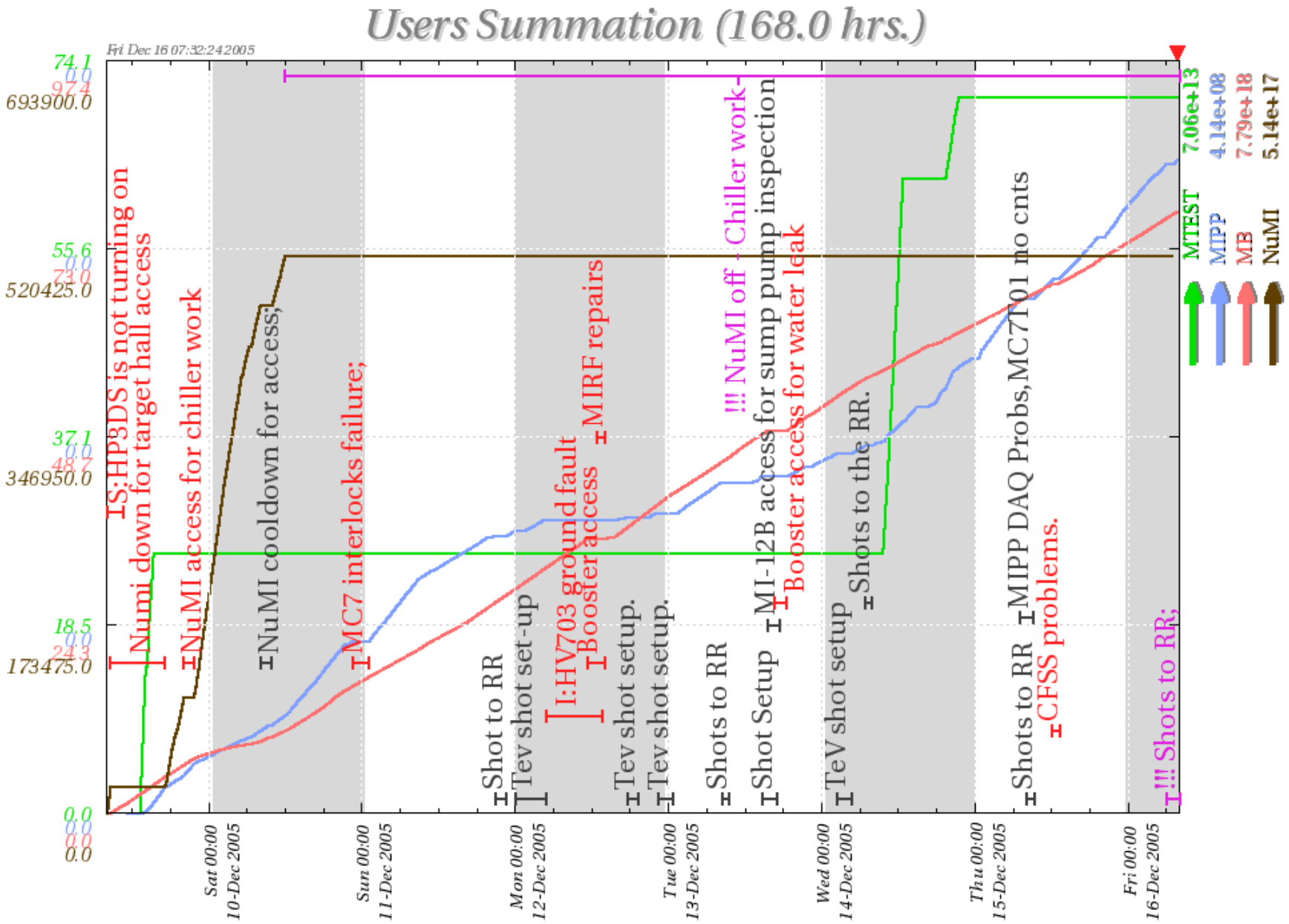
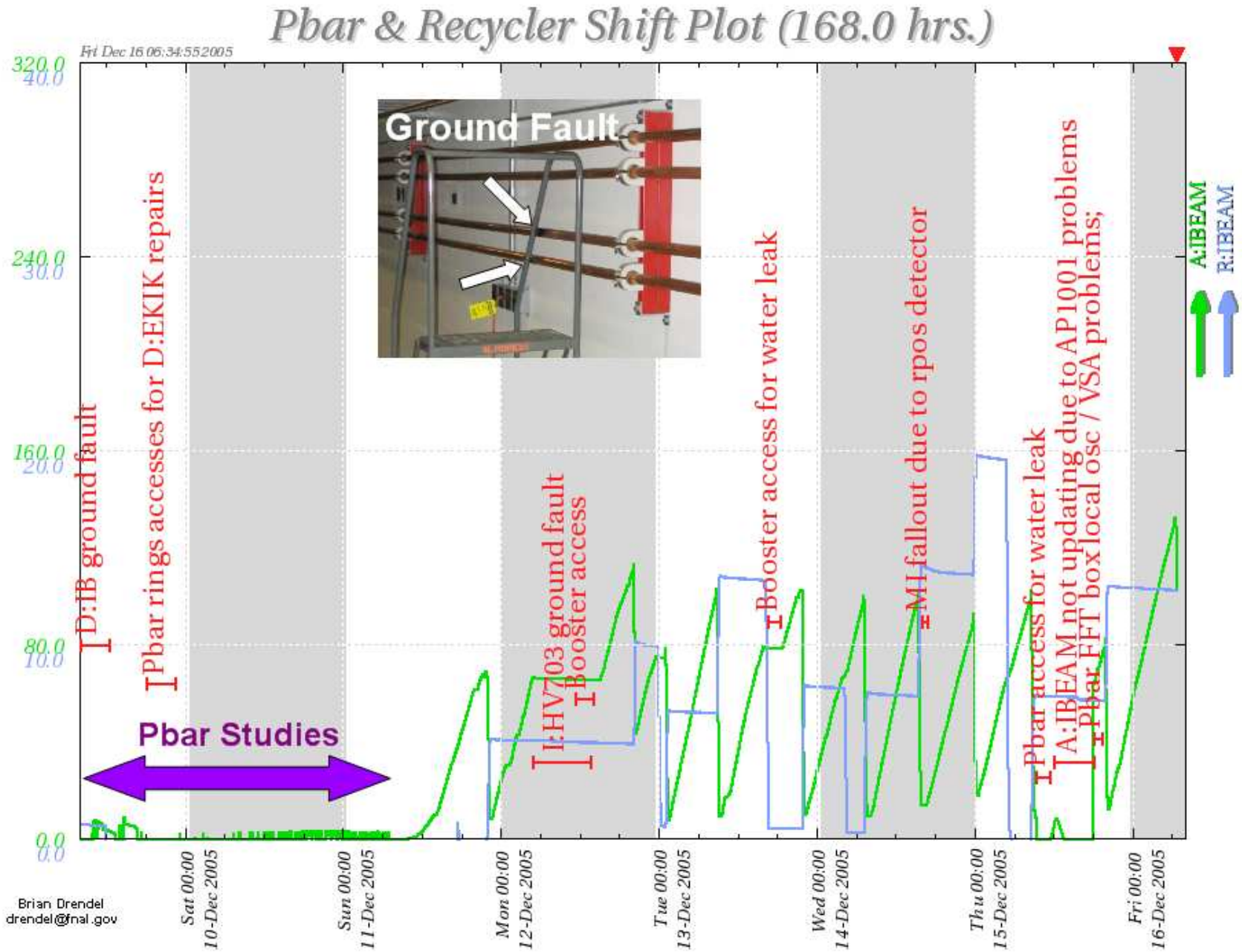
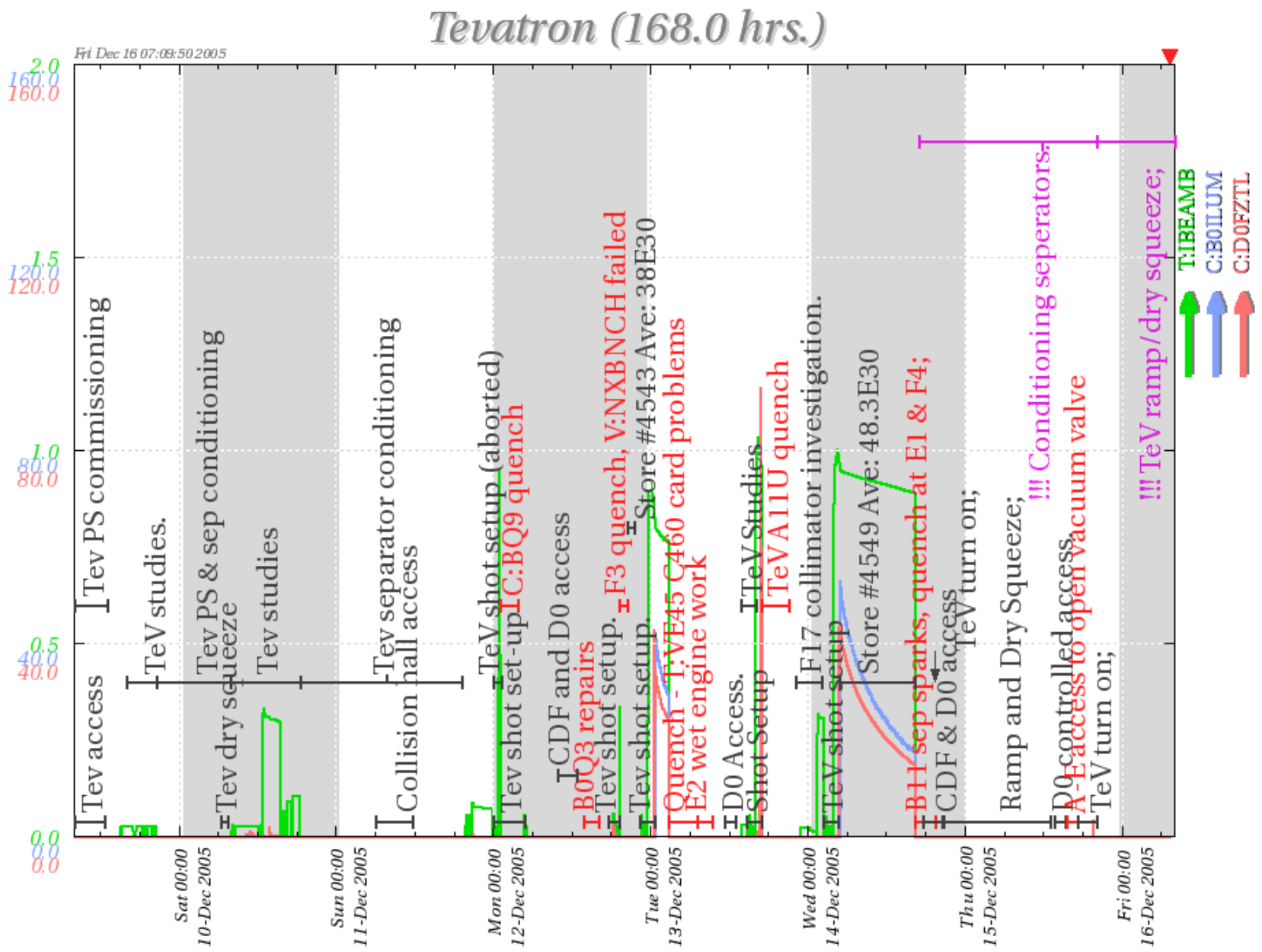
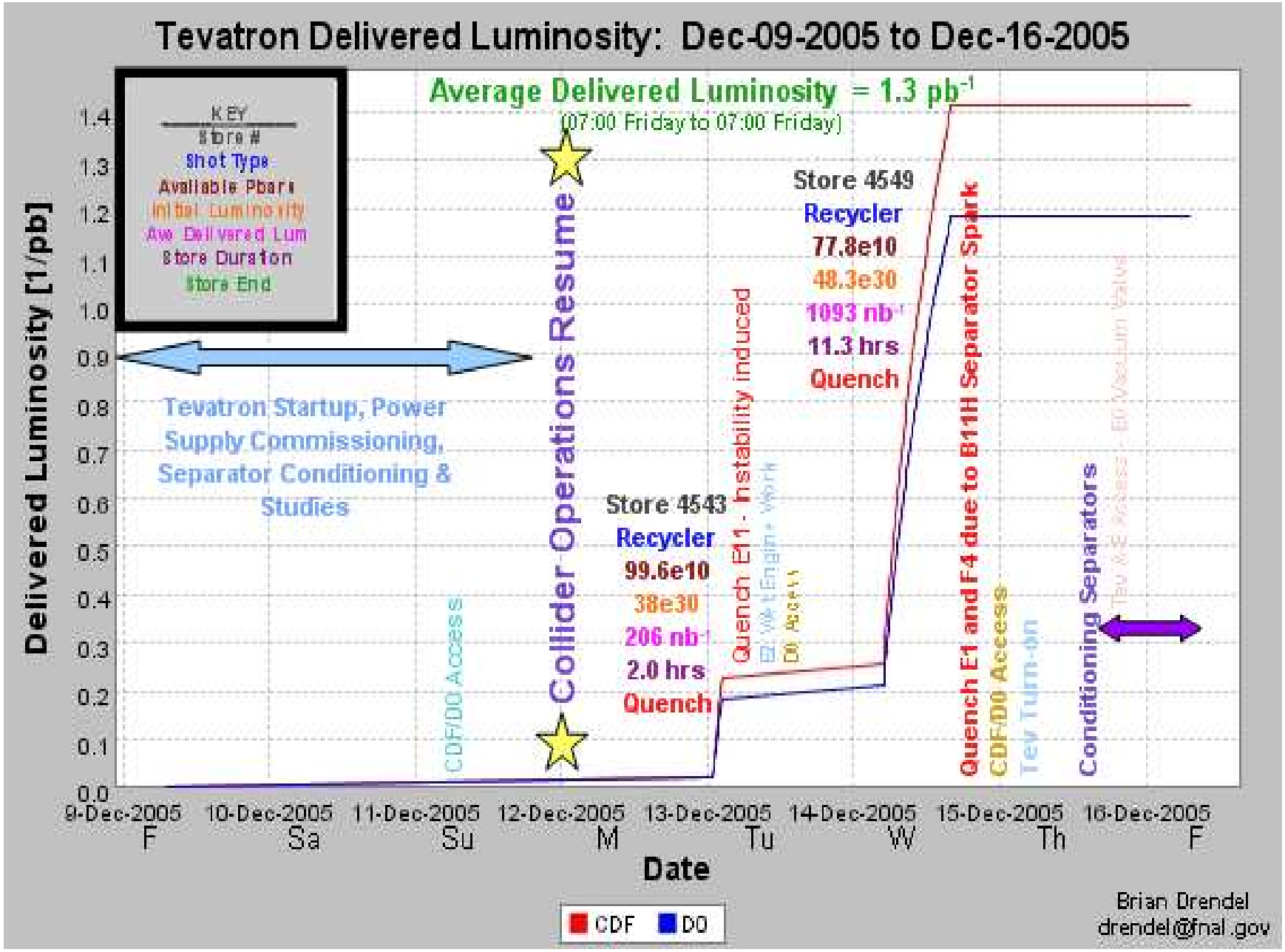
Accelerator Week in Review

- 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 – 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 Dec 16 07:32:24 2005
693900.0
520425.0
346950.0
173475.0
0.0
Sat 00:00 10-Dec 2005
Sun 00:00 11-Dec 2005
Mon 00:00 12-Dec 2005
Tue 00:00 13-Dec 2005
Wed 00:00 14-Dec 2005
Thu 00:00 15-Dec 2005
Fri 00:00 16-Dec 2005
IS:HP3DS is not turning on
Numi down for target hall access
NuMI access for chiller work
NuMI cooldown for access;
MC7 interlocks failure;
I:HV703 ground fault
Booster access
MIRF repairs
Shot to RR
