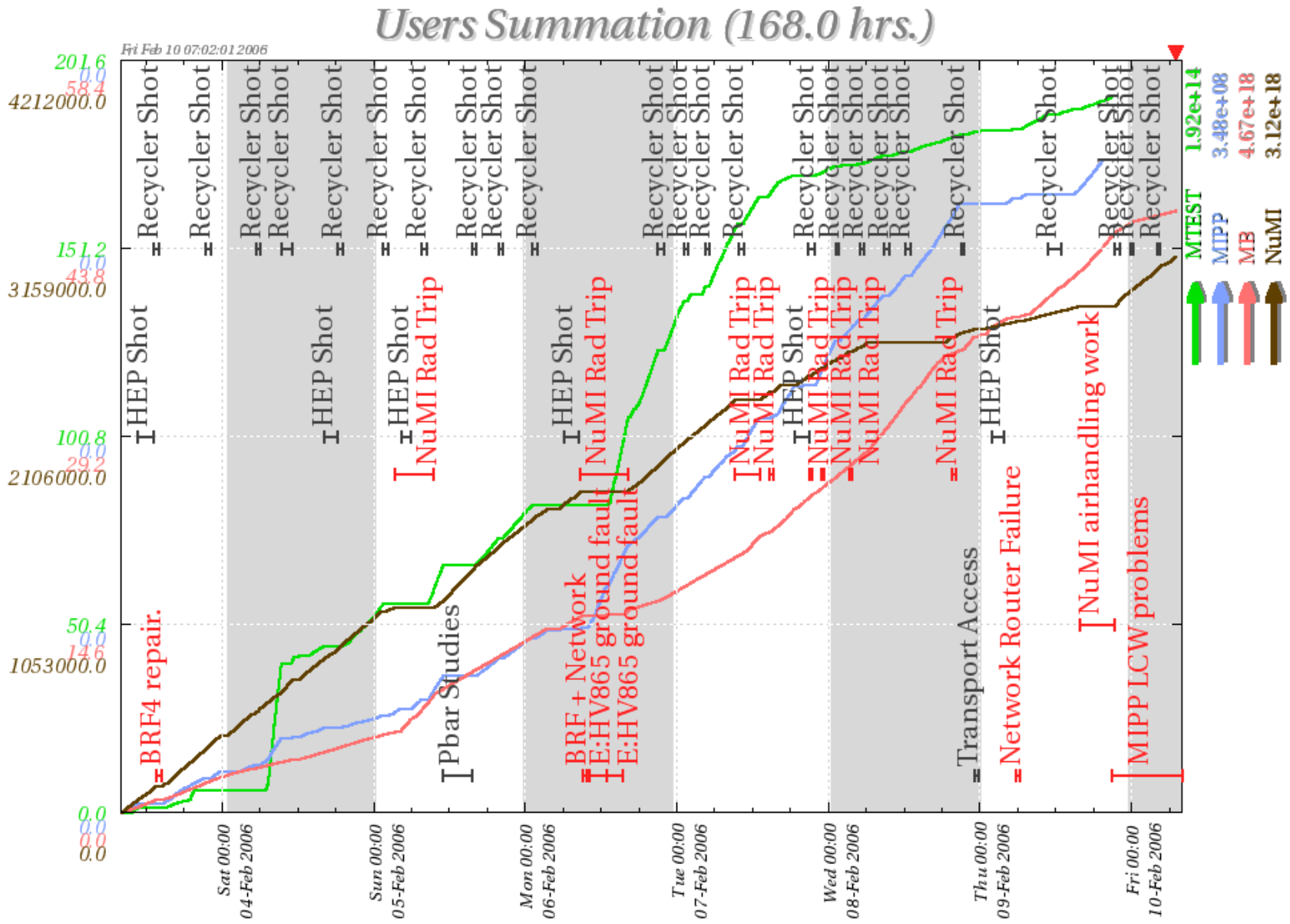
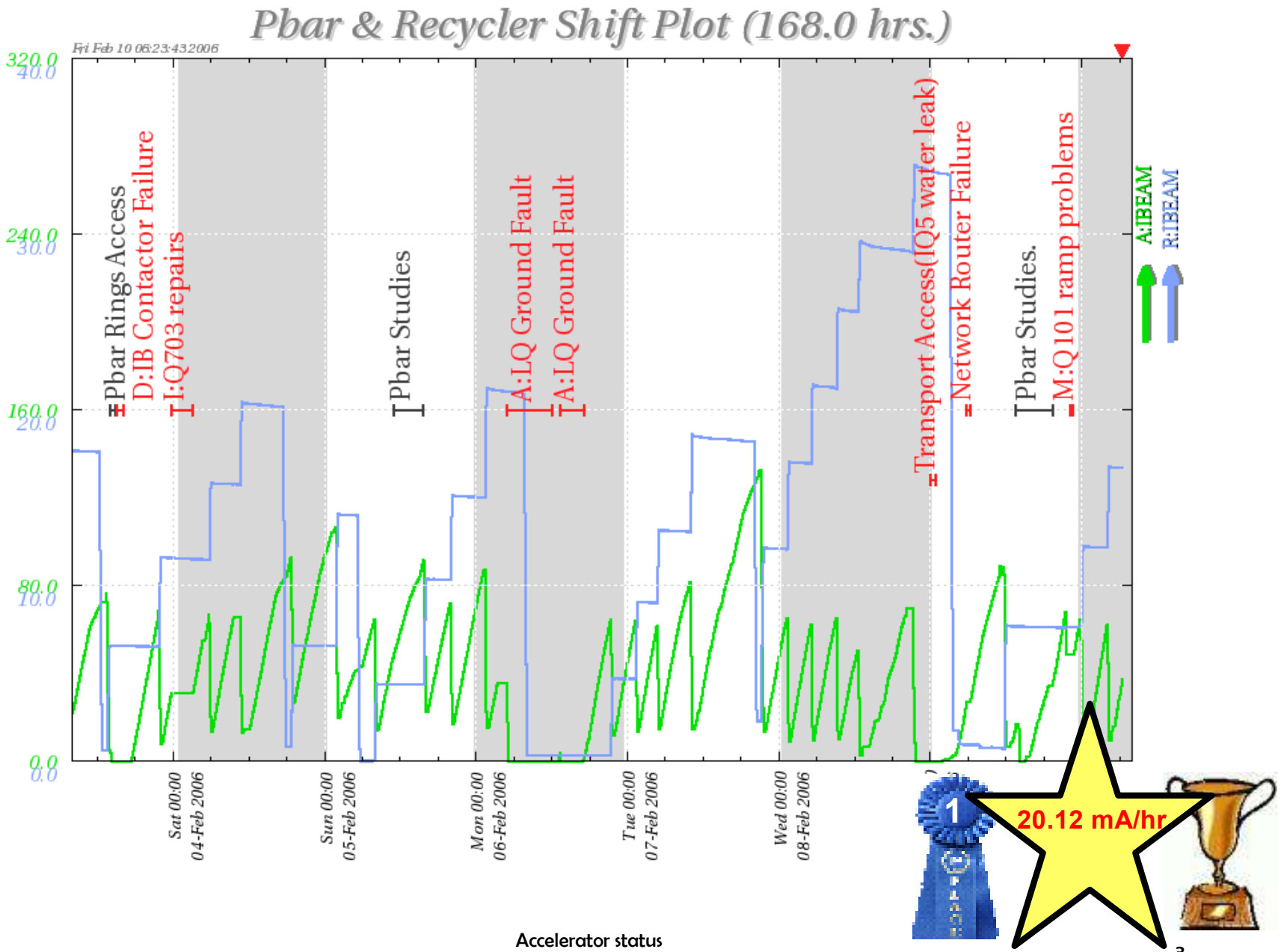
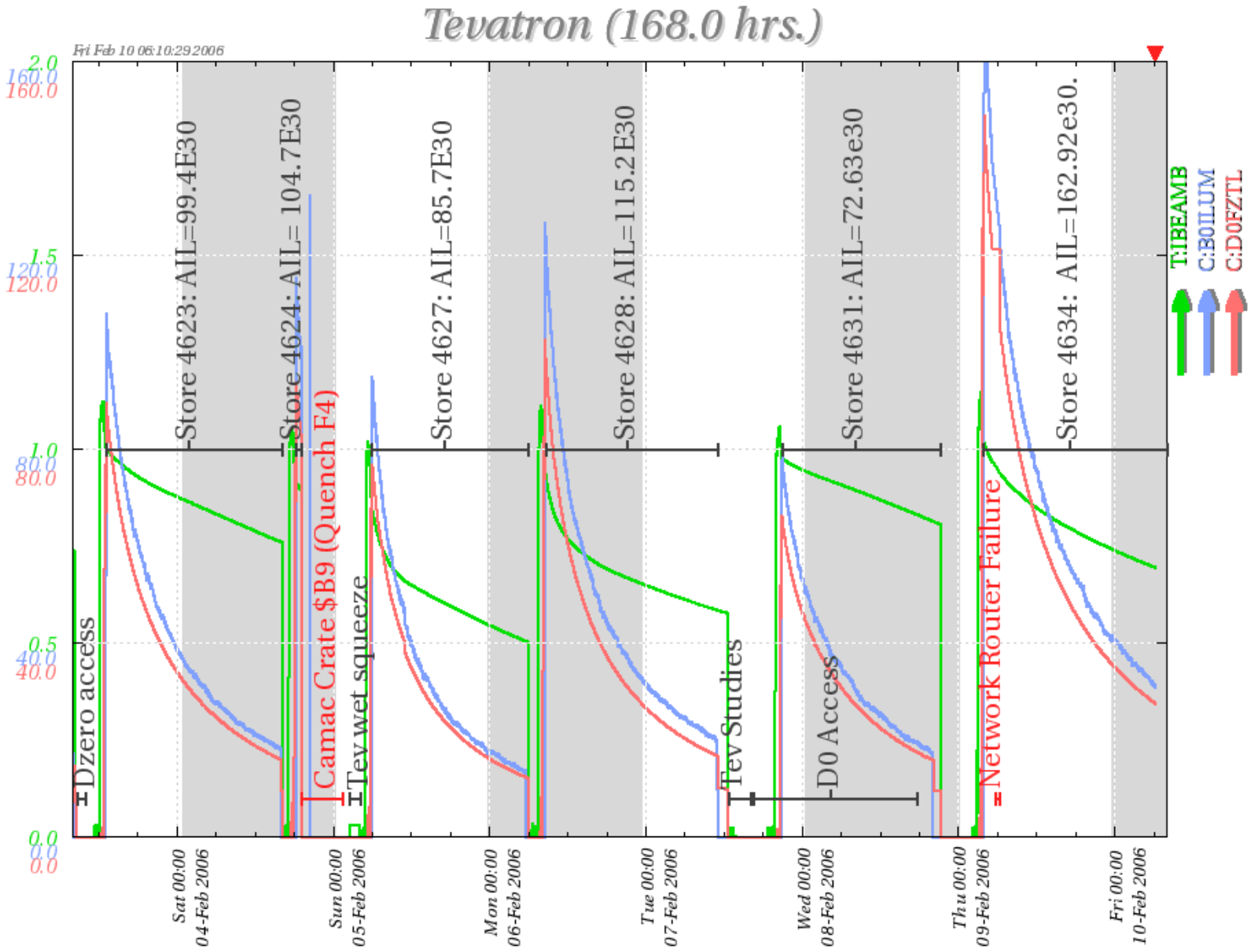
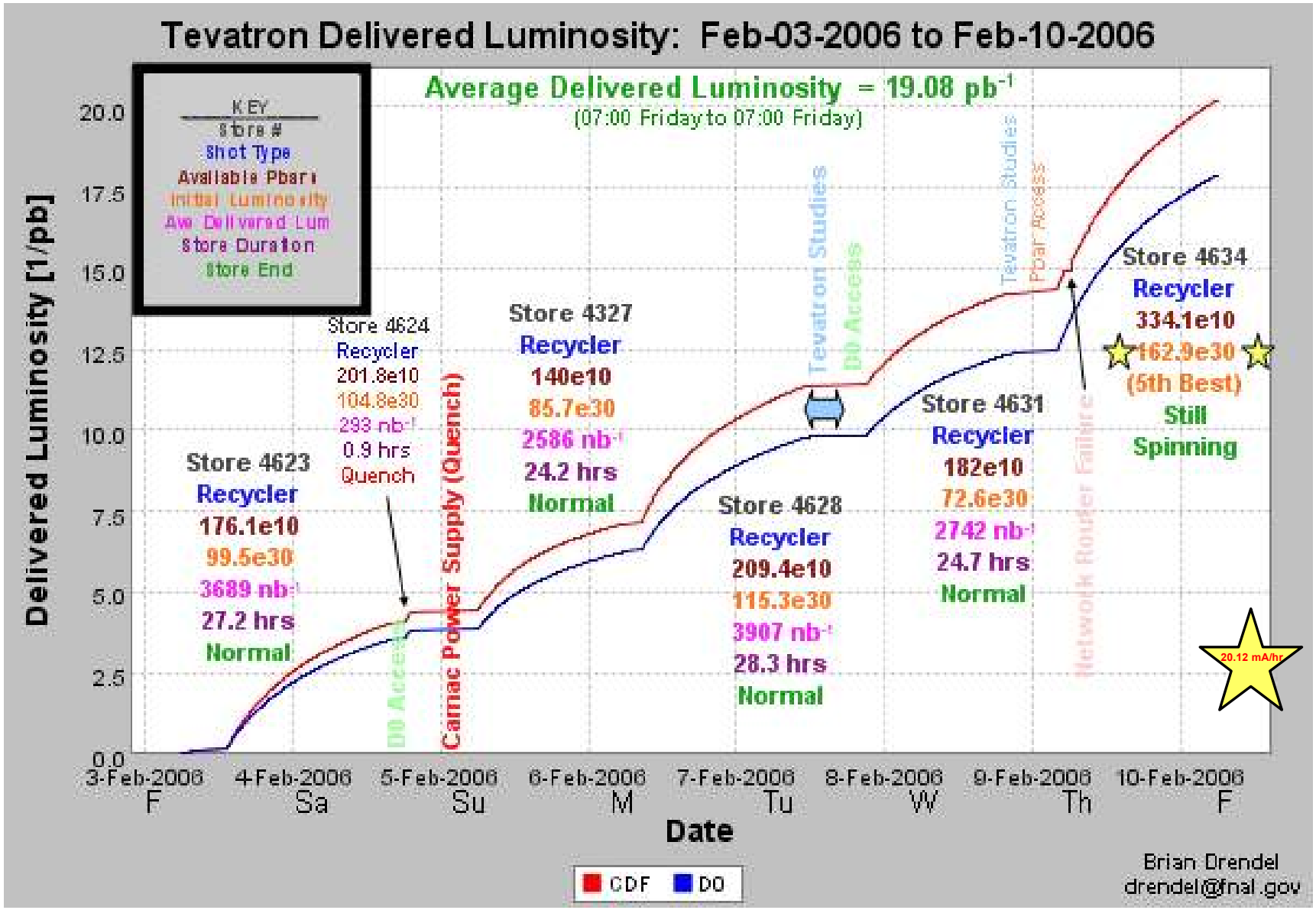
Accelerator Week in Review

