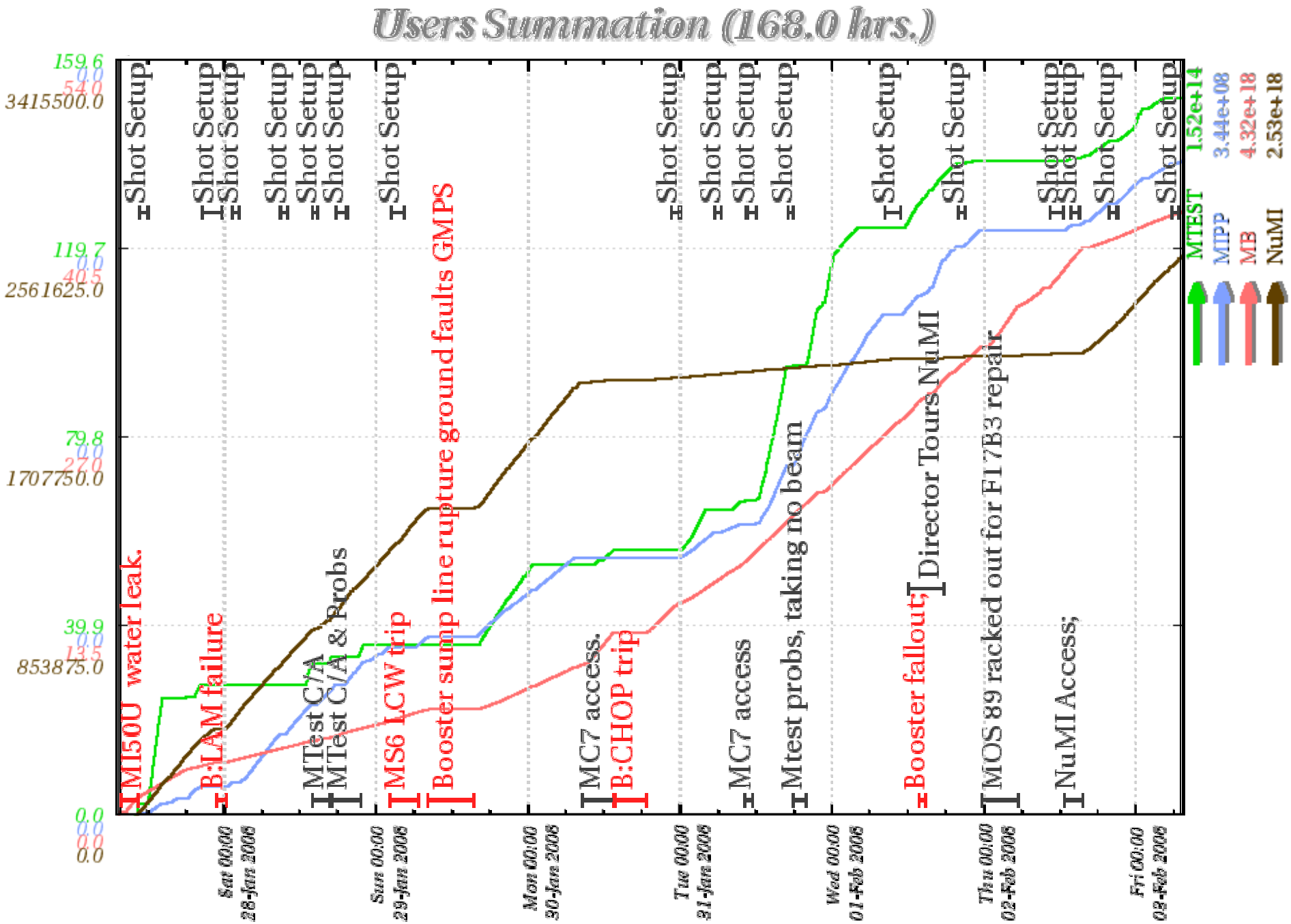
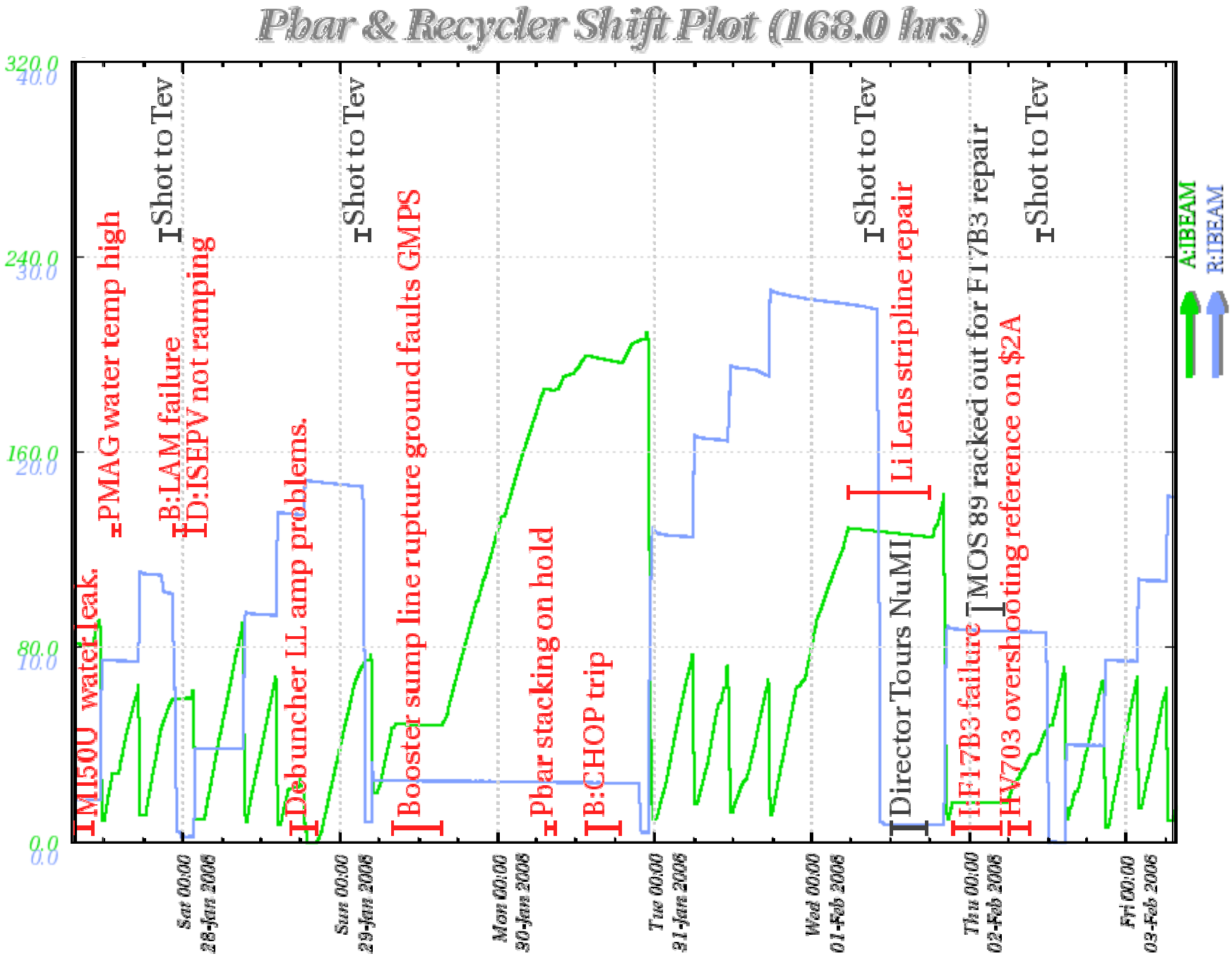
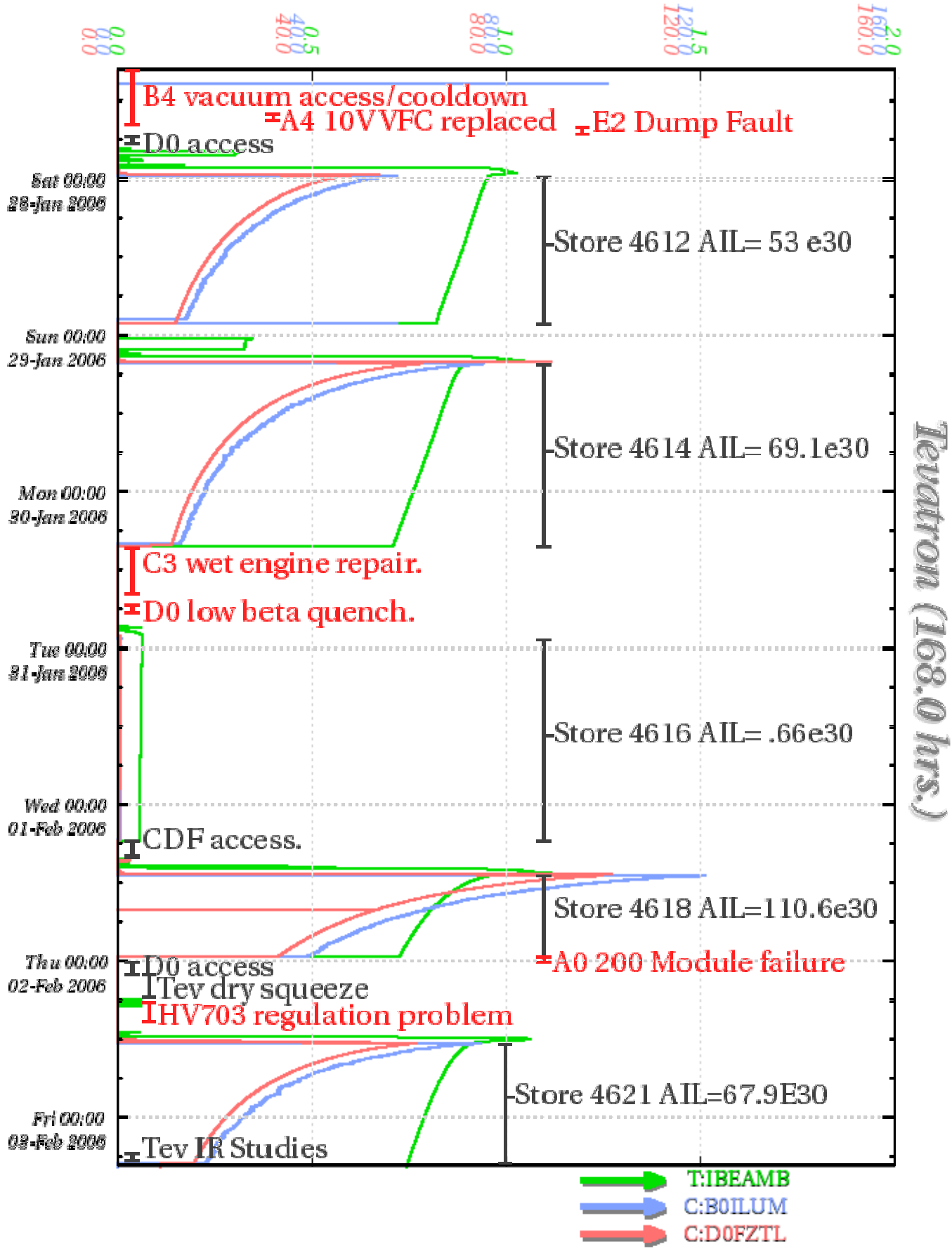
Accelerator Week in Review

