

Changing of the Guard



- April 1 – Aug 1 ,2002
 - Elvin Harms
- Aug 1 – Dec 1, 2002
 - David Johnson (Main Injector) pager 266 - 7905
 - Ron Moore (Tevatron) Deputy

Near Term Priorities



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- The next several weeks
 - Tevatron Instabilities
 - Stacking Rate
 - Stable Running-> Integrate Luminosity
 - Parasitic and/or Pre-Shot studies to improve near term reliability
- Beyond
 - Weekly integrated luminosity
 - Push initial luminosity
 - Support Recycler commissioning with pbars

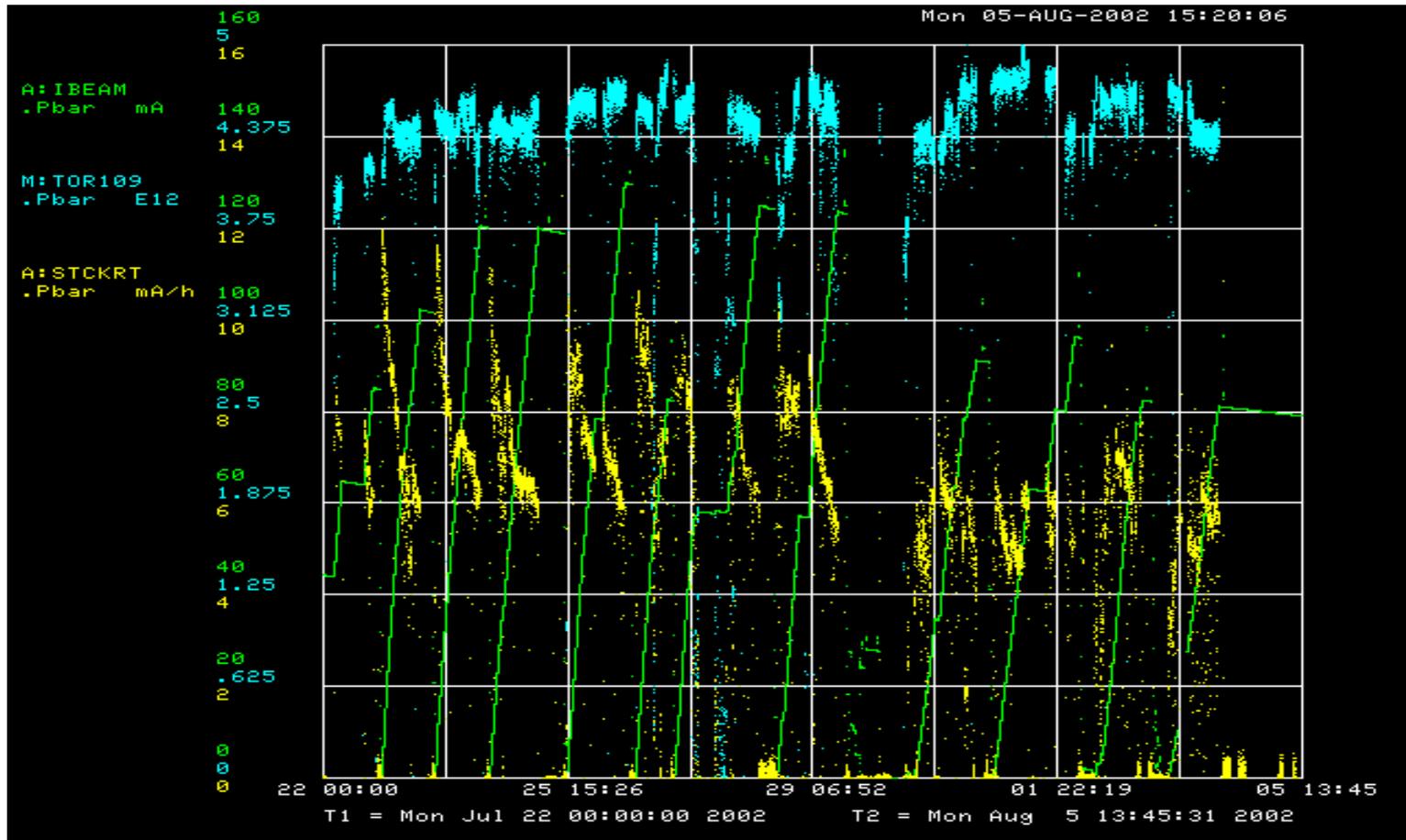
Beams Week in Review



- Rocky Week (7/29 – 8/4)
 - Accelerator Access (Tuesday)
 - Accelerator Study Period (Wednesday)
 - Three Stores
 - Many Problems

