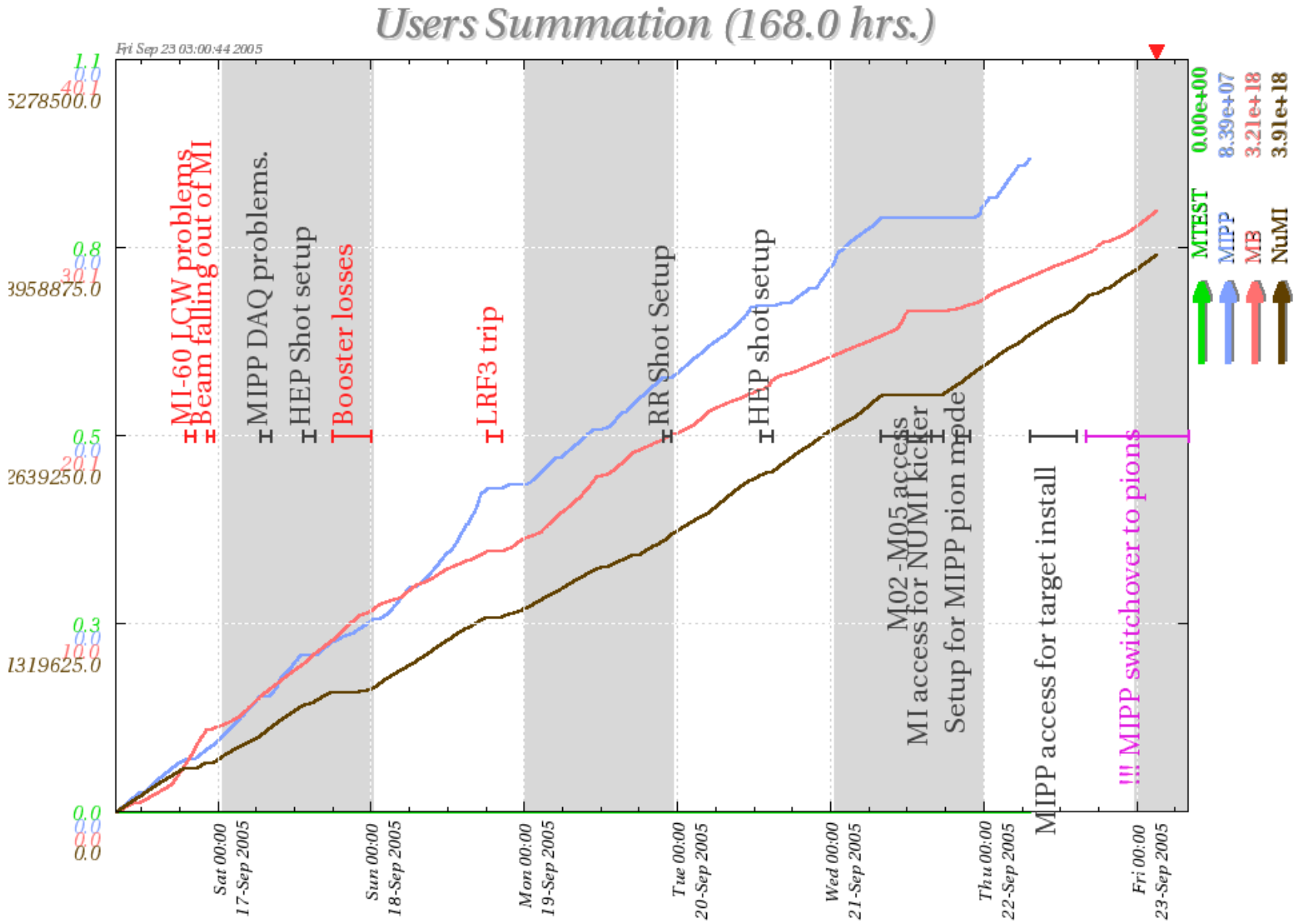
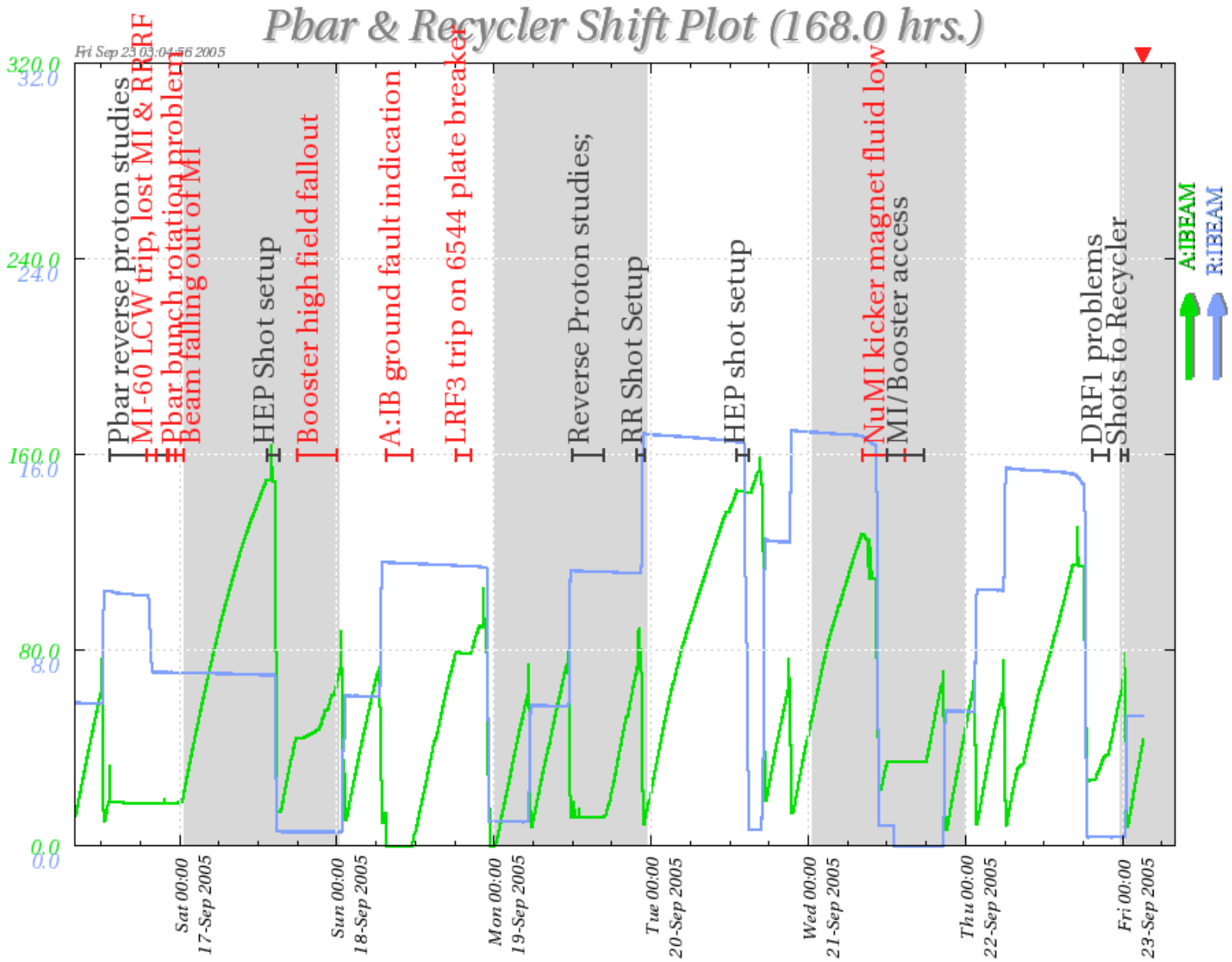
