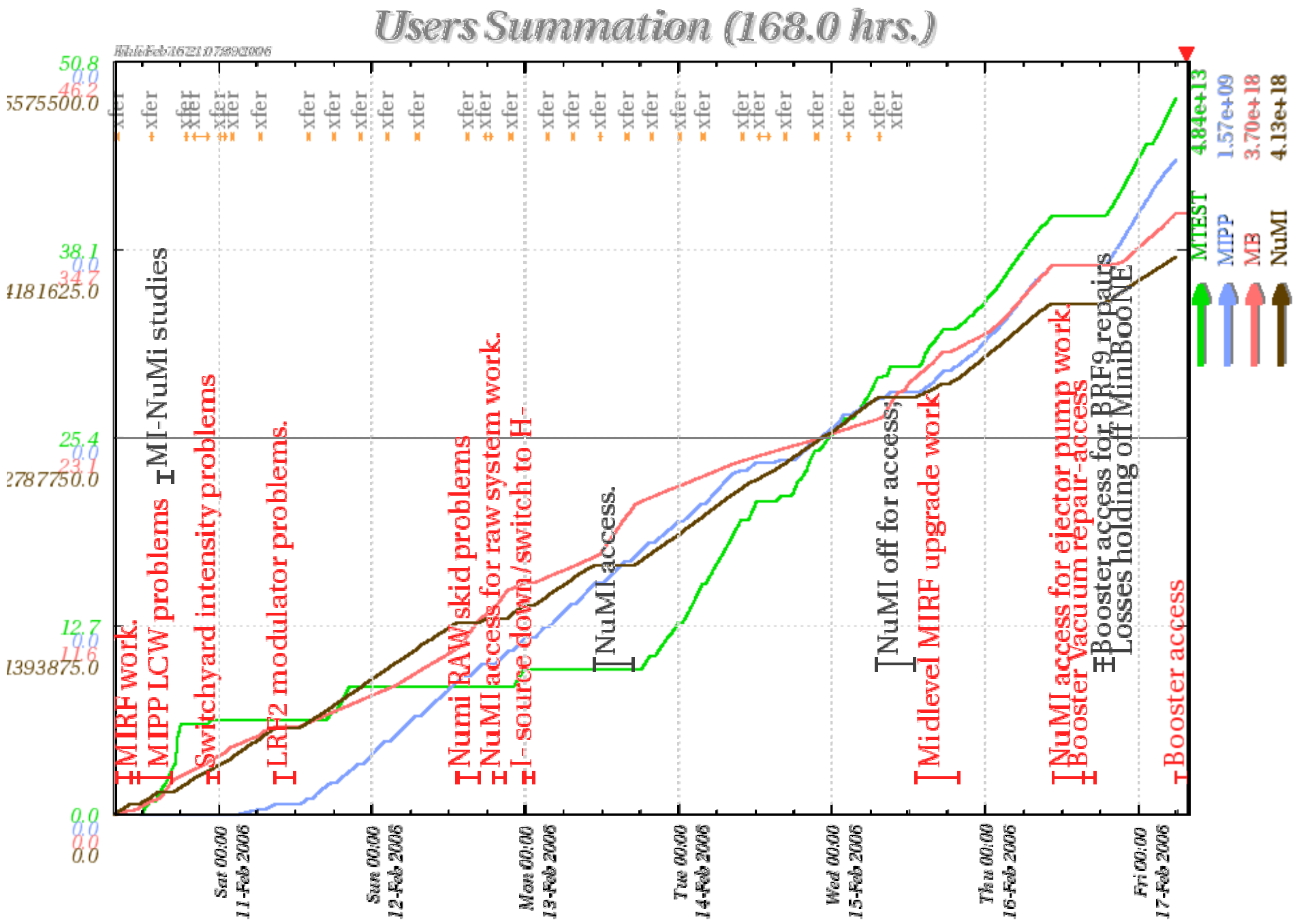
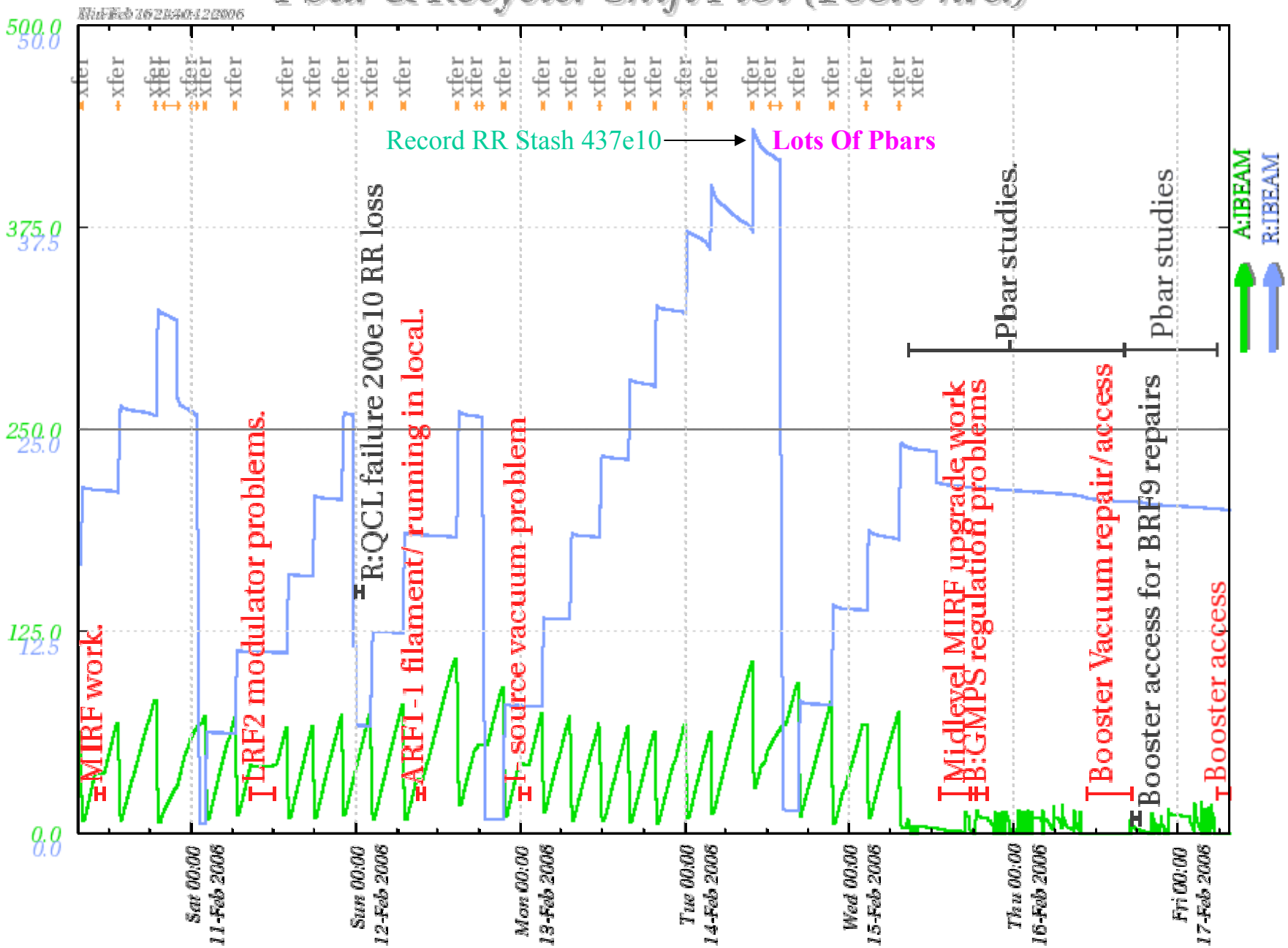
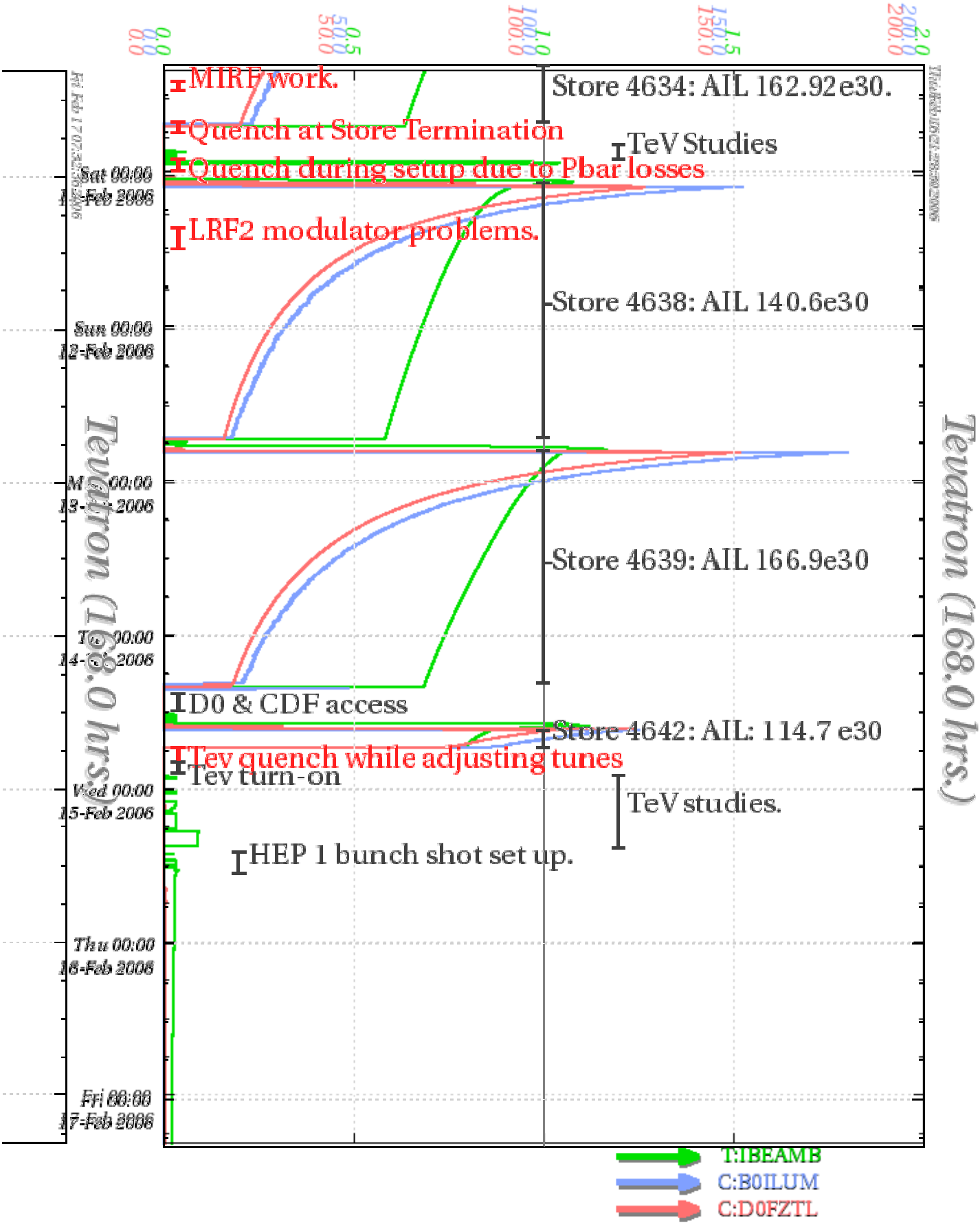
Accelerator Week in Review