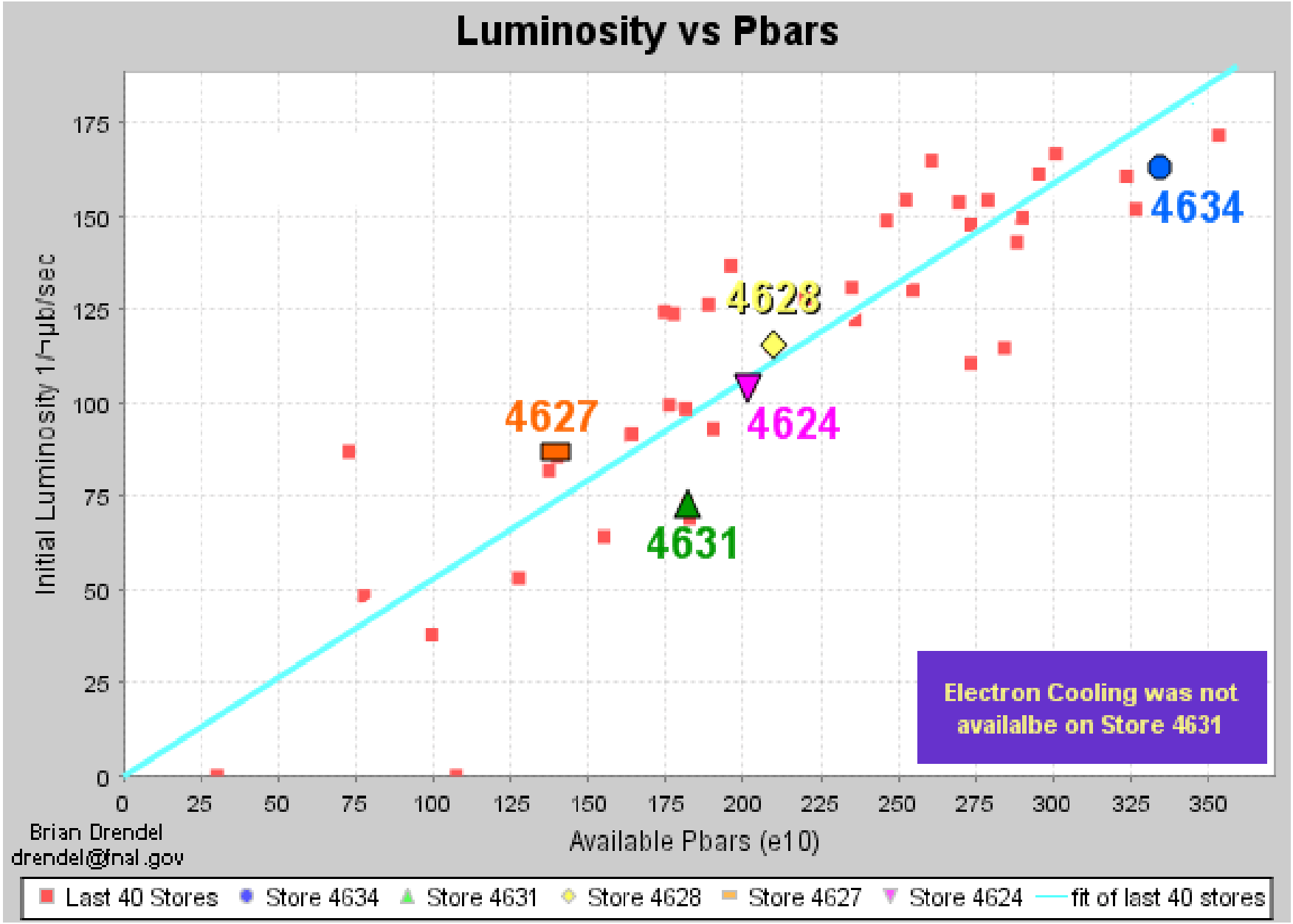
- Part I: Regular 9am Scheduling Meeting
  - Crew Chief Summary
  - 48 hour machine summaries and study requests – Machine Coordinators
  - Operational Plan – Jim Morgan
- Part II: Weekly Machine Reports
  - Weekly Operational Summary – Brian Drendel
    - User, Pbar and Tevatron weekly operational plots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