Tev shot set-up
Tev shot setup.
Tev shot setup.
Shots to RR
!!! NuMI off - Chiller work -
Shot Setup
MI-12B access for sump pump inspection
Booster access for water leak
TeV shot setup
Shots to the RR.
Shots to RR
MIPP DAQ Probs,MC7T01 no cnts
CFSS problems.
!!! Shots to RR;
MTEST 7.06e+13
MIPP 4.14e+08
MB 7.79e+18
NuMI 5.14e+17


Pbar & Recycler Shift Plot (168.0 hrs.)
Fri Dec 16 06:34:55 2005
320.0
40.0
240.0
30.0
160.0
20.0
80.0
10.0
0.0
0.0
Ground Fault
D:IB ground fault
Pbar rings accesses for D:EKIK repairs
Pbar Studies
I:HV703 ground fault
Booster access
Booster access for water leak
MI fallout due to rpos detector
Pbar access for water leak
A:IBEAM not updating due to AP1001 problems
Pbar FFT box local osc / VSA problems;
A:IBEAM
R:IBEAM
Sat 00:00 10-Dec 2005
Sun 00:00 11-Dec 2005
Mon 00:00 12-Dec 2005
Tue 00:00 13-Dec 2005
Wed 00:00 14-Dec 2005
Thu 00:00 15-Dec 2005
Fri 00:00 16-Dec 2005
Brian Drendel
drendel@fnal.gov


Tevatron (168.0 hrs.)
Fri Dec 16 07:09:50 2005
Tev access
Tev PS commissioning
TeV studies.
Tev PS & sep conditioning
Tev dry squeeze
Tev studies
Tev separator conditioning
Collision hall access
TeV shot setup (aborted)
Tev shot set-up
C:BQ9 quench
CDF and D0 access
B0Q3 repairs
Tev shot setup.
F3 quench, V:NXBNCH failed
Tev shot setup
Store #4543 Ave: 38E30
Quench - T:VE45 C460 card problems
E2 wet engine work
D0 Access.
Shot Setup
TeV Studies
TeVA11U quench
F17 collimator investigation.