- 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

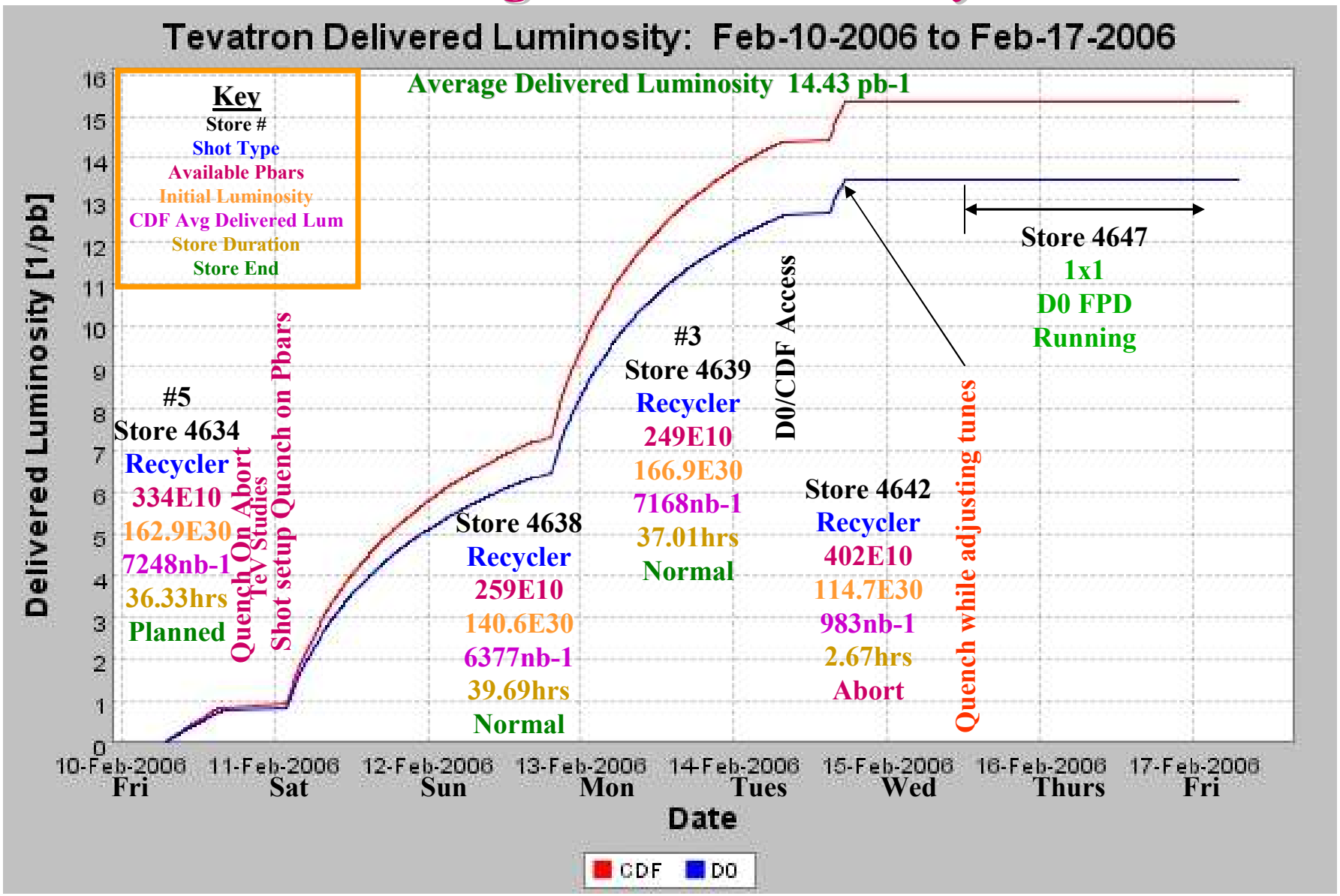

Users Summation (168.0 hrs.)
MIRF work.
MIPP LCW problems
Switchyard intensity problems
LRF2 modulator problems.
MI-NuMi studies
Numi RAW skid problems
NuMI access for raw system work.
I- source down/switch to H-
NuMI access.
NuMI off for access,
Midlevel MIRF upgrade work
NuMI access for ejector pump work.
Booster Vacuum repair-access
Booster access for BRF9 repairs
Losses holding off MiniBooNE
Booster access
MTEST 4.84e+13
MIPP 1.57e+09
MB 3.70e+18
NuMI 4.13e+18
Sat 00:00 11-Feb 2006
Sun 00:00 12-Feb 2006
Mon 00:00 13-Feb 2006
Tue 00:00 14-Feb 2006
Wed 00:00 15-Feb 2006
Thu 00:00 16-Feb 2006
Fri 00:00 17-Feb 2006