Users Summation (168.0 hrs.)
Fri Feb 10 07:02:01 2006
201.6
0.0
58.4
4212000.0
151.2
0.0
43.8
3159000.0
100.8
0.0
29.2
2106000.0
50.4
0.0
14.6
1053000.0
0.0
0.0
0.0
0.0
Sat 00:00 04-Feb 2006
Sun 00:00 05-Feb 2006
Mon 00:00 06-Feb 2006
Tue 00:00 07-Feb 2006
Wed 00:00 08-Feb 2006
Thu 00:00 09-Feb 2006
Fri 00:00 10-Feb 2006
Recycler Shot
HEP Shot
NuMI Rad Trip
BRF4 repair.
Pbar Studies
BRF + Network
E:HV865 ground fault
Transport Access
Network Router Failure
NuMI airhandling work
MIPP LCW problems
MTEST 1.92e+14
MIPP 3.48e+08
MB 4.67e+18
NuMI 3.12e+18


Pbar & Recycler Shift Plot (168.0 hrs.)
Fri Feb 10 06:23:43 2006
320.0
40.0
240.0
30.0
160.0
20.0
80.0
10.0
0.0
0.0
Pbar Rings Access
D:IB Contactor Failure
I:Q703 repairs
Pbar Studies
A:LQ Ground Fault
A:LQ Ground Fault
Transport Access(IQ5 water leak)
Network Router Failure
Pbar Studies.
M:Q101 ramp problems
A:IBEAM
R:IBEAM
Sat 00:00 04-Feb 2006
Sun 00:00 05-Feb 2006
Mon 00:00 06-Feb 2006
Tue 00:00 07-Feb 2006
Wed 00:00 08-Feb 2006
1
20.12 mA/hr


Tevatron (168.0 hrs.)
Fri Feb 10 06:10:29 2006
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
Dzero access
Store 4623: AIL=99.4E30
Store 4624: AIL= 104.7E30
Camac Crate $B9 (Quench F4)
Tev wet squeeze
Store 4627: AIL=85.7E30
Store 4628: AIL=115.2E30
Tev Studies
D0 Access
Store 4631: AIL=72.63e30
Network Router Failure
Store 4634: AIL=162.92e30.
T:IBEAMB
C:B0ILUM
C:D0FZTL
Sat 00:00 04-Feb 2006
Sun 00:00 05-Feb 2006
Mon 00:00 06-Feb 2006
Tue 00:00 07-Feb 2006
Wed 00:00 08-Feb 2006
Thu 00:00 09-Feb 2006
Fri 00:00 10-Feb 2006


Tevatron Delivered Luminosity: Feb-03-2006 to Feb-10-2006
Average Delivered Luminosity = 19.08 pb-1
(07:00 Friday to 07:00 Friday)
KEY
Store #
Shot Type
Available Pbar s
Initial Luminosity
Ave Delivered Lum
Store Duration
Store End
Delivered Luminosity [1/pb]
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
Store 4623
Recycler
176.1e10
99.5e30
3689 nb-1
27.2 hrs
Normal
Store 4624
Recycler
201.8e10
104.8e30
293 nb-1
0.9 hrs
Quench
D0 Access
Carnac Power Supply (Quench)
Store 4327
Recycler
140e10
85.7e30
2586 nb-1
24.2 hrs
Normal
Tevatron Studies
D0 Access
Store 4628
Recycler
209.4e10
115.3e30
3907 nb-1
28.3 hrs
Normal
Tevatron Studies
Pbar Access
Store 4631
Recycler
182e10
72.6e30
2742 nb-1
24.7 hrs
Normal
Network Router Failure
Store 4634
Recycler
334.1e10
162.9e30
(5th Best)
Still
Spinning
20.12 mA/hr
3-Feb-2006 F
4-Feb-2006 Sa
5-Feb-2006 Su
6-Feb-2006 M
7-Feb-2006 Tu
8-Feb-2006 W
9-Feb-2006 Th
10-Feb-2006 F
Date
CDF
D0
Brian Drendel
drendel@fnal.gov