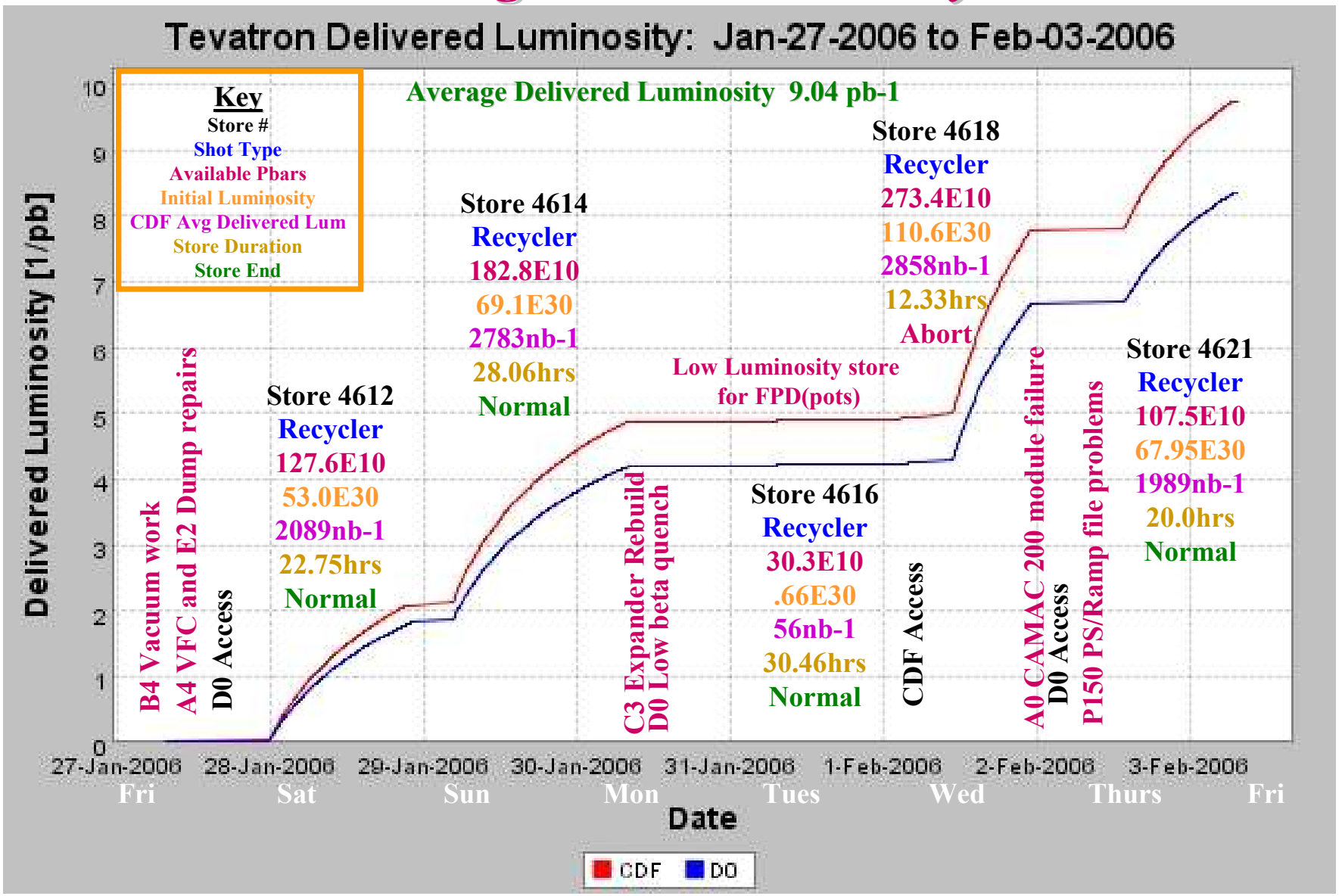
- Part I: Regular 9am Scheduling Meeting
  - Crew Chief Summary
  - 48 hour machine summaries and study requests – Machine Coordinators
  - Operational Plan – Jim Morgan
- Part II: Weekly Machine Reports
  - Weekly Operational Summary – Salah Chaurize
    - User, Pbar and Tevatron weekly operational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