TeV shot setup
Store #4549 Ave: 48.3E30
B11 sep sparks, quench at E1 & F4;
CDF & D0 access
TeV turn on;
Ramp and Dry Squeeze;
!!! Conditioning seperators
D0 controlled access
A-E access to open vacuum valve
TeV turn on;
!!! TeV ramp/dry squeeze;
T:IBEAMB
C:B0ILUM
C:D0FZTL
Sat 00:00 10-Dec 2005
Sun 00:00 11-Dec 2005
Mon 00:00 12-Dec 2005
Tue 00:00 13-Dec 2005
Wed 00:00 14-Dec 2005
Thu 00:00 15-Dec 2005
Fri 00:00 16-Dec 2005


Tevatron Delivered Luminosity: Dec-09-2005 to Dec-16-2005
Average Delivered Luminosity = 1.3 pb-1
(07:00 Friday to 07:00 Friday)
KEY
Store #
Shot Type
Avaliable Pbars
Initial Luminosity
Ave Delivered Lum
Store Duration
Store End
Delivered Luminosity [1/pb]
Tevatron Startup, Power Supply Commissioning, Separator Conditioning & Studies
Collider Operations Resume
CDF/D0 Access
Store 4543
Recycler
99.6e10
38e30
206 nb-1
2.0 hrs
Quench
Quench E11 - Instability induced
Store 4549
Recycler
77.8e10
48.3e30
1093 nb-1
11.3 hrs
Quench
Quench E1 and F4 due to B11H Separator Spark
CDF/D0 Access
Tev Turn-on
Conditioning Separators
Date
CDF
D0
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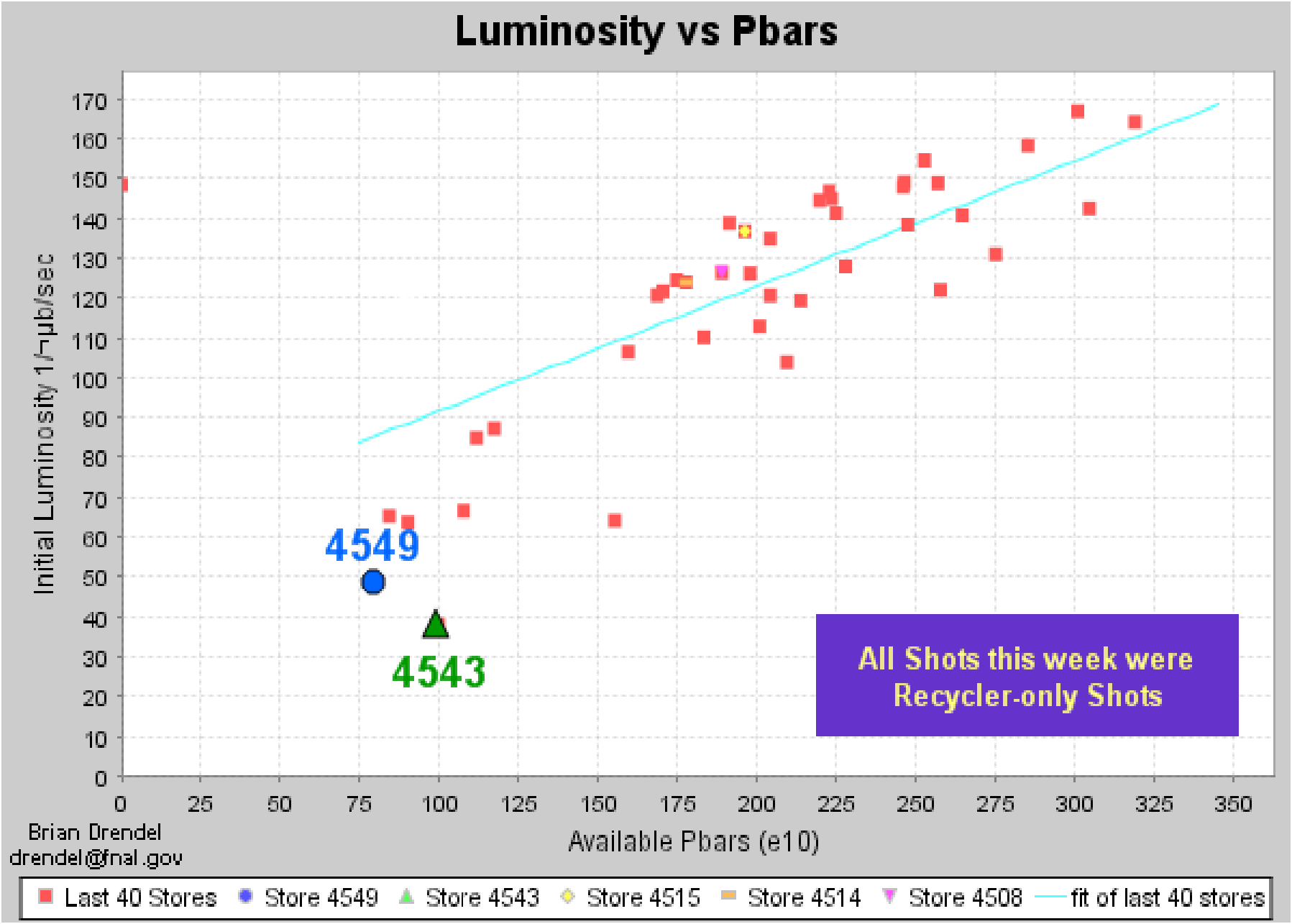
drendel@fnal.gov


Luminosity vs Pbars
Initial Luminosity 1/¬µb/sec
Available Pbars (e10)
4549
4543
All Shots this week were Recycler-only Shots
