250
225
200
175
150
125
100
75
50
25
0
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
28-Ja
Tevatron B1
Repairs/
Start-up
F17K3-1 Failure
Tevatron A4
Warm-up/
Repairs
Fiscal Year 06 Integrated Luminosity
Design
Base

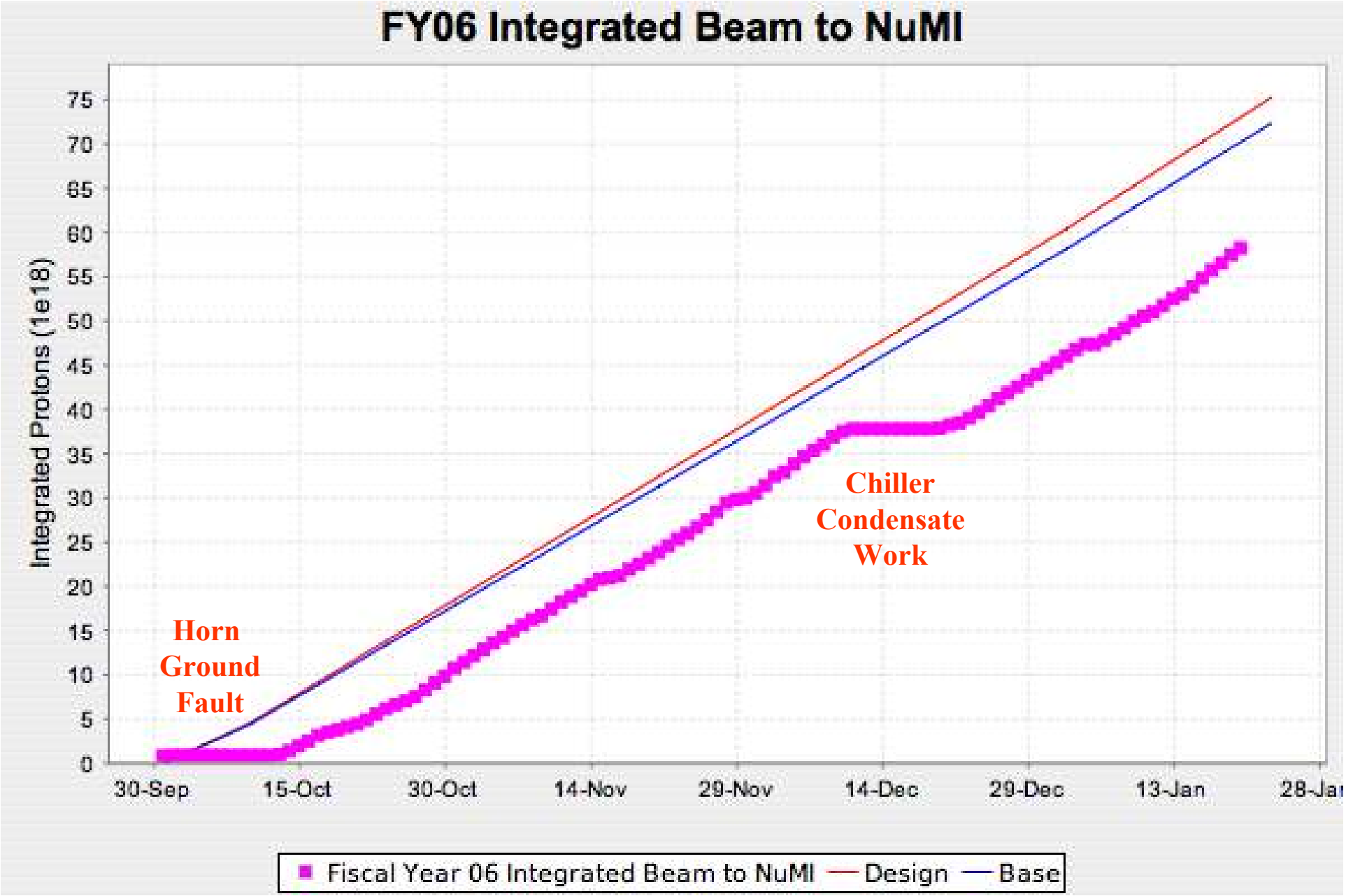

Peak Luminosity
Peak Luminosity (1/μb/sec)
200
175
150
125
100
75
50
25
0
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Days since October 1
FY06
Shutdown
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base