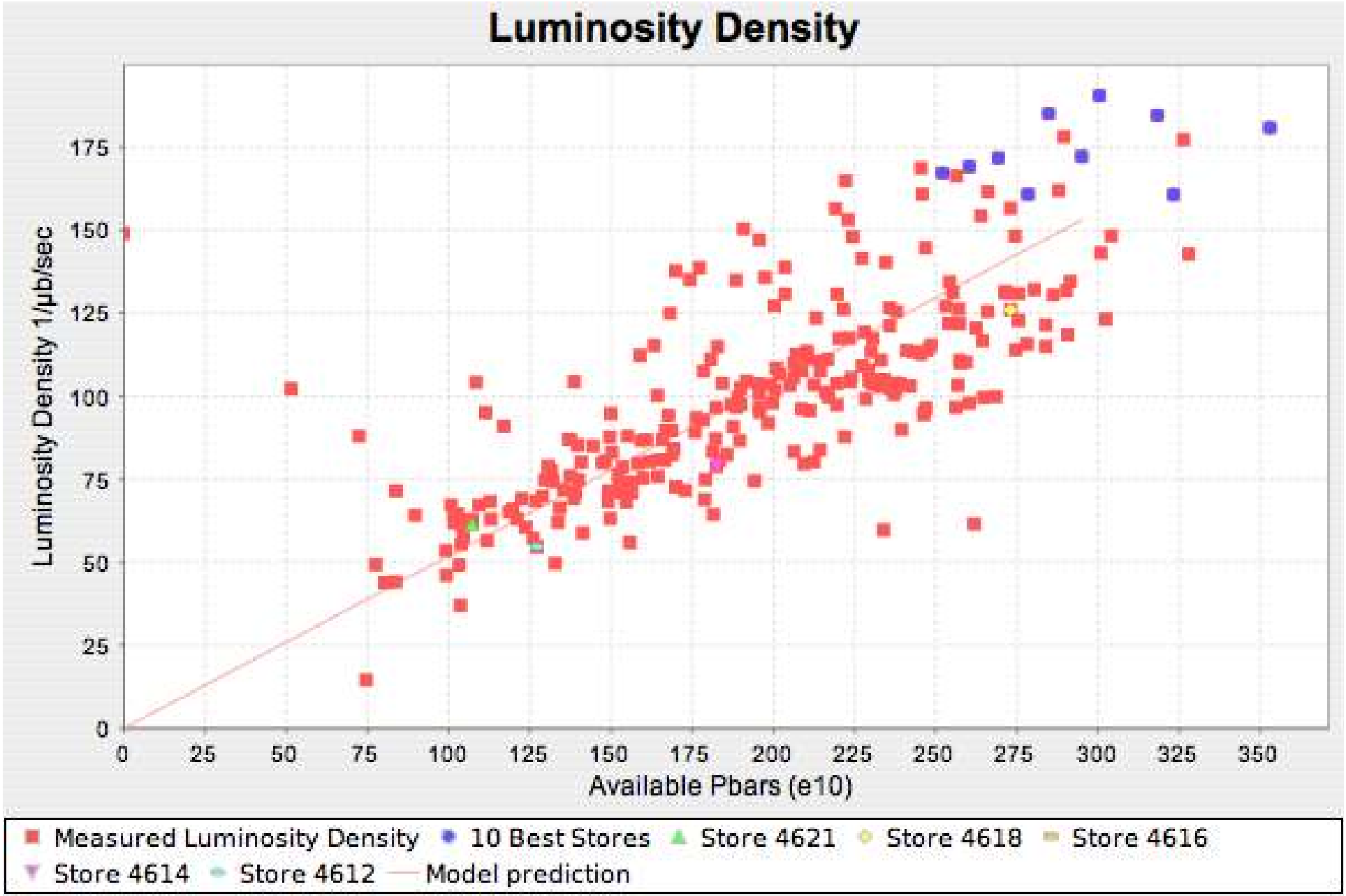

Users Summation (168.0 hrs.)
159.6
00
54.0
3415500.0
119.7
00
40.5
2561625.0
79.8
00
27.0
1707750.0
39.9
00
13.5
853875.0
0.0
00
00
0.0
Shot Setup
MI50U water leak.
B:LAM failure
MTest C/A
MTest C/A & Probs
MS6 LCW trip
Booster sump line rupture ground faults GMPS
MC7 access.
B:CHOP trip
MC7 access
Mtest probs, taking no beam
Booster fallout;
Director Tours NuMI
MOS 89 racked out for F17B3 repair
NuMI Access;
Sat 00:00 28-Jan 2006
Sun 00:00 29-Jan 2006
Mon 00:00 30-Jan 2006
Tue 00:00 31-Jan 2006
Wed 00:00 01-Feb 2006
Thu 00:00 02-Feb 2006
Fri 00:00 03-Feb 2006
MTEST 1.52e+14
MIPP 3.44e+08
MB 4.32e+18
NuMI 2.53e+18

