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# Operations Summary

R. Dixon

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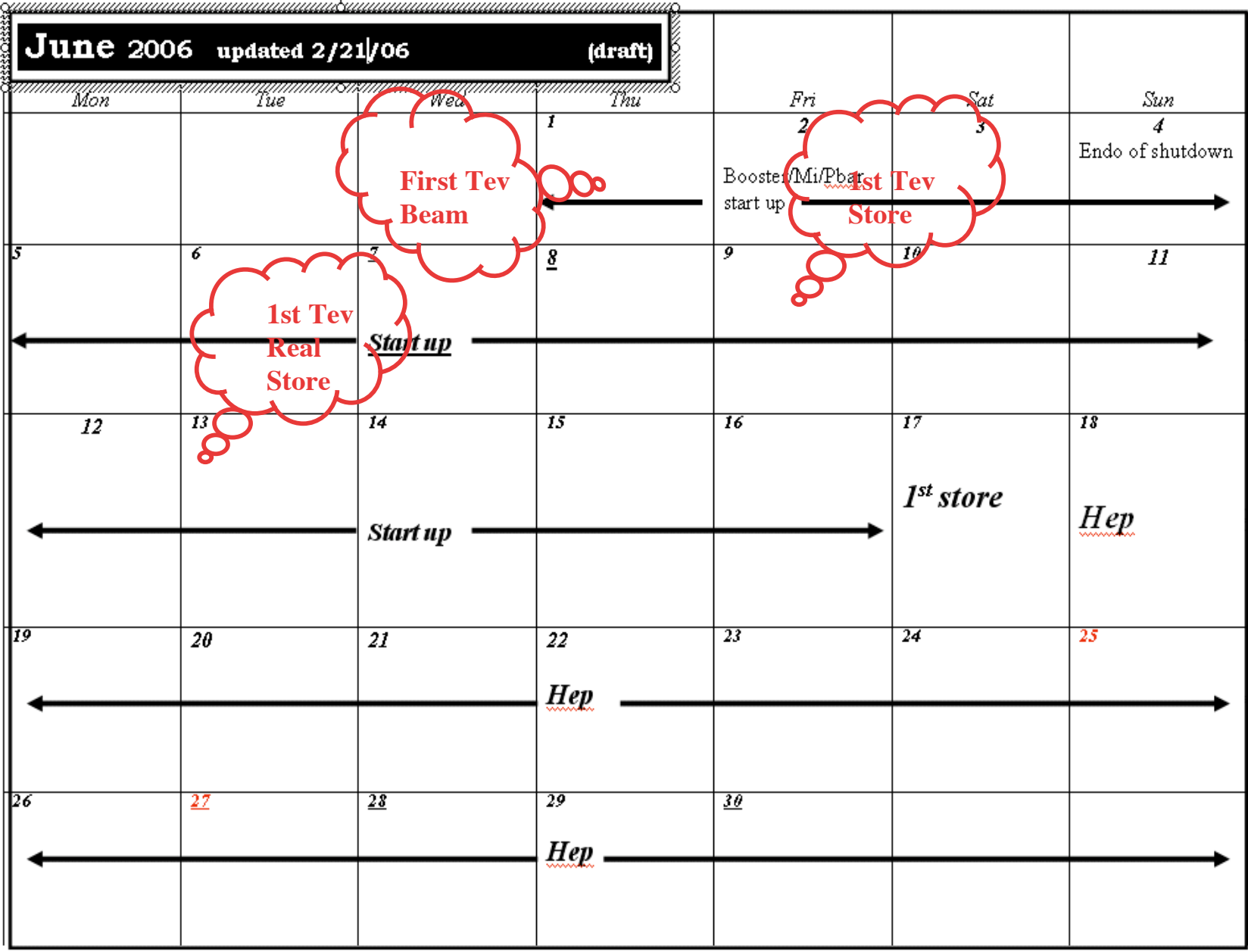
## Outline

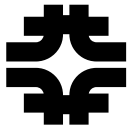
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- Summarize Major Shutdown Changes
- Commissioning History
- Status overall
- Status by Subsystem
- Plan

