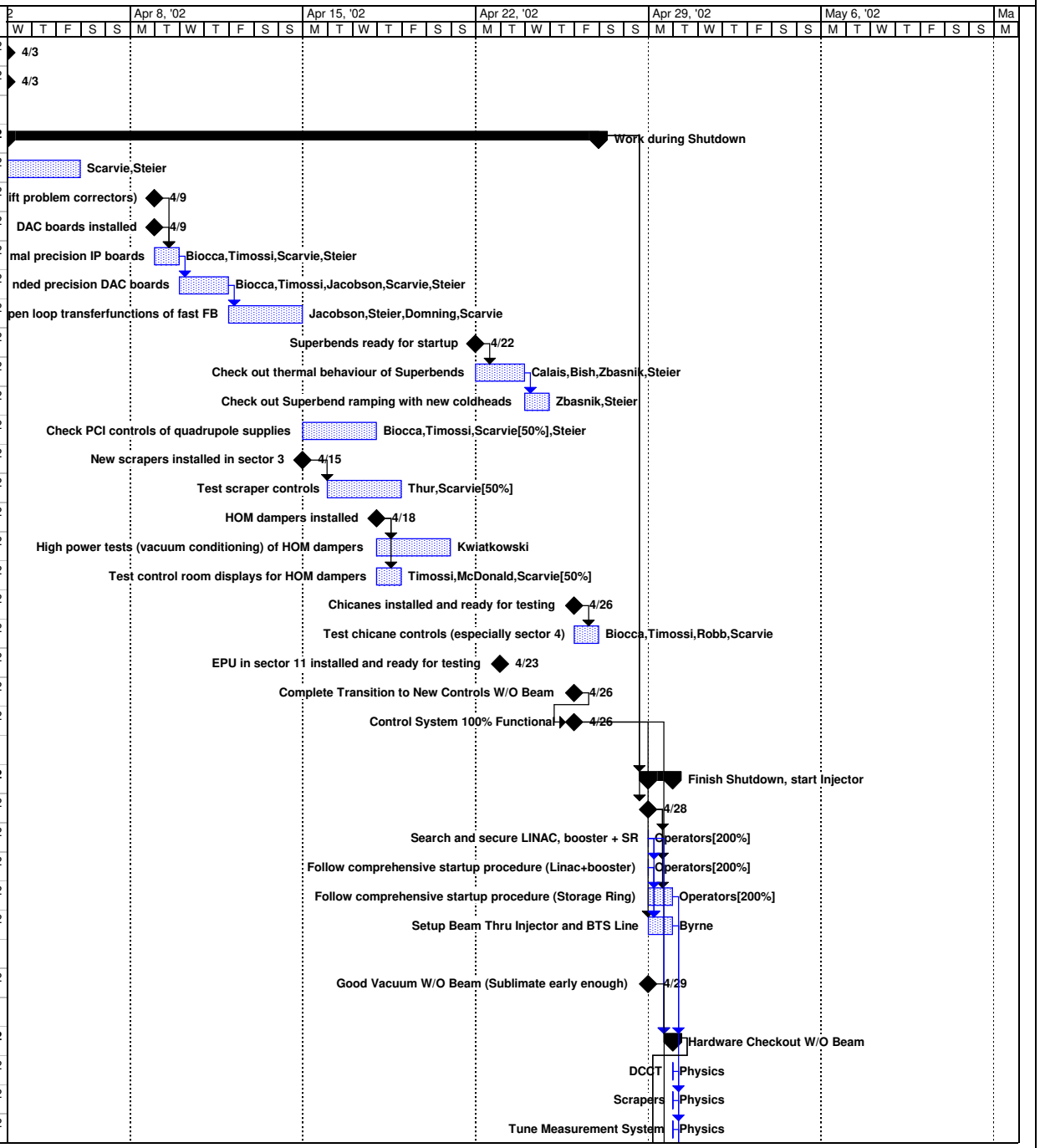
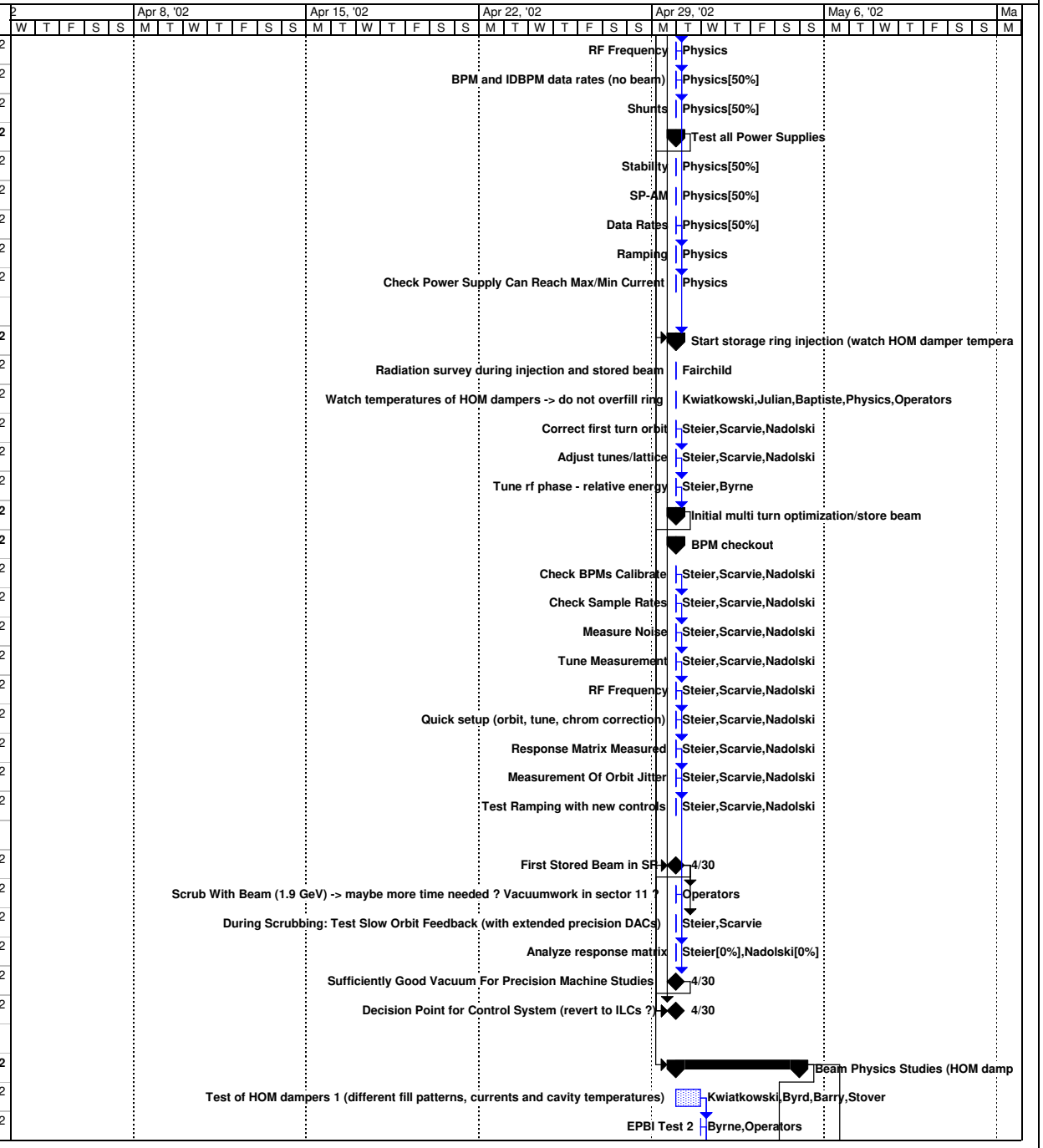
Wed 3/13/02 6:17 PM Start Up 2002 draft v3

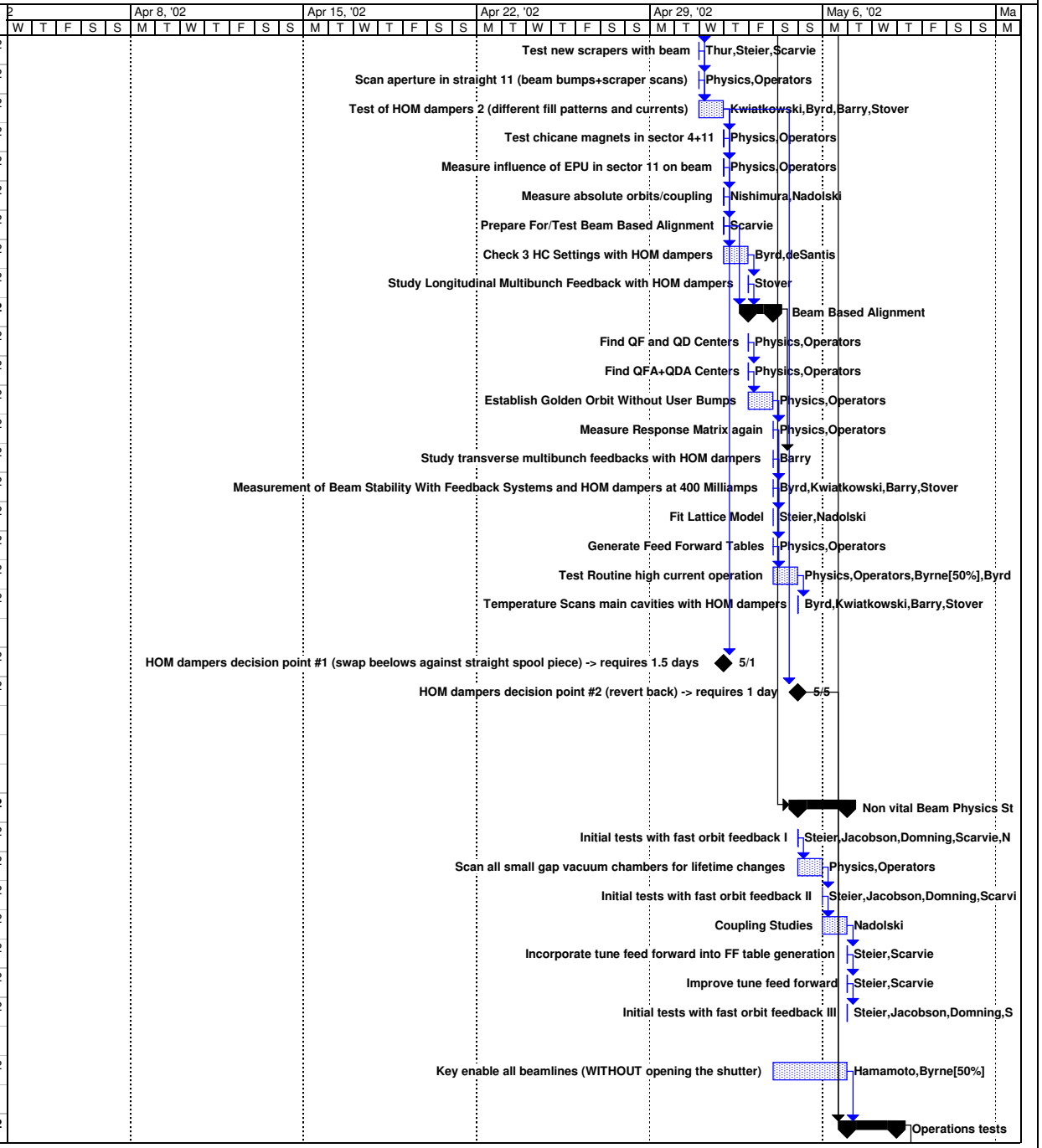
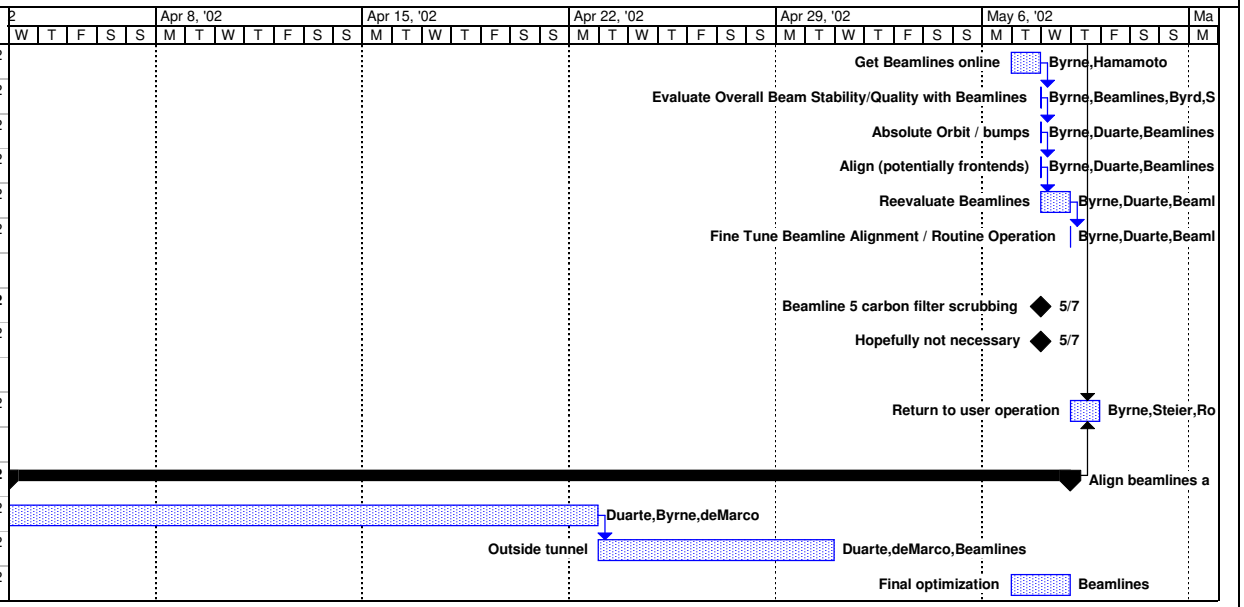
ID	Task Name	Duration	Start
1	Baseline Measurements done (Power Supplies, Orbit	0 days	Wed 4/3/02
2	Baseline Measurements done (LFB, TFB, growth rate	0 days	Wed 4/3/02
3			
4	**Work during Shutdown**	**23.33 days**	**Wed 4/3/02**
5	Modify Matlab Software for new PCI control (qua	3 edays	Wed 4/3/02
6	normal precision IP boards replaced (ADC drift p	0 days	Tue 4/9/02
7	Extended precision DAC boards installed	0 days	Tue 4/9/02
8	Check all normal precision IP boards	1 eday	Tue 4/9/02
9	Check all extended precision DAC boards	2 edays	Wed 4/10/02
10	Measure open loop transferfunctions of fast FB	3 edays	Fri 4/12/02
11	Superbends ready for startup	0 days	Mon 4/22/02
12	Check out thermal behaviour of Superbends	2 edays	Mon 4/22/02
13	Check out Superbend ramping with new coldhea	1 eday	Wed 4/24/02
14	Check PCI controls of quadrupole supplies	3 edays	Mon 4/15/02
15	New scrapers installed in sector 3	0 days	Mon 4/15/02
16	Test scraper controls	3 edays	Tue 4/16/02