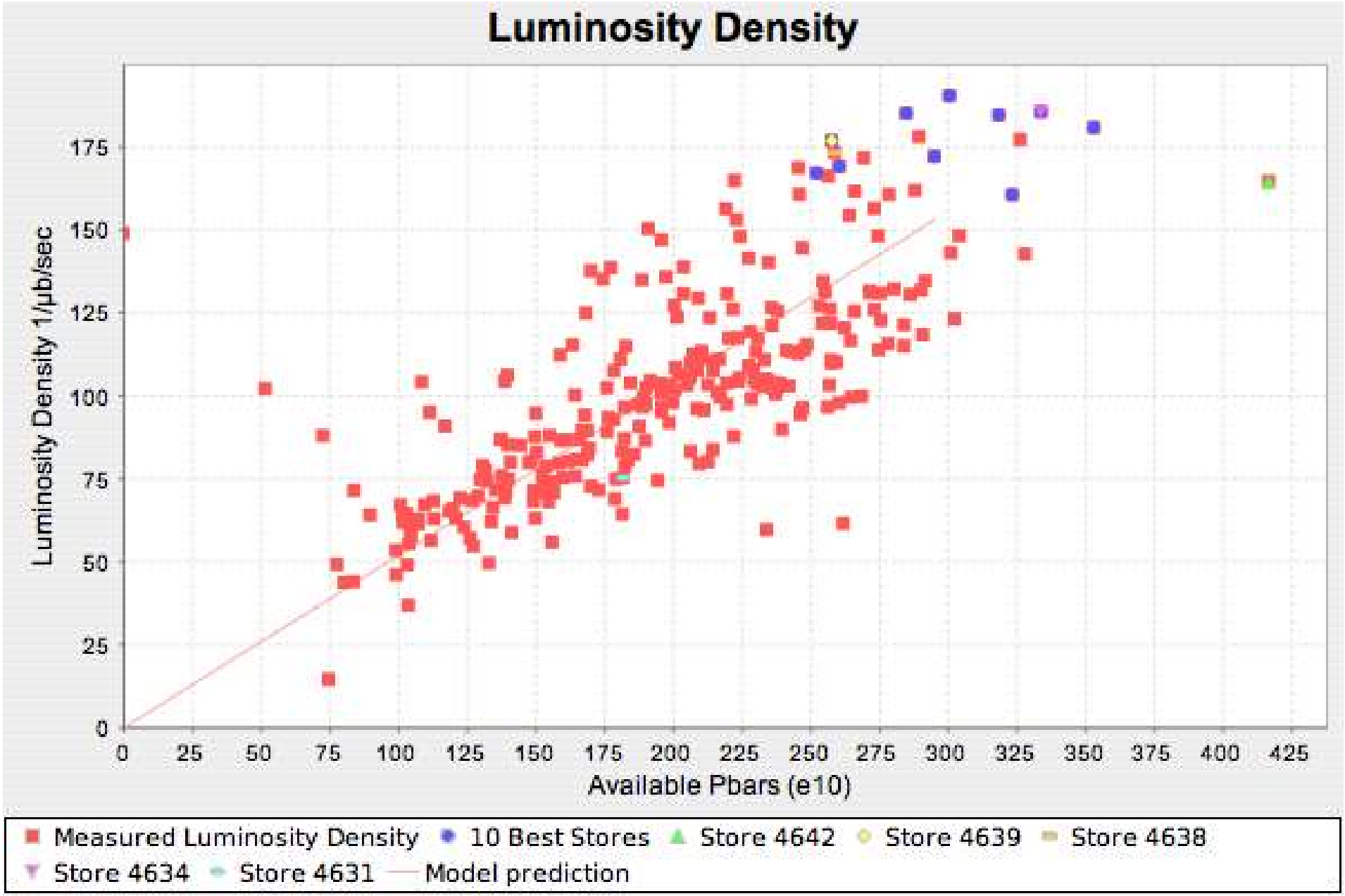
Pbar & Recycler Shift Plot (168.0 hrs.)