**May 2006 updated 3/18/06 (Draft)**

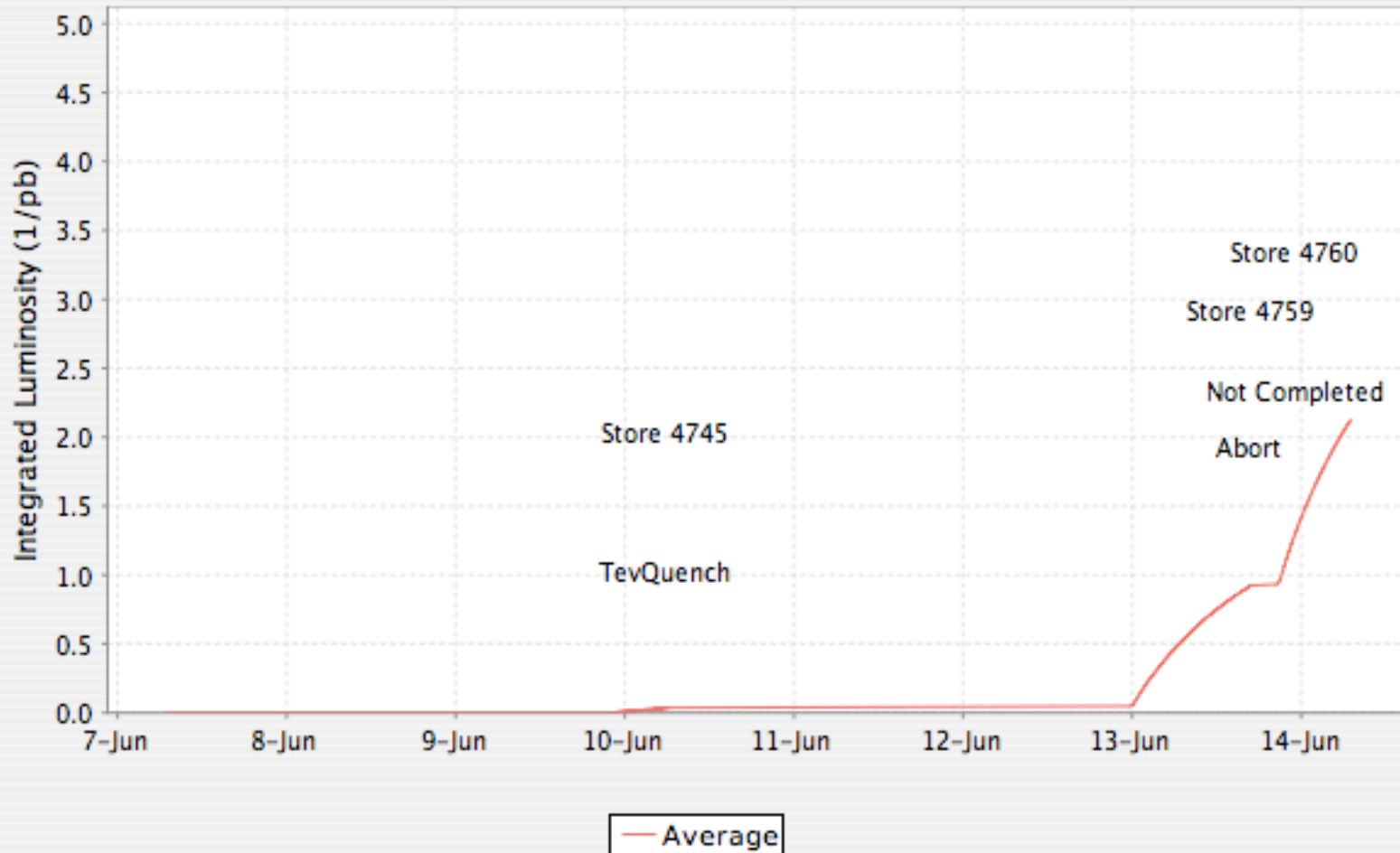
<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>	<i>Sun</i>
May 1	2	3 NTF	4 NTF	5	6	7
	<b>See weekly schedules for information</b>					
8 NTF	9	10 NTF	11 NTF	12	13	14
					<b>Booster Beam</b>	
15 NTF	16	17 NTF	18 NTF	19	20	21
<b>MI Beam</b>				<b>Tev Cold</b>		
22 NTF	23	24 NTF	25 NTF	26	27	28
					<b>Pbar Beam</b>	
29 (lab holiday)	30	31 NTF	<u>Tev Cold</u> <b>June 1</b>	2	3	4
	<b>Recycler Protons</b>					<b>END OF Shutdown</b>