17	HOM dampers installed	0 days	Thu 4/18/02
18	High power tests (vacuum conditioning) of HOM	3 edays	Thu 4/18/02
19	Test control room displays for HOM dampers	1 eday	Thu 4/18/02
20	Chicanes installed and ready for testing	0 days	Fri 4/26/02
21	Test chicane controls (especially sector 4)	8 ehrs	Fri 4/26/02
22	EPU in sector 11 installed and ready for testing	0 days	Tue 4/23/02
23	Complete Transition to New Controls W/O Beam	0 days	Fri 4/26/02
24	Control System 100% Functional	0 days	Fri 4/26/02
25			
26	**Finish Shutdown, start Injector**	**0.83 days**	**Sun 4/28/02**
27	Finish all shutdown work	0 days	Sun 4/28/02
28	Search and secure LINAC, booster + SR	2 ehrs	Sun 4/28/02
29	Follow comprehensive startup procedure (Linac+	6 ehrs	Mon 4/29/02
30	Follow comprehensive startup procedure (Storag	10 ehrs	Mon 4/29/02
31	Setup Beam Thru Injector and BTS Line	12 ehrs	Mon 4/29/02
32			
33	Good Vacuum W/O Beam (Sublimate early enough)	0 days	Mon 4/29/02
34			
35	**Hardware Checkout W/O Beam**	**0.17 days**	**Mon 4/29/02**
36	DCCT	0.2 ehrs	Mon 4/29/02
37	Scrapers	1 ehr	Mon 4/29/02
38	Tune Measurement System	0.2 ehrs	Mon 4/29/02



ID	Task Name	Duration	Start