Luminosity vs Pbars
Initial Luminosity 1/¬µb/sec
Available Pbars (e10)
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
4634
4628
4627
4624
4631
Electron Cooling was not availalbe on Store 4631
Brian Drendel
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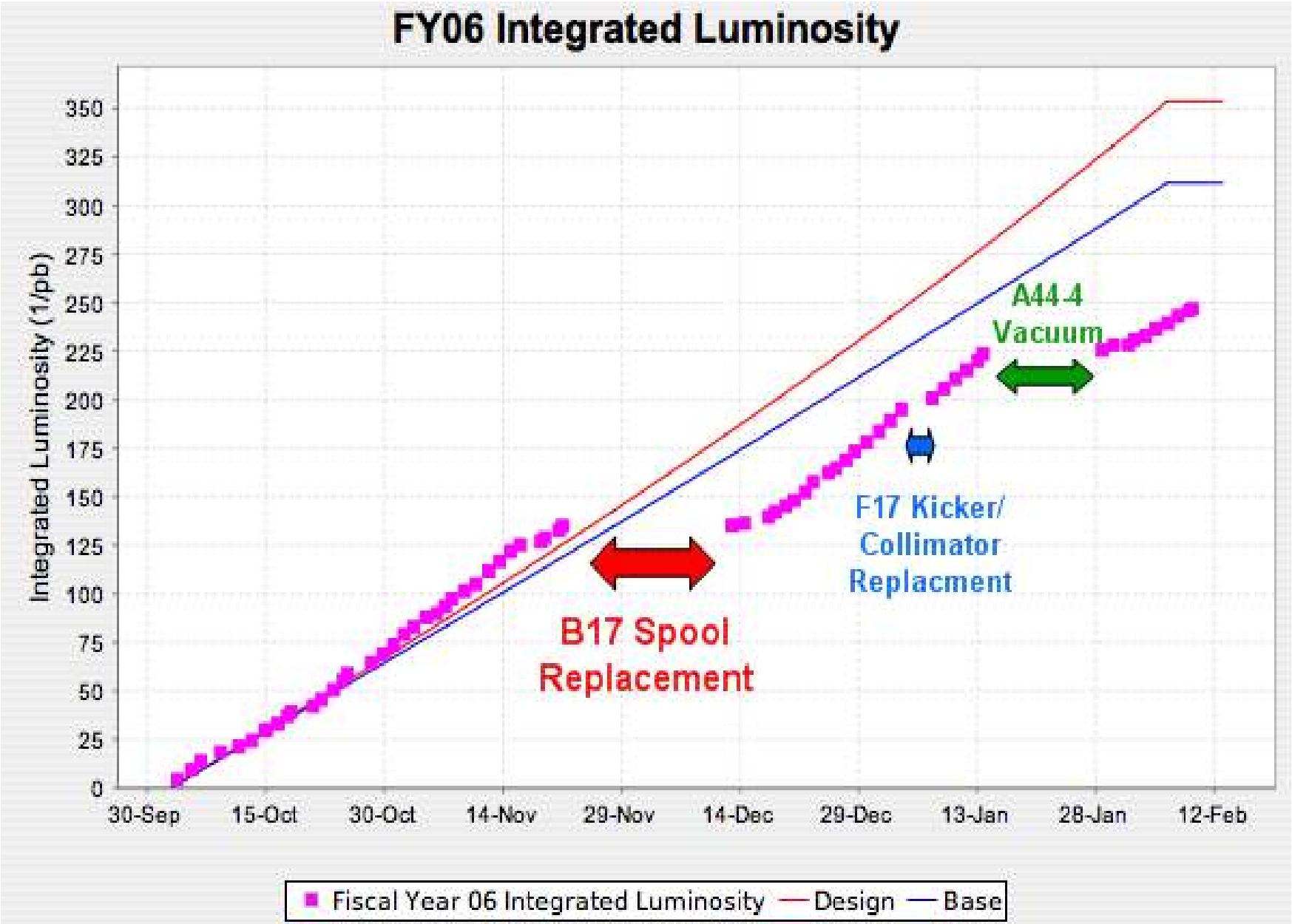
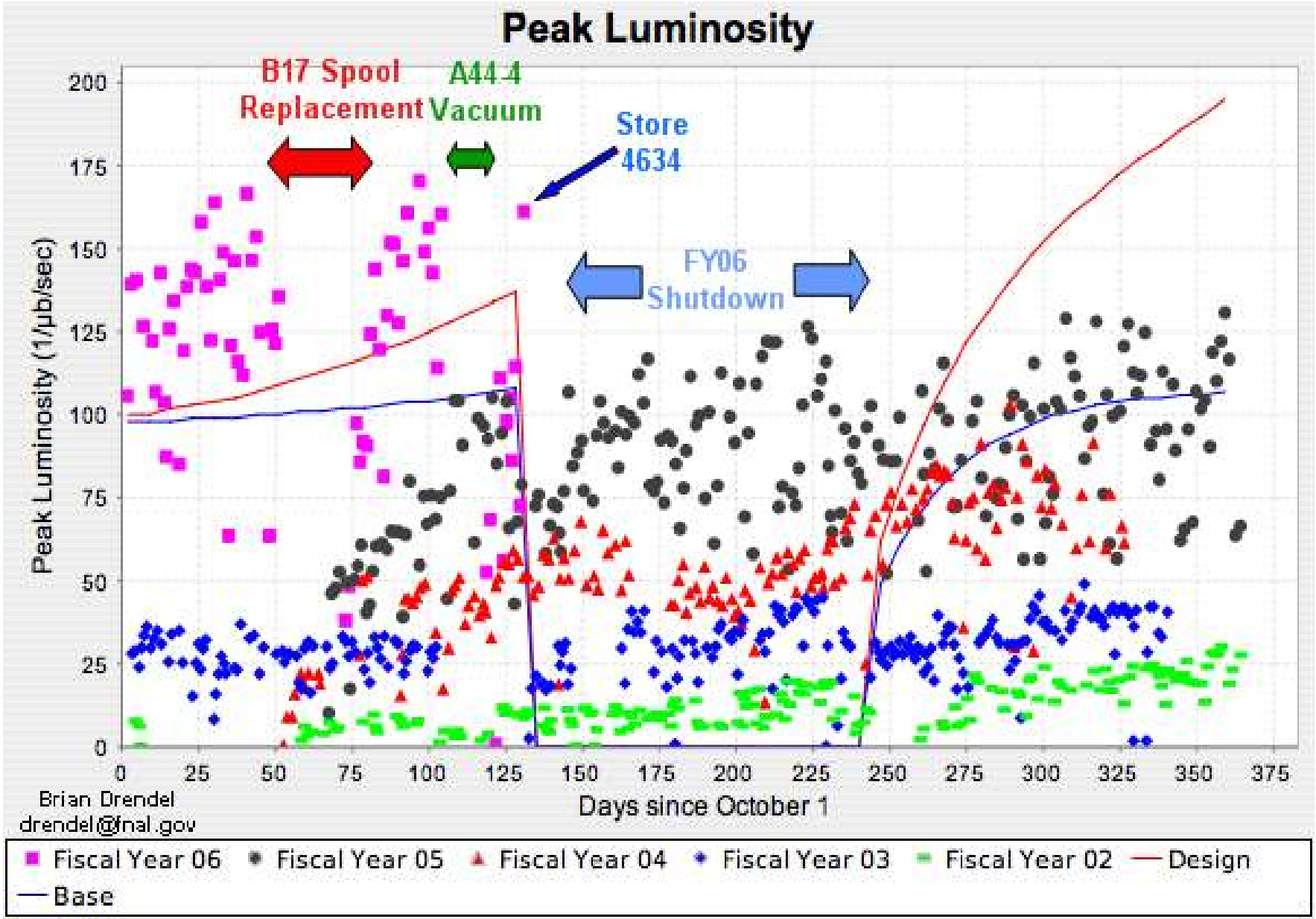
Last 40 Stores
Store 4634
Store 4631
Store 4628
Store 4627
Store 4624
fit of last 40 stores