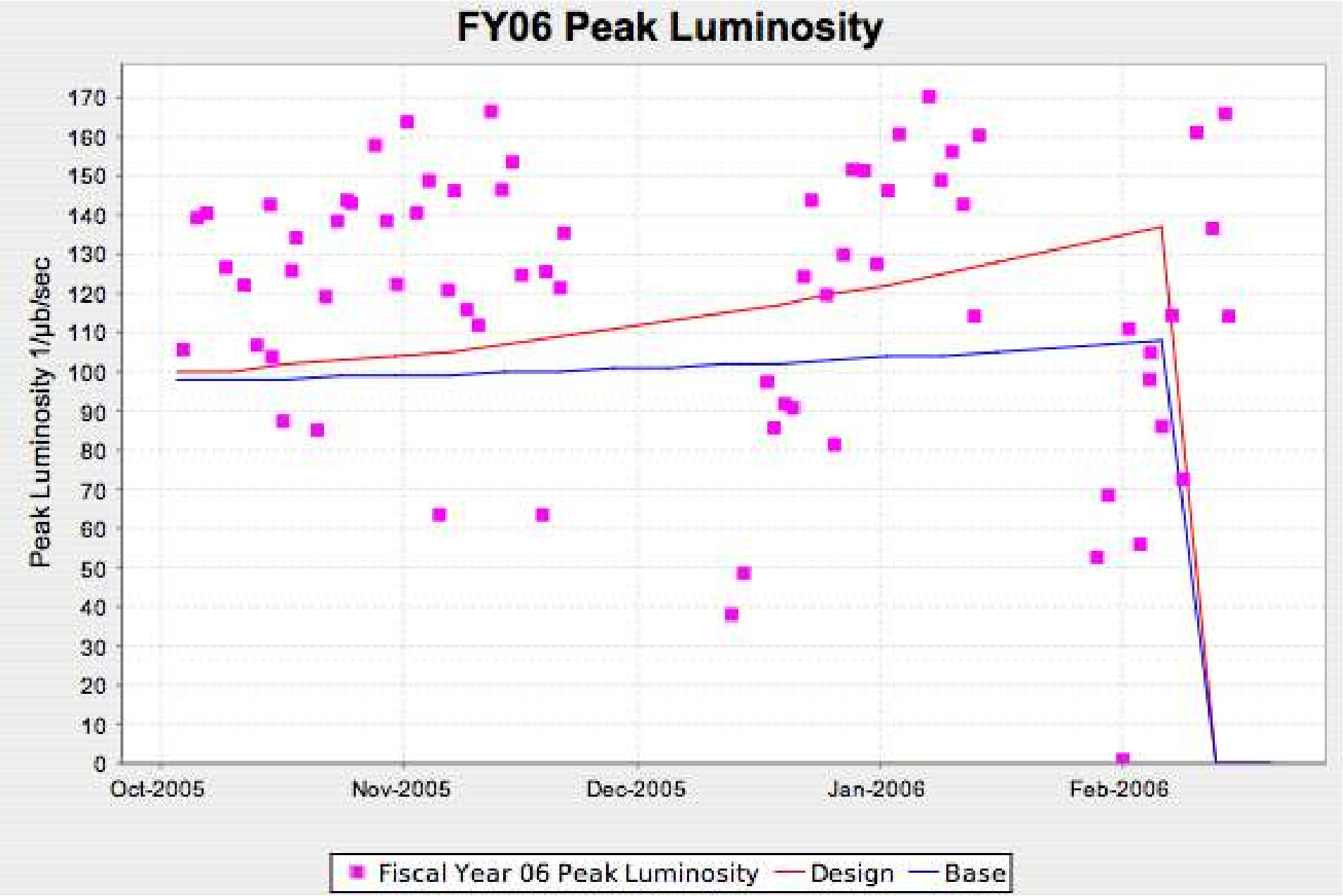


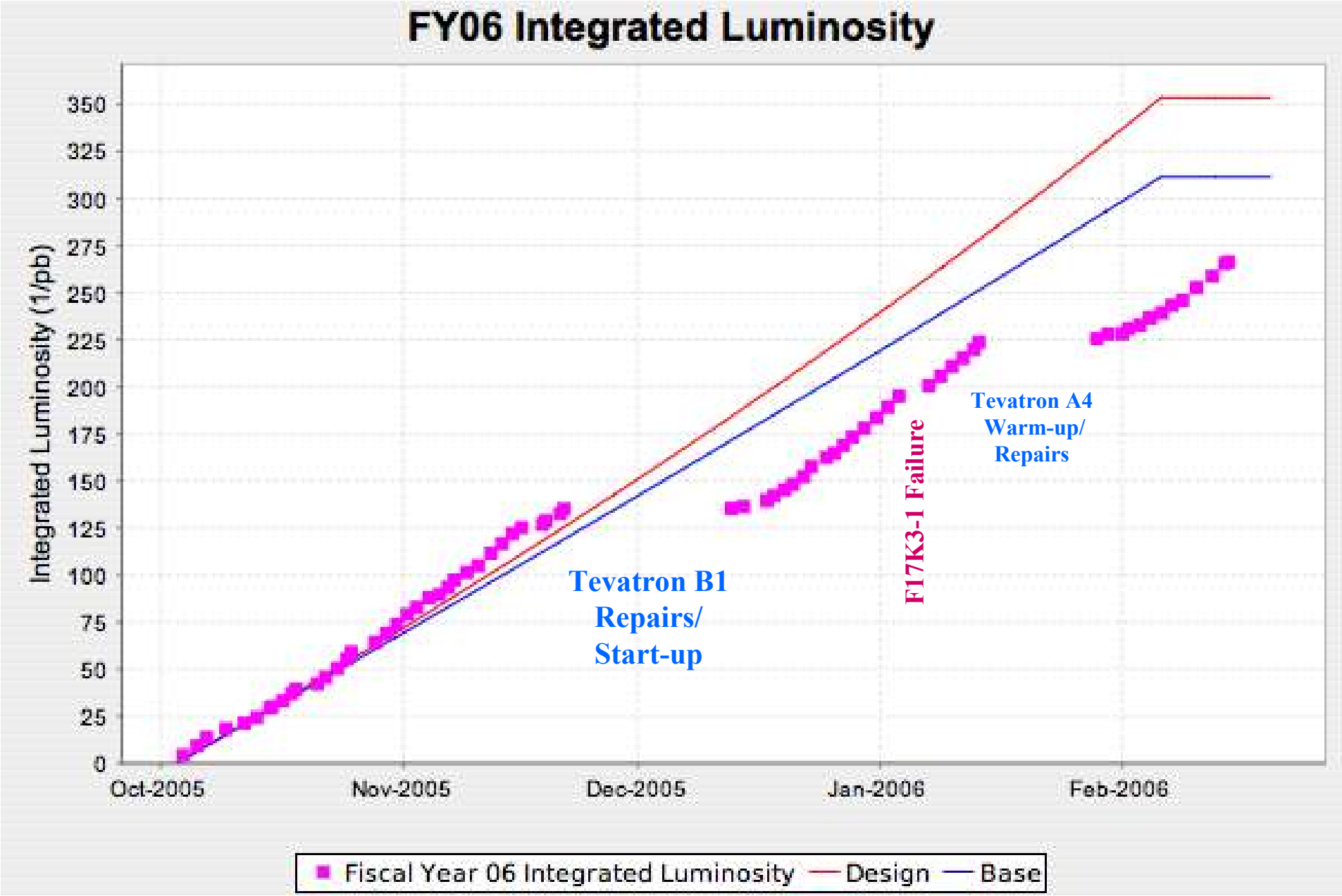

MIRF work.
Quench at Store Termination
Quench during setup due to Pbar losses
LRF2 modulator problems.
Store 4634: AIL 162.92e30.
TeV Studies
Store 4638: AIL 140.6e30
Store 4639: AIL 166.9e30
D0 & CDF access
Store 4642: AIL: 114.7 e30
Tev quench while adjusting tunes
Tev turn-on
TeV studies.
HEP 1 bunch shot set up.
Sat 00:00
11-Feb 2006
Sun 00:00
12-Feb 2006
Mon 00:00
13-Feb 2006
Tue 00:00
14-Feb 2006
Wed 00:00
15-Feb 2006
Thu 00:00
16-Feb 2006
Fri 00:00
17-Feb 2006
Tevatron (168.0 hrs.)
T:IBEAMB
C:B0ILUM
C:D0FZTL