39	RF Frequency	0.2 ehrs	Mon 4/29/02
40	BPM and IDBPM data rates (no beam)	0.5 ehrs	Mon 4/29/02
41	Shunts	1 ehr	Mon 4/29/02
42	**Test all Power Supplies**	**0.17 days**	**Mon 4/29/02**
43	Stability	2 ehrs	Mon 4/29/02
44	SP-AM	2 ehrs	Mon 4/29/02
45	Data Rates	2 ehrs	Mon 4/29/02
46	Ramping	2 ehrs	Mon 4/29/02
47	Check Power Supply Can Reach Max/Min C	1 ehr	Mon 4/29/02
48			
49	**Start storage ring injection (watch HOM damper te**	**0.42 days**	**Mon 4/29/02**
50	Radiation survey during injection and stored bea	10 ehrs	Mon 4/29/02
51	Watch temperatures of HOM dampers -> do not	10 ehrs	Mon 4/29/02
52	Correct first turn orbit	1 ehr	Mon 4/29/02
53	Adjust tunes/lattice	1 ehr	Mon 4/29/02
54	Tune rf phase - relative energy	0.5 ehrs	Mon 4/29/02
55	**Initial multi turn optimization/store beam**	**0.21 days**	**Mon 4/29/02**
56	**BPM checkout**	**0.03 days**	**Mon 4/29/02**
57	Check BPMs Calibrate	0.2 ehrs	Mon 4/29/02
58	Check Sample Rates	0.2 ehrs	Mon 4/29/02
59	Measure Noise	0.2 ehrs	Mon 4/29/02
60	Tune Measurement	0.2 ehrs	Mon 4/29/02
61	RF Frequency	0.1 ehrs	Mon 4/29/02
62	Quick setup (orbit, tune, chrom correction)	1 ehr	Mon 4/29/02
