

## Downtime for Run 2003-2

Fill #	Start	End	Length	Loss Reason	DIN #	Audit	Start	End	User Length	System Length	Cause	System	Group	Type	Description
1	05/28/03 08:00	05/28/03 16:16	8.27	Lightning strike (OTHER)	104501		05/28/03 16:16	05/28/03 17:23	1.12	1.12	Other	Other	Other	Store Lost	Lightning strike (OTHER)
2	05/28/03 17:23	05/29/03 23:38	30.25	S39B:Q2 trip (ES)	104502		05/29/03 23:38	05/30/03 00:39	1.02	1.02	ES/PS	PS	ES	Store Lost	Convertor swap, magnet conditioning, refill (ES/PS)
5	05/30/03 00:39	05/30/03 11:07	10.47	RF-4 trip (RF)			05/30/03 11:07	05/30/03 11:45	0.63						
					104503		05/30/03 11:07	05/30/03 11:08		0.02	RF	RF	RF	Store Lost	RF4 HVPS crowbar trip [RF]
					104503		05/30/03 11:08	05/30/03 11:16		0.13	PHY	PHY	PHY	Inhibits Beam to User	Switch from PC Gun to RF Gun
					104503		05/30/03 11:16	05/30/03 11:45		0.48	RF	RF	RF	Inhibits Beam to User	Continued recovery from RF4 trip [RF]
7	05/30/03 11:45	05/30/03 14:25	2.67	RF-2 trip (RF)			05/30/03 14:25	05/30/03 14:56	0.52						
					104504		05/30/03 14:25	05/30/03 14:26		0.02	RF	RF	RF	Store Lost	RF2 HVPS Crowbar trip [RF]
					104504		05/30/03 14:26	05/30/03 14:27		0.02	PHY	PHY	PHY	Inhibits Beam to User	Switch from PC Gun to RF Gun
					104504		05/30/03 14:27	05/30/03 14:56		0.48	RF	RF	RF	Inhibits Beam to User	Continued recovery from RF2 trip [RF]
8	05/30/03 14:56	05/31/03 07:32	16.60	ACIS IO trip (ES)	104505		05/31/03 07:32	05/31/03 09:32	2.00	2.00	ES/Intlk	Intlk/Accelerator	ES	Store Lost	ACIS IO trip
10	05/31/03 09:32	05/31/03 19:45	10.22	16IDBPLD trip@inj[OTHER]	104506		05/31/03 19:45	05/31/03 20:17	0.53	0.53	Other	Other	Other	Store Lost	16-ID BPLD trip & injection (OTHER)
11	05/31/03 20:17	06/01/03 01:26	5.15	S16B:Q3 trip (ES)			06/01/03 01:26	06/01/03 03:00	1.57						
					104507		06/01/03 01:26	06/01/03 02:35		1.15	ES/PS	PS	ES	Store Lost	Convertor swap, magnet conditioning, refill (ES/PS)
					104507		06/01/03 02:35	06/01/03 02:42		0.12	OPS	OPS	OPS	Inhibits Beam to User	Beam lost when starting Orbit Controllaw [OPS]
					104507		06/01/03 02:42	06/01/03 03:00		0.30	ES/PS	PS	ES	Inhibits Beam to User	Continued recovery from P.S. trip
12	06/01/03 03:00	06/02/03 16:00	37.00	Int Dump: End of Period			06/01/03 08:00	06/01/03 08:00	0.00	0.00	Scheduled				
			<b>120.62</b>						<b>7.38</b>	<b>7.38</b>					
				Gaps not at user values [DIAG]	104511		06/03/03 08:00	06/03/03 08:11	0.18	0.18	DIAG	DIAG	DIAG	Inhibits Beam to User	Gap sepoints being investigated/corrected.[DIAG]
15	06/03/03 08:11	06/04/03 09:55	25.73	RF4 lost power [RF]	104513		06/04/03 09:55	06/04/03 10:19	0.40	0.40	RF	RF	RF	Store Lost	RF4 Power Monitor trip [RF]
16	06/04/03 10:19	06/06/03 21:58	59.65	Rad.Mon. fault [HP]			06/06/03 21:58	06/06/03 22:30	0.53						
					104516		06/06/03 21:58	06/06/03 22:04		0.10	HP/Intlk	Intlk/Rad	HP	Store Lost	Rad Monitor trip [HP]
					104516		06/06/03 22:04	06/06/03 22:16		0.20	CTL	CTL	CTL	Inhibits Beam to User	IOC reboots [CTL]
					104516		06/06/03 22:16	06/06/03 22:30		0.23	HP/Intlk	Intlk/Rad	HP	Inhibits Beam to User	Continued recovery from Rad Monitor trip [HP]