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-Feb
A44-4
Vacuum
F17 Kicker/
Collimator
Replacment
B17 Spool
Replacement
Fiscal Year 06 Integrated Luminosity
Design
Base


Peak Luminosity
B17 Spool Replacement
A44.4 Vacuum
Store 4634
FY06 Shutdown
Peak Luminosity (1/μb/sec)
Days since October 1
Brian Drendel
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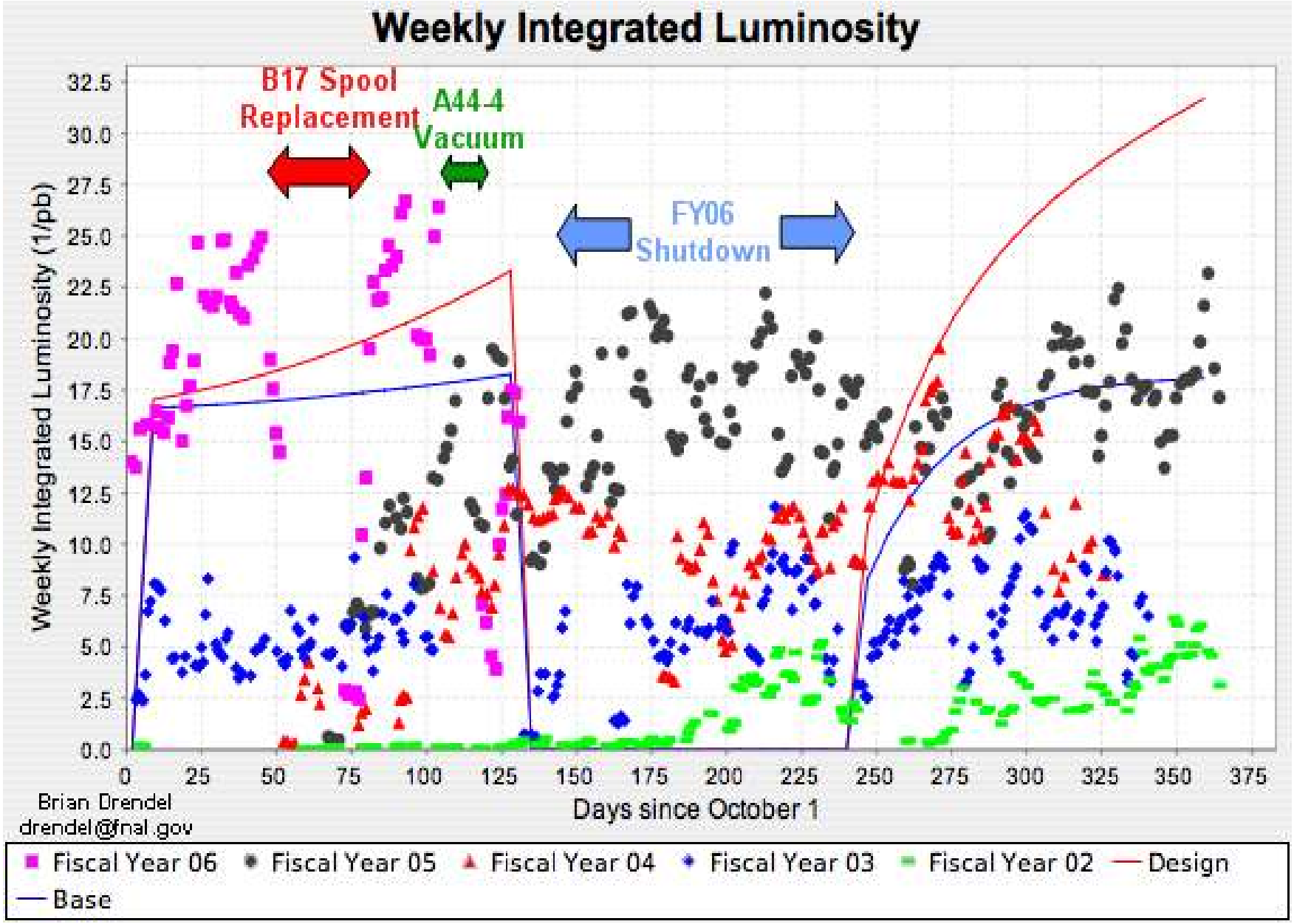
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


Weekly Integrated Luminosity
B17 Spool Replacement
A44-4 Vacuum
FY06 Shutdown
Weekly Integrated Luminosity (1/pb)
Days since October 1
Brian Drendel
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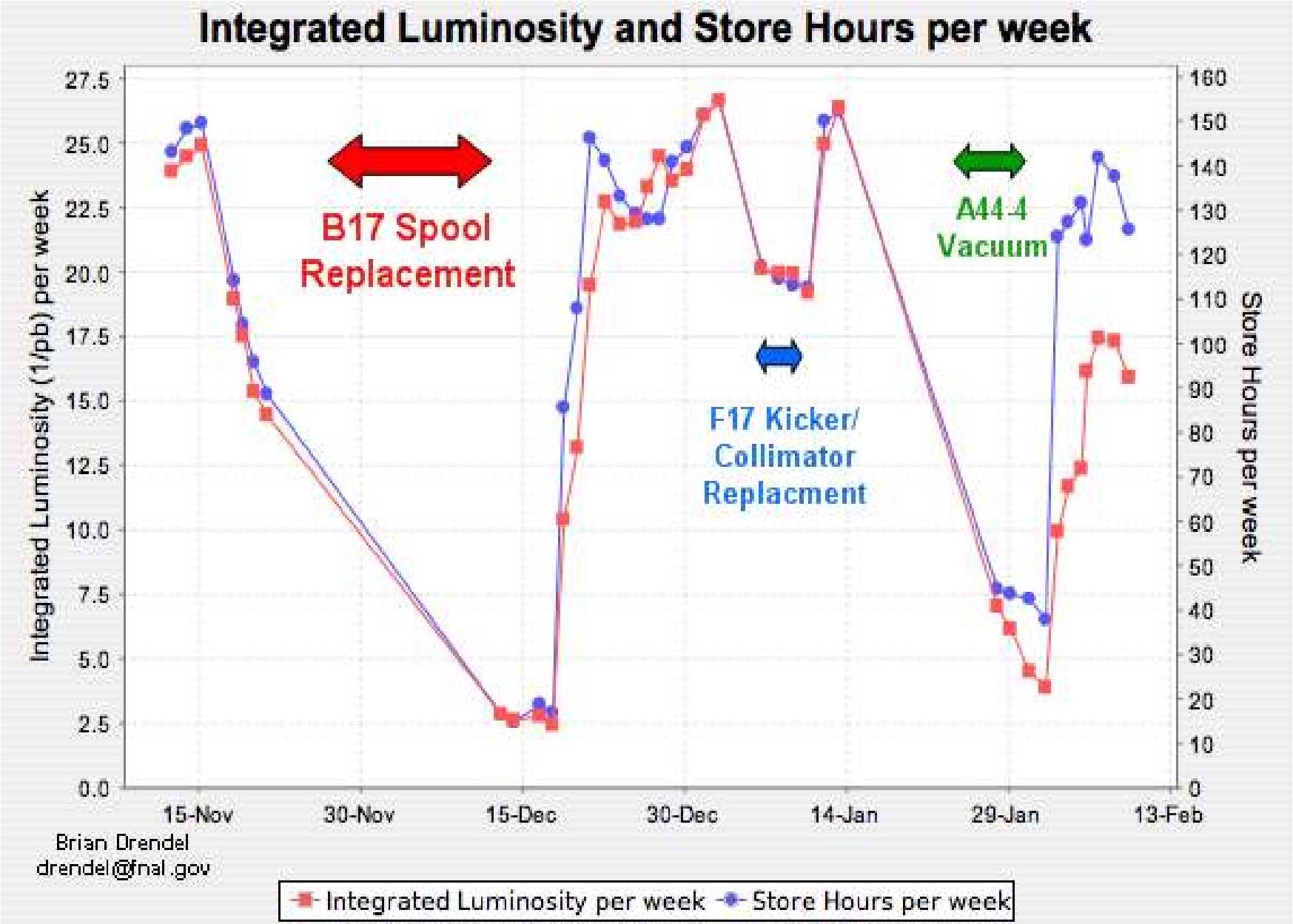
Fiscal Year 06
Fiscal Year 05
Fiscal Year 04
Fiscal Year 03
Fiscal Year 02
Design
Base