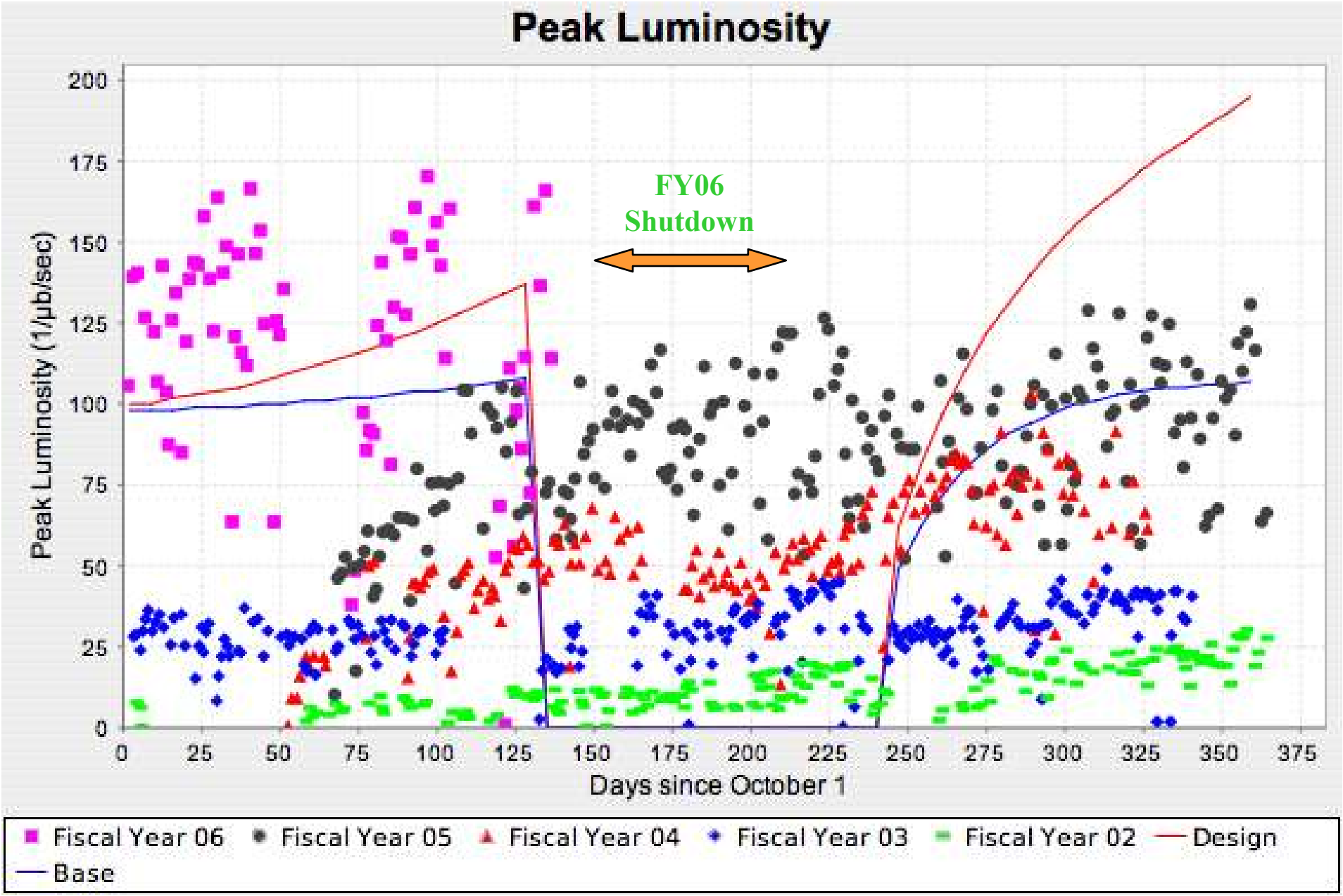
Integrated Luminosity

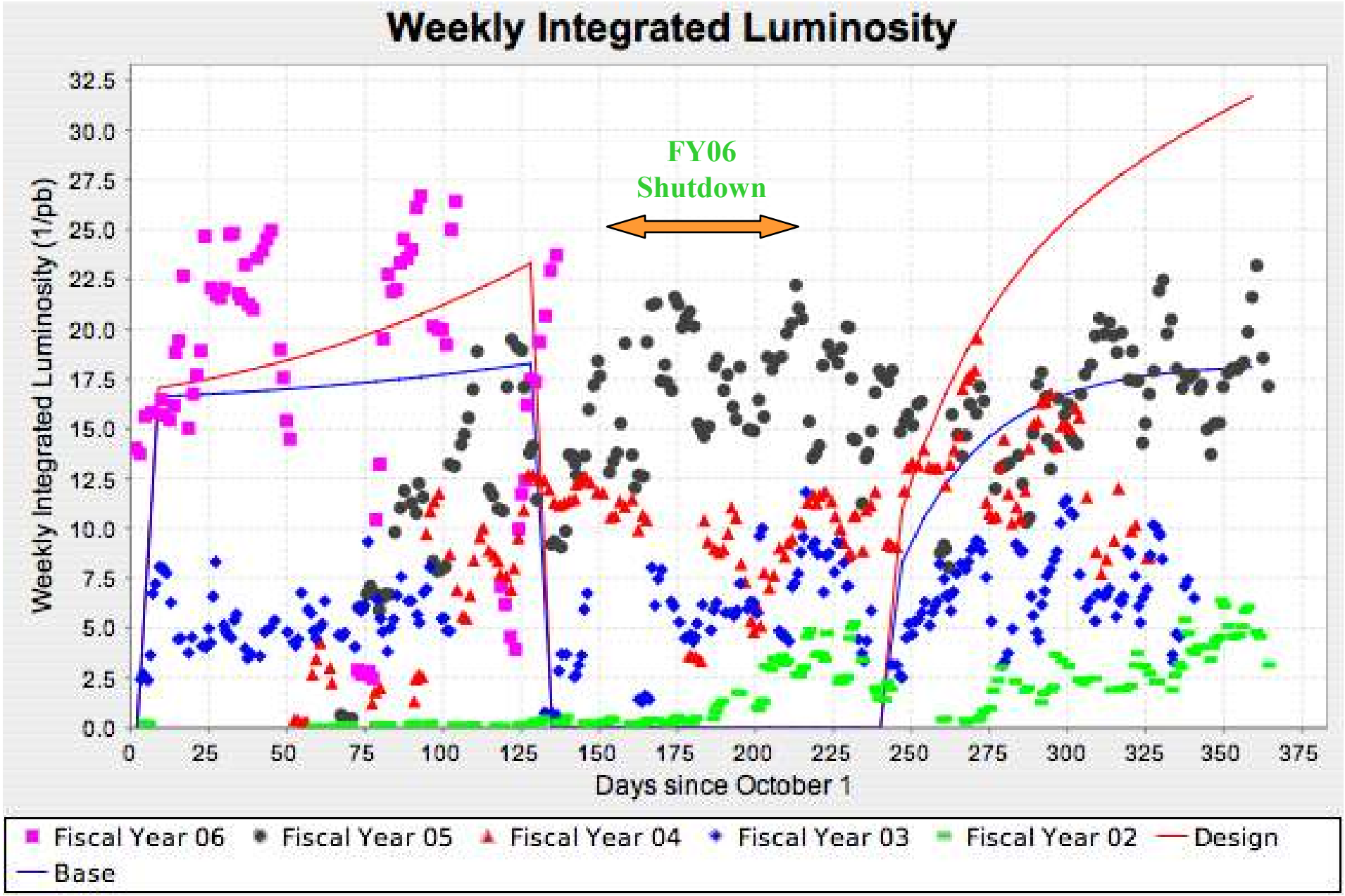


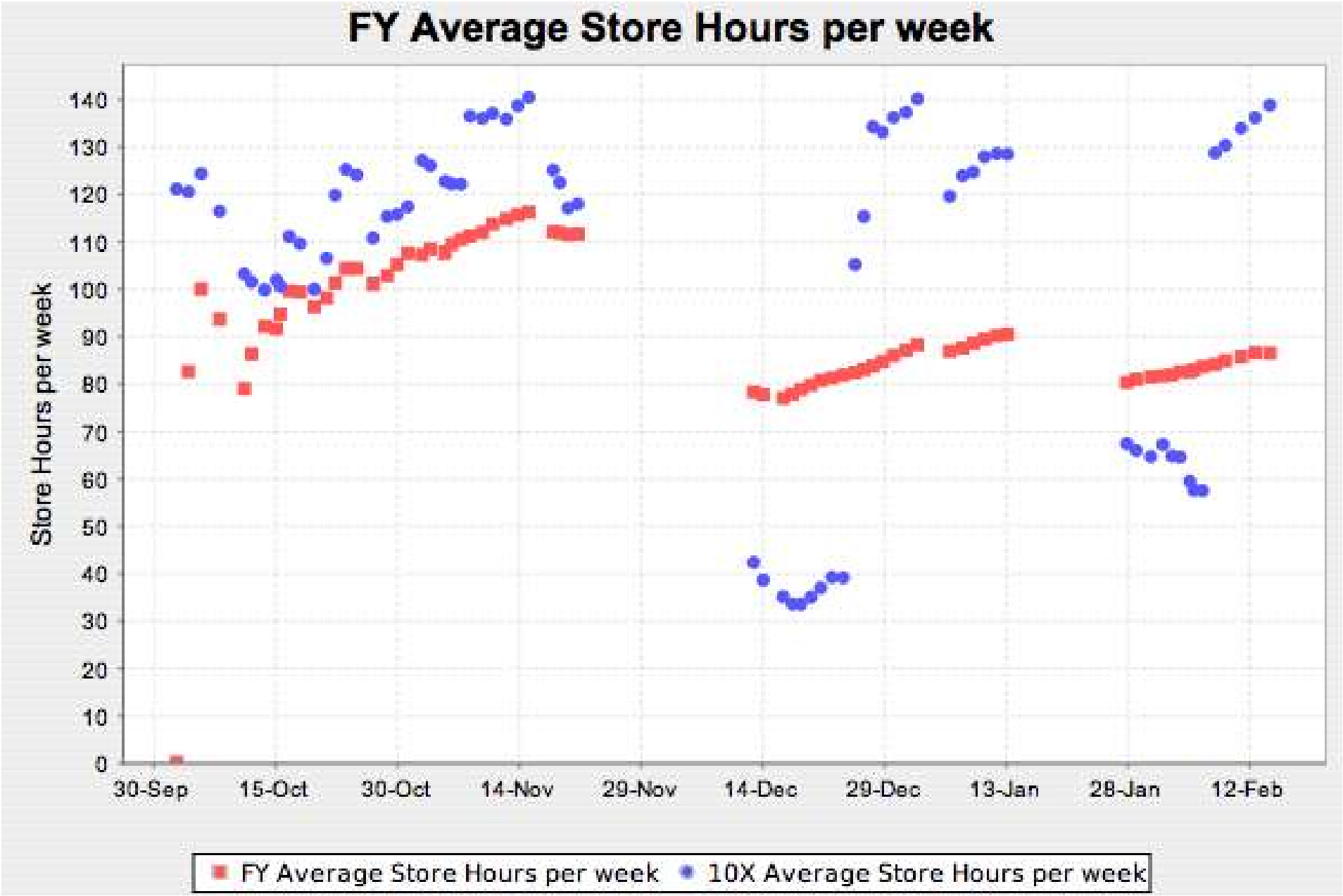

Luminosity Density
Luminosity Density 1/μb/sec
0
25
50
75
100
125
150
175
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
400
425
Available Pbars (e10)
Measured Luminosity Density