17	06/06/03 22:30	06/07/03 04:34	6.07	Netwk storm [Network]	104517		06/07/03 04:34	06/07/03 12:02	7.47	7.47	Network	Network	Network	Store Lost	Network storm resulting in various recovery problems [Network]
18	06/07/03 12:02	06/07/03 18:10	6.13	Ukn 1ID BPLD trip [DIAG]			06/07/03 18:10	06/07/03 18:34	0.40						
					104519		06/07/03 18:10	06/07/03 18:24		0.23	DIAG	DIAG	DIAG	Store Lost	Unknown beam motion [DIAG]
					104519		06/07/03 18:24	06/07/03 18:32		0.13	CTL	CTL	CTL	Inhibits Beam to User	SR Vacuum Valve, VM-04-VV01, closure [CTL]
					104519		06/07/03 18:32	06/07/03 18:34		0.03	DIAG	DIAG	DIAG	Inhibits Beam to User	Continued recovery from beam loss [DIAG]
19	06/07/03 18:34	06/07/03 20:32	1.97	Ukn 1ID BPLD trip [DIAG]			06/07/03 20:32	06/08/03 10:24	13.87						
					104520		06/07/03 20:32	06/07/03 20:32		0.00	DIAG	DIAG	DIAG	Store Lost	Unknown beam motion [DIAG]
					104520		06/07/03 20:32	06/08/03 09:27		12.92	ES/PS	PS	ES	Inhibits Beam to User	P4EK PFN Cable short and replacement [ES/PS]
					104520		06/08/03 09:27	06/08/03 10:24		0.95	Unidentified	DIAG	DIAG	Inhibits Beam to User	Continued recovery from beam loss [DIAG]
20	06/08/03 10:24	06/09/03 08:00	21.60	Int Dump: End of Period			06/09/03 07:59	06/09/03 07:59	0.00	0.00	Scheduled				
			<b>121.15</b>						<b>22.85</b>	<b>22.85</b>					
21	06/11/03 08:00	06/11/03 17:40	9.67	RF3 hvps trip [RF]	104524		06/11/03 17:40	06/11/03 18:52	1.20	1.20	RF	RF	RF	Store Lost	RF3's HVPS tripped on a Heater Under Current, Waveguide Switch [RF]
22	06/11/03 18:52	06/15/03 12:24	89.53	RF2 PwrMon. trip [RF]	104528		06/15/03 12:24	06/15/03 12:52	0.47	0.47	RF	RF	RF	Store Lost	RF2 Power Monitor Trip [ RF]
23	06/15/03 12:52	06/17/03 07:59	43.12	Int Dump: End of Period			06/17/03 07:59	06/17/03 07:59	0.00	0.00	Scheduled				
			<b>142.32</b>						<b>1.67</b>	<b>1.67</b>					
							06/17/03 16:00	06/17/03 16:28	0.47						
					104530		06/17/03 16:00	06/17/03 16:15		0.25	ES/PS	PS	ES	Inhibits Beam to User	Converter swap,conditioning [ES]
							06/17/03 16:15	06/17/03 16:28		0.22	DIAG	DIAG	DIAG	Inhibits Beam to User	Orbit problem[DIAG]
24	06/17/03 16:28	06/17/03 18:43	2.25	Rad.mon. fault [HP]	104532		06/17/03 18:43	06/17/03 19:05	0.37	0.37	HP/Intlk	Intlk/Rad	HP	Store Lost	Rad. mon. #6 fault [HP]
25	06/17/03 19:05	06/18/03 01:22	6.28	20BM EPS fault [ES]	104533		06/18/03 01:22	06/18/03 04:20	2.97	2.97	ES/Intlk	Intlk/Beamline	ES	Store Lost	20BM EPS fault/UPS receptacle failure [ES]
26	06/18/03 04:20	06/18/03 17:57	13.62	RTFB problem [DIA]	104534		06/18/03 17:57	06/18/03 18:18	0.35	0.35	DIAG	DIAG	DIAG	Store Lost	RTFB problem [DIA]
27	06/18/03 18:18	06/23/03 08:00	109.70	Int Dump: End of Period			06/23/03 08:00	06/23/03 08:00	0.00	0.00	Scheduled				
			<b>131.85</b>						<b>4.15</b>	<b>4.15</b>					
					104536		06/25/03 08:00	06/25/03 08:28	0.47	0.47	RF	RF	RF	Inhibits Beam to User	Storage Ring RF4 tripped on klystron beam O.I. [RF]