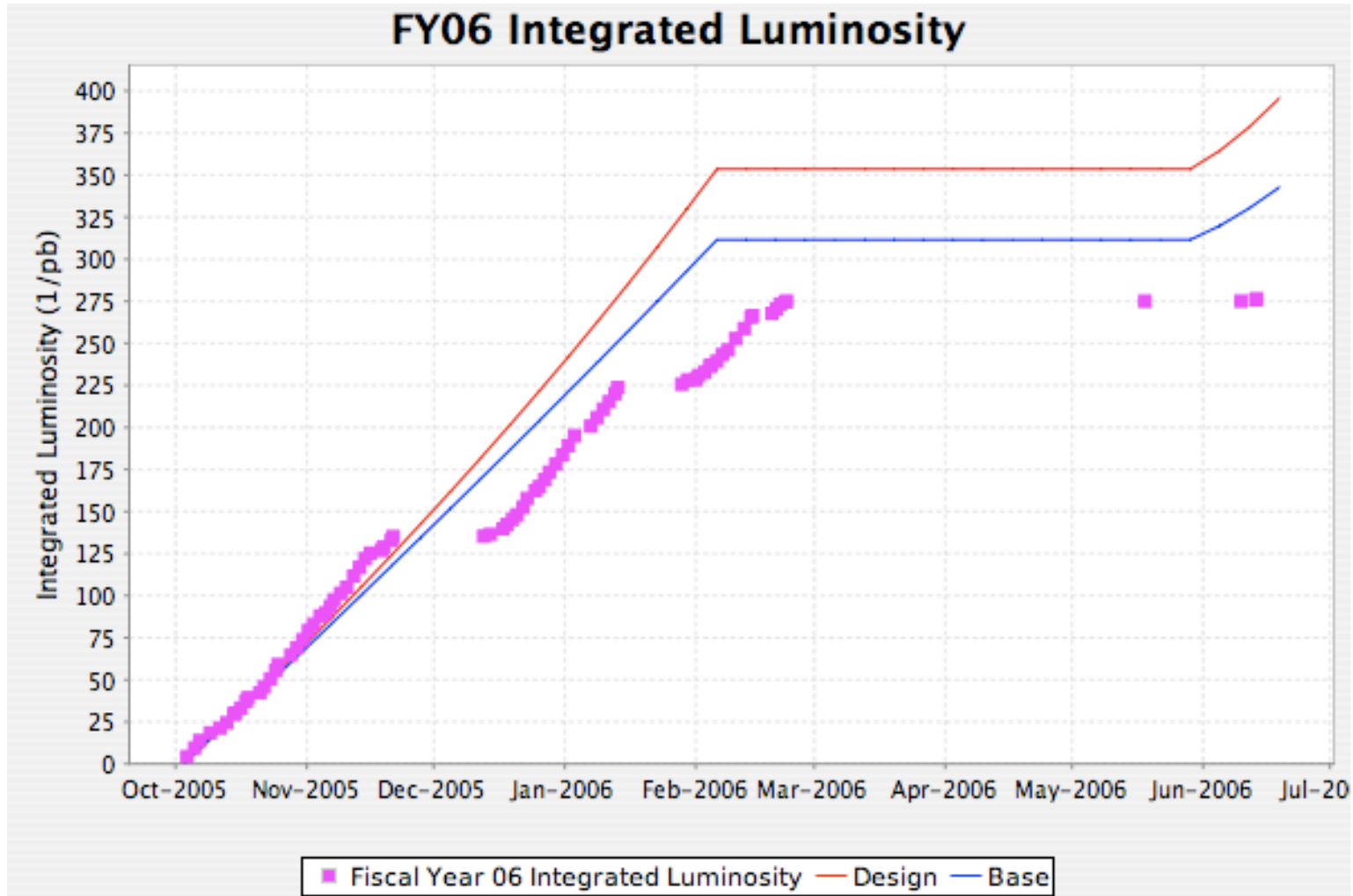
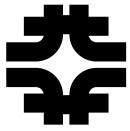