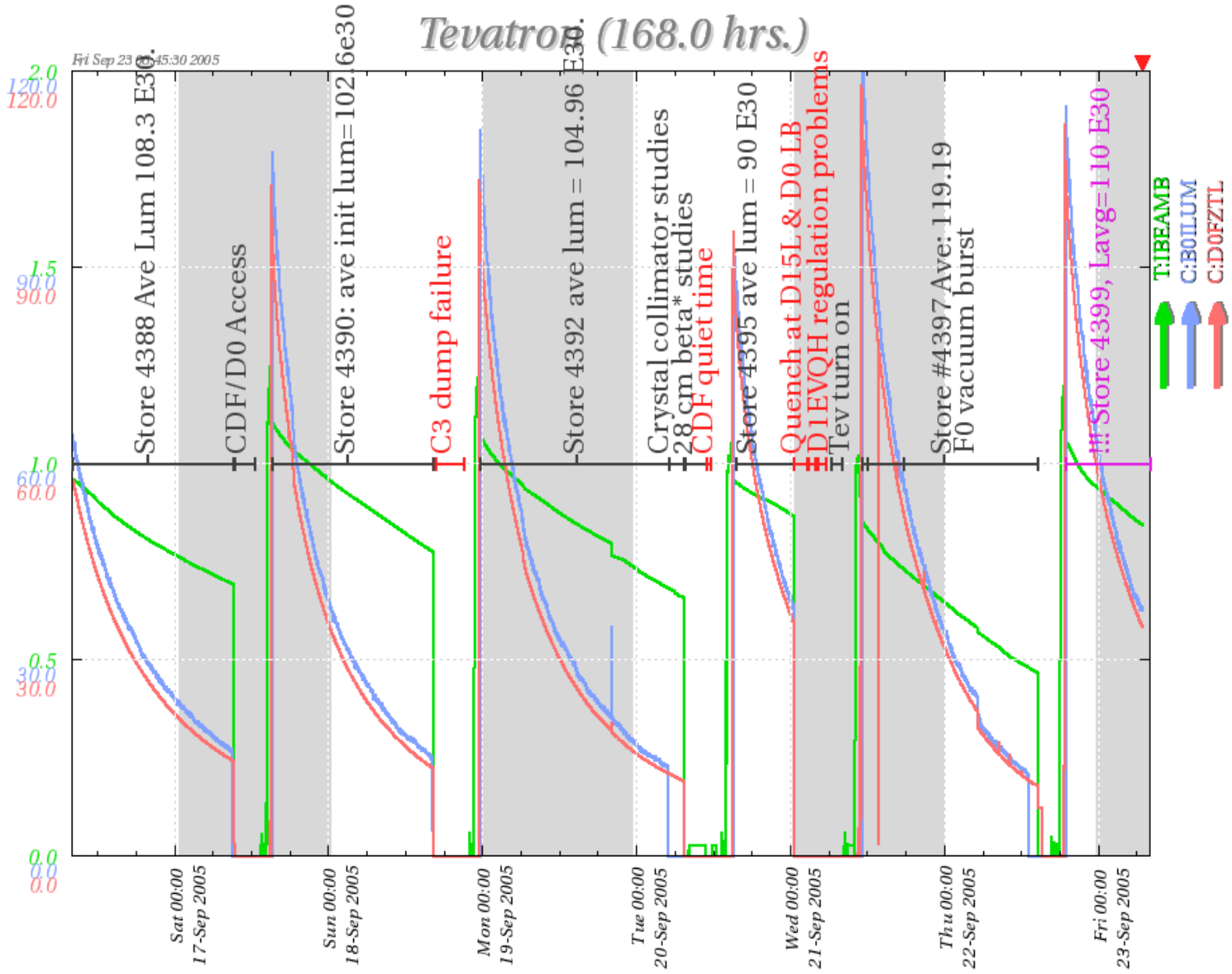
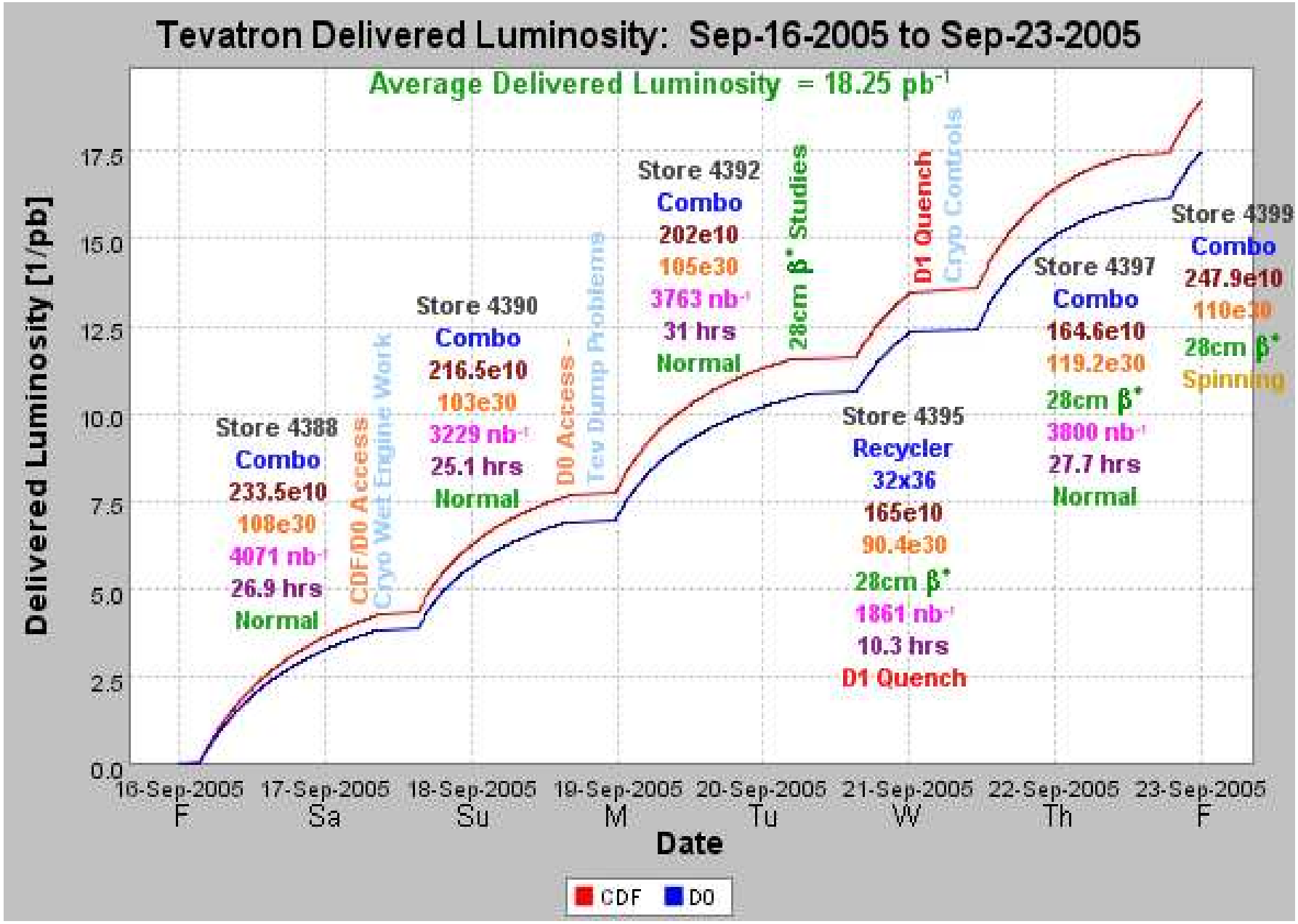
Accelerator Week in Review

