

FY 2003 Machine Studies Breakdown (Data through 2003-2.14)

Study Period	FY Totals	2002-3.1	2002-3.2	2002-3.3	2002-3.4	2002-3.5	2002-3.6	2002-3.7	2002-3.8	2002-3.9	2002-3.10	2002-3.11	2002-3	2003-1.1	2003-1.2	2003-1.3	2003-1.4	2003-1.5	2003-1.6	2003-1.7	2003-1.8	2003-1.9	2003-1.10	2003-1.11	2003-1.12	2003-1.13	2003-1	2003-2.1	2003-2.2	2003-2.3	2003-2.4	2003-2.5	2003-2.6	2003-2.7	2003-2.8	2003-2.9	2003-2.10	2003-2.11	2003-2.12	2003-2.13	2003-2.14	2003-2		
Start Date	10/3/02	10/14/02	10/21/02	10/29/02	11/4/02	11/11/02	11/18/02	11/25/02	12/3/02	12/9/02	12/20/02	Total	1/2/03	2/3/03	2/10/03	2/18/03	2/24/03	3/3/03	3/10/03	3/18/03	3/24/03	4/1/03	4/7/03	4/14/03	4/21/03	Total	5/22/03	6/2/03	6/9/03	6/17/03	6/23/03	7/4/03	7/7/03	7/16/03	7/22/03	7/28/03	8/5/03	8/11/03	8/18/03	8/26/03	Total			
Scheduled Study/MI Time (hours)	1423.25	144.0	16.0	48.0	8.0	48.0	16.0	48.0	32.0	8.0	48.0	439.25	144.0	16.0	48.0	8.0	48.0	16.0	48.0	8.0	48.0	8.0	48.0	8.0	48.0	16.0	24.0	16.0	48.0	8.0	48.0	8.0	48.0	8.0	48.0	8.0	48.0	16.0	24.0	504.00				
Machine Intervention	102.13	0.00	0.00	9.08	1.17	4.73	2.08	2.33	2.42	0.00	3.33	25.15	4.75	1.33	4.00	2.00	4.32	4.08	3.33	3.50	1.52	3.00	8.02	2.13	41.99	0.00	3.20	5.00	2.05	4.17	0.00	1.50	3.78	2.73	3.95	2.08	3.52	1.33	1.68	34.99				
Resulting scheduled study time	1321.12	144.00	16.00	38.92	6.83	43.27	13.92	45.67	29.58	8.00	44.67	414.10	139.25	14.67	44.00	6.00	43.68	11.92	44.67	4.50	46.48	5.00	39.98	16.00	21.87	438.01	144.00	12.80	43.00	5.95	43.83	24.00	14.50	44.22	5.27	44.05	5.92	44.48	14.67	22.32	469.01			
Downtime	126.36	22.75	0.00	0.00	0.67	4.75	0.00	0.67	0.00	0.00	28.83	2.33	2.50	0.42	0.00	0.67	2.67	0.00	0.68	5.00	0.00	0.68	5.00	7.67	7.98	30.32	22.70	2.55	13.33	1.40	4.60	4.50	1.00	6.32	4.73	0.00	5.08	1.00	67.21					
Study Time Available	1194.76	121.25	16.00	38.92	6.83	42.60	9.17	45.67	28.92	8.00	44.67	385.27	136.92	12.17	43.58	6.00	43.28	11.25	42.00	4.50	45.80	0.00	32.31	8.02	21.87	407.69	121.30	10.25	29.67	4.55	39.23	19.50	13.50	37.90	6.27	39.32	5.92	39.40	13.67	22.32	401.80			
Studies Availability	90.4%	84.2%	100.0%	100.0%	100.0%	98.5%	65.9%	100.0%	97.7%	100.0%	100.0%	93.0%	98.3%	83.0%	99.0%	100.0%	99.1%	94.4%	94.0%	100.0%	98.5%	0.0%	80.8%	50.1%	100.0%	93.1%	84.2%	80.1%	69.0%	78.5%	89.5%	81.3%	93.1%	85.7%	100.0%	89.3%	100.0%	88.6%	83.2%	100.0%	85.7%			
Study Category																																												
Operations/Availability	400.27																																											
Operational Readiness	168.93	26.58	9.88	1.33		0.75	8.75	5.42	6.25	0.50	7.50	66.97	50.83	9.17	0.58	0.67	3.58	5.67	6.33	0.50			1.33			83.13	1.62	4.67	2.17	0.38	1.05	1.00	0.82	1.42	0.50	0.50	0.33	1.85	2.25	0.27	18.83			
BPM current dependency/offsets	55.95	16.50					1.67					18.17	10.17					2.25				4.47				14.87	22.92														22.92			
Injection Trajectory	36.67	14.25		3.25	2.67					0.92		21.08			4.88		2.73									7.61	3.58	4.4														7.98		
Controls Group Studies	11.07		3.25	4.50								7.75														0.00															1.35	3.32		
Power Supply Group Studies	21.03					1.67					1.58	3.25		3.17				2.62							2.62																1.92	4.45		
RF Group Studies	20.95					2.10		4.08		1.00		3.17		3.17	2.78			2.00	1.00											1.57											1.57			
Training	46.92	0.50		1.42		0.25	3.42	0.75	1.25		7.58	8.50	8.50	4.68	3.48		3.08					1.13				20.87															18.46			
BPLD Validation	38.75	12.83			4.17		7.00			0.42	1.25	25.67	4.33		2.53												6.22					5.88			0.93			9.08		2.57	6.22			
SR Improvement	307.81																																											
Physical Aperture Measurement	13.53																									0.00																	13.53	
New Lattice Development	45.51	15.25									3.25	18.50										4.92											7.20				6.33						18.96	
Optics Characterization and Correction	58.07	1.33		2.50		4.50	2.50			4.50	7.67	23.00	16.50		2.42			1.25	2.00							2.80	8.23				9.63				4.05				1.87			10.10		
Measurement Methods Development	38.04	7.67				4.00	3.75		3.83		19.25		4.50		1.12				4.67																							2.63	2.63	
ID Gap Effect Studies	27.62	3.25				2.25	3.08				2.25	12.08																														8.97	12.14	
Injection Improvement	51.81		2.45			2.08					6.78		0.33		1		3.33		2.68									3.17															10.90	
Satellite Bunch Cleaning	10.77																																										7.67	
Software Development	20.45									0.67	1.33	2.00	4.00	2.58		2.32																											12.90	
New Bunch Pattern Development	42.01									0.75	7.00	7.75																															21.73	
BPM Development	138.48																																											
Broad Band BPM Studies	23.05	3.08										3.08	4.00																															15.97
Narrow Band BPM Studies	16.67										5.17		5.75				2.67																											8.42
X-ray BPM Studies	77.41	4.83	0.42	9.17		3.00	0.25	0.25			0.83	18.75	5.00	0.42	13.23		8.85		3.33	1.25																							34.89	
Other Diagnostics	21.35					3.33	0.17					3.50				2.18																											2.18	
Orbit Stability	153.34																																											
Real Time Feedback	14.80																																											
Orbit Correction	72.51	12.75		8.83	2.25	4.00					14.88	42.72			4.17	1.90	4.37		4.75	2.75	2.57			2.20																				20.51
ID Perturbation Correction	23.02												3.75						3.48																									7.23
Other Feedforwards	43.01			1.00		7.00					3.03	11.03																																4.17
Intensity/Impedance	167.21																																											
Impedance Measurements	64.22			5.67																																								