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Week in Review: 06/23/03 –06/30/03

Keith Gollwitzer – FNAL

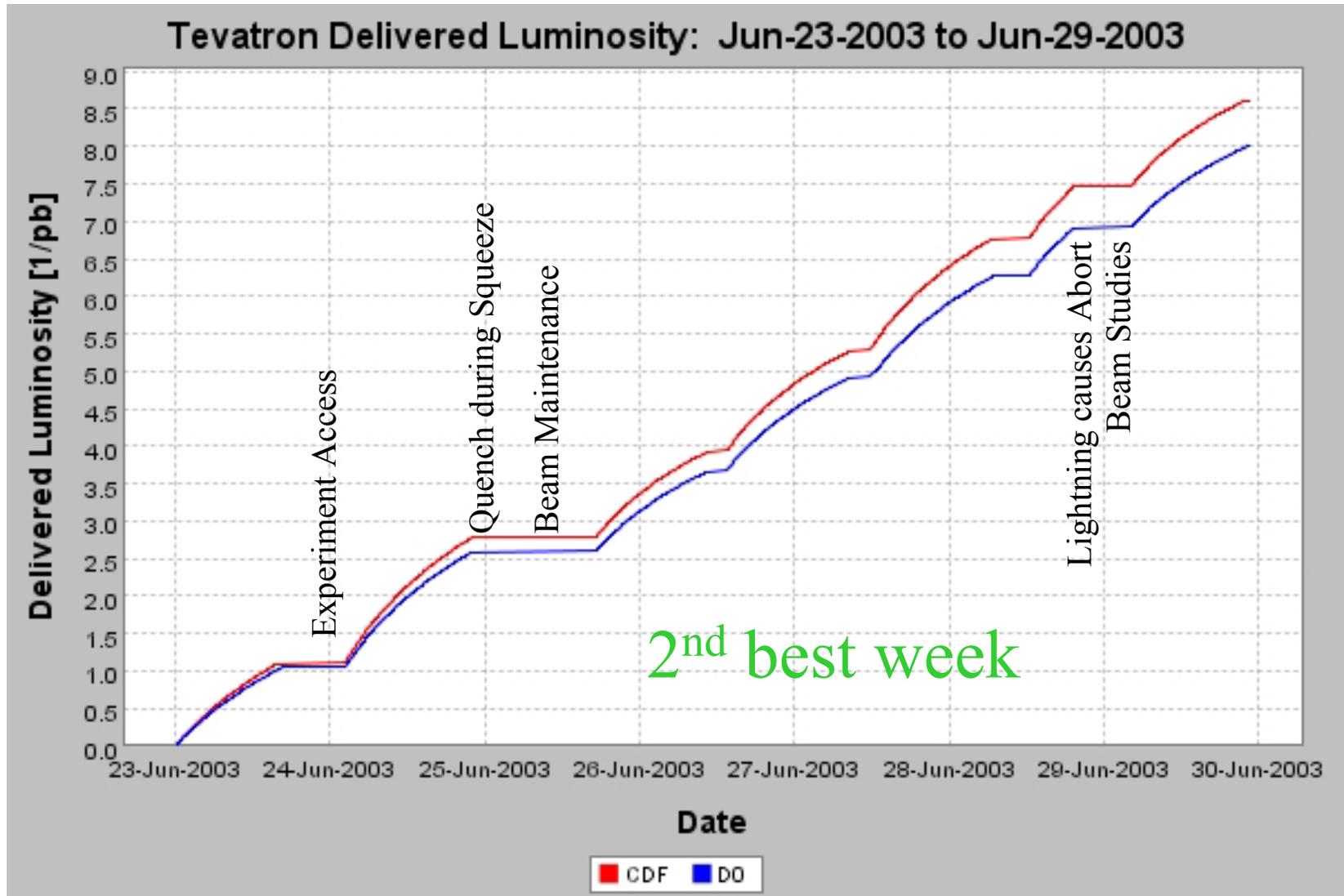
- Stores and Operations Summary
- Standard Plots
- New Beam Studies Criteria