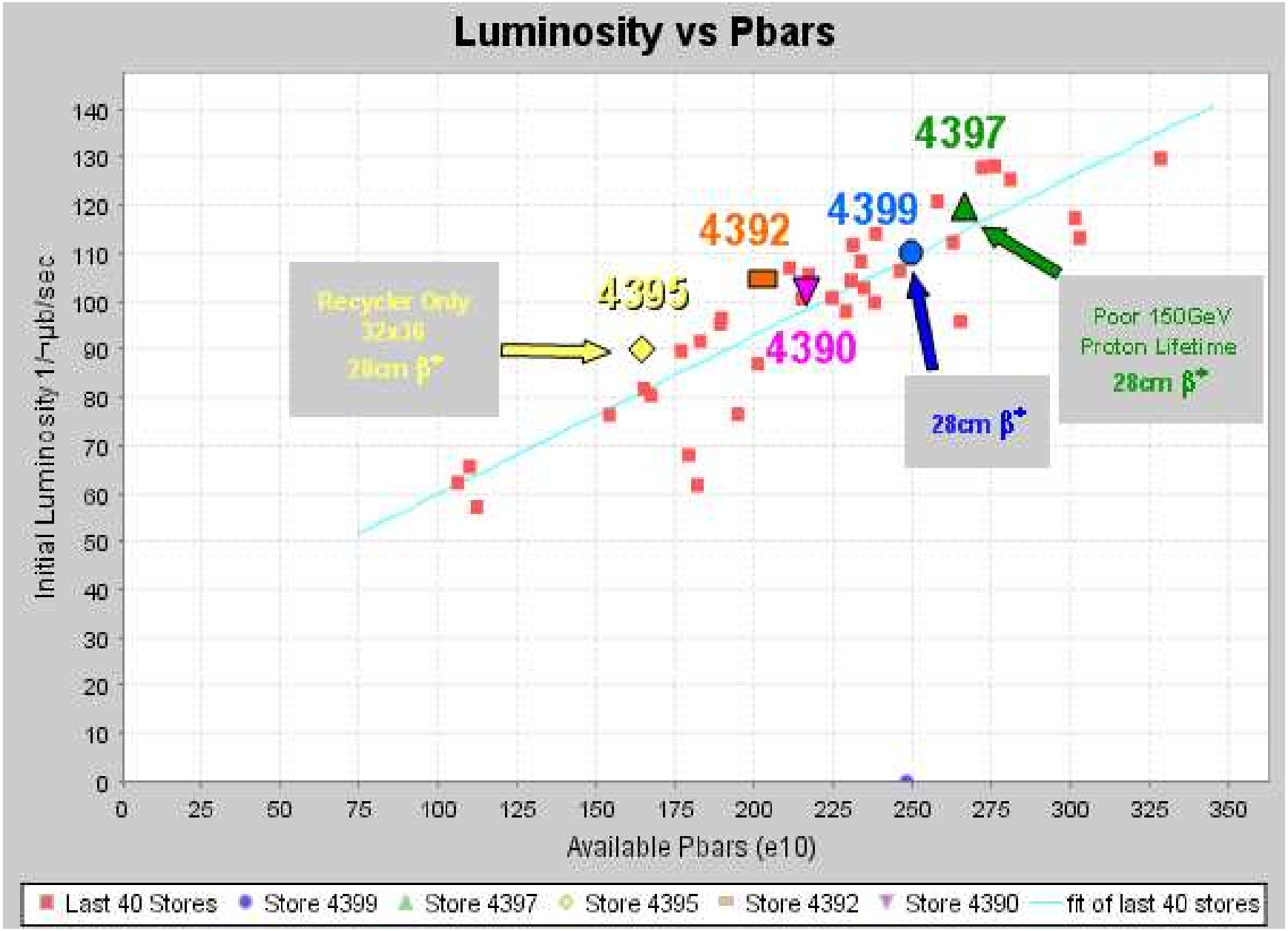
- Part I: Regular 9am Scheduling Meeting
  - Crew Chief Summary
  - 48 hour machine summaries and study requests
  - Operational Plan
- Part II: Weekly Machine Reports
  - Operational Summary – Brian Drendel
  - Shot Summary – Brian Drendel
  - Weekly Machine Reports – Machine Coordinators