28	06/25/03 08:28	06/25/03 20:47	12.32	S40B:Q1 failure [ES]	104537		06/25/03 20:47	06/25/03 21:24	0.62	0.62	ES/PS	PS	ES	Store Lost	S40B:Q1 tripped on IGBT I Diode OT; converter swap, conditioning [ES]
29	06/25/03 21:24	06/30/03 10:49	109.42	S32A:V3 glitch [DIAG]	104538		06/30/03 10:49	06/30/03 11:08	0.32	0.32	DIAG	DIAG	DIAG	Store Lost	S32A:V3 glitch; refill [DIAG]
30	06/30/03 11:08	06/30/03 19:28	8.33	RTFB problem [DIA]	104539		06/30/03 19:28	06/30/03 19:45	0.28	0.28	DIAG	DIAG	DIAG	Store Lost	RTFB glitch [DIAG]
31	06/30/03 19:45	07/01/03 15:56	20.18	S32A:V3 glitch [DIAG]	104541		07/01/03 15:56	07/01/03 16:08	0.20	0.20	DIAG	DIAG	DIAG	Store Lost	S32A:V3 glitch; refill [DIAG]
32	07/01/03 16:08	07/03/03 21:36	53.47	Rad. Mon. trip [HP]	104543		07/03/03 21:36	07/03/03 22:09	0.55	0.55	HP/Intlk	Intlk/Rad	HP	Store Lost	SR Septum Rad.Mon. "Top" fault [HP]
							07/03/03 22:09	07/03/03 22:33	0.40	0.40	Other	Other	Other	Inhibits Beam to User	Short lived fill; this portion of downtime belongs to the Power Bump [Other]
					104544		07/03/03 22:33	07/04/03 08:00	9.45	9.45	Other	Other	Other	Inhibits Beam to User	Power Bump; transformer T7 trip on overcurrent [Other]
			<b>203.72</b>						<b>12.28</b>	<b>12.29</b>					

## Downtime for Run 2003-2

Fill #	Start	End	Length	Loss Reason	DIN #	Audit	Start	End	User Length	System Length	Cause	System	Group	Type	Description
34	07/05/03 08:00	07/05/03 09:51	1.85	Power bump [Other]			07/05/03 09:51	07/05/03 11:48	1.95						
					104546		07/05/03 09:51	07/05/03 10:25		0.57	Other	Other	Other	Store Lost	Power bump [Other]
							07/05/03 10:25	07/05/03 11:23		0.97	HP/Intlk	Intlk/Rad	HP	Inhibits Beam to User	Short lived fill; this portion of downtime belongs to 15ID Rad.Mon. [Other]
					104547		07/05/03 11:23	07/05/03 11:48		0.42	HP/Intlk	Intlk/Rad	HP	Inhibits Beam to User	15ID Radiation Monitor trip [HP]
36	07/05/03 11:48	07/07/03 16:00	52.20	Int Dump: End of Period			07/07/03 16:00	07/07/03 16:00	0.00	0.00	Scheduled				
			<b>54.05</b>						<b>1.95</b>	<b>1.95</b>					
37	07/08/03 08:00	07/08/03 21:36	13.60	Ukn beam motion [UKN]			07/08/03 21:36	07/09/03 00:04	2.47						Inj. tuning,convertor swap,lost again[OAG],refill
					104550		07/08/03 21:36	07/08/03 21:43		0.12	Unidentified	Unidentified	Unidentified	Store Lost	Unknown beam motion [Unidentified]
					104550		07/08/03 21:43	07/08/03 21:53		0.17	PHY	PHY	PHY	Inhibits Beam to User	Switch from PC Gun to RF Gun [Physics]
					104550		07/08/03 21:53	07/08/03 22:37		0.73	ES/PS	PS	ES	Inhibits Beam to User	S39A:Q3 swapout, S19B:MT readback problem [ES/PS]
					104550		07/08/03 22:37	07/08/03 23:00		0.38	Unidentified	Unidentified	Unidentified	Inhibits Beam to User	Continuation of recovery from unknown beam motion [Unidentified]
							07/08/03 23:00	07/08/03 23:27		0.45	OAG/Software	Software/OAG	OAG	Inhibits Beam to User	Beam retained for less than one hour [OAG]
					104551		07/08/03 23:27	07/09/03 00:04		0.62	OAG/Software	Software/OAG	OAG	Inhibits Beam to User	RTFB loops closed while changing cogging state [OAG]
40	07/09/03 00:04	07/13/03 11:55	107.85	Rad. mon. fault [HP]			07/13/03 11:55	07/13/03 12:31	0.60						