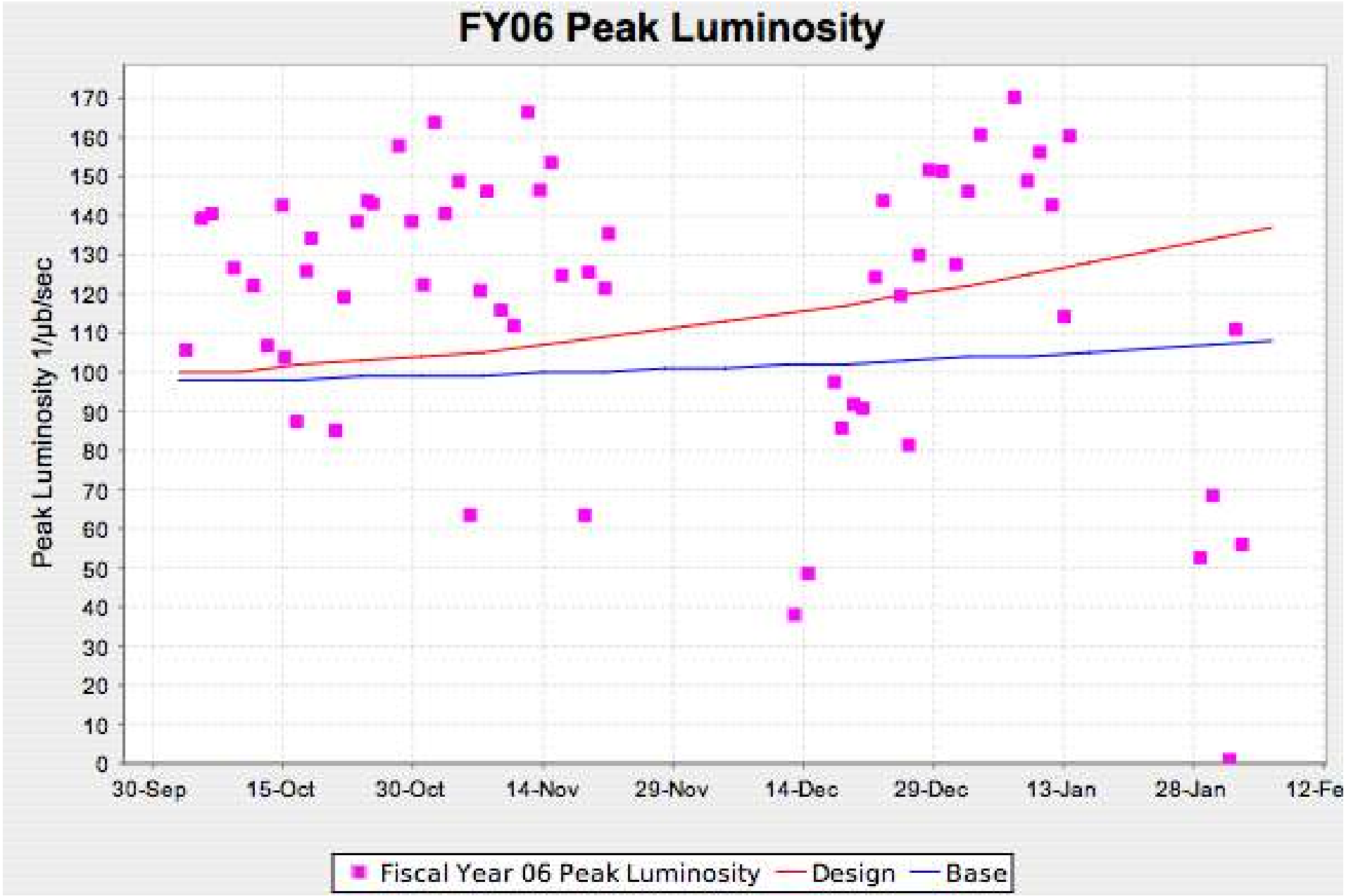

Pbar & Recycler Shift Plot (168.0 hrs.)
320.0
40.0
240.0
30.0
160.0
20.0
80.0
10.0
0.0
0.0
M150U water Leak.
PMAG water temp high
Shot to Tev
B:LAM failure
D:ISEPV not ramping
Debuncher LL amp problems.
Shot to Tev
Booster sump line rupture ground faults GMPS
Pbar stacking on hold
B:CHOP trip
Shot to Tev
Director Tours NuMI
Li Lens stripline repair
TMOS 89 racked out for F17B3 repair
F17B3 failure
HV703 overshooting reference on $2A
Shot to Tev
A:IBEAM
R:IBEAM
Sat 00:00 28-Jan 2006
Sun 00:00 29-Jan 2006
Mon 00:00 30-Jan 2006
Tue 00:00 31-Jan 2006
Wed 00:00 01-Feb 2006
Thu 00:00 02-Feb 2006
Fri 00:00 03-Feb 2006

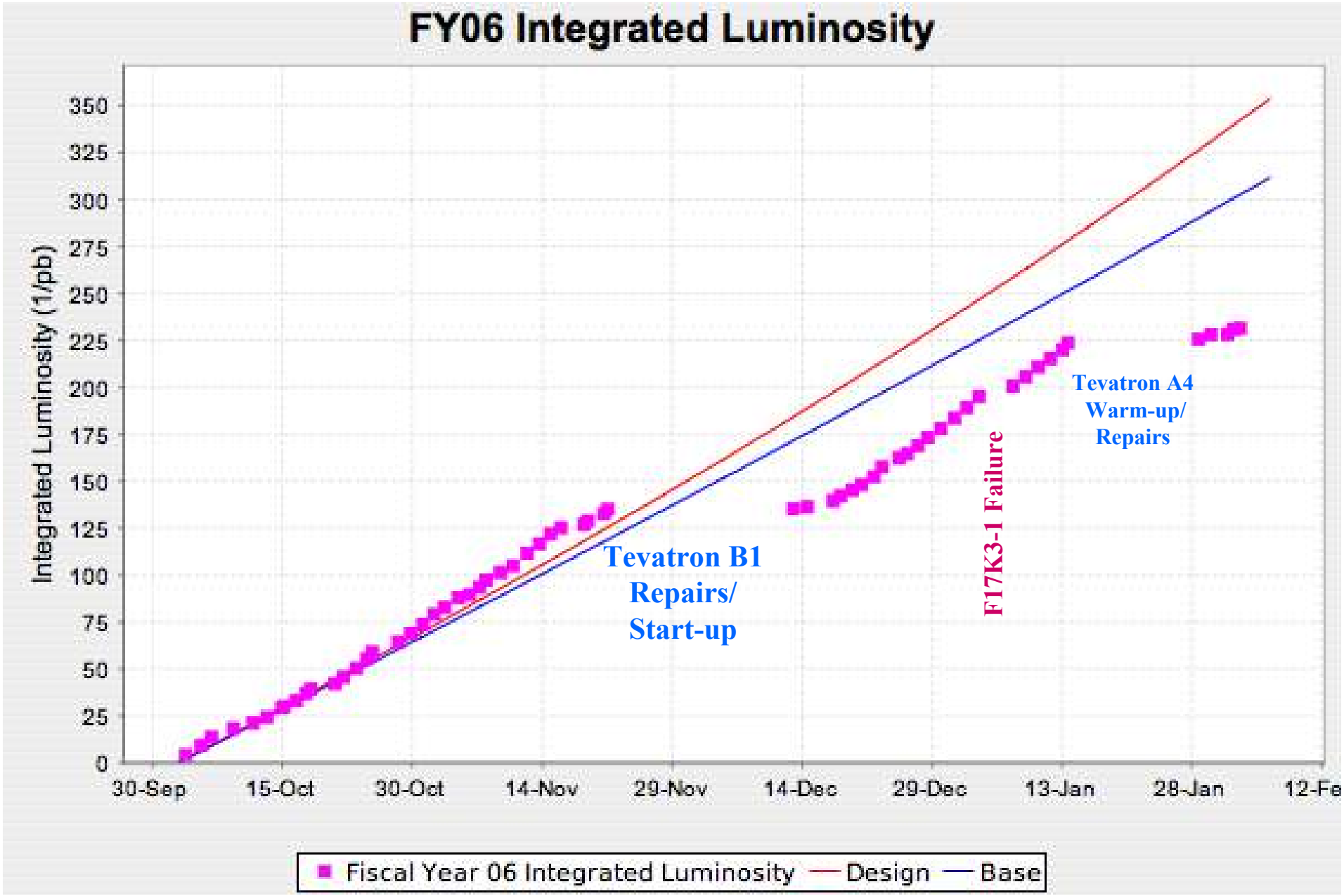

0.0
40.0
80.0
120.0
160.0
0.5
1.0
1.5
2.0
B4 vacuum access/cooldown
A4 10VVFC replaced
E2 Dump Fault
D0 access
Sat 00:00
28-Jan 2006
Store 4612 AIL= 53 e30
Sun 00:00
29-Jan 2006
Store 4614 AIL= 69.1e30
Mon 00:00
30-Jan 2006
C3 wet engine repair.
D0 low beta quench.
Tue 00:00
31-Jan 2006
Store 4616 AIL= .66e30
Wed 00:00
01-Feb 2006
CDF access.
Store 4618 AIL=110.6e30
A0 200 Module failure
Thu 00:00
02-Feb 2006
D0 access
Tev dry squeeze
HV703 regulation problem
Store 4621 AIL=67.9E30
Fri 00:00
03-Feb 2006
Tev IR Studies
T:IBEAMB
C:B0ILUM
C:D0FZTL
Tevatron (168.0 hrs.)