10 Best Stores
Store 4642
Store 4639
Store 4638
Store 4634
Store 4631
Model prediction

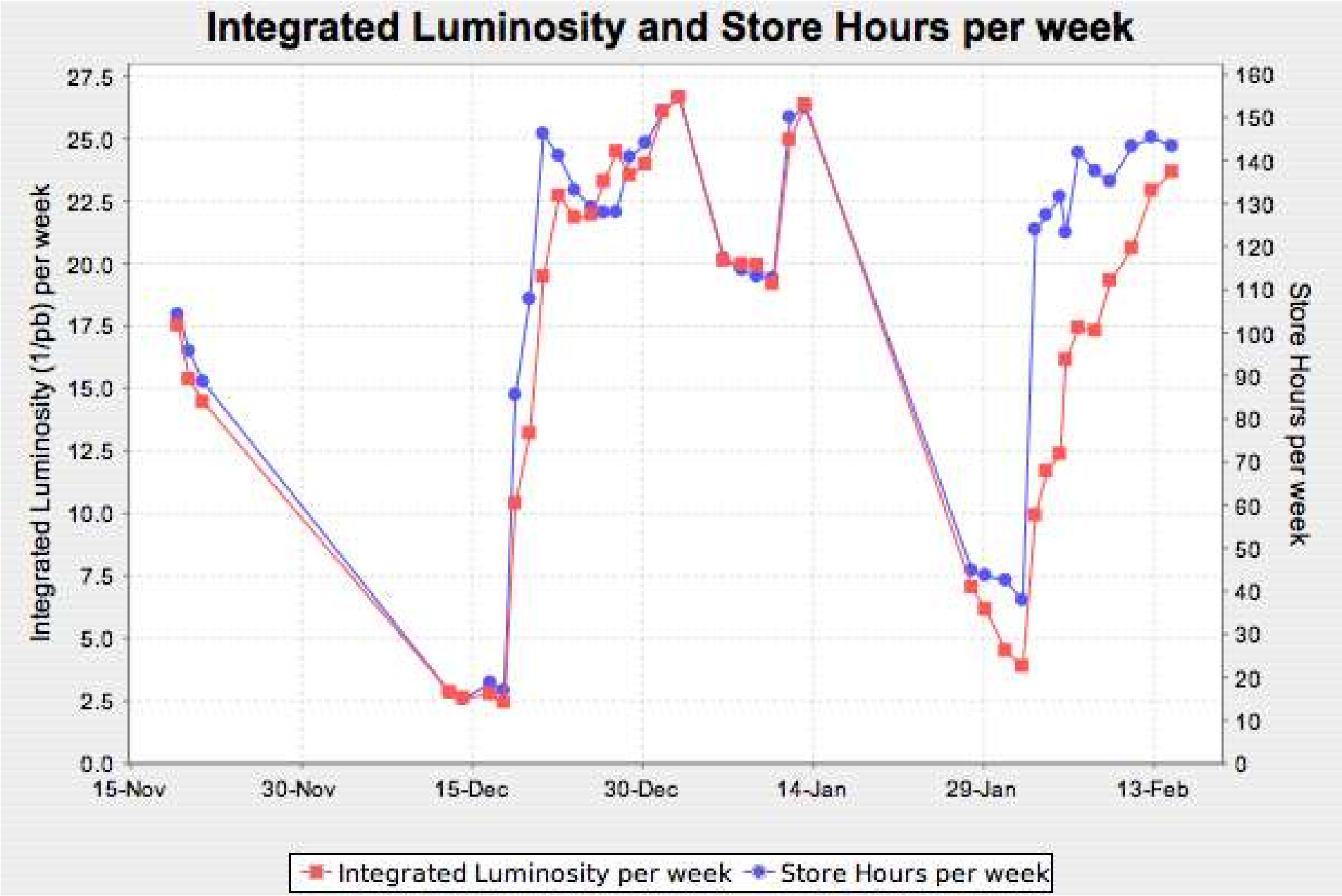

FY06 Peak Luminosity
Peak Luminosity 1/μb/sec
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Oct-2005
Nov-2005
Dec-2005
Jan-2006
Feb-2006
Fiscal Year 06 Peak Luminosity
Design
Base