63	Response Matrix Measured	0.75 ehrs	Tue 4/30/02
64	Measurement Of Orbit Jitter	1.5 ehrs	Tue 4/30/02
65	Test Ramping with new controls	1 ehr	Tue 4/30/02
66			
67	First Stored Beam in SR	0 days	Tue 4/30/02
68	Scrub With Beam (1.9 GeV) -> maybe more time nee	4 ehrs	Tue 4/30/02
69	During Scrubbing: Test Slow Orbit Feedback (with ex	4 ehrs	Tue 4/30/02
70	Analyze response matrix	4 ehrs	Tue 4/30/02
71	Sufficiently Good Vacuum For Precision Machine Stu	0 days	Tue 4/30/02
72	Decision Point for Control System (revert to ILCs ?)	0 days	Tue 4/30/02
73			
74	**Beam Physics Studies (HOM dampers, instabilitie**	**4.58 days**	**Tue 4/30/02**
75	Test of HOM dampers 1 (different fill patterns, cu	12 ehrs	Tue 4/30/02
76	EPBI Test 2	4 ehrs	Tue 4/30/02



ID	Task Name	Duration	Start
77	Test new scrapers with beam	2 ehrs	Tue 4/30/02
78	Scan aperture in straight 11 (beam bumps+scrap	6 ehrs	Wed 5/1/02
79	Test of HOM dampers 2 (different fill patterns an	12 ehrs	Wed 5/1/02
80	Test chicane magnets in sector 4+11	4 ehrs	Wed 5/1/02
81	Measure influence of EPU in sector 11 on beam	4 ehrs	Wed 5/1/02
82	Measure absolute orbits/coupling	2 ehrs	Thu 5/2/02