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
B17 Spool Replacement
F17 Kicker/ Collimator Replacment
A44-4 Vacuum
Brian Drendel
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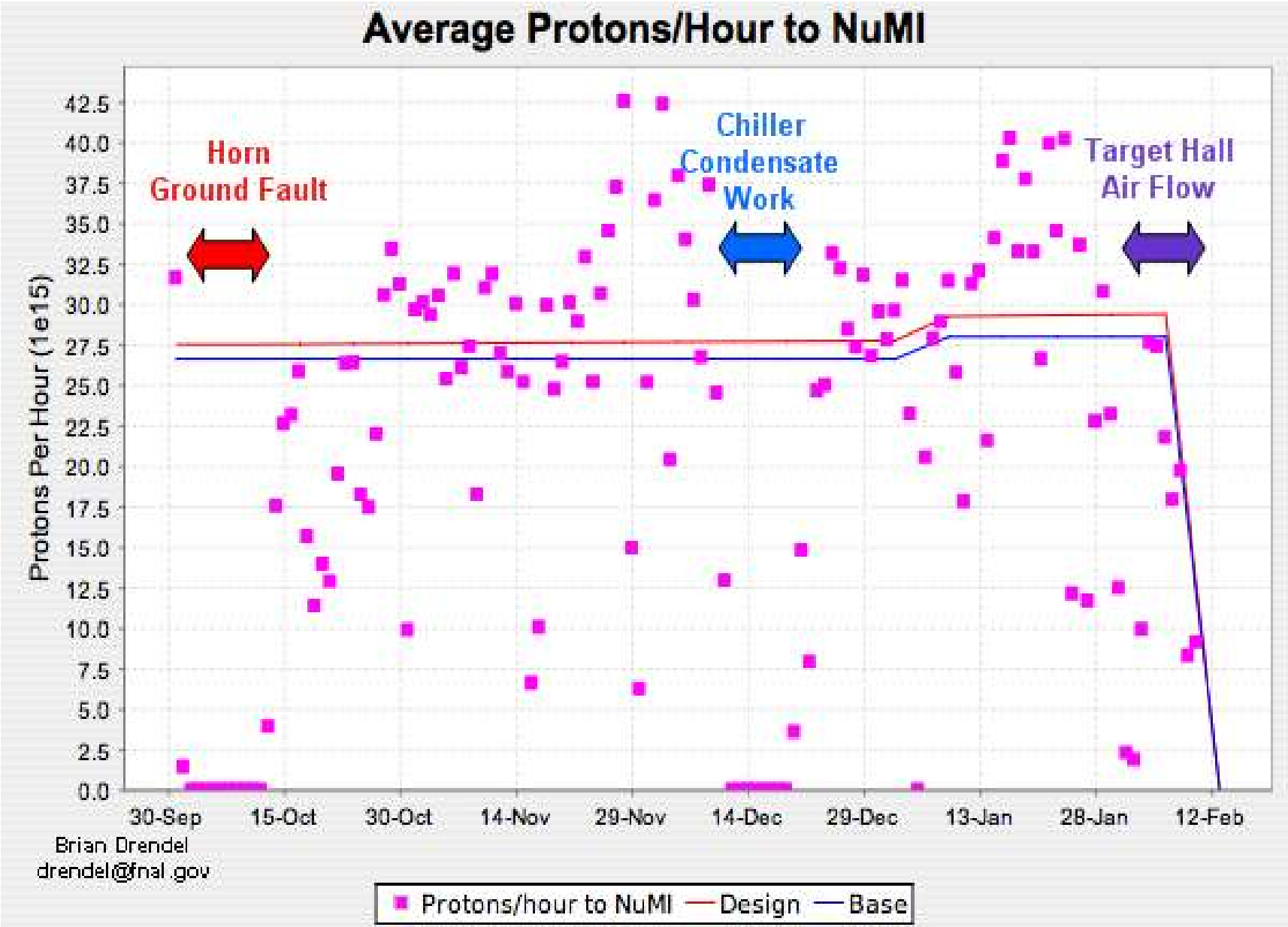
Integrated Luminosity per week
Store Hours per week