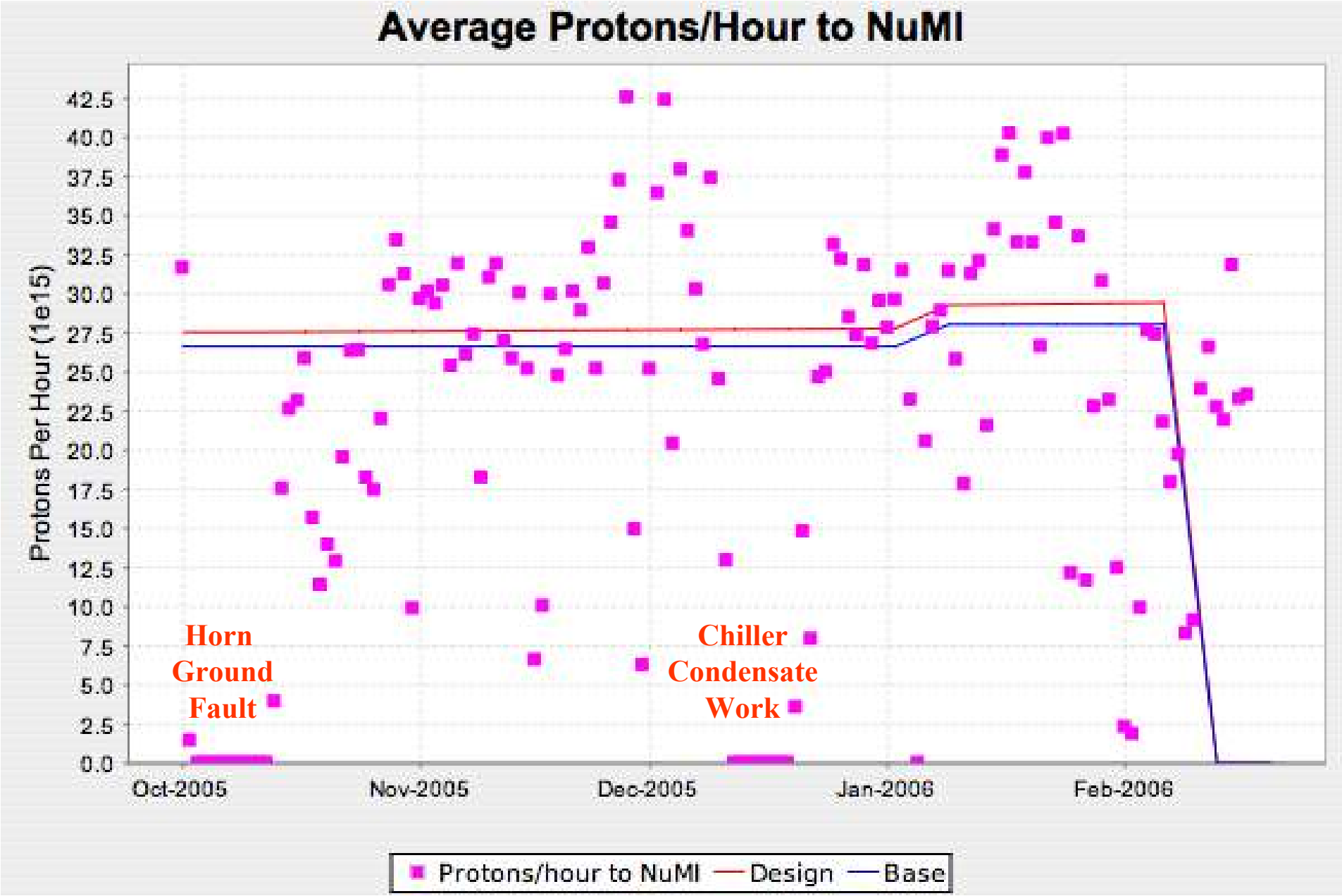

FY06 Integrated Luminosity
Integrated Luminosity (1/pb)
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
Oct-2005
Nov-2005
Dec-2005
Jan-2006
Feb-2006
Tevatron B1
Repairs/
Start-up
F17K3-1 Failure
Tevatron A4
Warm-up/
Repairs
Fiscal Year 06 Integrated Luminosity
Design
Base

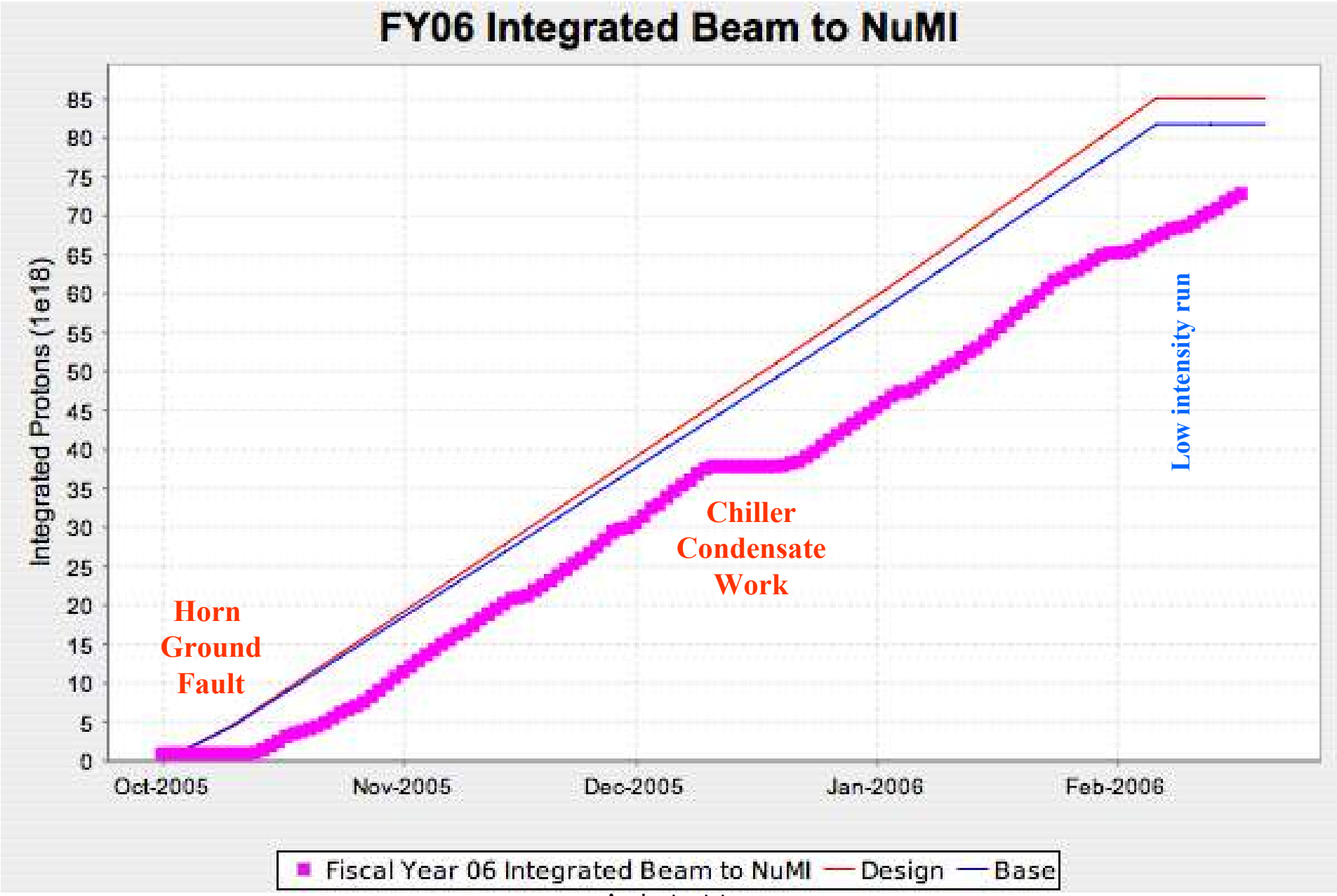

Peak Luminosity
FY06
Shutdown
Peak Luminosity (1/μb/sec)
200
175
150
125
100
75
50
25
0
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Days since October 1
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base