83	Prepare For/Test Beam Based Alignment	2 ehrs	Thu 5/2/02
84	Check 3 HC Settings with HOM dampers	4 ehrs	Thu 5/2/02
85	Study Longitudinal Multibunch Feedback with HC	8 ehrs	Thu 5/2/02
86	**Beam Based Alignment**	**0.58 days**	**Thu 5/2/02**
87	Find QF and QD Centers	6 ehrs	Thu 5/2/02
88	Find QFA+QDA Centers	5 ehrs	Fri 5/3/02
89	Establish Golden Orbit Without User Bumps	2 ehrs	Fri 5/3/02
90	Measure Response Matrix again	1 ehr	Fri 5/3/02
91	Study transverse multibunch feedbacks with HO	6 ehrs	Fri 5/3/02
92	Measurement of Beam Stability With Feedback S	6 ehrs	Fri 5/3/02
93	Fit Lattice Model	8 ehrs	Fri 5/3/02
94	Generate Feed Forward Tables	8 ehrs	Fri 5/3/02
95	Test Routine high current operation	4 ehrs	Sat 5/4/02
96	Temperature Scans main cavities with HOM dan	12 ehrs	Sat 5/4/02
97			
98	HOM dampers decision point #1 (swap beelows agai	0 days	Wed 5/1/02
99	HOM dampers decision point #2 (revert back) -> requ	0 days	Sun 5/5/02
100			
101			
102			
103	**Non vital Beam Physics Studies (Contingency tim**	**2 days**	**Sat 5/4/02**
104	Initial tests with fast orbit feedback I	8 ehrs	Sat 5/4/02
105	Scan all small gap vacuum chambers for lifetime	12 ehrs	Sun 5/5/02