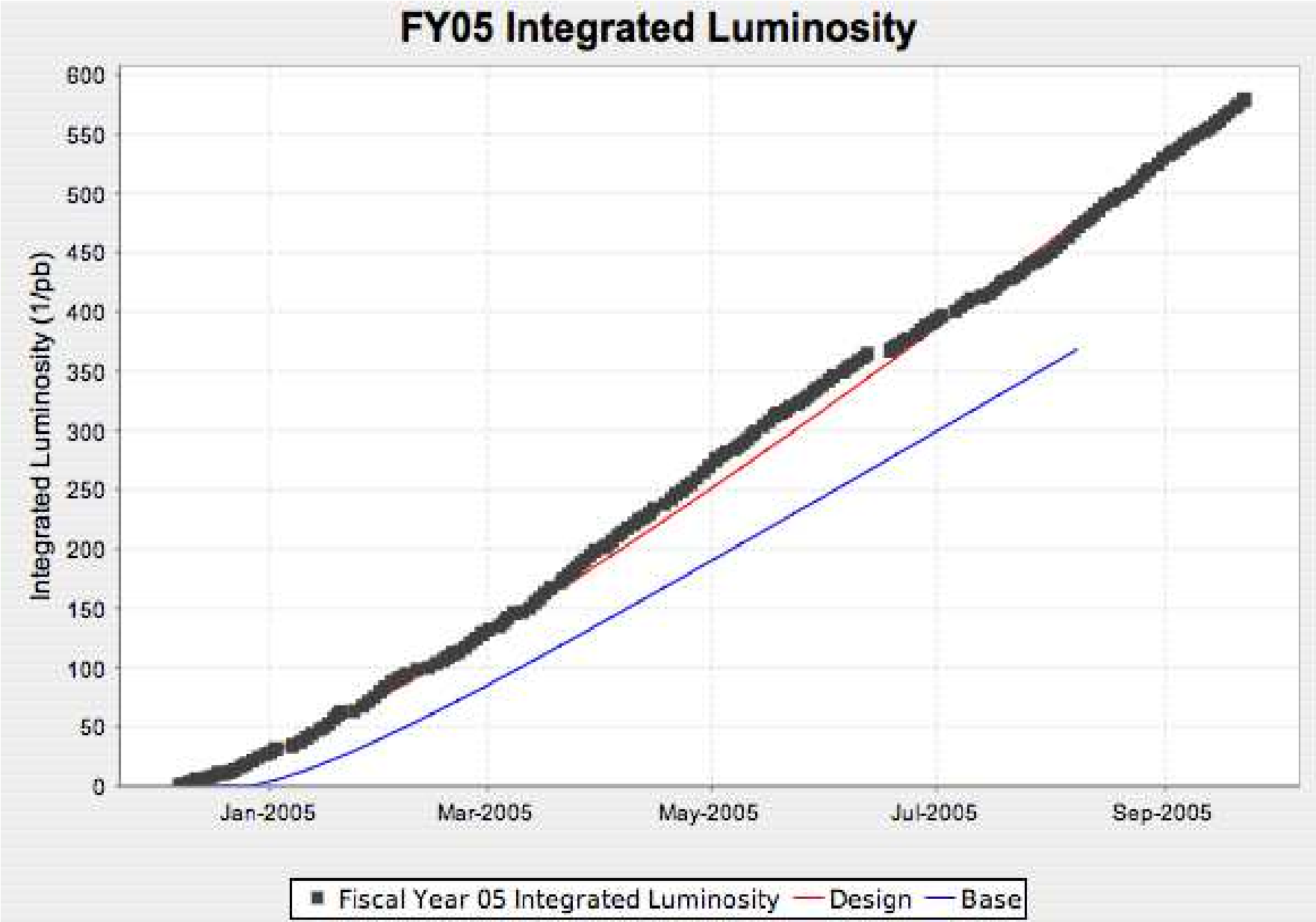

Users Summation (168.0 hrs.)
Fri Sep 23 03:00:44 2005
MI-60 LCW problems
Beam falling out of MI
MIPP DAQ problems.
HEP Shot setup
Booster losses
LRF3 trip
RR Shot Setup
HEP shot setup
M02-M05 access
MI access for NUMI kicker
Setup for MIPP pion mode
MIPP access for target install
!!! MIPP switchover to pions
MTEST 0.00e+00
MIPP 8.39e+07
MB 3.21e+18
NuMI 3.91e+18
5278500.0
3958875.0
2639250.0
1319625.0
0.0
Sat 00:00 17-Sep 2005
Sun 00:00 18-Sep 2005
Mon 00:00 19-Sep 2005
Tue 00:00 20-Sep 2005
Wed 00:00 21-Sep 2005
Thu 00:00 22-Sep 2005
Fri 00:00 23-Sep 2005

