

The Story So Far

February 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11 4K Wave	12	13	14	15 Cold in both rings	16
17	18 PP12 lattice test evening	19	20	21	22	23
24	25	26	27	28	29	30
PS gave us e-lens		First Collisions			Overnight Stores 109x109	
					Start Physics	

March 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11 6 hour stores with tune between				15 PA Maintenance	16
17	18	19	20 PA Maintenance	21	22	23
24	25 8hr Stores		27 APEX	28	29	30
31	Inject = 200e11					

April 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3 Maintenance	4 Switch Fy Lattice	5 12	6 Pushed Intensity
7 Reach 200e11 At FT	8	9	10 APEX	11 Rotator	12 Tuning	13
14	15 MD Studies	16	17 Maintenance Golden Store 17396	18	19	20
21	22	23	24 APEX	25 Machine Dev.	26 Pushed Bunch Intensity	27
28	29	30 Test corrected Optics	APEX	Machine Dev.		

May 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 APEX	2 MD Studies Installed Dpx	3	4
5	6	7	8 Maint.	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23 Dpx reduction In Blue removed	24	25
26	27	28	29 MD Spin Tune	30 Low E APEX	31	

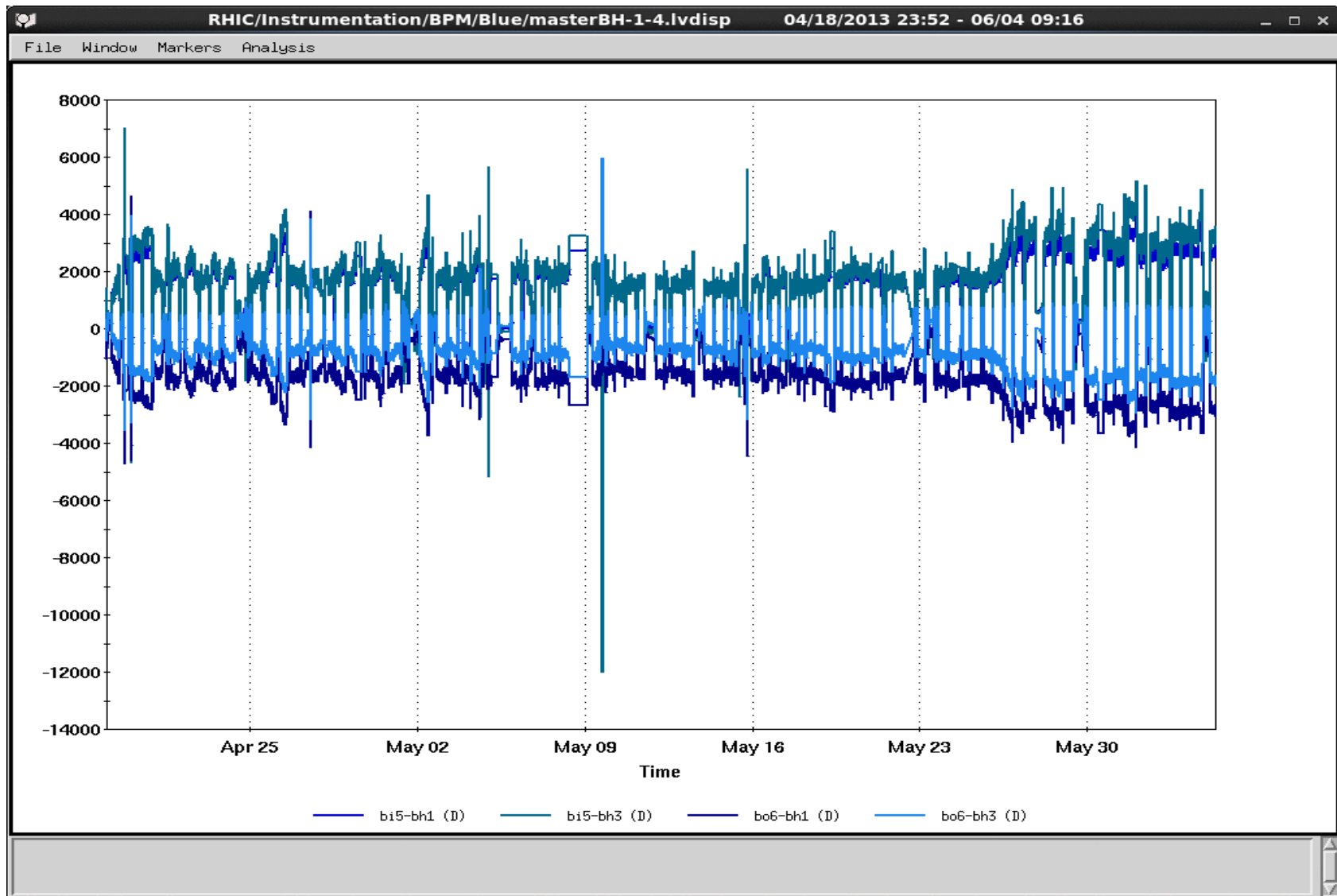
Past week

- Machine Development
 - Spin Tune Verified for Blue Ring
 - Studies of RF bunch-by-bunch phase
- Booster Ground Fault
- Trouble with Aborts
- Both Blue and Yellow lower Jet values

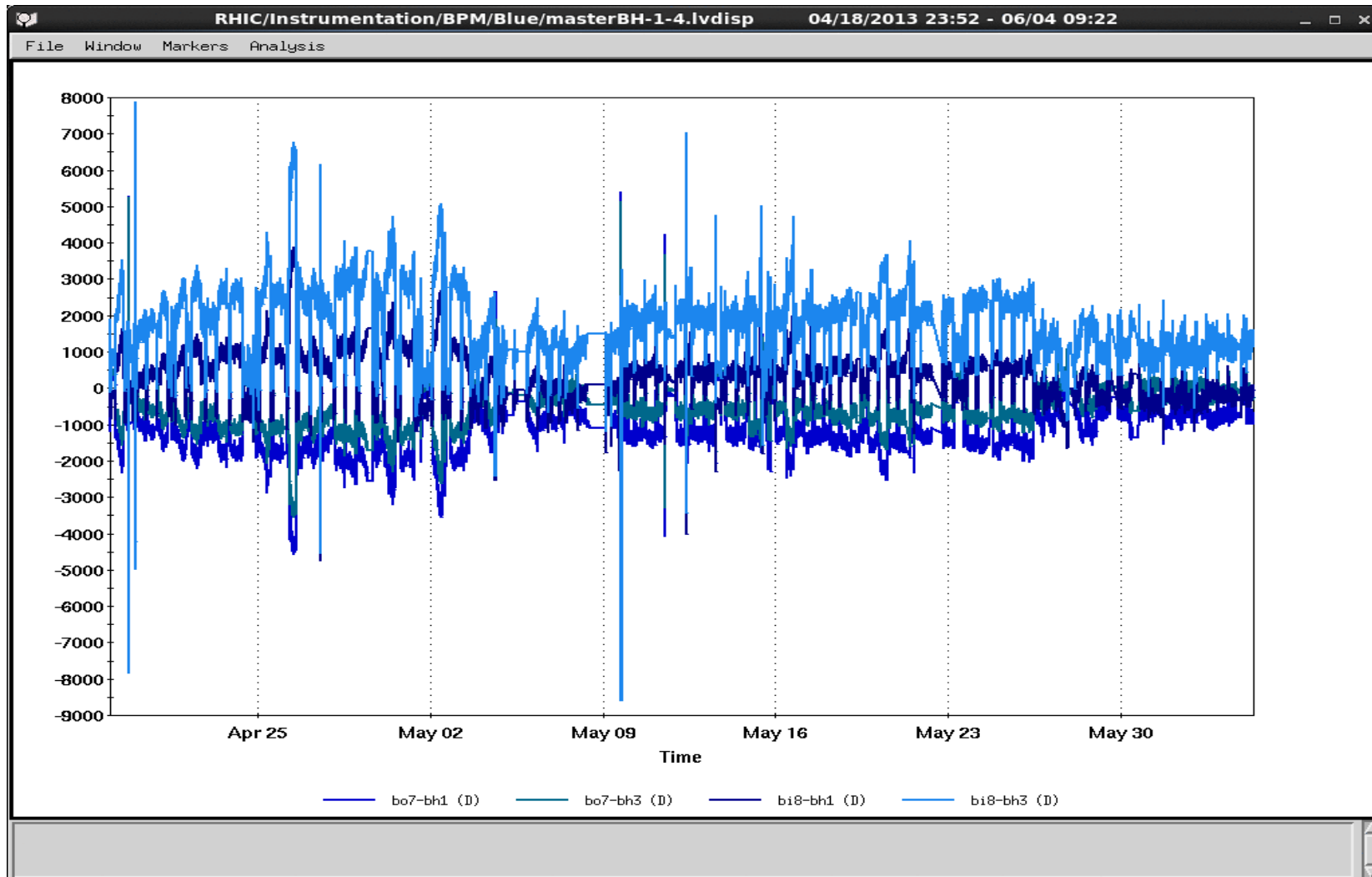
Current Situation

- For past several fills Blue Jet numbers have been in high 40's to low 50's.
- Yellow has also seen some dramatic variation spiking up to 65% and down to 46%
 - Some indications that these are related to orbit
 - Yellow Emittance has played a role
 - Store tunes
 - We are still trying to understand nature of the orbit effect