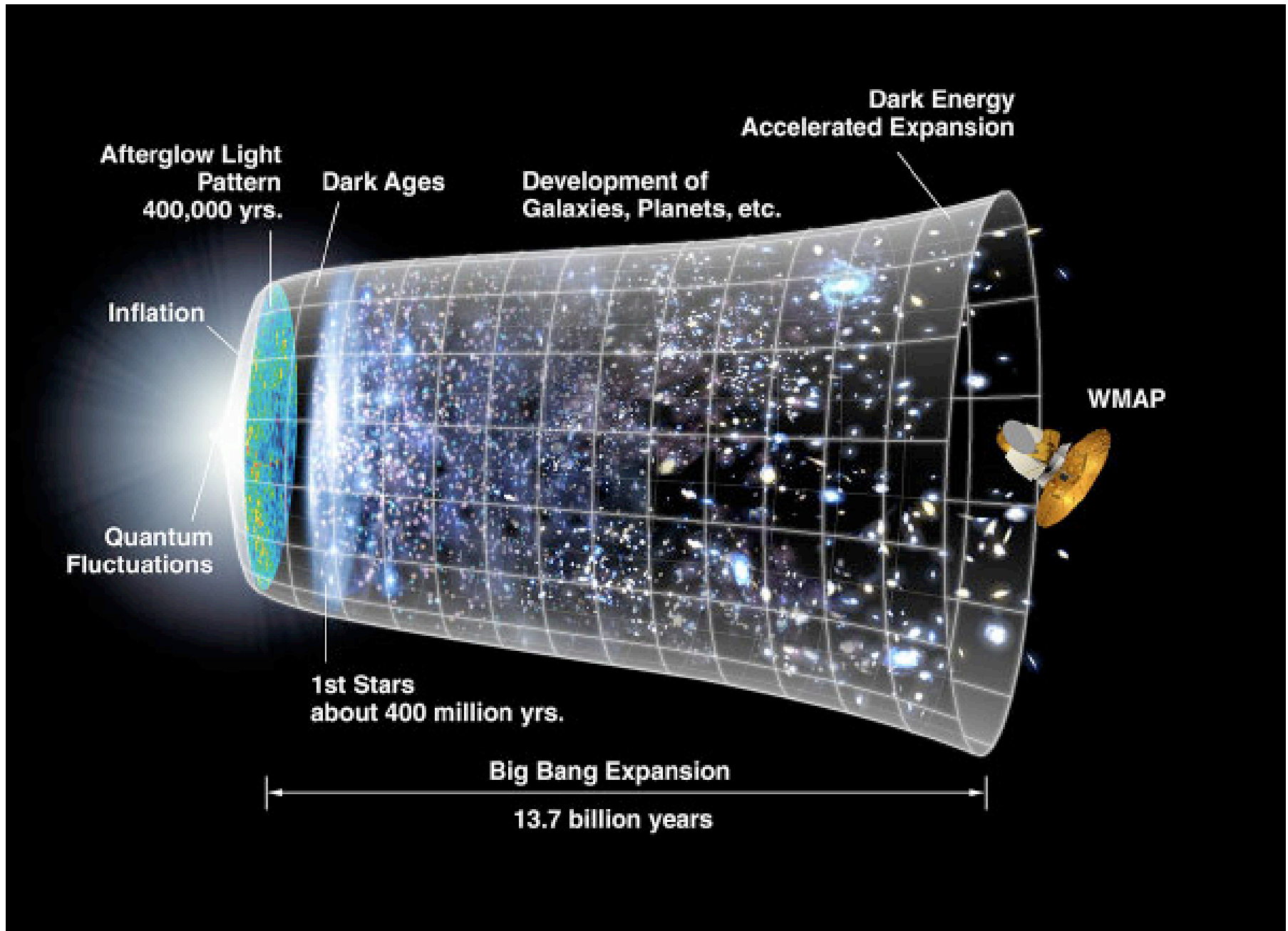


## Store Summary

Delivered Luminosity: Jun-07-2006 to Jun-14-2006 2.119 (1/pb)









## Accelerator Controls

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- Linux Migration
  - New Controls system running in parallel
  - Applications being certified
  - Startup with many ported applications
    - This has caused some issues as expected