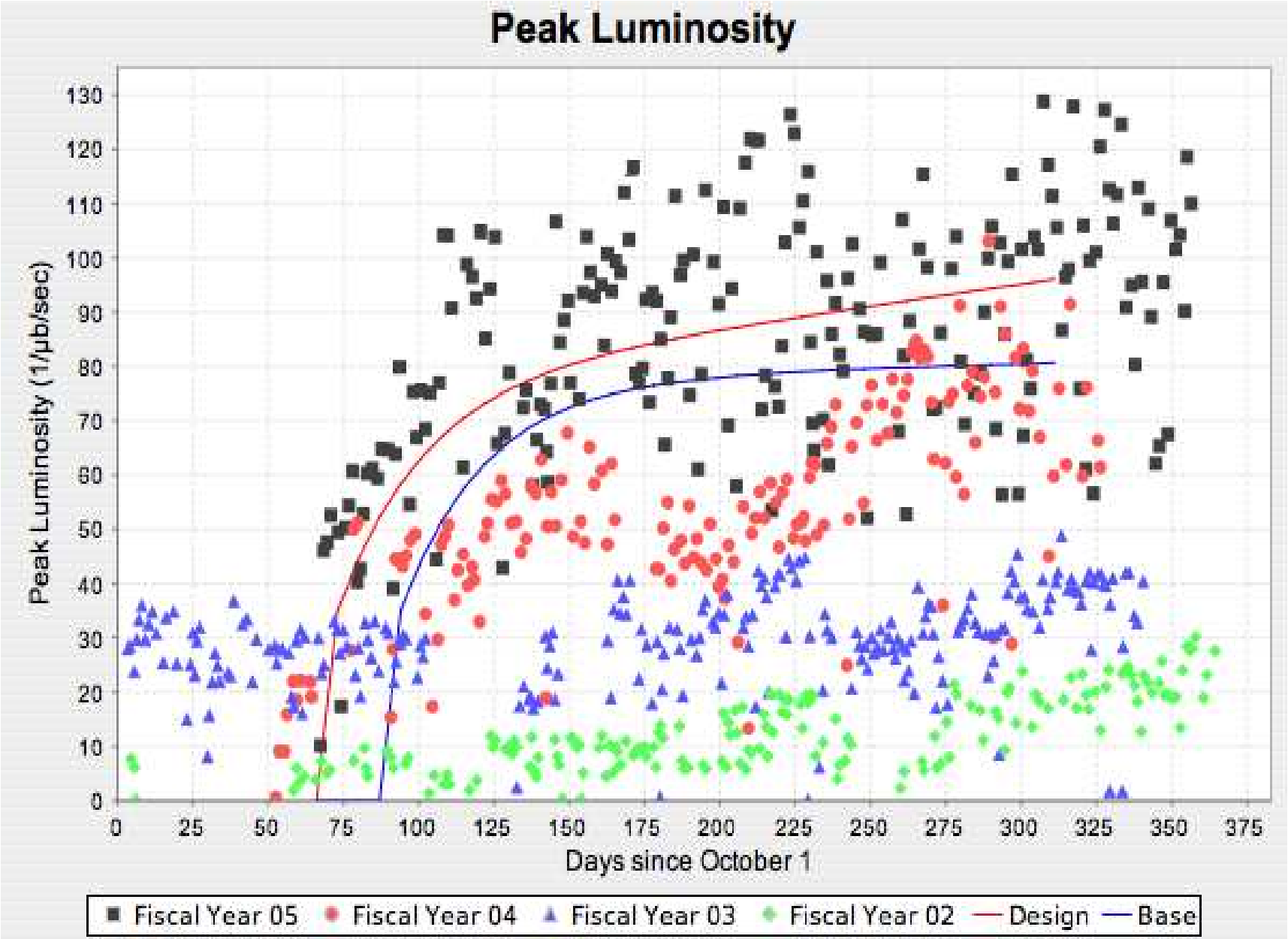

Pbar & Recycler Shift Plot (168.0 hrs.)
Fri Sep 23 03:04:56 2005
320.0
32.0
240.0
24.0
160.0
16.0
80.0
8.0
0.0
0.0
Pbar reverse proton studies
MI-60 LCW trip, lost MI & RR RF
Pbar bunch rotation problem
Beam falling out of MI
HEP Shot setup
Booster high field fallout
A:IB ground fault indication
LRF3 trip on 6544 plate breaker
Reverse Proton studies;
RR Shot Setup
HEP shot setup
NuMI kicker magnet fluid low
MI/Booster access
DRF1 problems
Shots to Recycler
A:IBEAM
R:IBEAM
Sat 00:00 17-Sep 2005
Sun 00:00 18-Sep 2005
Mon 00:00 19-Sep 2005
Tue 00:00 20-Sep 2005
Wed 00:00 21-Sep 2005
Thu 00:00 22-Sep 2005
Fri 00:00 23-Sep 2005