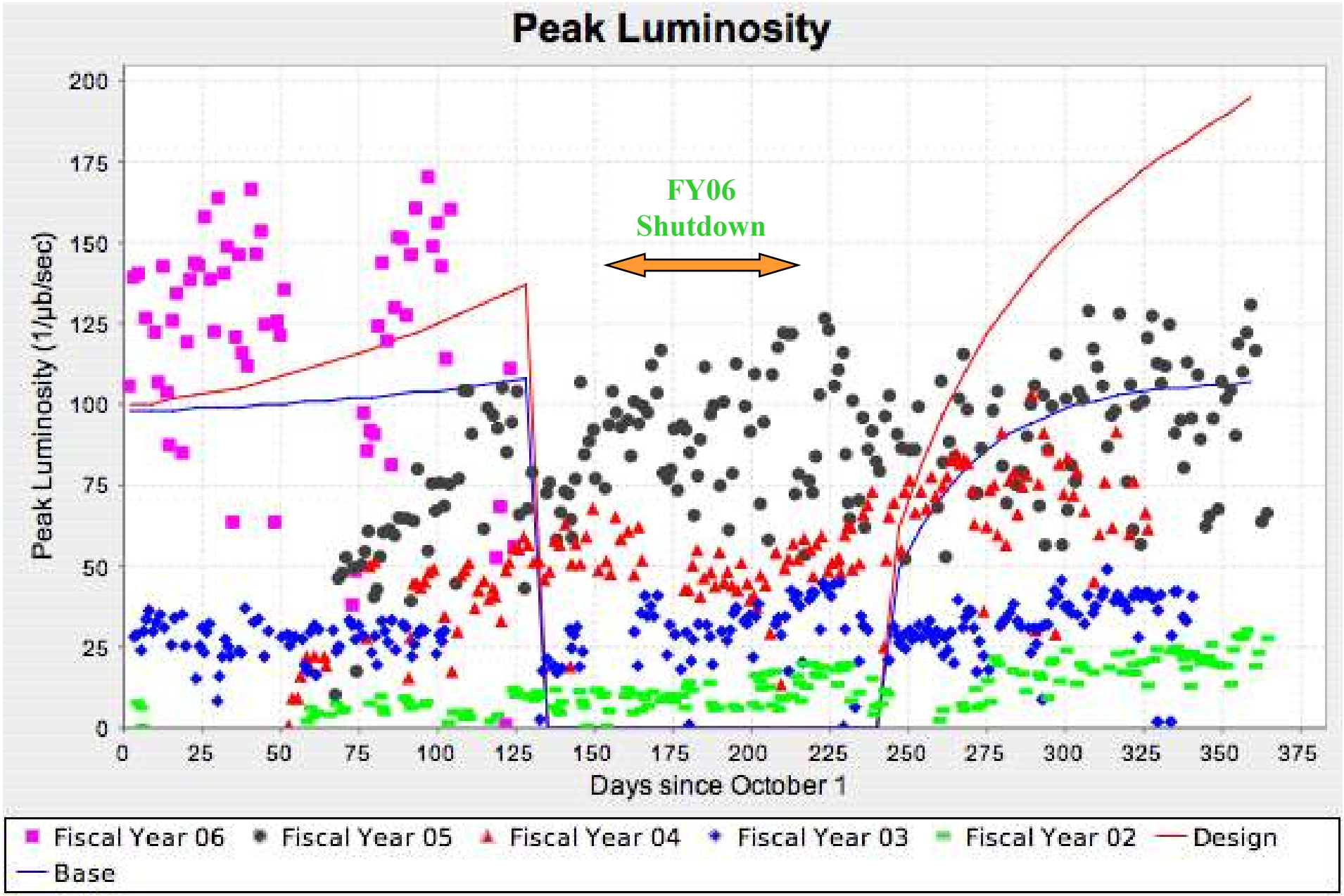
Integrated Luminosity

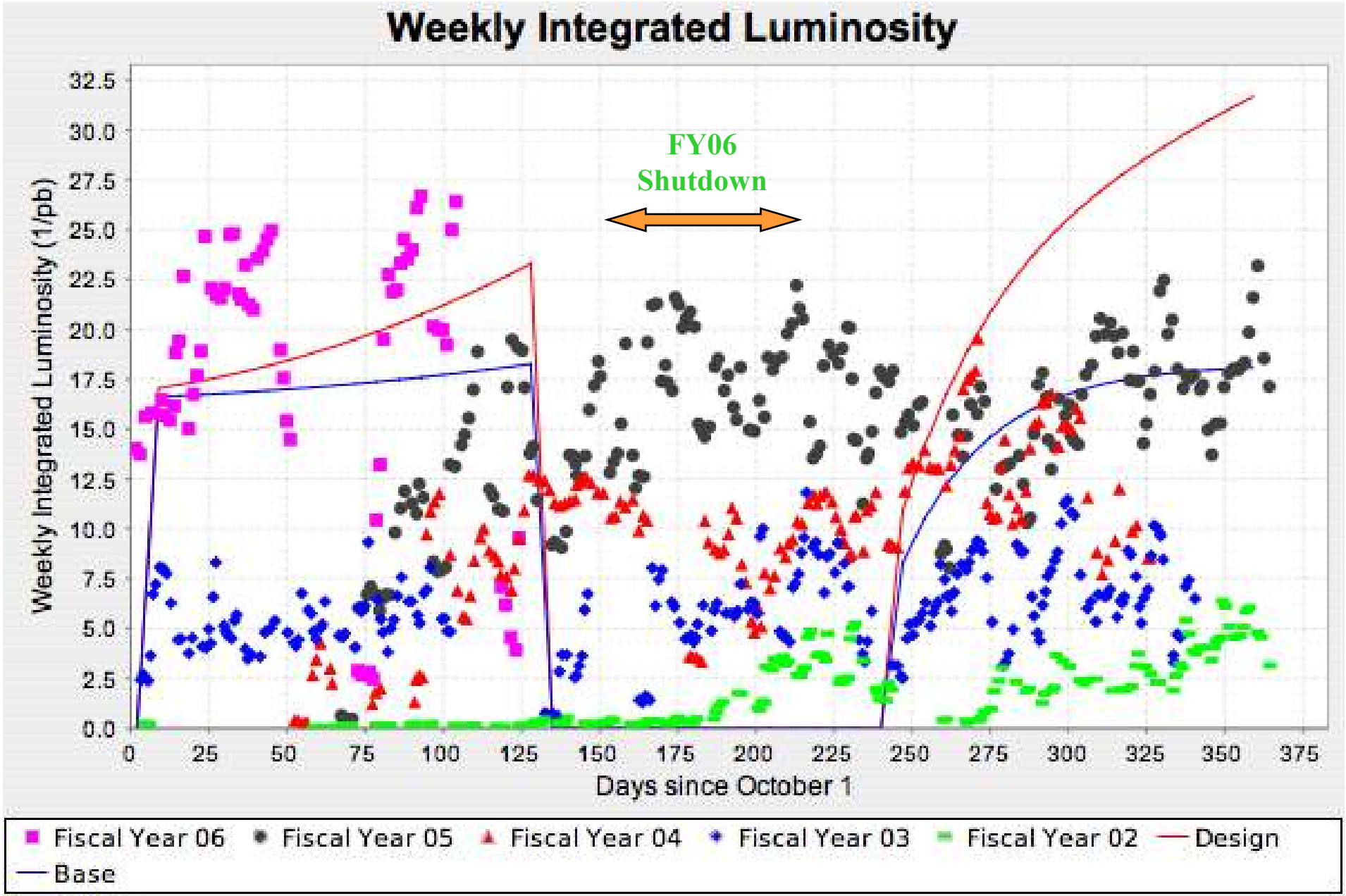


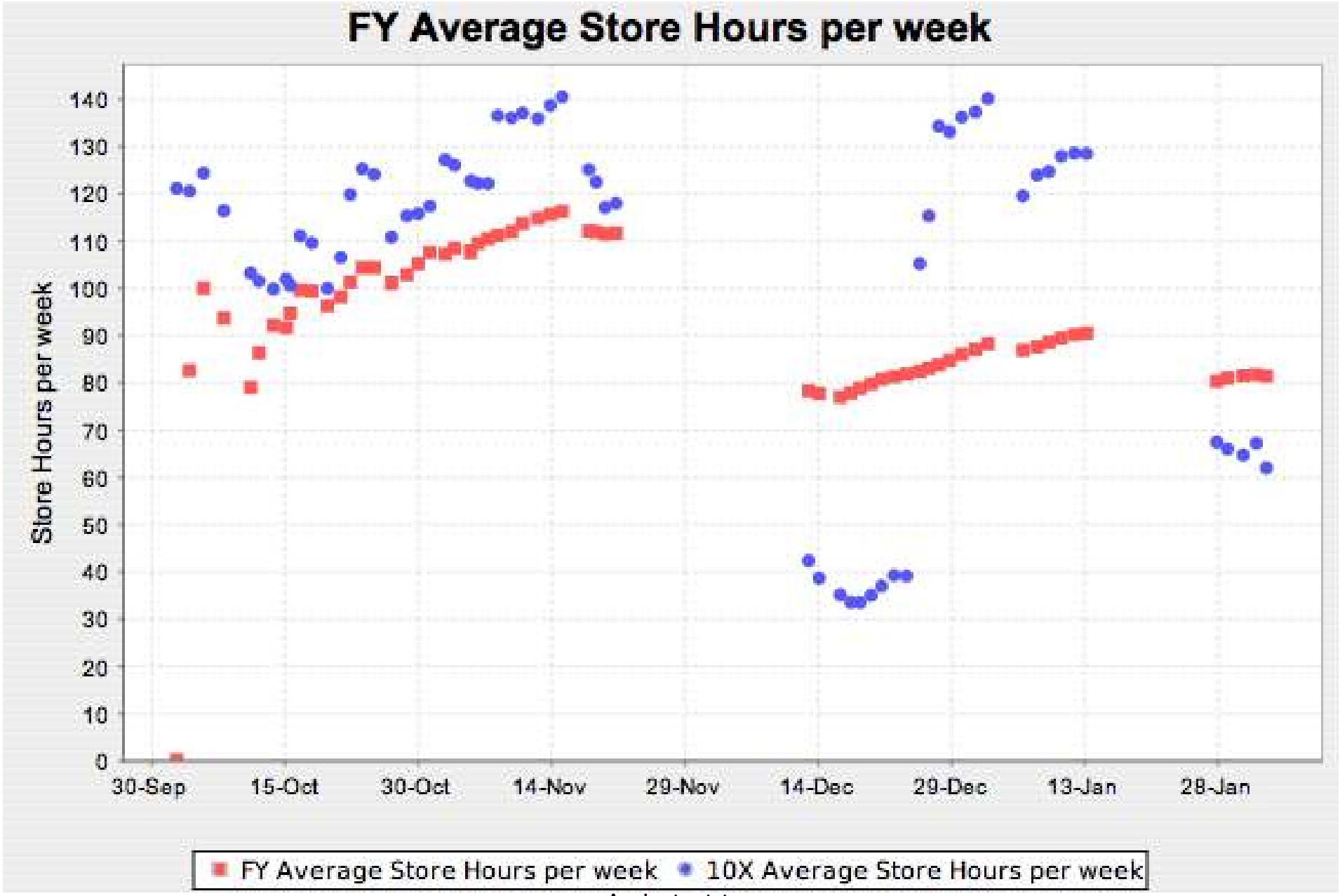

Luminosity Density
Luminosity Density 1/µb/sec
0
25
50
75
100
125
150
175
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
Available Pbars (e10)