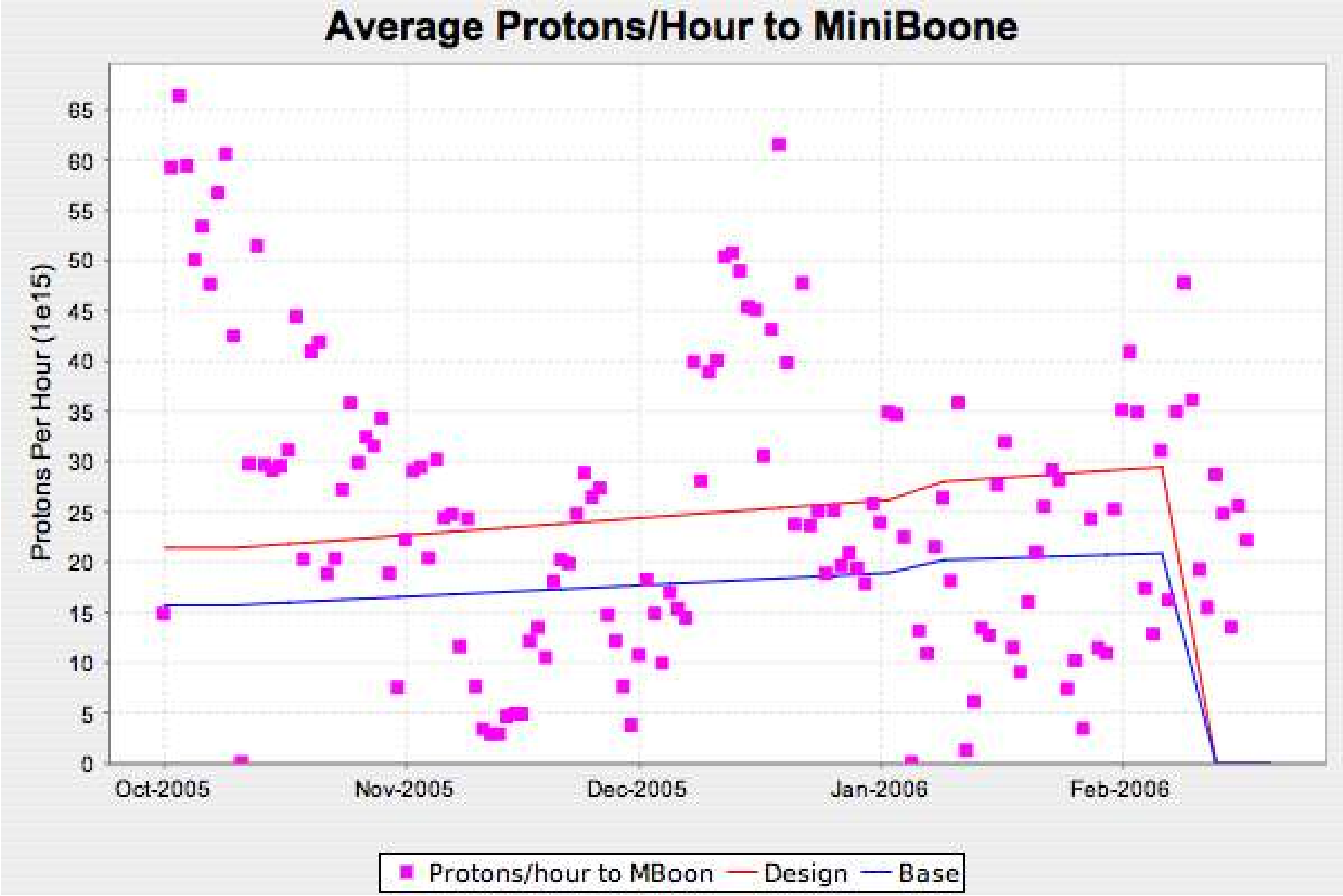

Weekly Integrated Luminosity
FY06
Shutdown
Weekly Integrated Luminosity (1/pb)
32.5
30.0
27.5
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Days since October 1
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design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

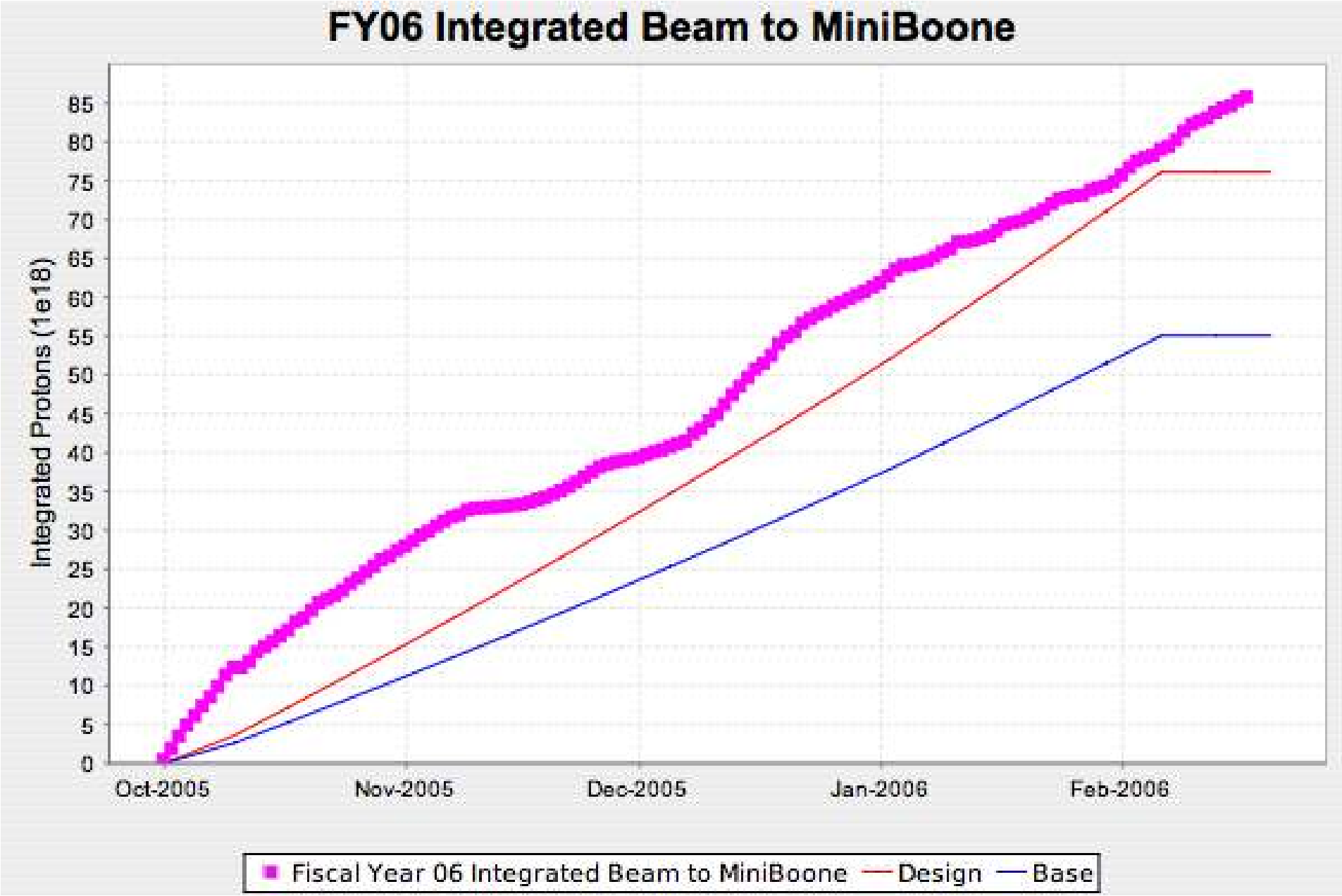

FY Average Store Hours per week
Store Hours per week
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
28-Jan
12-Feb
FY Average Store Hours per week
10X Average Store Hours per week


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
15-Nov
30-Nov
15-Dec
30-Dec
14-Jan
29-Jan
13-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
Oct-2005
Nov-2005
Dec-2005
Jan-2006
Feb-2006
Horn Ground Fault
Chiller Condensate Work
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
Oct-2005
Nov-2005
Dec-2005
Jan-2006
Feb-2006
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
Oct-2005
Nov-2005
Dec-2005
Jan-2006
Feb-2006
Protons/hour to MBoon
Design
Base


FY06 Integrated Beam to MiniBoone
Integrated Protons (1e18)
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
Oct-2005
Nov-2005
Dec-2005
Jan-2006
Feb-2006
Fiscal Year 06 Integrated Beam to MiniBoone
Design
Base