106	Initial tests with fast orbit feedback II	8 ehrs	Sun 5/5/02
107	Coupling Studies	8 ehrs	Mon 5/6/02
108	Incorporate tune feed forward into FF table gene	4 ehrs	Mon 5/6/02
109	Improve tune feed forward	4 ehrs	Mon 5/6/02
110	Initial tests with fast orbit feedback III	4 ehrs	Mon 5/6/02
111			
112	Key enable all beamlines (WITHOUT opening the shu	3 edays	Sat 5/4/02
113			
114	**Operations tests with beamline scientists**	**2 days**	**Tue 5/7/02**



ID	Task Name	Duration	Start
115	Get Beamlines online	2 ehrs	Tue 5/7/02
116	Evaluate Overall Beam Stability/Quality with Bea	2 ehrs	Tue 5/7/02
117	Absolute Orbit / bumps	6 ehrs	Tue 5/7/02
118	Align (potentially frontends)	12 ehrs	Tue 5/7/02
119	Reevaluate Beamlines	6 ehrs	Wed 5/8/02
120	Fine Tune Beamline Alignment / Routine Operati	20 ehrs	Wed 5/8/02
121			
122	**Beamline 5 carbon filter scrubbing**	**0 days**	**Tue 5/7/02**
123	Hopefully not necessary	0 ehrs	Tue 5/7/02
124			
125	Return to user operation	8 ehrs	Thu 5/9/02
126			
127	**Align beamlines as necessary**	**36 days**	**Wed 4/3/02**
128	Frontends/inside tunnel	20 edays	Wed 4/3/02
129	Outside tunnel	8 edays	Tue 4/23/02
130	Final optimization	2 edays	Tue 5/7/02