Beams Week in Review

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Beams Week in Review



Beams Week in Review



Store Summary

<u>Store #</u>	<u>Initial Luminosity</u>	<u>Duration</u>	<u>Termination</u>	<u>comments</u>
1613	13.4 E30	20.0 hours	intentional	LB parse, Long damper off 980, Tev RF trip, A1 lattice
1616	19.5 E30	8.6 hours	Tev di/dt failure	Tev long. damper on @ 150 GeV; TEL off at beginning of store
1622	18.15 E30	23.25 hours	intentional	No bunch length growth, 95 mA stack

Beams Week in Review



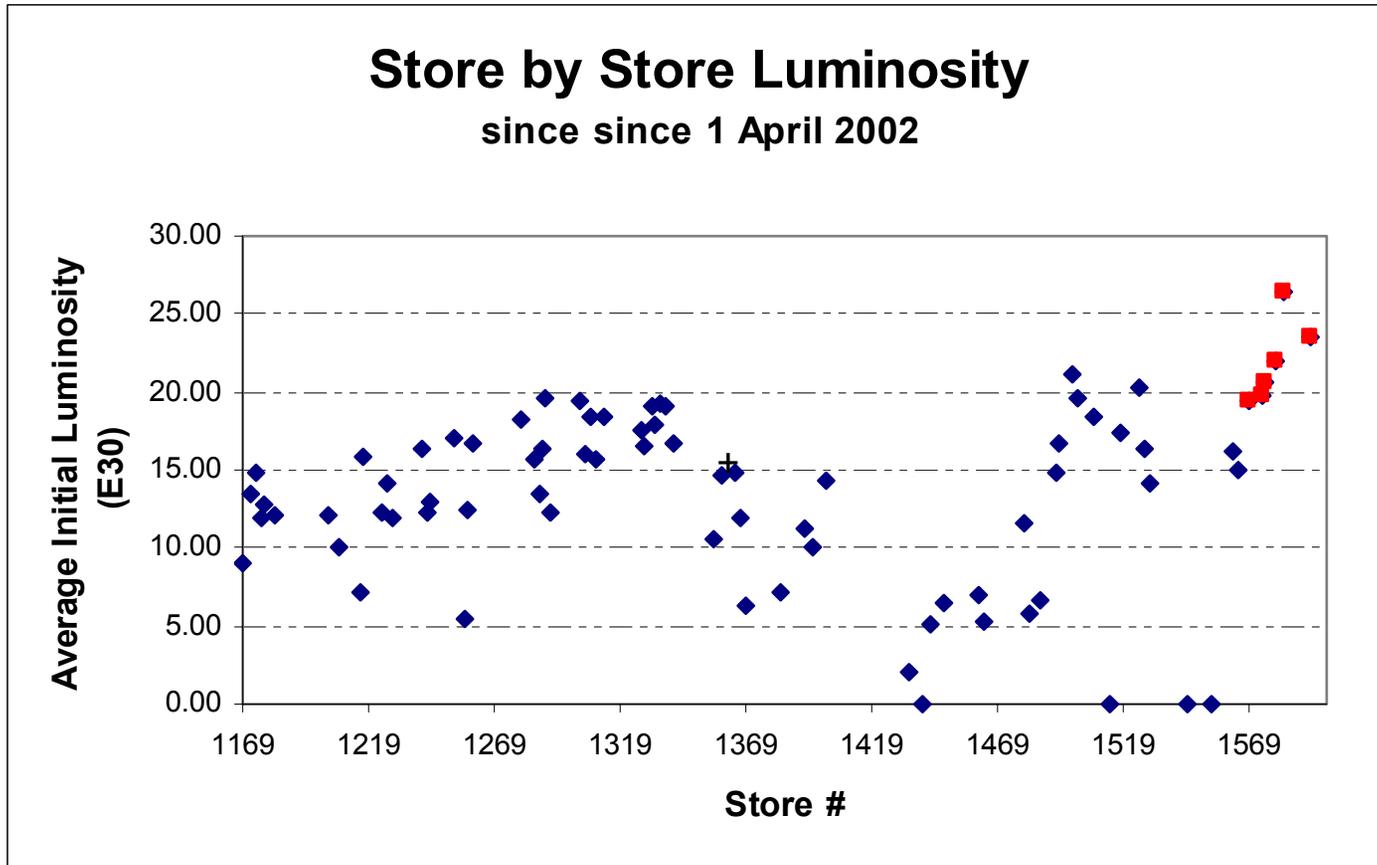
- Many Problems
 - Antiproton Stacking Rate
 - Glitch on Feeder 47
 - CUB/Booster LCW problems
 - Debuncher Quad bus ground fault indication
 - Main Injector vacuum problems
 - Tevatron Cold compressor failure
 - Booster RF Bias supply water leak