# Proton Source

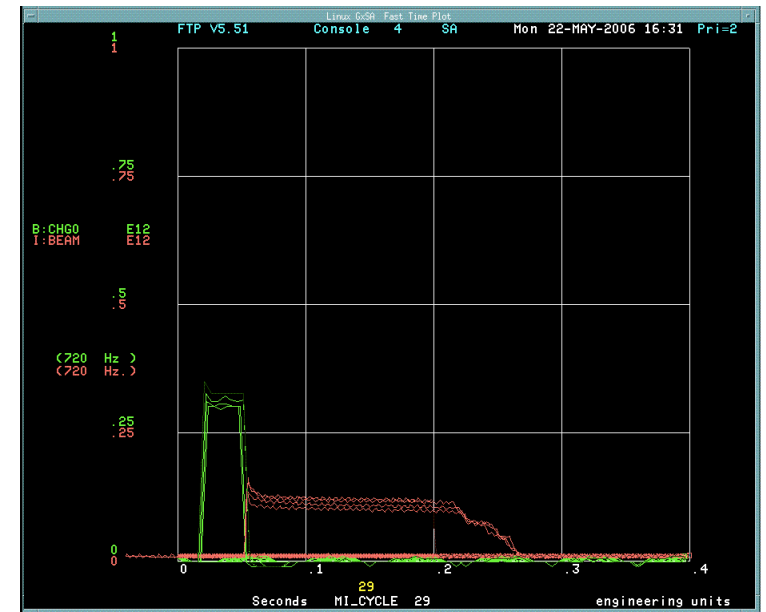
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- Linac
  - Ran for most of the shutdown
    - Moved Quad and installed valve
    - Collimator work
  
- Booster
  - Major Changes
    - New Injection Girder
    - 8 GeV dump relocation
      - Removed L13 extraction area
  - Issues
    - Re-establish orbits
    - Putting in Collimation



# Main Injector/Recycler

- Main Injector
  - Major Modifications
    - Seven new wide aperture quads
    - Instrumentation
    - MI-10 Kicker modification for better cooling
  - Issues
    - Getting the new quads in the right place
- Recycler (Electron Cooling)
  - Work
    - Instrumentation
    - Vacuum work
    - Maintenance
    - New SF6 skid
  - Issues
    - New SF6 skid
    - Electron Cooling re-established quickly



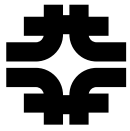
First Beam Pulse in MI!



## Antiproton Source

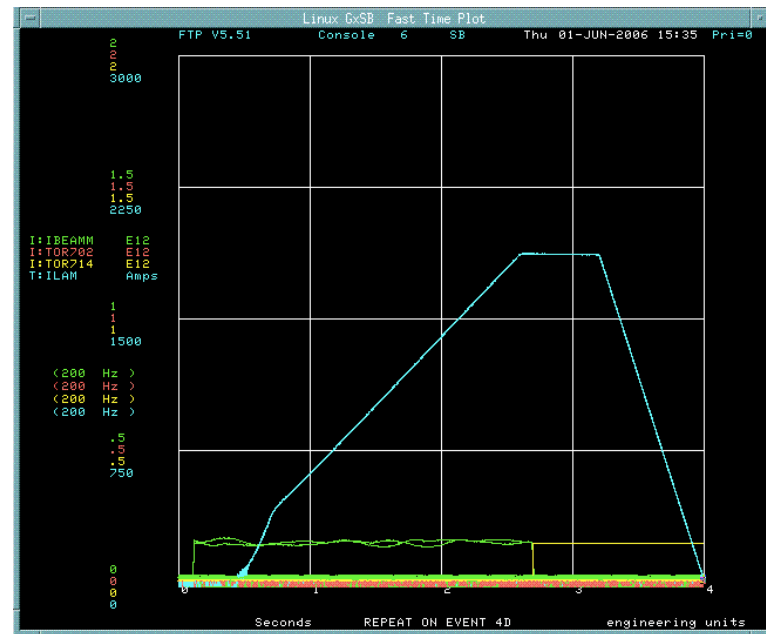
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- Changes
  - Debuncher Injection kicker motor drive
  - Alignment
  - Repair beam stop
  - Trims
- Issues
  - Re-establish stacking
    - AP2 line tune up

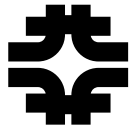


# Tevatron

- Major Modifications
  - Warmed up 6 houses-- repaired all leaks
  - Alignment
  - Tel 2 installation
  - Tel 1 Repair
  - 3 new separators
- Issues
  - New helices



First Circulating Beam in  
Tevatron 6-1-06



## Global View of Difficulties

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- Ground Faults
  - Tev
  - Pbar
  - MI
- Power Supplies
- Vacuum
- RF
  - Booster
  - MI
- Controls
- Instrumentation



## Startup Summary

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- Startup
  - Relatively smooth
  - Remaining issues
    - Booster intensity
    - Stacking rate in Accumulator
    - Stable Tevatron
- Plan
  - Establish stable operations
  - Integrate Luminosity
  - Work on stacking as parasitically as possible