Measured Luminosity Density
10 Best Stores
Store 4621
Store 4618
Store 4616
Store 4614
Store 4612
Model prediction

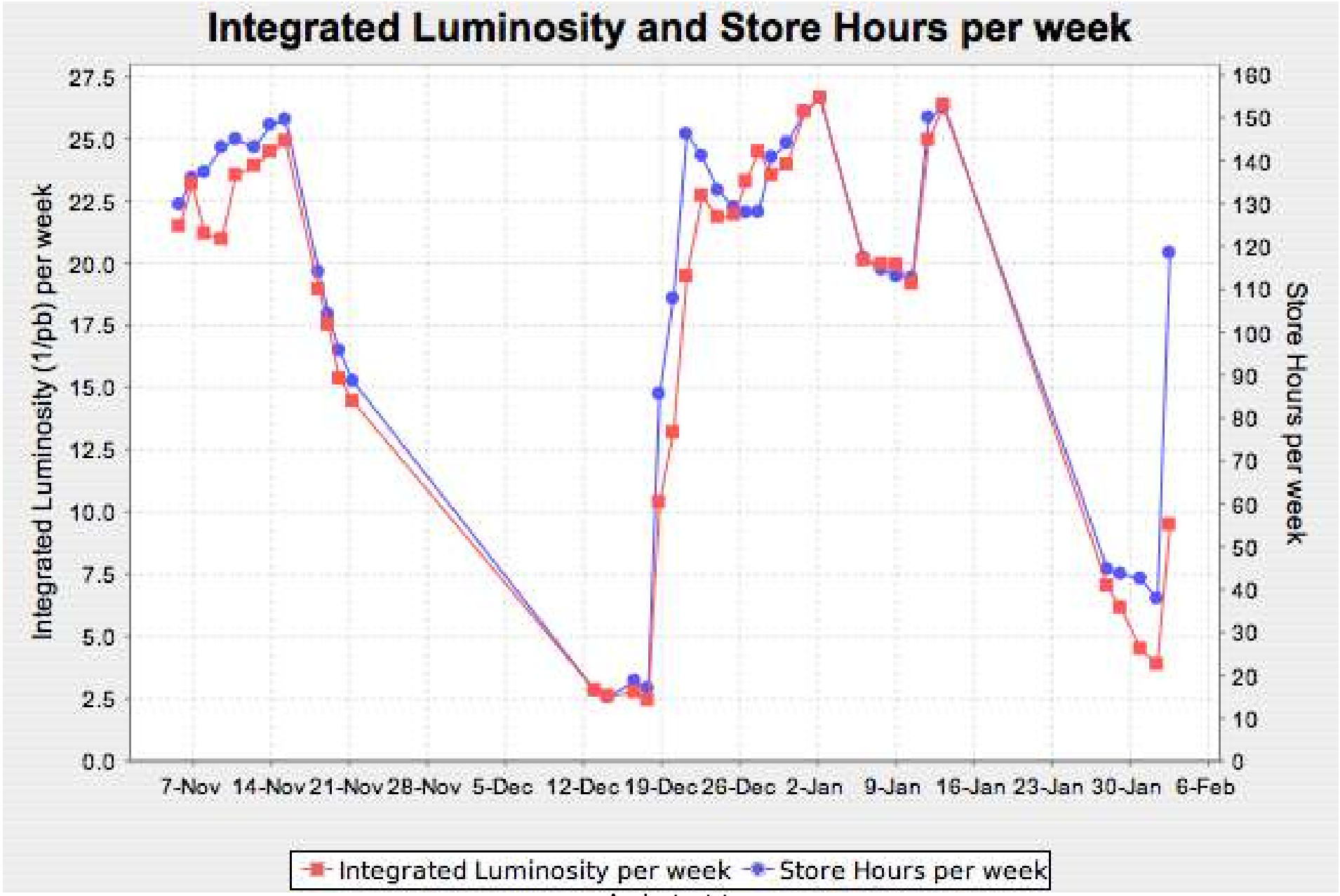

FY06 Peak Luminosity
Peak Luminosity 1/μb/sec
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
28-Jan
12-Fe
Fiscal Year 06 Peak Luminosity
Design
Base