Beams Week in Review

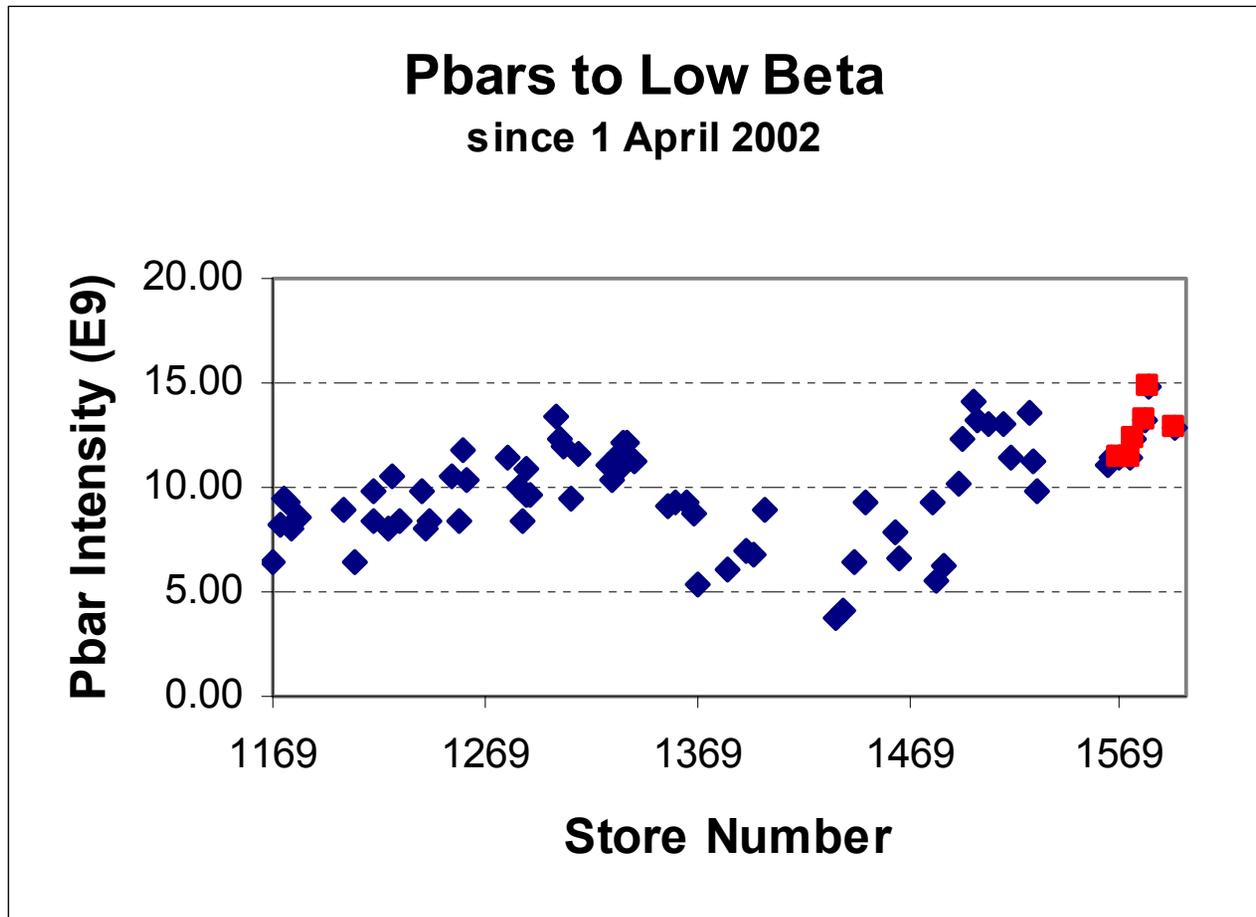


- Room to Improve
 - Stacking Rate
 - Tevatron Instabilities
 - Rapid turnaround

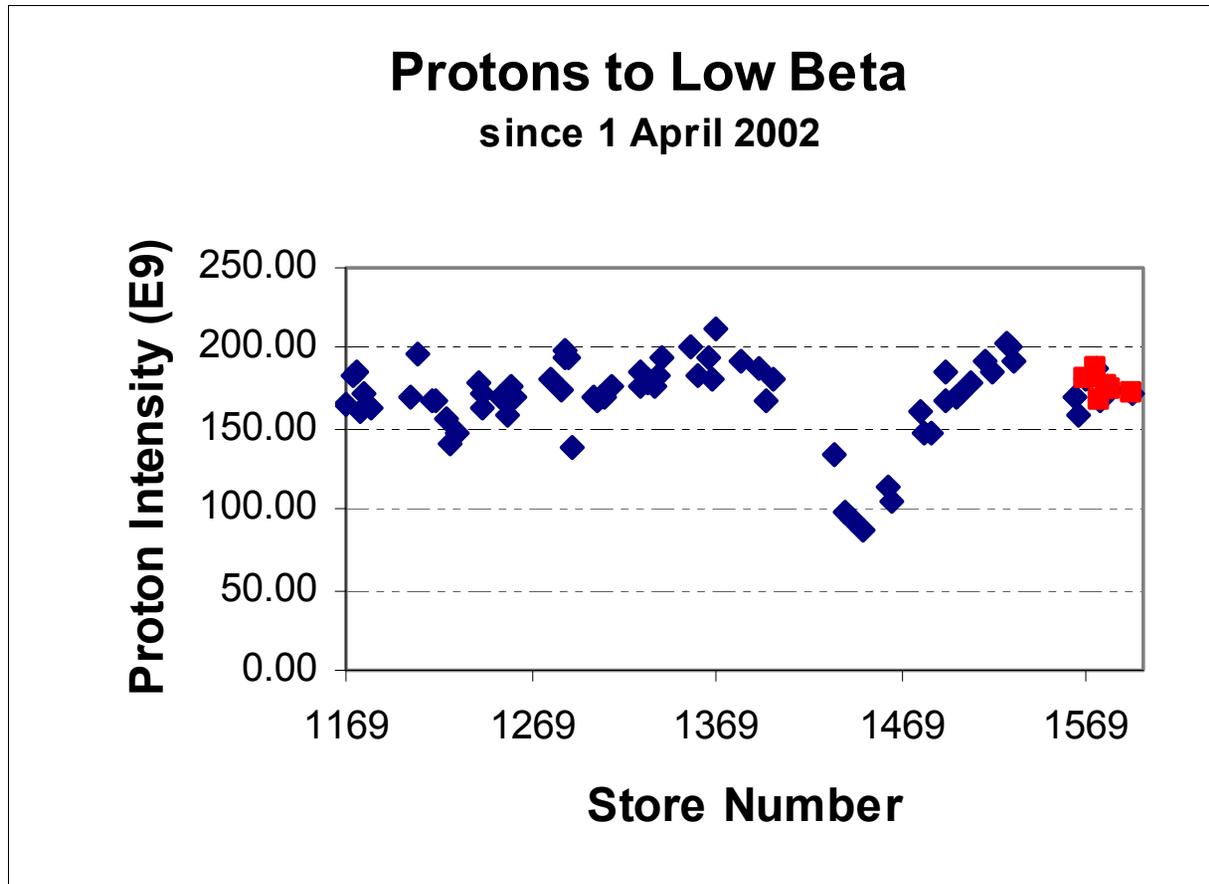
Initial Luminosity



Pbars to Collision



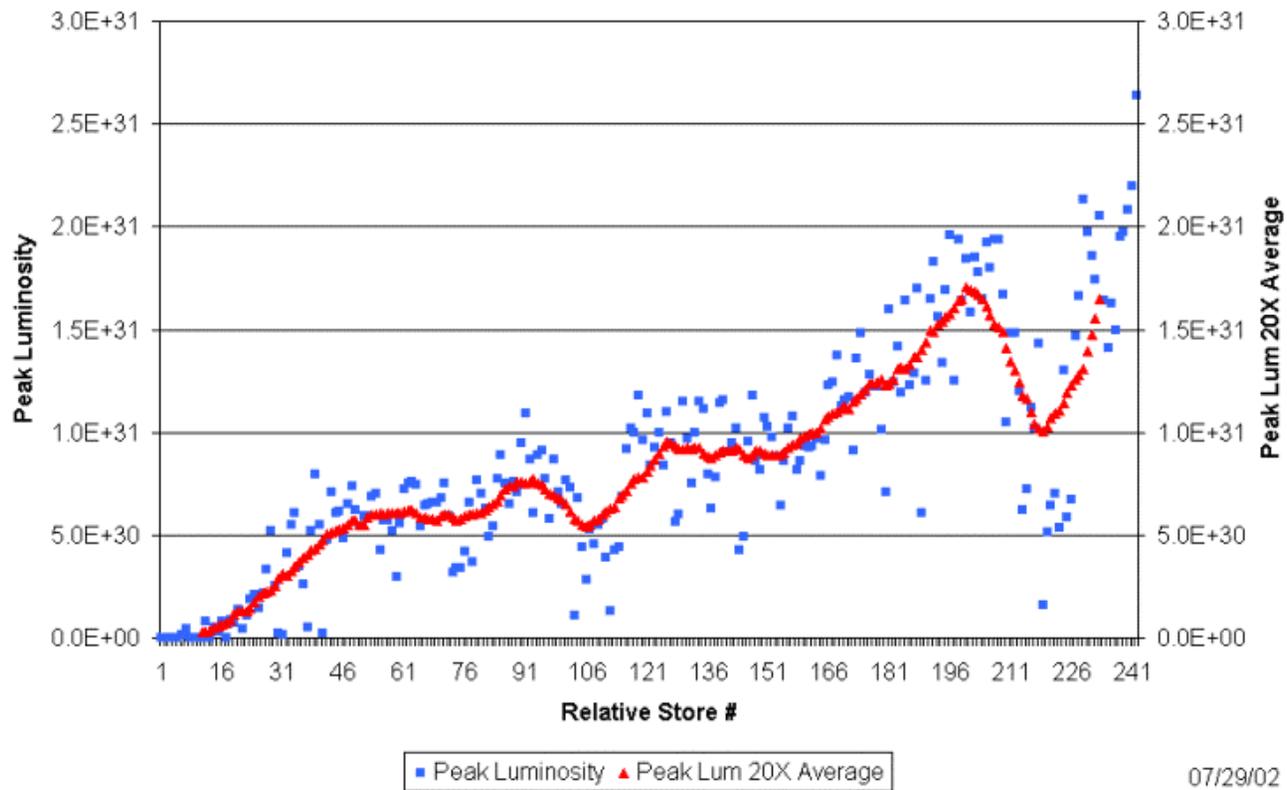
Protons to Collision



Peak Luminosity



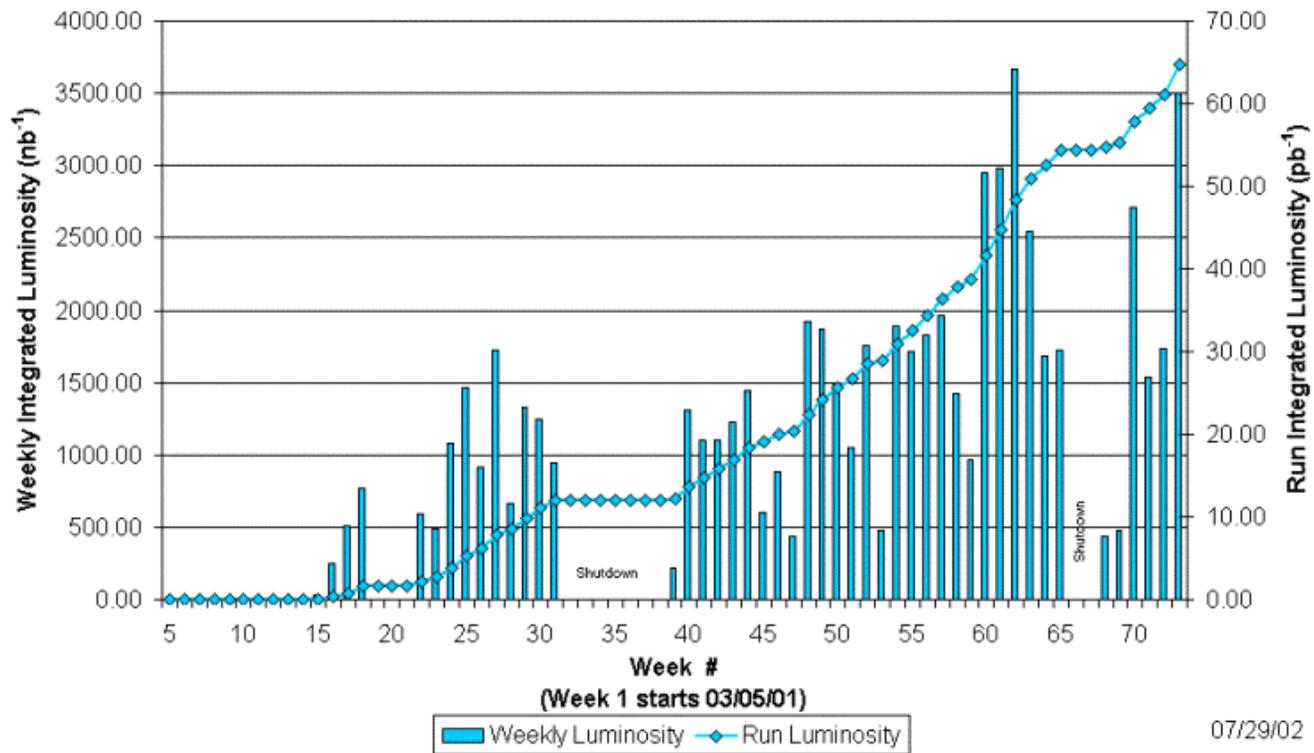
Collider Run IIA Peak Luminosity



Integrated Luminosity



Collider Run IIA Integrated Luminosity



Tevatron Summary



- Studies during dedicated studies period
 - Orbit data up ramp and through squeeze
 - Aperture scans through A0