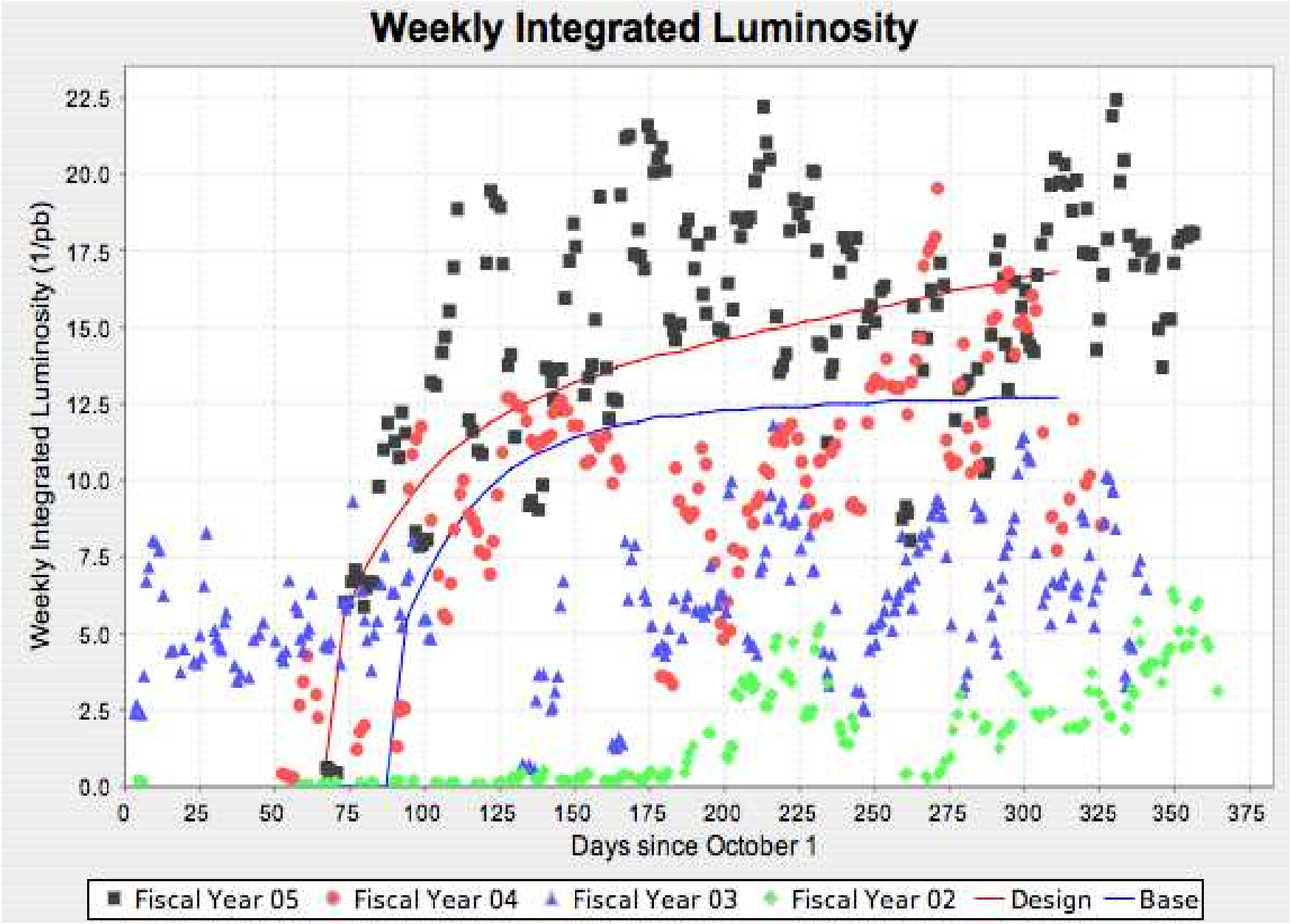

Tevatron (168.0 hrs.)
Fri Sep 23 09:45:30 2005
Store 4388 Ave Lum 108.3 E30
CDF/D0 Access
Store 4390: ave init lum=102.6e30
C3 dump failure
Store 4392 ave lum = 104.96 E30
Crystal collimator studies
28 cm beta* studies
CDF quiet time
Store 4395 ave lum = 90 E30
Quench at D15L & D0 LB
D1EVQH regulation problems
Tev turn on
Store #4397 Ave: 119.19
F0 vacuum burst
!!! Store 4399, Lavg=110 E30
T:IBEAMB
C:B0ILUM
C:D0FZTL
2.0
120.0
1.5
90.0
1.0
60.0
0.5
30.0
0.0
Sat 00:00 17-Sep 2005
Sun 00:00 18-Sep 2005
Mon 00:00 19-Sep 2005
Tue 00:00 20-Sep 2005
Wed 00:00 21-Sep 2005
Thu 00:00 22-Sep 2005
Fri 00:00 23-Sep 2005

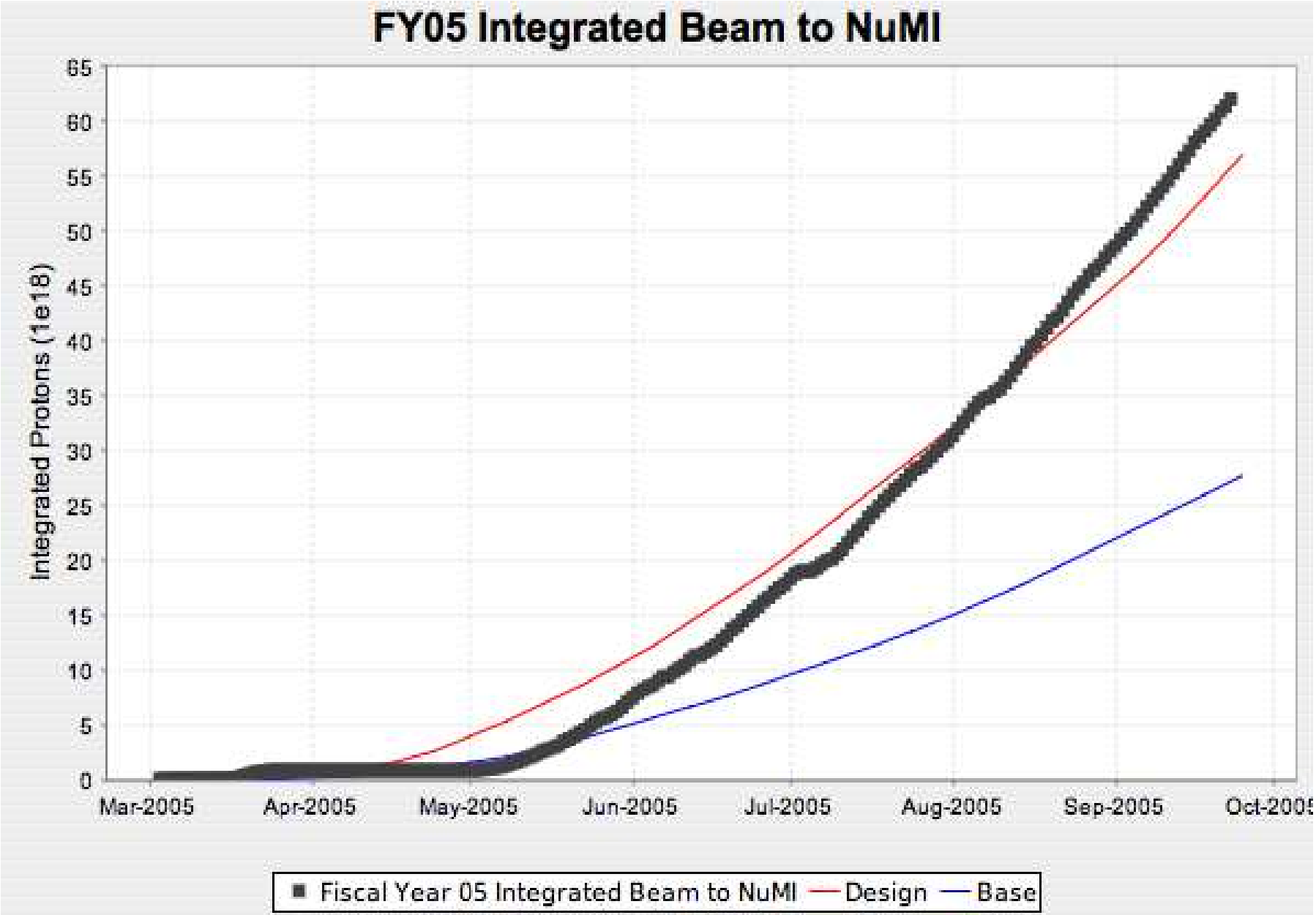

Tevatron Delivered Luminosity: Sep-16-2005 to Sep-23-2005
Average Delivered Luminosity = 18.25 pb⁻¹
Delivered Luminosity [1/pb]
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
Store 4388
Combo
233.5e10
108e30
4071 nb⁻¹
26.9 hrs
Normal
CDF/D0 Access
Cryo Wet Engine Work
Store 4390
Combo
216.5e10
103e30
3229 nb⁻¹
25.1 hrs
Normal
D0 Access
Tev Dump Problems
Store 4392
Combo
202e10
105e30
3763 nb⁻¹
31 hrs
Normal
28cm β* Studies
D1 Quench
Cryo Controls
Store 4395
Recycler
32x36
165e10
90.4e30
28cm β*
1861 nb⁻¹
10.3 hrs
D1 Quench
Store 4397
Combo
164.6e10
119.2e30
28cm β*
3800 nb⁻¹
27.7 hrs
Normal
Store 4399
Combo
247.9e10
110e30
28cm β*
Spinning
16-Sep-2005 F
17-Sep-2005 Sa
18-Sep-2005 Su
19-Sep-2005 M
20-Sep-2005 Tu
21-Sep-2005 W
22-Sep-2005 Th
23-Sep-2005 F
Date
CDF
D0