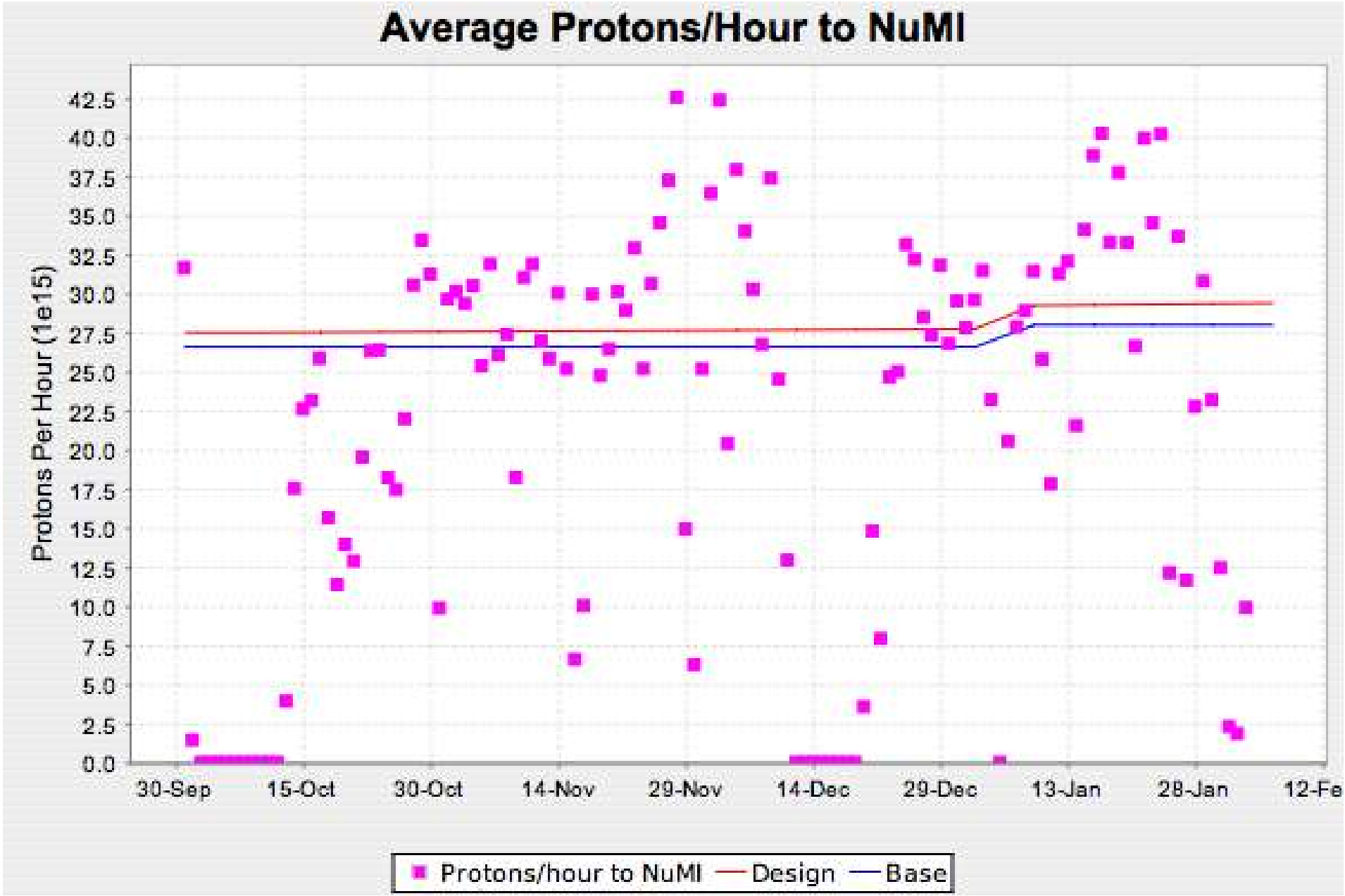

FY06 Integrated Luminosity
Integrated Luminosity (1/pb)
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
28-Jan
12-Fe
Tevatron B1
Repairs/
Start-up
F17K3-1 Failure
Tevatron A4
Warm-up/
Repairs
Fiscal Year 06 Integrated Luminosity
Design
Base

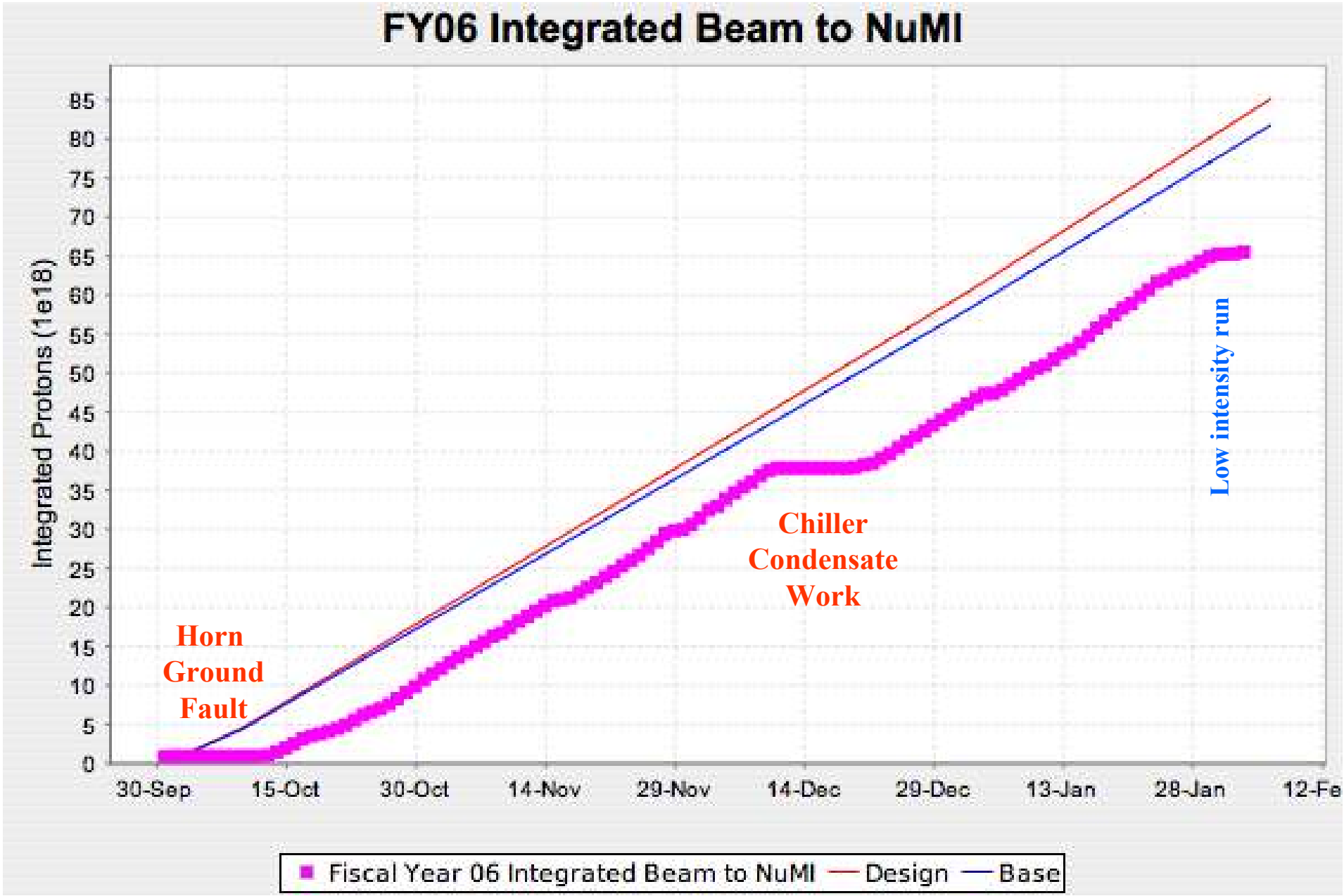

Peak Luminosity
FY06
Shutdown
Peak Luminosity (1/μb/sec)
Days since October 1
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base