 - Orbit through F0 Lambertsons
 - Tune drift at 150 GeV
 - Tunes, coupling at 980 GeV

Tevatron Summary



- Current priority to understand difficulties with quenching over the week-end
 - Intensity dependence
 - Longitudinal emittance
 - Transverse emittance blow-up
 - Time at 150
 - Tune, chromaticity, coupling

Pbar Summary



- Accumulator Access
 - Worked on ARF1 system
 - Changed power amplifier
 - Drained water from cavity
 - Worked on stack-tail cooling system
- Pbar start-up studies to restore stacking stacking rate
 - Concentrated on phasing and calibration constants for ARF1
 - Stack-tail cooling phasing – looks text book

Pbar Summary



- Accumulator Aperture – looks fine
- Current Priority to re-gain stacking rate
 - Concentrate on ARF1 performance
- Further commission the return to stacking lattice

MI Summary



- Low Emittance (8 GeV) proton Coalescing
- Pbar feedforward compensation
- 150 GeV Longitudinal emittance

Schedule for this Week



- Collider operation
- Limited-focus studies required to restore reliable operation
- Orbit position through D0
- End of store studies (last 1 hr, with notification)
 - CDF loss study
 - Helix strength study in arc cell
 - Synch light calibration

Schedule for this Week

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Update 8/5/02 11:04 AM	MONDAY 8/5/02	TUESDAY 8/6/02	WEDNESDAY 8/7/02	THURSDAY 8/8/02	FRIDAY 8/9/02	SATURDAY 8/10/02	SUNDAY 8/11/02
Owls 0000 to 0800		←			Stack and store, Studies as necessary to fix stacking	→	
DAYS 0800 to 1600	36 X 0 Store shot set up Stacking rate studies	←			Stack and store, Studies as necessary to fix stacking	→	
EVES 1600 to 2400	←				Stack and store, Studies as necessary to fix stacking	→	

Schedule can be found at <http://www-bd.fnl.gov/operations/schedules.html>