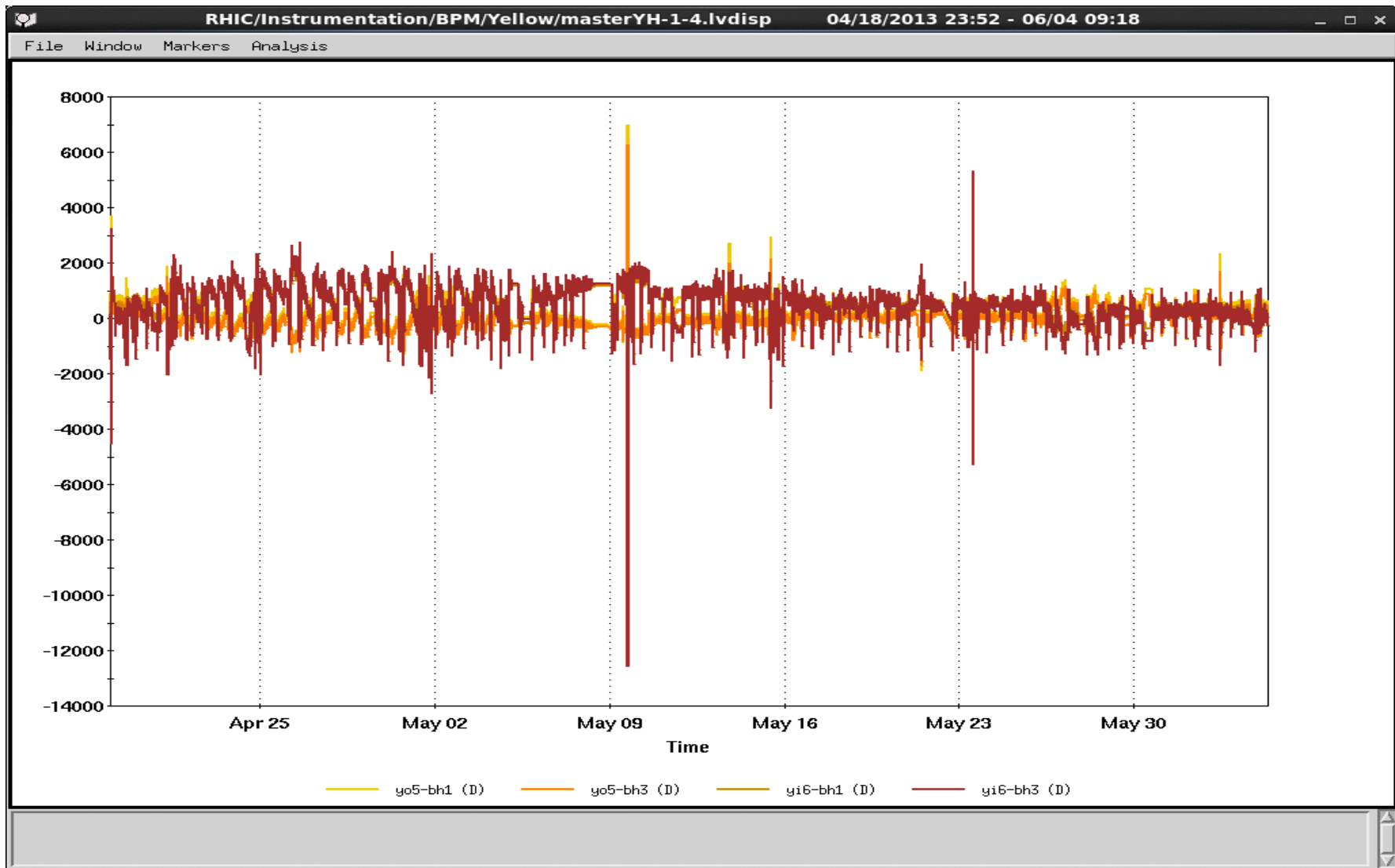
STAR Horizontal Orbit



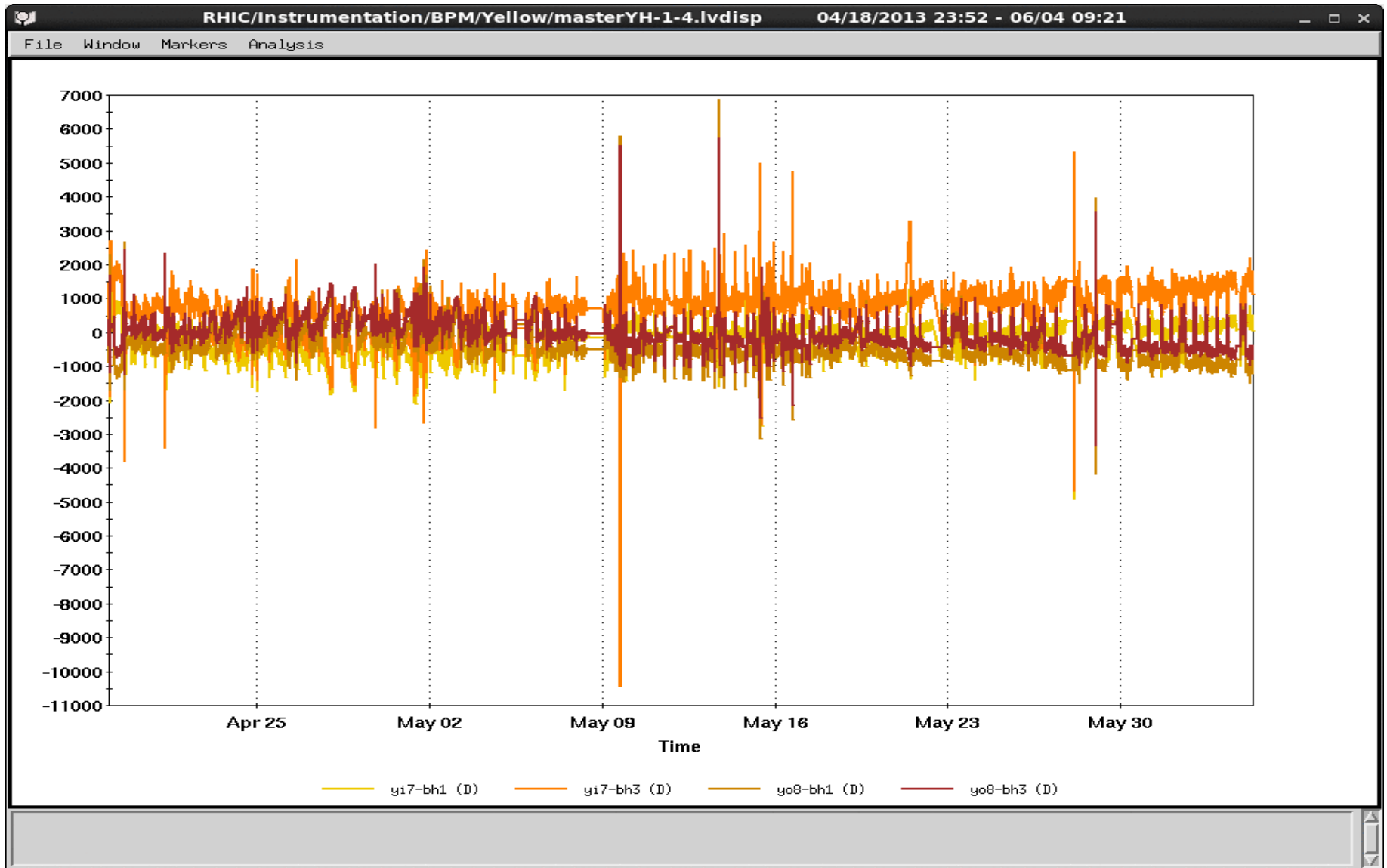
PHENIX Orbit Horizontal



Yellow STAR Horizontal Orbit



Yellow PHENIX Horizontal Orbit



Future Plans

- Eliminating Injection Pol. Measurements
- Going to 15hr Stores to Save abort kicker
- Try an control orbits keep them in place where we have seen high Jet values.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5 APEX Low Energy	6	7	8 Spin Flipper APEX
9	10 End of Run	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						