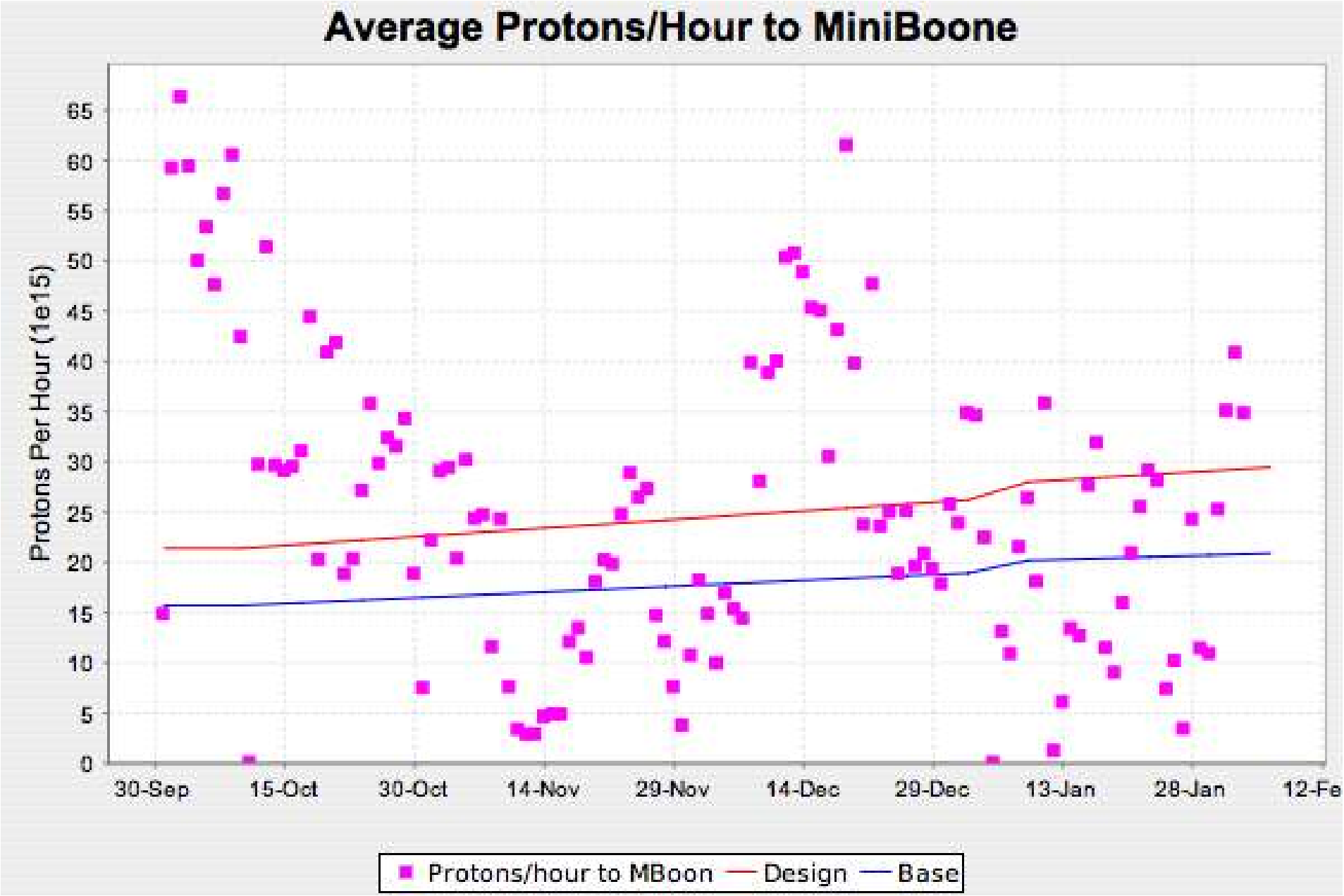

Weekly Integrated Luminosity
FY06
Shutdown
Weekly Integrated Luminosity (1/pb)
32.5
30.0
27.5
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Days since October 1
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design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

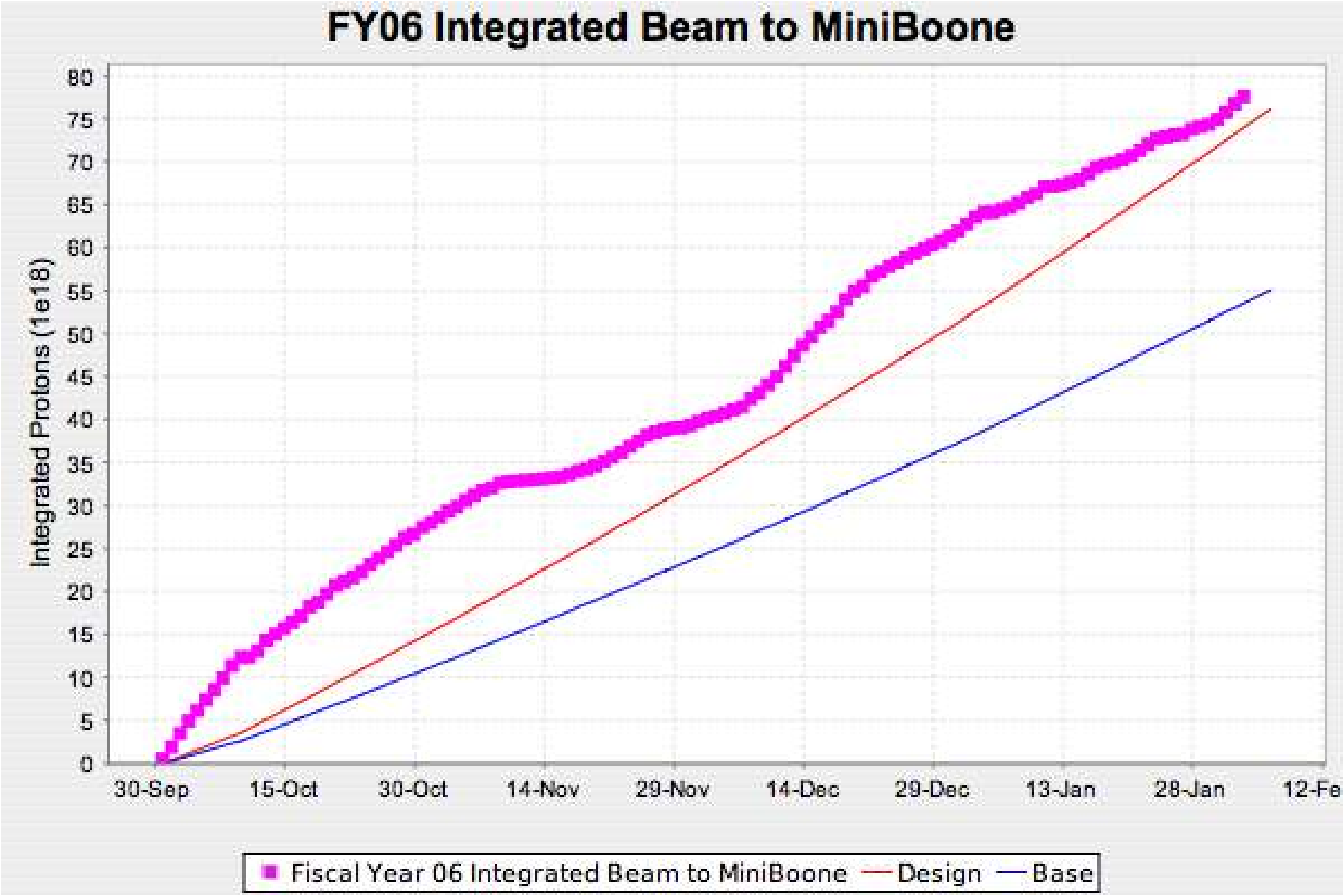

FY Average Store Hours per week
Store Hours per week
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
28-Jan
FY Average Store Hours per week
10X Average Store Hours per week


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
7-Nov
14-Nov
21-Nov
28-Nov
5-Dec
12-Dec
19-Dec
26-Dec
2-Jan
9-Jan
16-Jan
23-Jan
30-Jan
6-Feb
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-Jan
12-Fe
Protons/hour to NuMI
Design
Base


FY06 Integrated Beam to NuMI
Integrated Protons (1e18)
85
80
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
28-Jan
12-Fe
Horn Ground Fault
Chiller Condensate Work
Low intensity run
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
28-Jan
12-Fe
Protons/hour to MBoon
Design
Base


FY06 Integrated Beam to MiniBoone
Integrated Protons (1e18)
80
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
28-Jan
12-Fe
Fiscal Year 06 Integrated Beam to MiniBoone
Design
Base