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Stores Summary

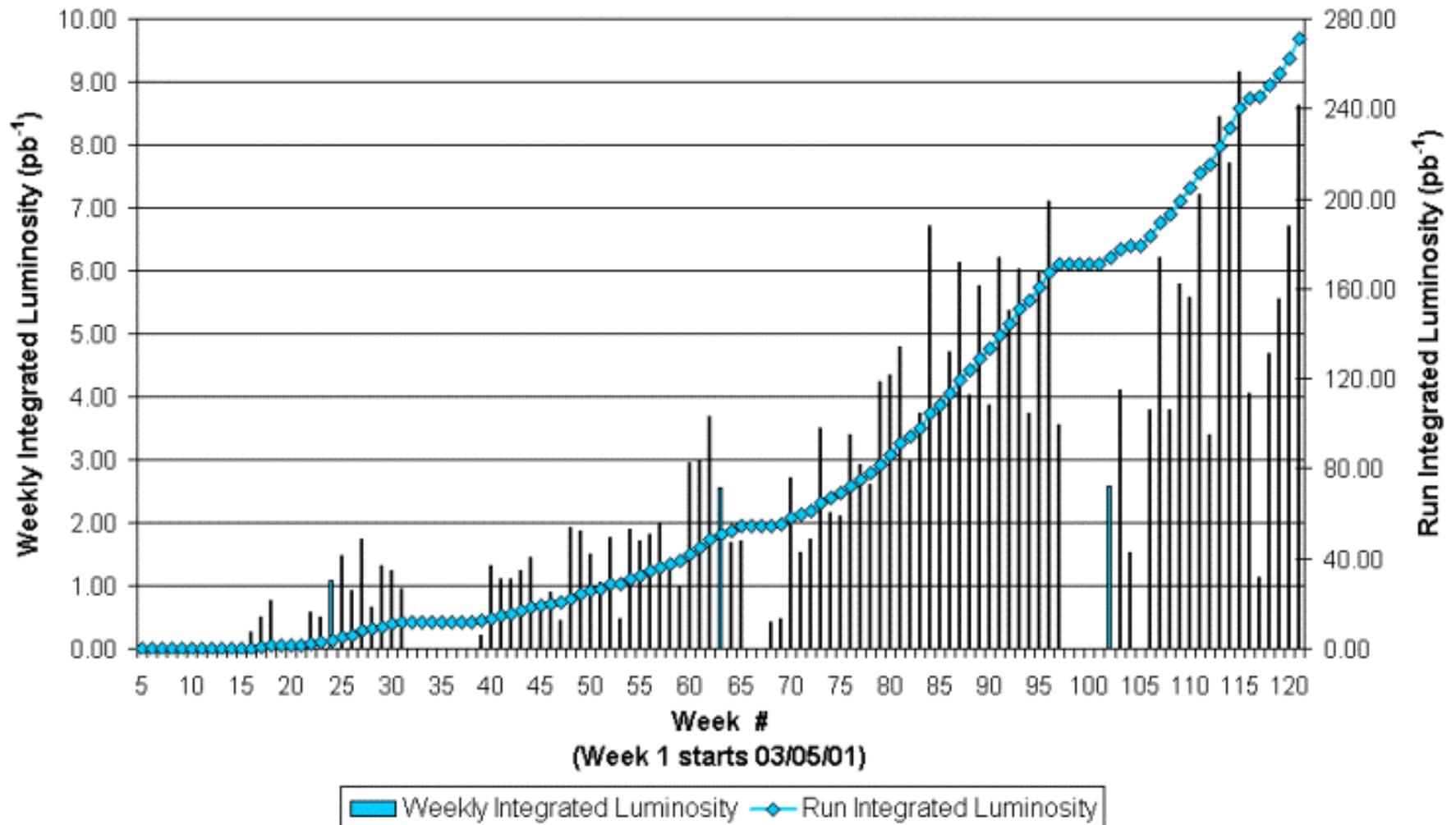
Store	Initial Lum. (E30)	Deliv'd Lum. (nb ⁻¹)	Termination	Time (hr)	Stack Size (mA)	Comments
2715	37.2	1361	Intentional	20.6	158	Continued from previous week
2718	39.4	1612	Intentional	19.8	180	
2720	-	0	Quench	-	126	High Losses during Squeeze
2723	30.6	1107	Intentional	17.4	118	
2725	33.8	1297	Intentional	19.2	144	1 st pbar transfer had no 53MHz
2727	36.2	1422	Intentional	19.2	159	Orbit smooth done at End of Store
2728	35.8	670	Abort	7.0	164	Lightning
2734	30.7	1132	Intentional	18.0	127	Orbit smooth done at End of Store
2736	32.8	-	On Going	-	136	All of store counts for next week