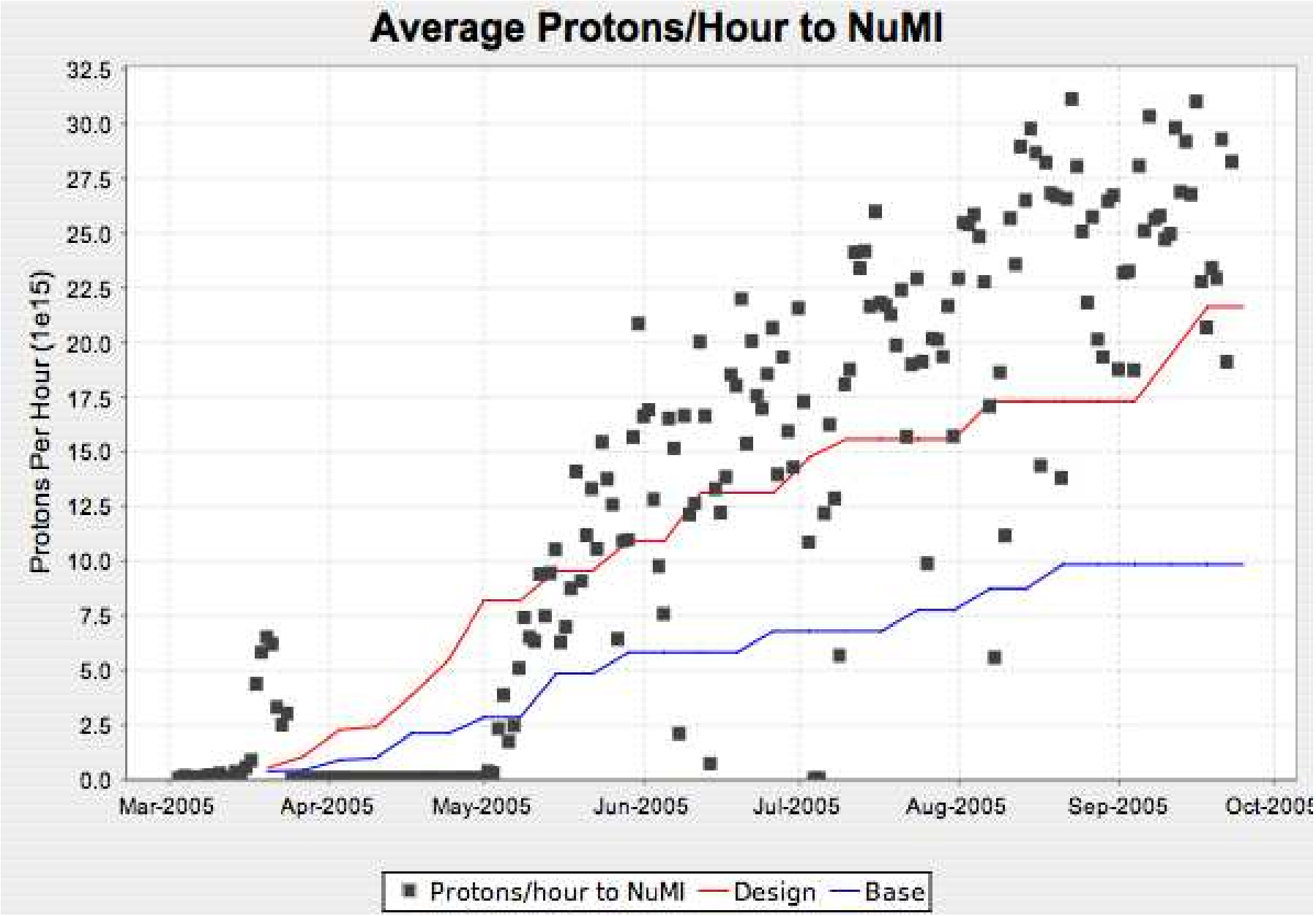

Luminosity vs Pbars
Initial Luminosity 1/¬μb/sec
Available Pbars (e10)
4397
4399
4392
4395
4390
Recycler Only
32x36
28cm β*
28cm β*
Poor 150GeV
Proton Lifetime
28cm β*
Last 40 Stores
Store 4399
Store 4397
Store 4395
Store 4392
Store 4390
fit of last 40 stores