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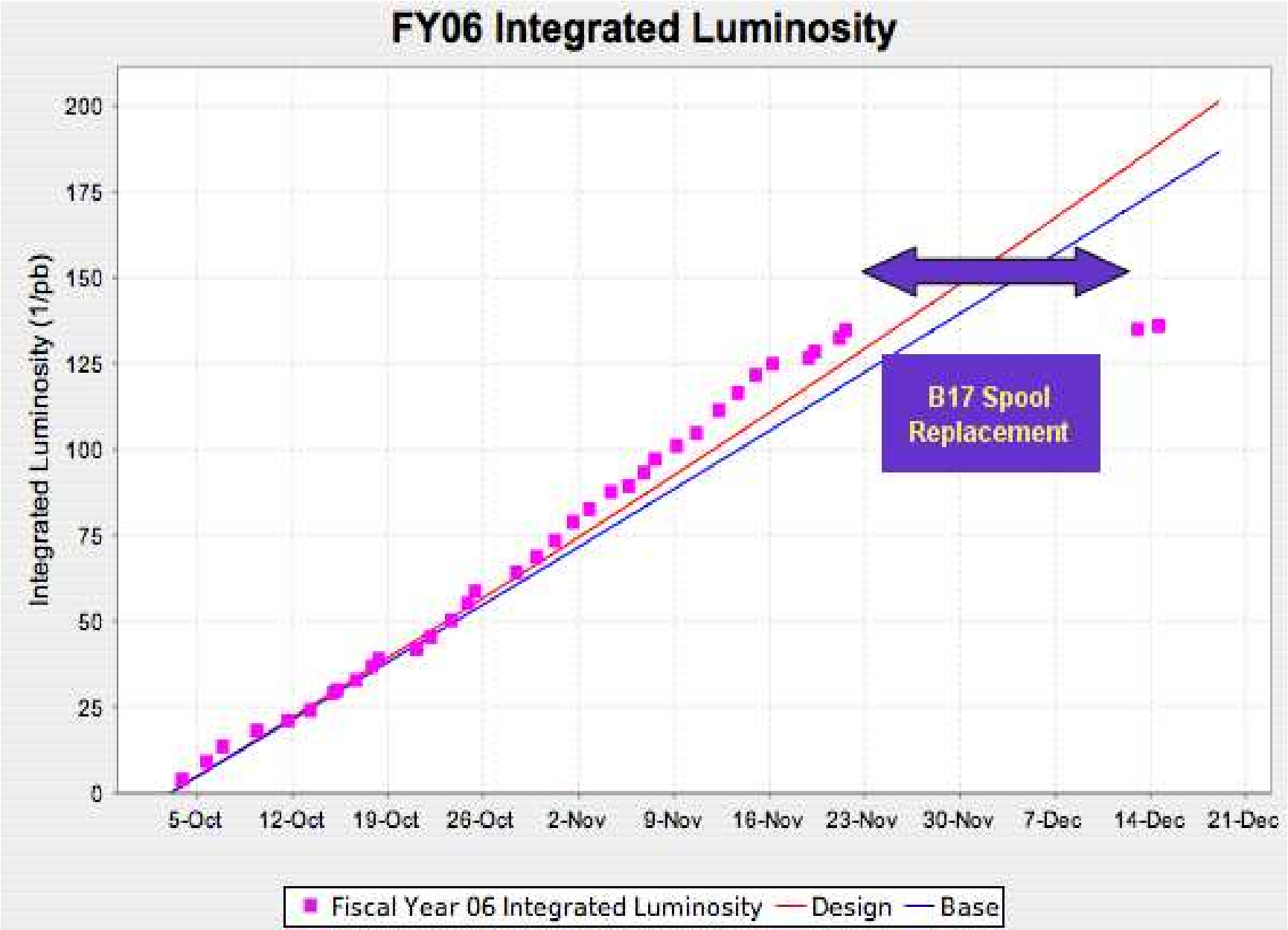
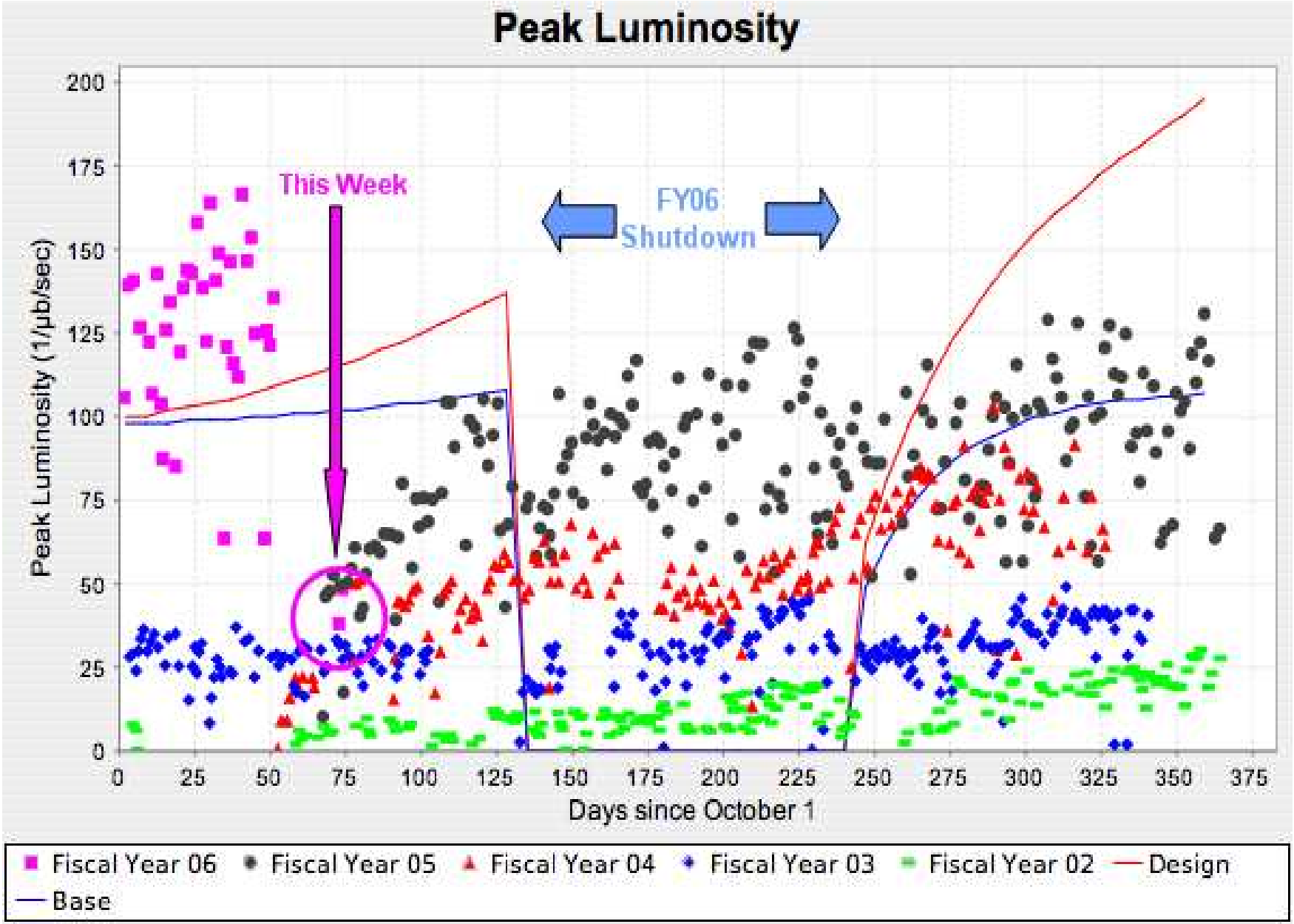
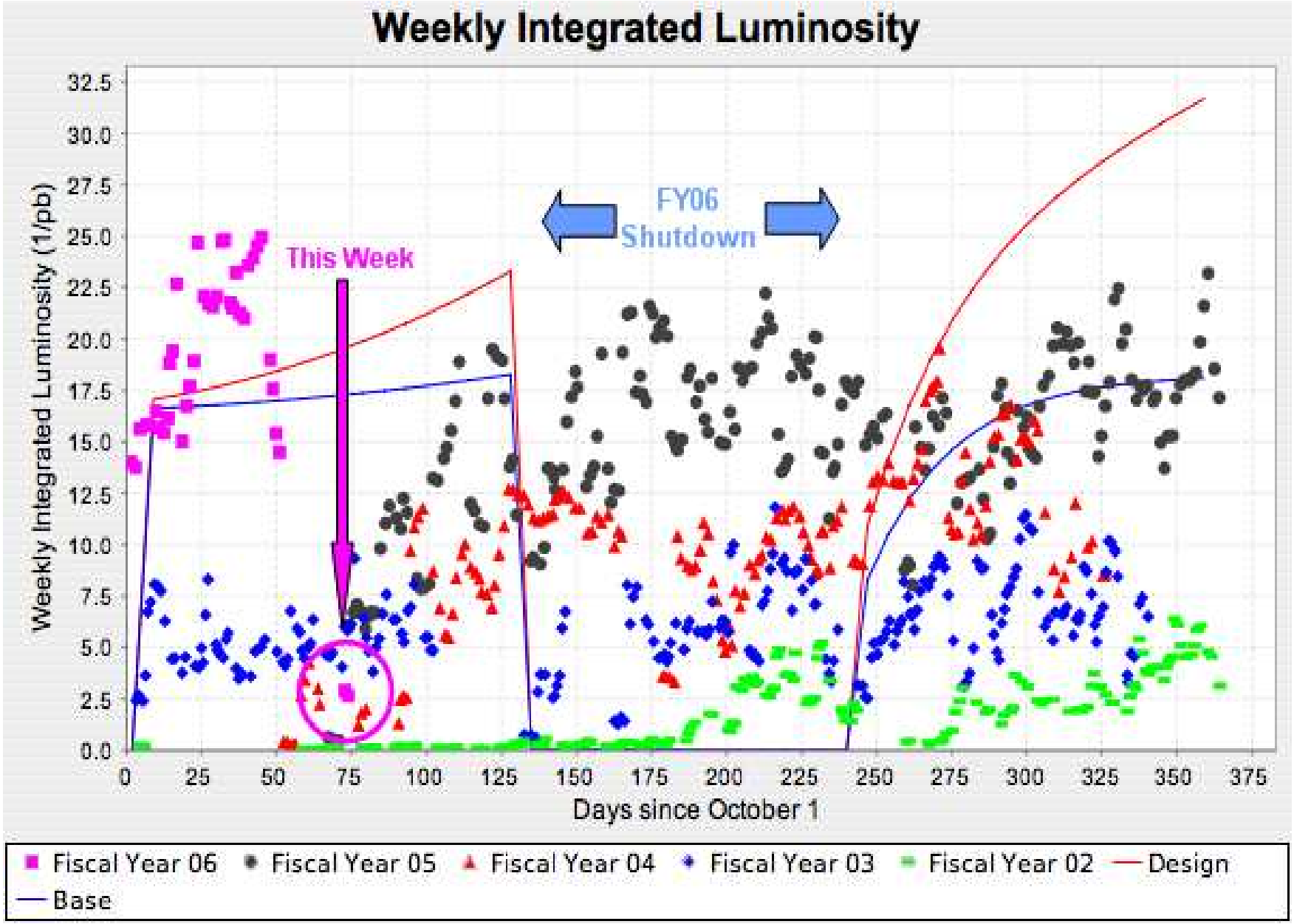
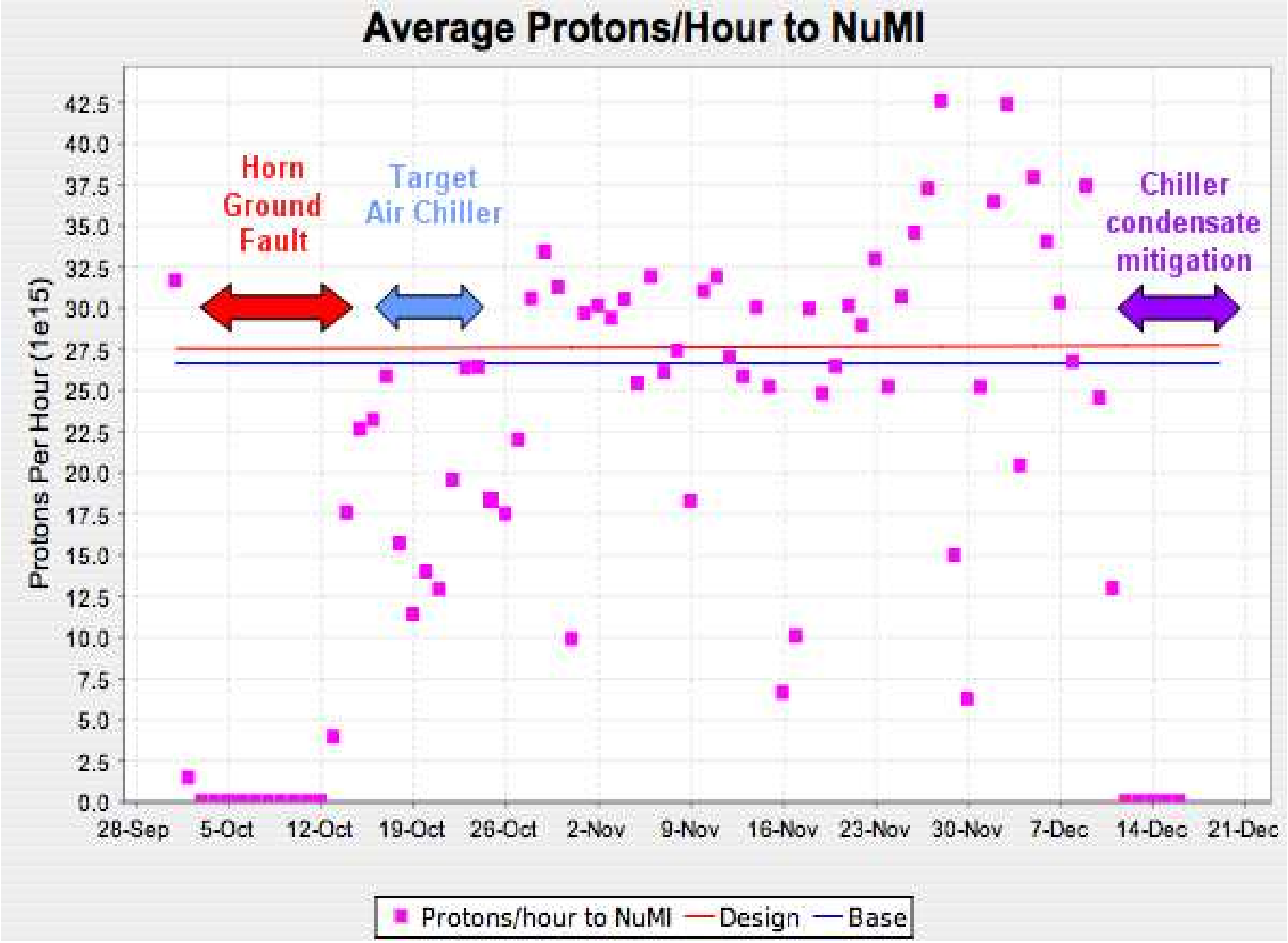
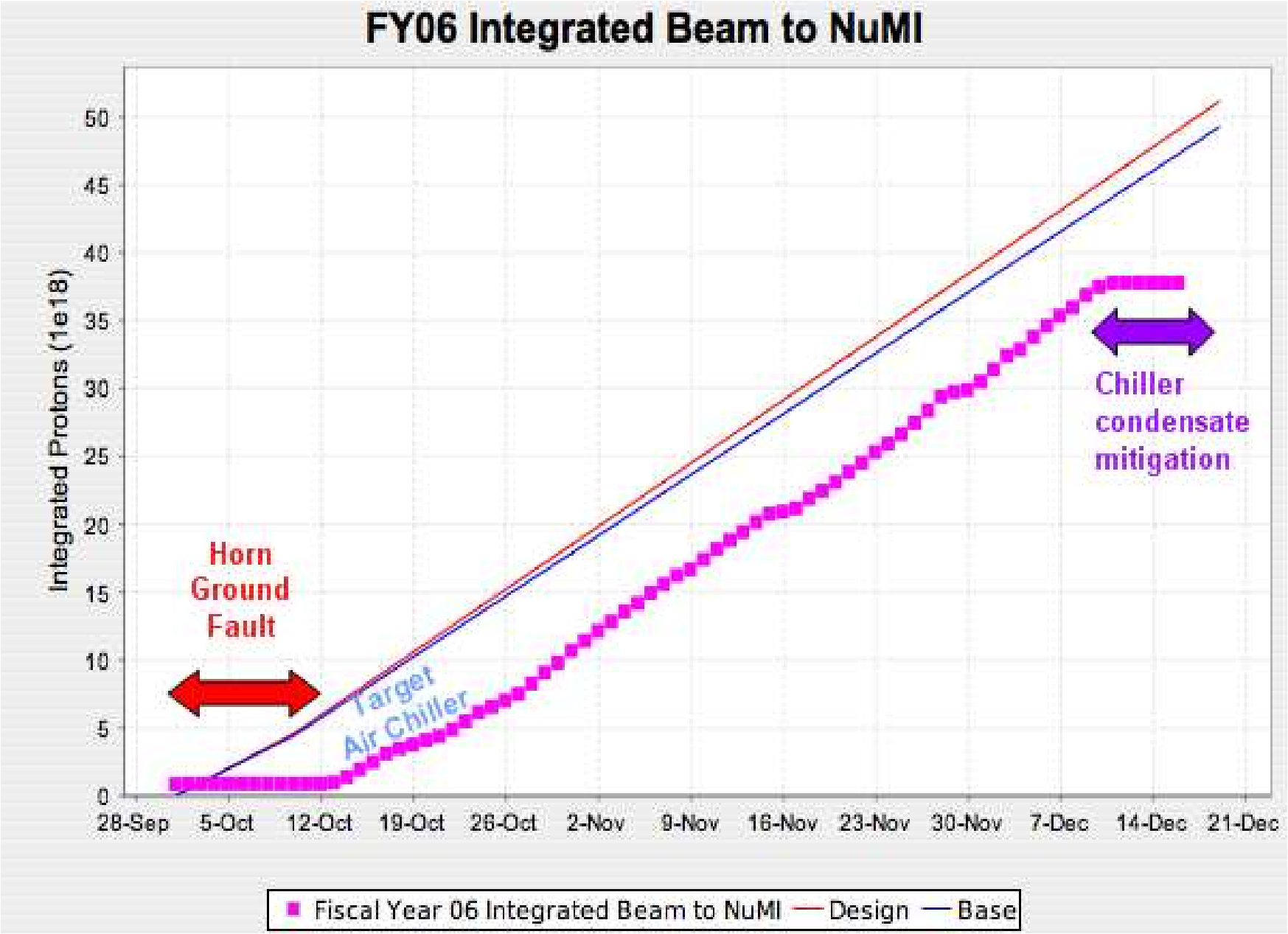
Last 40 Stores
Store 4549
Store 4543
Store 4515
Store 4514
Store 4508
fit of last 40 stores

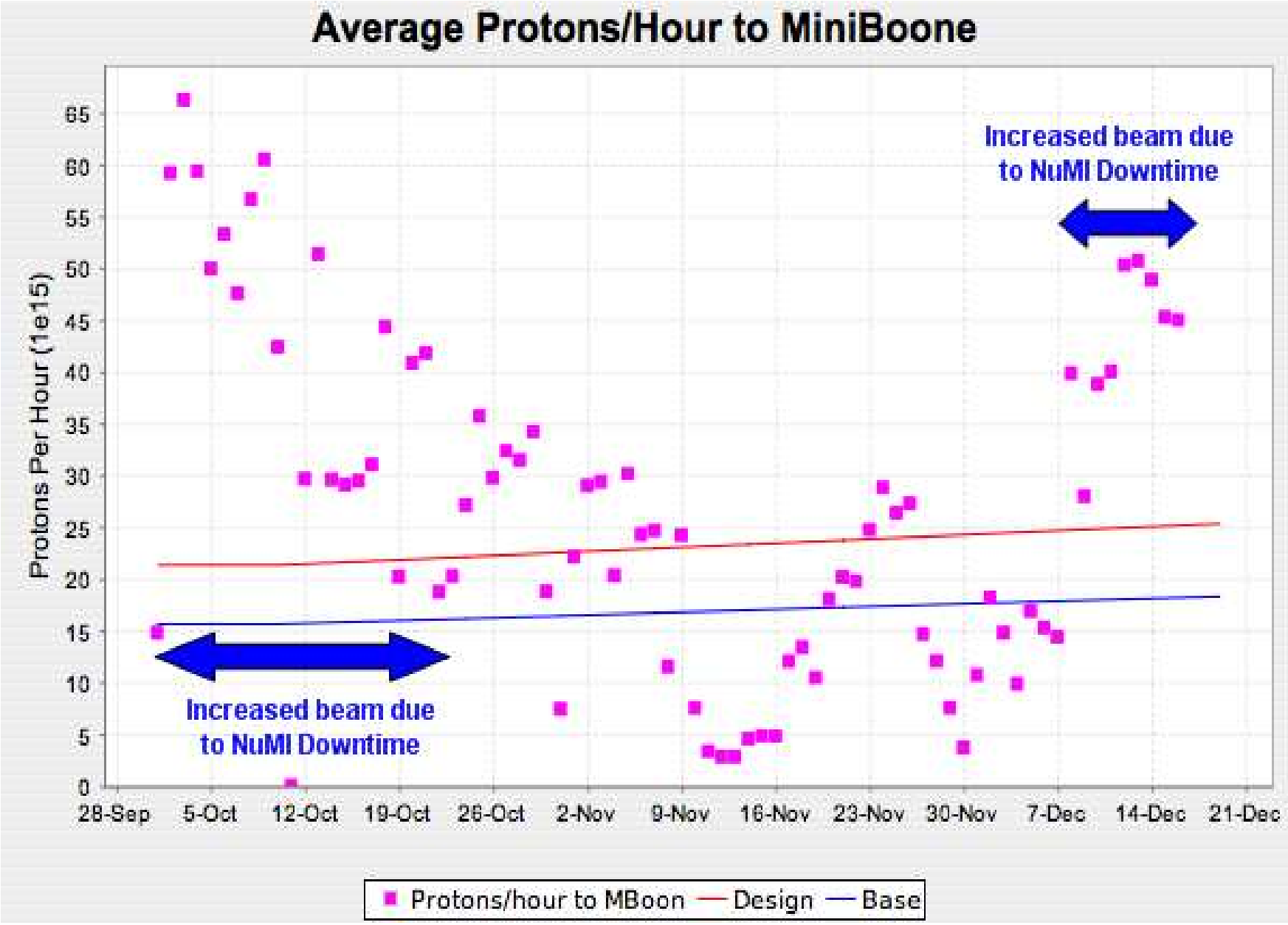

FY06 Integrated Luminosity
Integrated Luminosity (1/pb)
200
175
150
125
100
75
50
25
0
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
B17 Spool Replacement
Fiscal Year 06 Integrated Luminosity
Design
Base

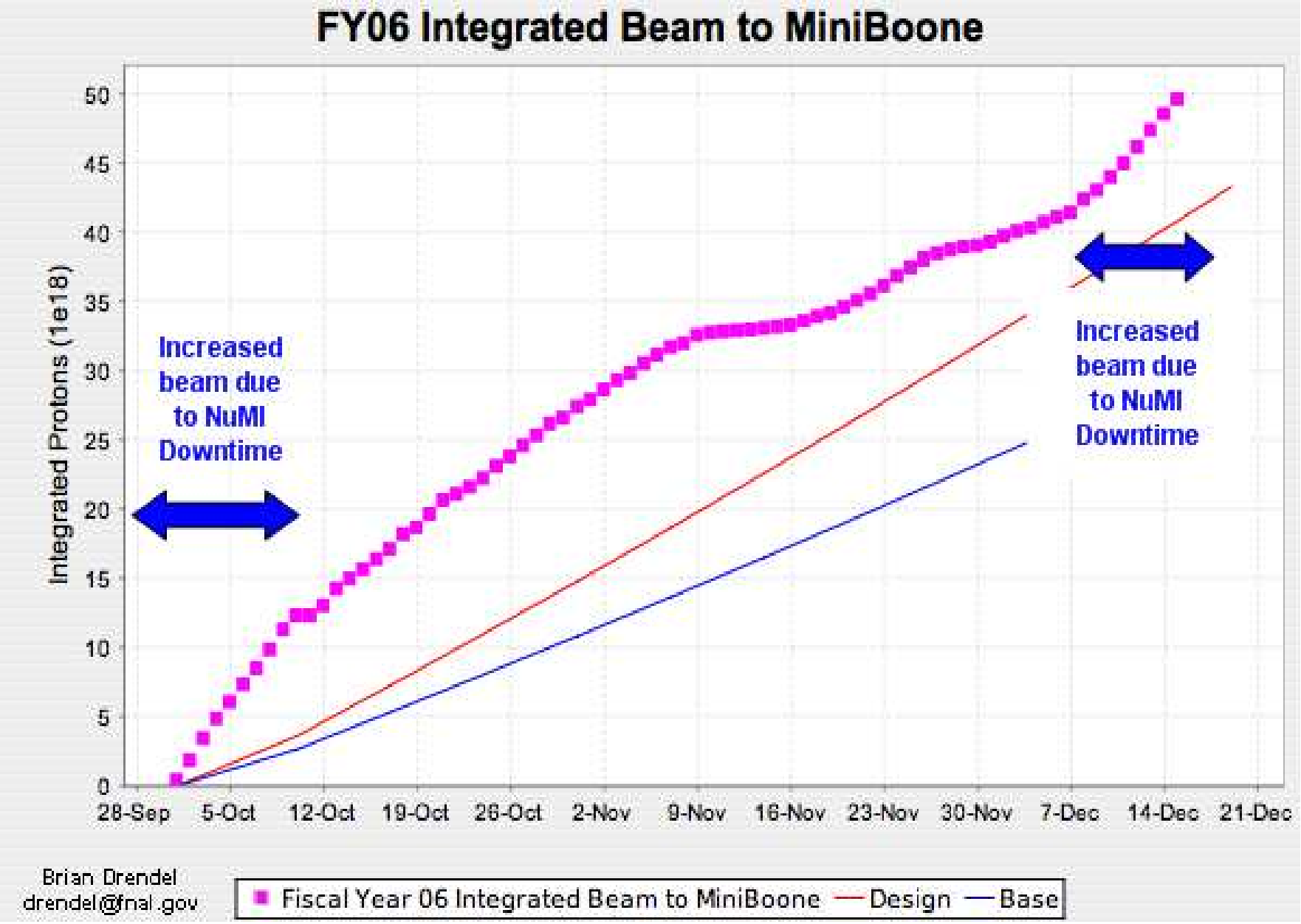

Peak Luminosity
This Week
FY06
Shutdown
Peak Luminosity (1/μb/sec)
Days since October 1
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


Weekly Integrated Luminosity
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
This Week
FY06
Shutdown
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


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
28-Sep
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
Horn Ground Fault
Target Air Chiller
Chiller condensate mitigation
Protons/hour to NuMI
Design
Base


FY06 Integrated Beam to NuMI
Integrated Protons (1e18)
0
5
10
15
20
25
30
35
40
45
50
28-Sep
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
Horn Ground Fault
Target Air Chiller
Chiller condensate mitigation
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
28-Sep
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
Increased beam due to NuMI Downtime
Increased beam due to NuMI Downtime
Protons/hour to MBoon
Design
Base


FY06 Integrated Beam to MiniBoone
Integrated Protons (1e18)
50
45
40
35
30
25
20
15
10
5
0
28-Sep
5-Oct
12-Oct
19-Oct
26-Oct
2-Nov
9-Nov
16-Nov
23-Nov
30-Nov
7-Dec
14-Dec
21-Dec
Increased beam due to NuMI Downtime
Increased beam due to NuMI Downtime
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Fiscal Year 06 Integrated Beam to MiniBoone
Design
Base