Integrated Luminosity for the Week

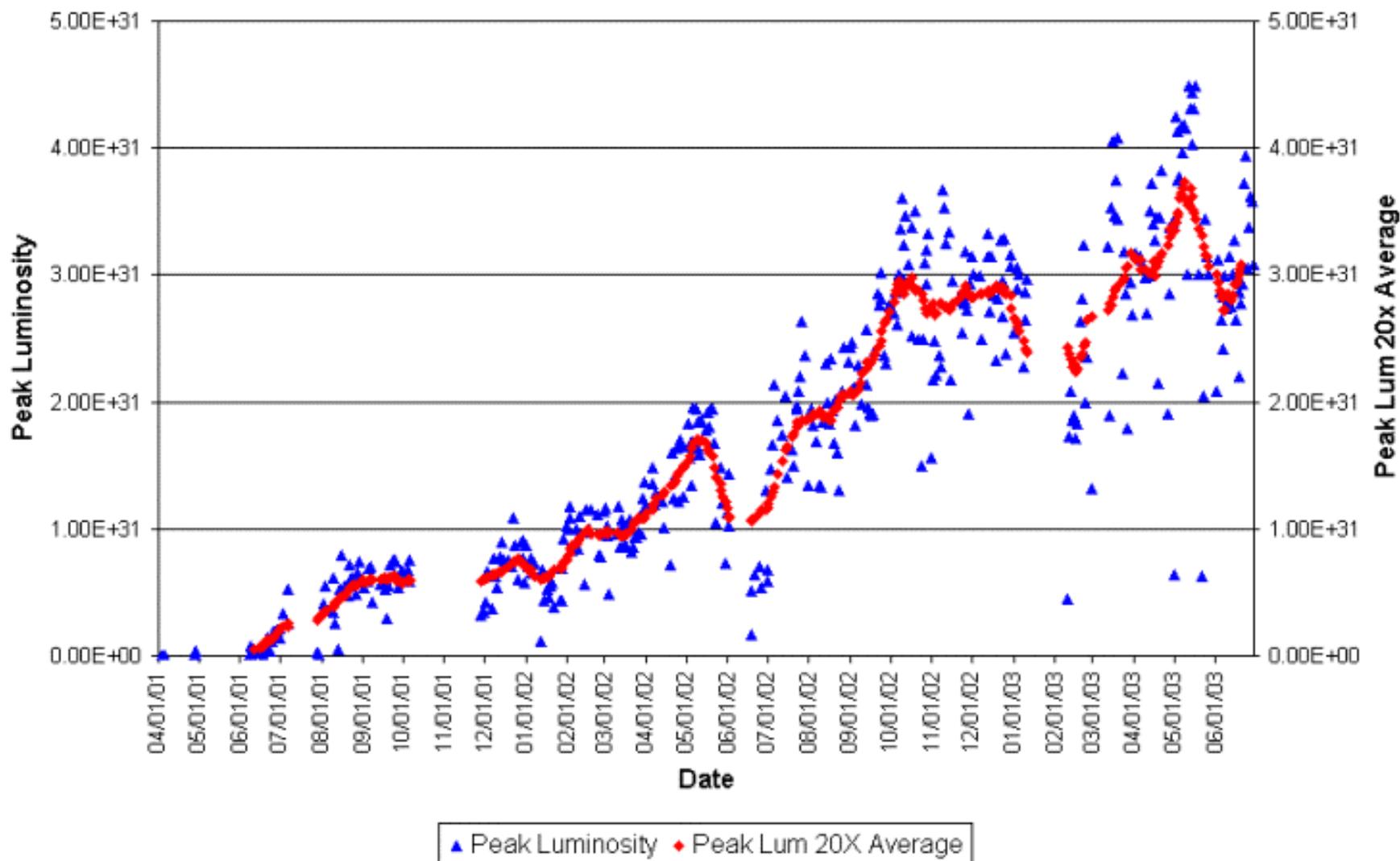


- Lost Stores
 - High losses during squeeze caused quench
 - Had been lower chromotocities; reverted back
 - Still have high losses in same step in the squeeze
 - Lightning; looked like Dzero pulled abort (false signal)
- Other Problems
 - Wrong RF curve loaded for unstacking
 - BRF9 many trips as well as PA replacement.
 - ORBMP flow switch now fully open
 - Short batch kicker MKS08 tube had to be replaced
 - Compensation with other kickers did not work
 - Continual tuning of proton source; many trips by Booster loss monitors

Collider Run IIA Integrated Luminosity



Collider Run IIA Peak Luminosity



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New Beam Studies Criteria

- **Goal** to reach 225pb^{-1} prior to Aug 25
 - From today, need to average $6.05\text{pb}^{-1}/\text{week}$.
 - Operations History
 - From mid-Feb to mid-Jun: averaged $4.7\text{pb}^{-1}/\text{week}$.
 - Accelerator complex runs less than optimal during Jul & Aug (heat, humidity, lightning, power glitches....)
 - More focus on the **Goal**
 - Dedicated studies and/or non maintenance accesses
 - Criteria: the integration rate to reach the **Goal** be $< 4.7\text{pb}^{-1}/\text{week}$
 - Semi-parasitic studies (take away stacking cycles)
 - Last $\sim 6\text{hrs}$ of stacking period during normal store ($\sim 18\text{-}20\text{hr}$)
 - Stack fast @ lower stacks; studies can have 10-20% effect on stack rate
 - Prioritized studies list: Run 2, Run 2 upgrades, NUMI, SY120
 - Beam Maintenance (& EoS) studies as needed or via opportunity
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- The week
 - 2nd best integrated week with all initial luminosities between $30\text{-}40\text{e}30\text{cm}^{-2}\text{s}^{-1}$
 - Two aborted stores
 - 2 periods of TeV beam studies after store losses
 - 117hrs of stores (a record?)
- FY03 total is 176.7pb^{-1} ; 8 weeks to shutdown
- Goal for this week
 - Stack and Store