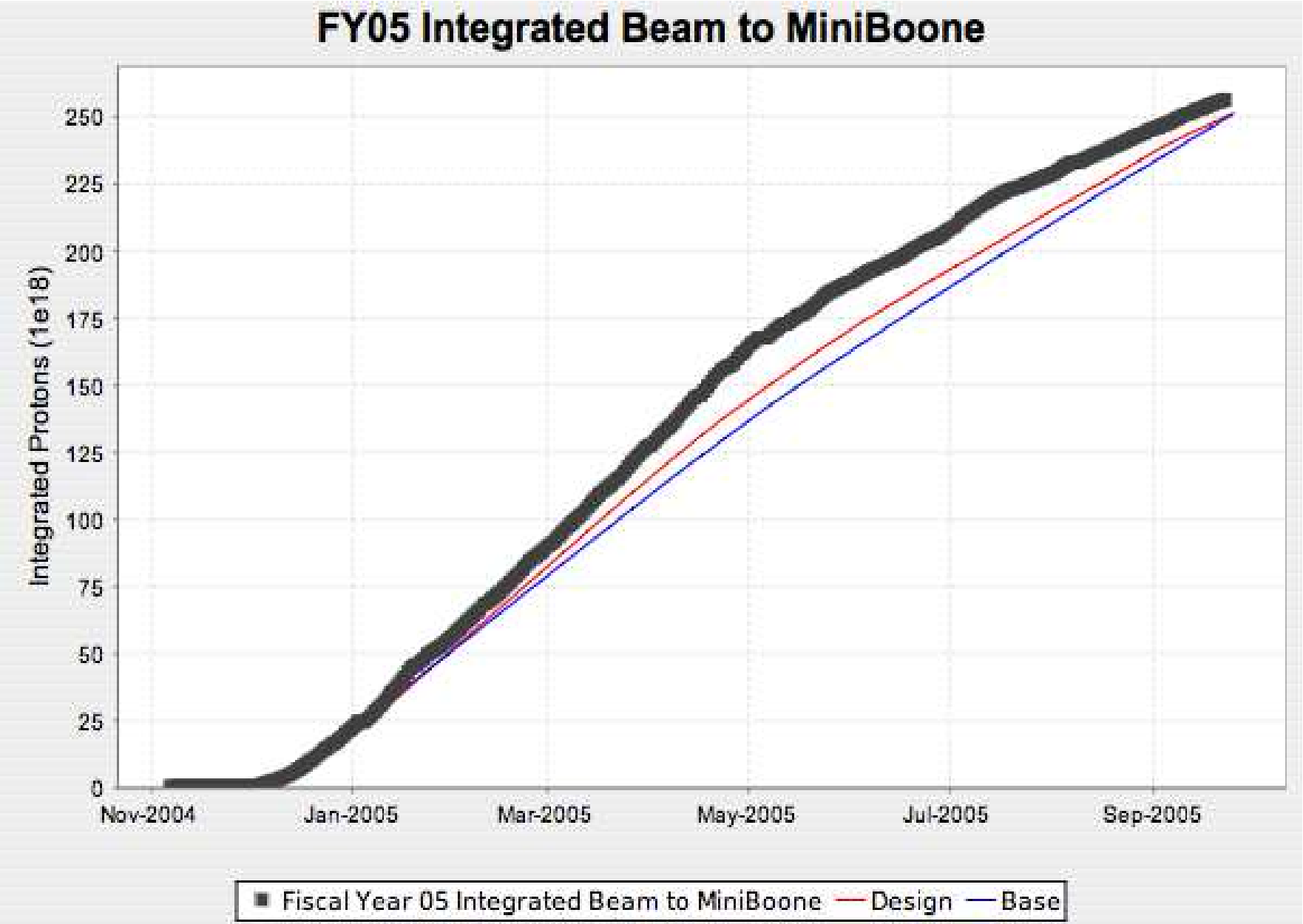

FY05 Integrated Luminosity
Integrated Luminosity (1/pb)
600
550
500
450
400
350
300
250
200
150
100
50
0
Jan-2005
Mar-2005
May-2005
Jul-2005
Sep-2005
Fiscal Year 05 Integrated Luminosity
Design
Base

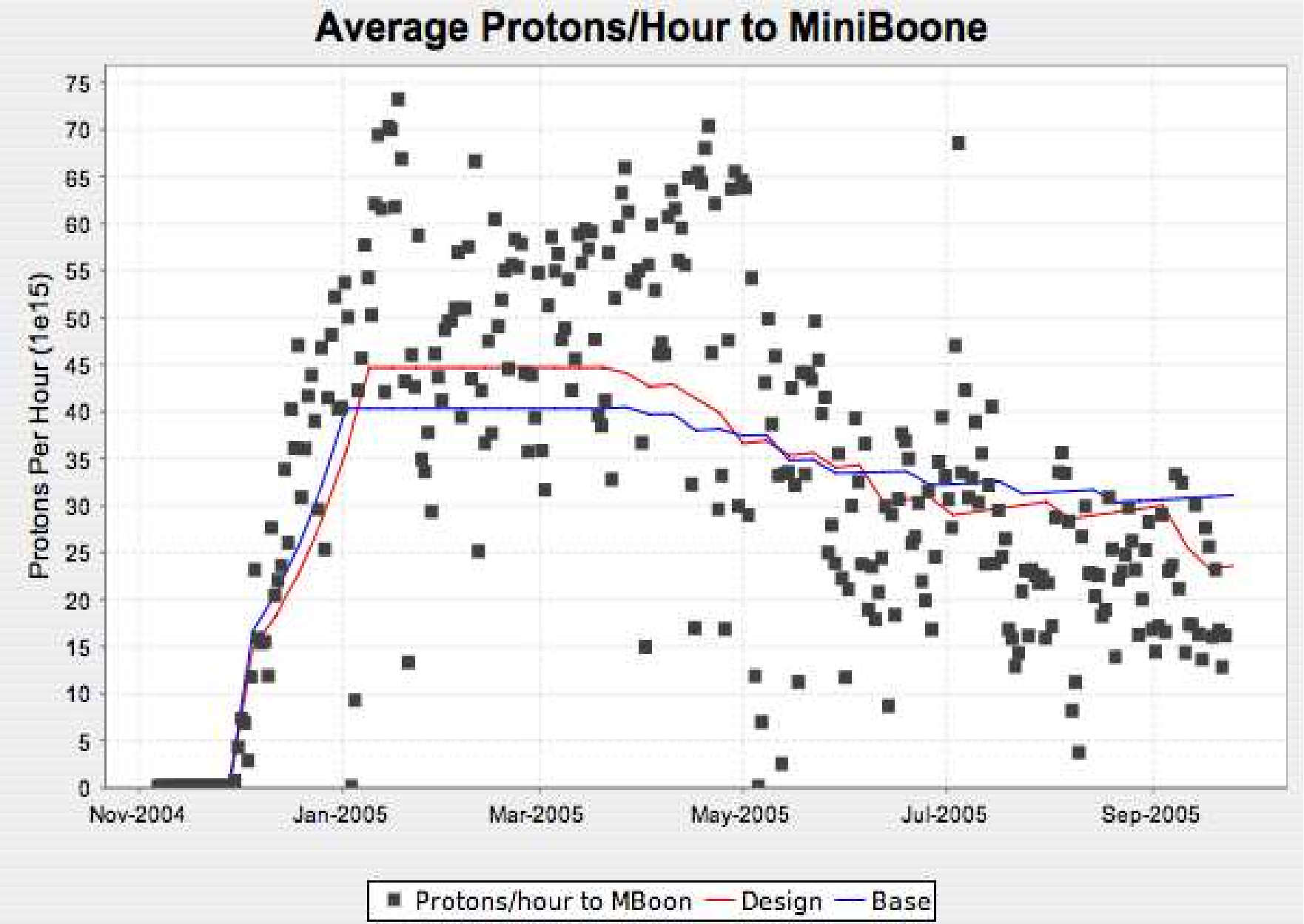

Peak Luminosity
Peak Luminosity (1/μb/sec)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Days since October 1
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


Weekly Integrated Luminosity
Weekly Integrated Luminosity (1/pb)
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 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


FY05 Integrated Beam to NuMI
Integrated Protons (1e18)
65
60
55
50
45
40
35
30
25
20
15
10
5
0
Mar-2005
Apr-2005
May-2005
Jun-2005
Jul-2005
Aug-2005
Sep-2005
Fiscal Year 05 Integrated Beam to NuMI
Design
Base


Average Protons/Hour to NuMI
Protons Per Hour (1e15)
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
Mar-2005
Apr-2005
May-2005
Jun-2005
Jul-2005
Aug-2005
Sep-2005
Oct-2005
Protons/hour to NuMI
Design
Base


FY05 Integrated Beam to MiniBoone
Integrated Protons (1e18)
250
225
200
175
150
125
100
75
50
25
0
Nov-2004
Jan-2005
Mar-2005
May-2005
Jul-2005
Sep-2005
Fiscal Year 05 Integrated Beam to MiniBoone
Design
Base


Average Protons/Hour to MiniBoone
Protons Per Hour (1e15)
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
Nov-2004
Jan-2005
Mar-2005
May-2005
Jul-2005
Sep-2005
Protons/hour to MBoon
Design
Base