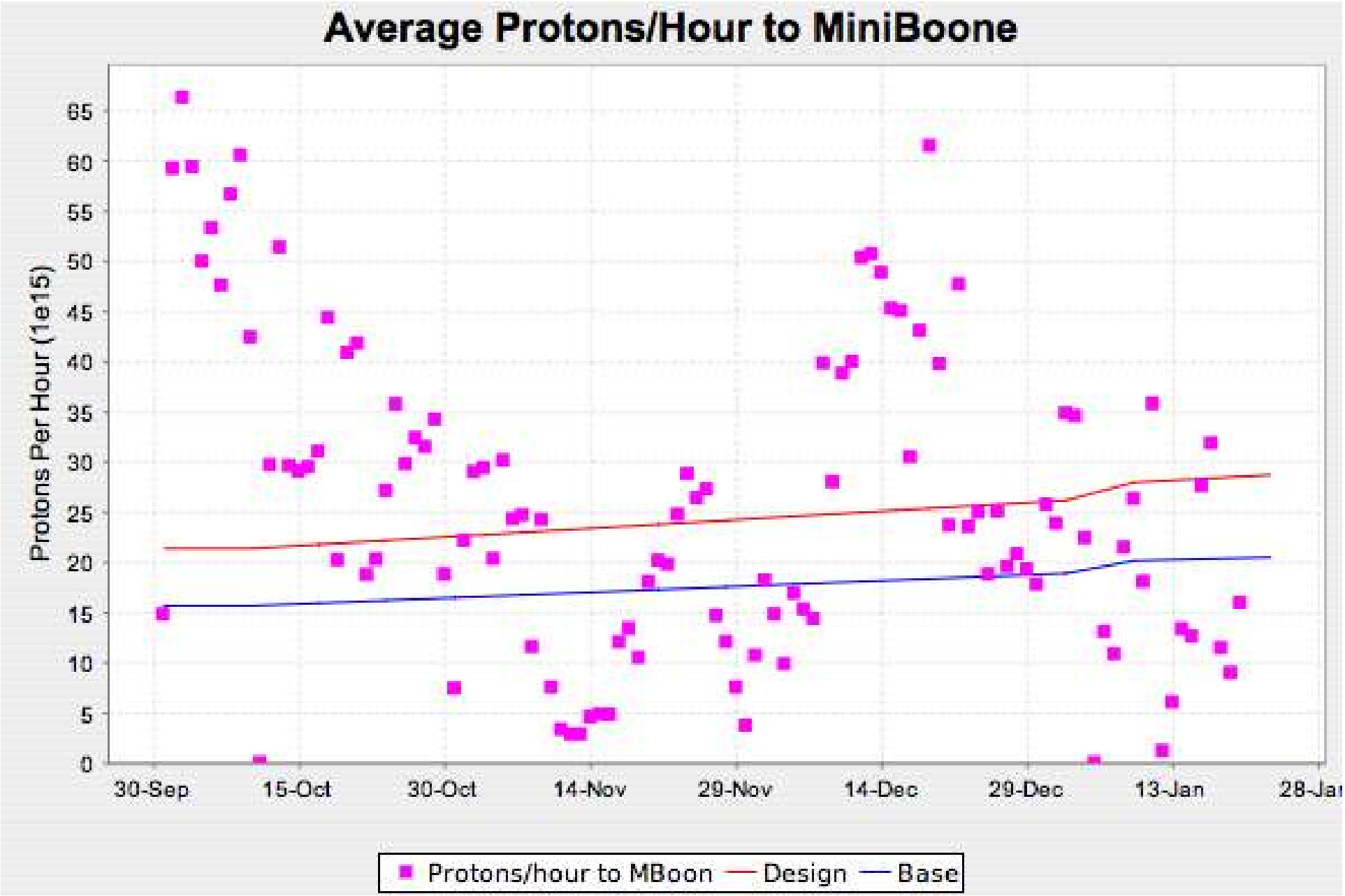

Weekly Integrated Luminosity
Weekly Integrated Luminosity (1/pb)
32.5
30.0
27.5
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Days since October 1
FY06
Shutdown
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design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