Average Protons/Hour to NuMI
Horn
Ground Fault
Chiller
Condensate
Work
Target Hall
Air Flow
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-Feb
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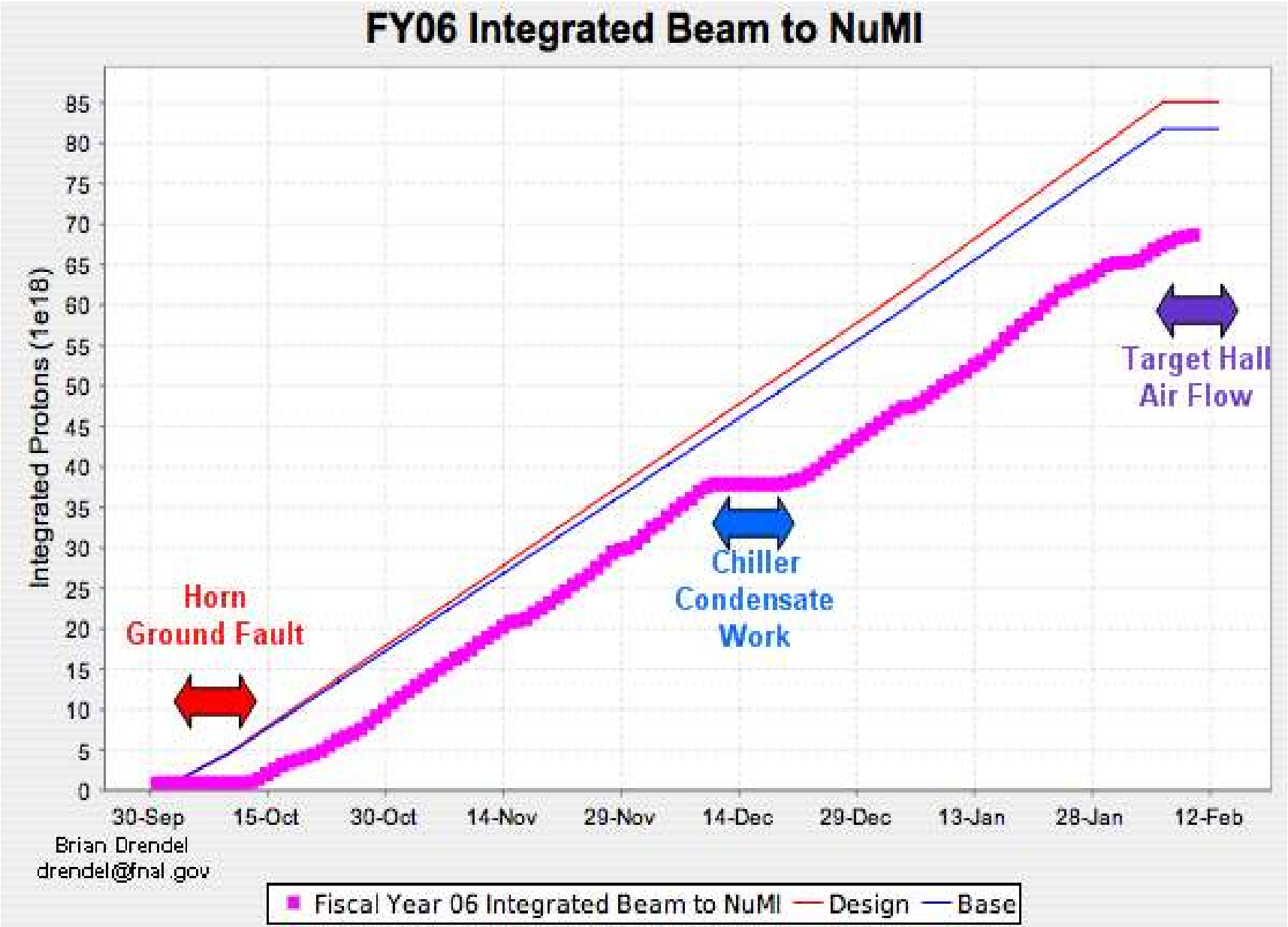
Protons/hour to NuMI
Design
Base


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-Feb
Horn
Ground Fault
Chiller
Condensate
Work
Target Hall
Air Flow
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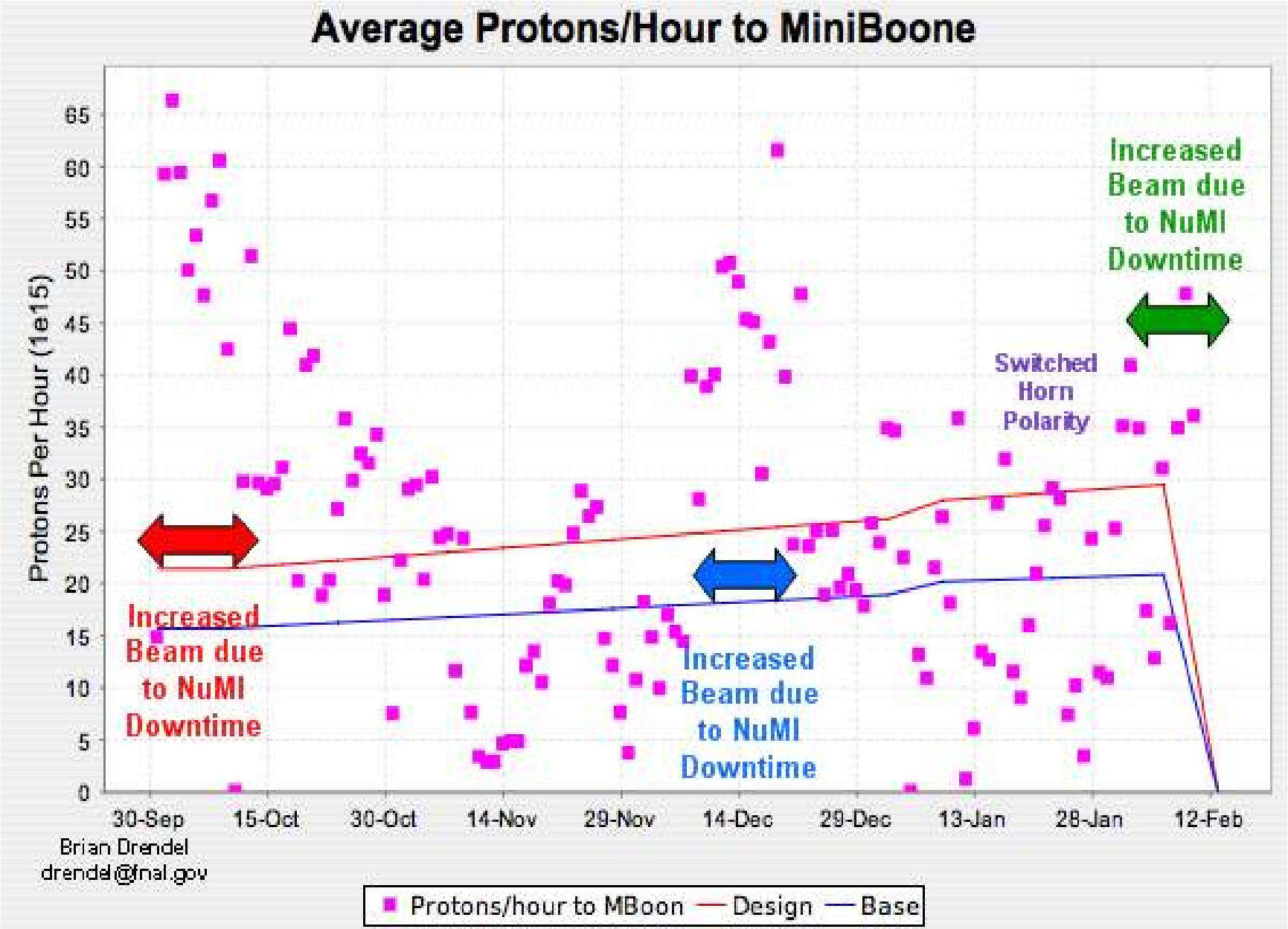
Fiscal Year 06 Integrated Beam to NuMI
Design
Base


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-Feb
Increased Beam due to NuMI Downtime
Increased Beam due to NuMI Downtime
Switched Horn Polarity
Increased Beam due to NuMI Downtime
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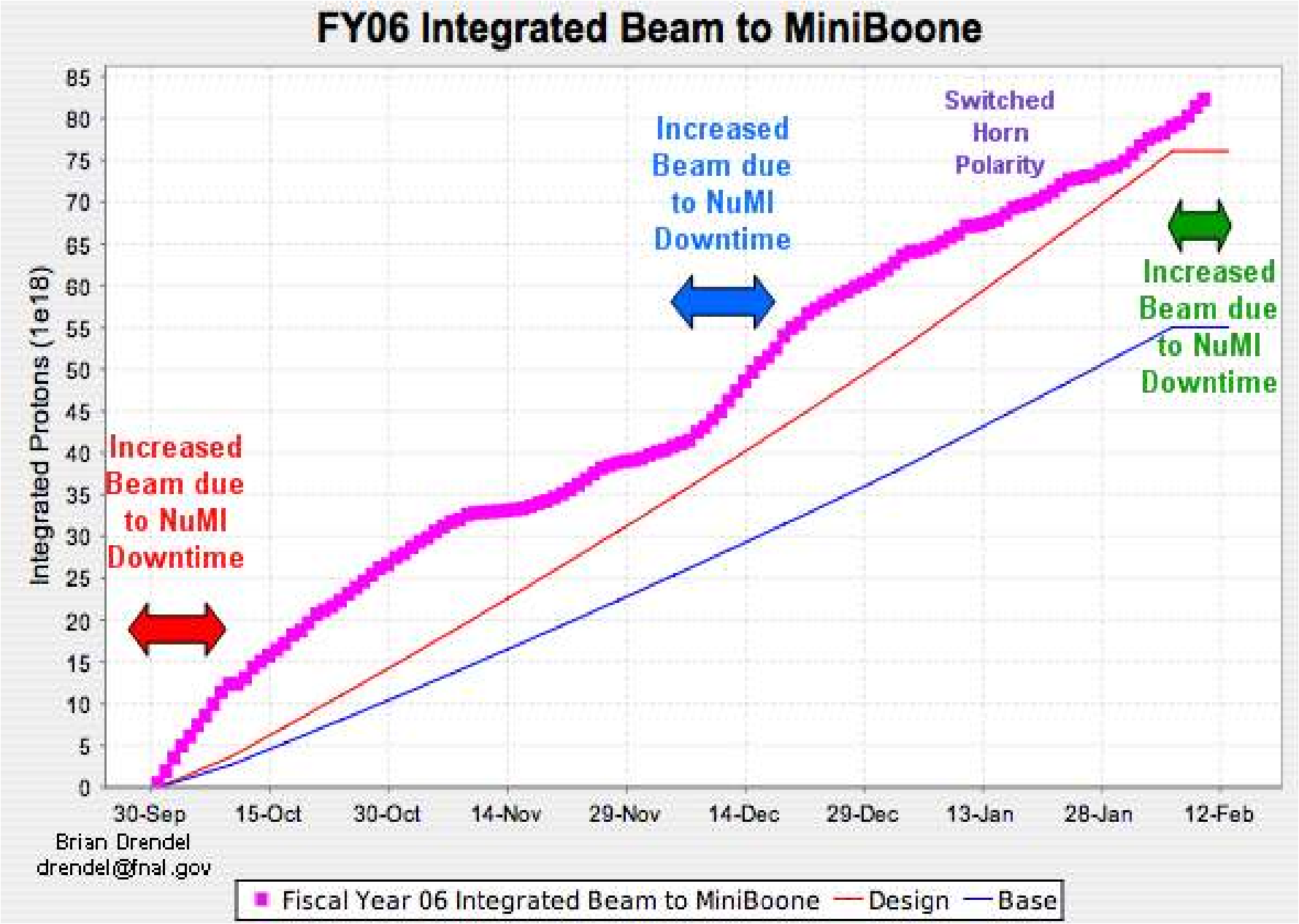
Protons/hour to MBoon
Design
Base


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
30-Sep
15-Oct
30-Oct
14-Nov
29-Nov
14-Dec
29-Dec
13-Jan
28-Jan
12-Feb
Increased Beam due to NuMI Downtime
Increased Beam due to NuMI Downtime
Switched Horn Polarity
Increased Beam due to NuMI Downtime
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Fiscal Year 06 Integrated Beam to MiniBoone
Design
Base

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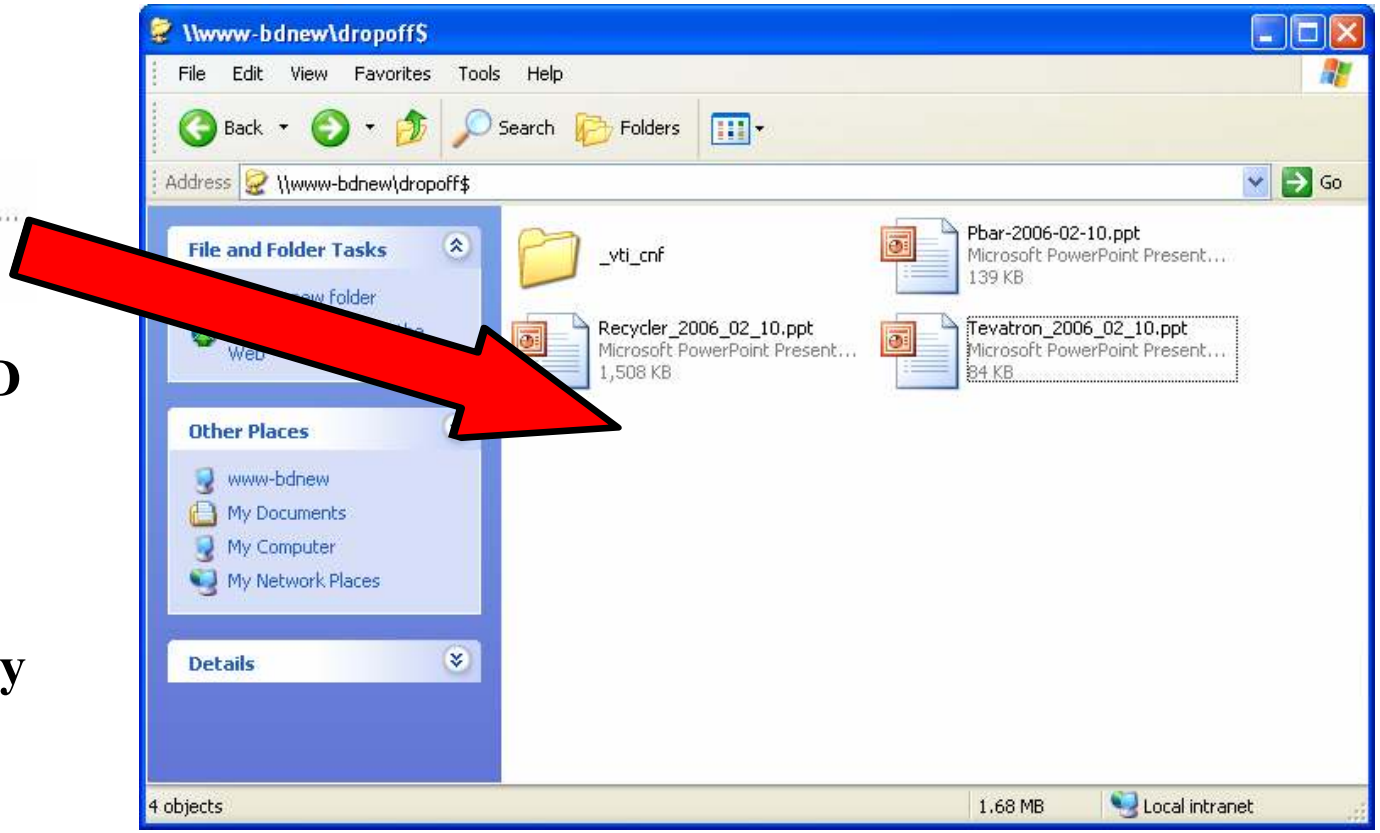


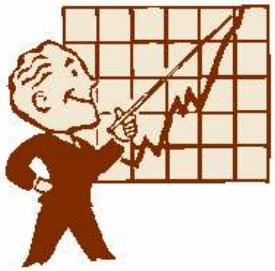
- **Share open to AD personnel with Fermi Domain accounts.**
- **Copy your Friday talks here!**

Friday Plots Online

Fermi National Accelerator Laboratory

2006 Friday Summaries

2004 Tot Luminosity | 2005 Luminosity | 2004 Luminosity | 2003 Luminosity | 2002 Luminosity

2006 Friday Operational Summaries

- Crew Chief
- Tevatron
- Linac
- Booster
- Main Injector
- Pbar
- Recycler
- NuMI
- Special