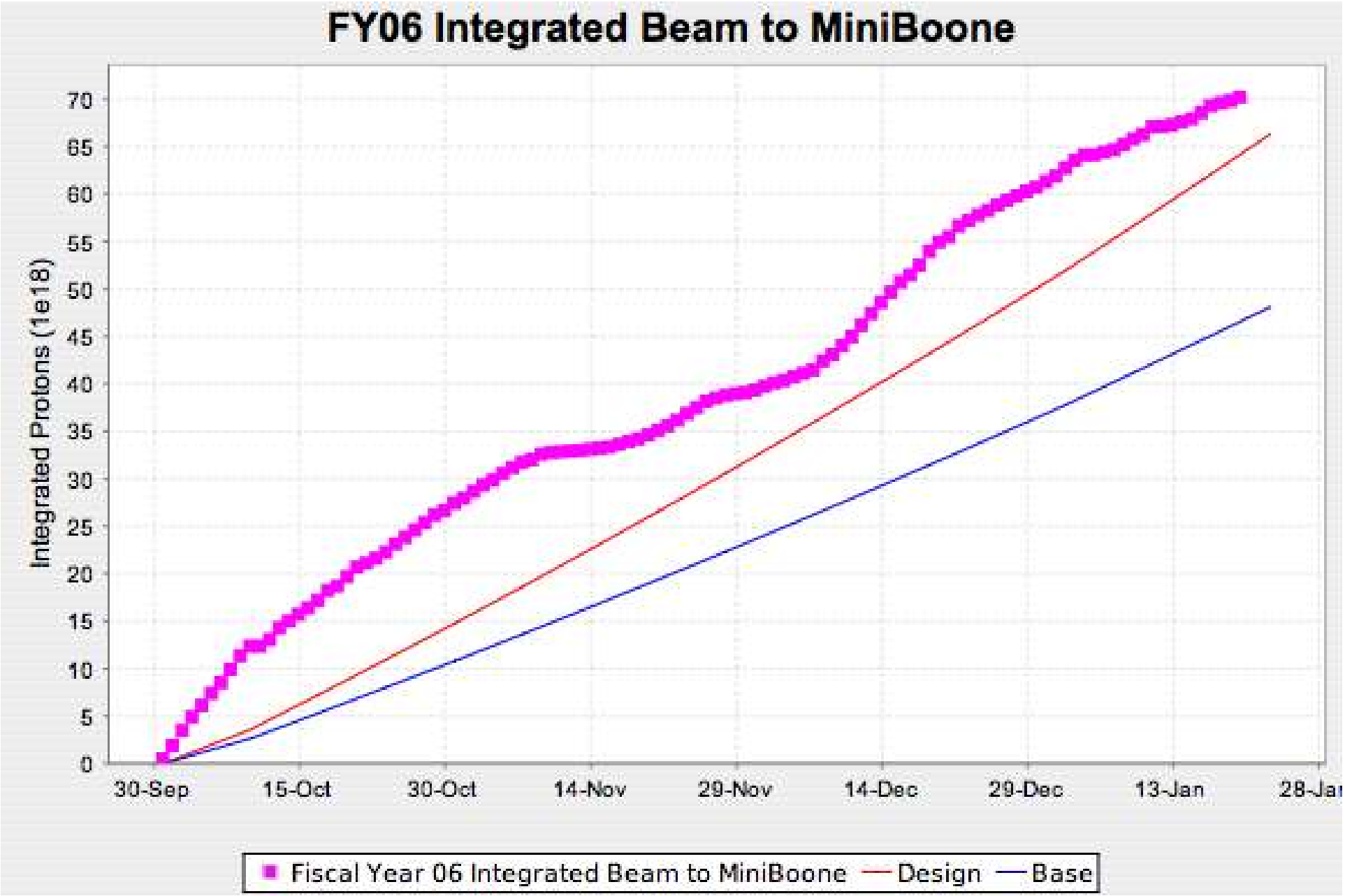

FY Average Store Hours per week
Store Hours per week
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
FY Average Store Hours per week
10X Average Store Hours per week


Integrated Luminosity and Store Hours per week
Integrated Luminosity (1/pb) per week
Store Hours per week
27.5
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
Integrated Luminosity per week
Store Hours per week


Average Protons/Hour to NuMI
Protons Per Hour (1e15)
42.5
40.0
37.5
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
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
28-Ja
Protons/hour to NuMI
Design
Base


FY06 Integrated Beam to NuMI
Integrated Protons (1e18)
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
Horn Ground Fault
Chiller Condensate Work
Fiscal Year 06 Integrated Beam to NuMI
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
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
Protons/hour to MBoon
Design
Base


FY06 Integrated Beam to MiniBoone
Integrated Protons (1e18)
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
Fiscal Year 06 Integrated Beam to MiniBoone
Design
Base