					104552		07/13/03 11:55	07/13/03 12:04		0.15	HP/Intlk	Intlk/Rad	HP	Store Lost	10ID Rad Monitor trip [HP]
					104552		07/13/03 12:04	07/13/03 12:12		0.13	CTL	CTL	CTL	Inhibits Beam to User	Reboot of IOCS23VP [CTL]
					104552		07/13/03 12:12	07/13/03 12:31		0.32	HP/Intlk	Intlk/Rad	HP	Inhibits Beam to User	Continuation of recovery from rad. Mon. trip [HP]
50	07/13/03 12:31	07/14/03 07:59	19.47	Int Dump: End of Period			07/14/03 07:59	07/14/03 07:59	0.00	0.00	Scheduled				
			<b>140.92</b>						<b>3.07</b>	<b>3.07</b>					
55	07/16/03 08:00	07/16/03 11:46	3.77	13 BM PSS trip [ES]	104555		07/16/03 11:46	07/16/03 12:17	0.52	0.52	ES/Intlk	Intlk/Beamline	ES	Store Lost	13 BM PSS trip [ES]
56	07/16/03 12:17	07/17/03 15:49	27.53	S23AV3/RTFB problem [DIAG]			07/17/03 15:49	07/17/03 19:39	3.83						
					104556		07/17/03 15:49	07/17/03 15:54		0.08	DIAG	DIAG	DIAG	Store Lost	S23AV3/RTFB problem [ES]
							07/17/03 15:54	07/17/03 16:02		0.13	CTL	CTL	CTL	Inhibits Beam to User	Reboot of IOCS23VP [CTL]
					104556		07/17/03 16:02	07/17/03 16:27		0.42	DIAG	DIAG	DIAG	Inhibits Beam to User	Continuation of recovery from S23AV3/RTFB problem [ES]
							07/17/03 16:27	07/17/03 17:07		0.67	Other	Other	Other	Inhibits Beam to User	Beam retained for less than one hour [OPS]
					104557		07/17/03 17:07	07/17/03 19:39		2.53	Other	Other	Other	Inhibits Beam to User	Off-site Power sag [Other]
58	07/17/03 19:39	07/19/03 02:36	30.95	MPS card failure [CTL]	104558		07/19/03 02:36	07/19/03 05:28	2.87	2.87	CTL	CTL	CTL	Store Lost	MPS Latch Card Failure and swapout of its 5V Exts. P.S. [CTL]
59	07/19/03 05:28	07/19/03 12:24	6.93	S22:23 Raw Supply [ES]	104559		07/19/03 12:24	07/19/03 12:57	0.55	0.55	ES/PS	PS	ES	Store Lost	S22:23 raw P.S. trip reset and restoring communications with correctors [ES]
60	07/19/03 12:57	07/19/03 21:23	8.43	Network storm [Network]	104560		07/19/03 21:23	07/19/03 22:23	1.00	1.00	Network	Network	Network	Store Lost	Complications during network storm [Network]
61	07/19/03 22:23	07/20/03 20:56	22.55	S17FBIOC reboot [OPS]	104562		07/20/03 20:56	07/20/03 21:14	0.30	0.30	OPS	OPS	OPS	Store Lost	Human error during reboot procedure [OPS]
62	07/20/03 21:14	07/21/03 02:45	5.52	Lightning strike [OTHER]	104563		07/21/03 02:45	07/21/03 03:15	0.50	0.50	Other	Other	Other	Store Lost	Recovery of RF & PS after lightning strike [Other]
63	07/21/03 03:15	07/21/03 10:27	7.20	MPEOB intlk problem [ES]	104564		07/21/03 10:27	07/21/03 12:35	2.13	2.13	ES/PS	PS	ES	Store Lost	Investigation, Repair of solder joint for 24V supply in RR, magnet conditioning, refill
64	07/21/03 12:35	07/22/03 07:59	19.40	Int Dump: End of Period			07/22/03 07:59	07/22/03 07:59	0.00	0.00	Scheduled				
			<b>132.28</b>						<b>11.70</b>	<b>11.70</b>					
65	07/22/03 16:00	07/23/03 04:47	12.78	RF-4 Pwr. Monitor Trip	104568		07/23/03 04:47	07/23/03 05:03	0.27	0.27	RF	RF	RF	Store Lost	RF-4 Pwr. Monitor Trip
66	07/23/03 05:03	07/28/03 07:59	122.93	Int Dump: End of Period			07/28/03 07:59	07/28/03 07:59	0.00	0.00	Scheduled				
			<b>135.72</b>						<b>0.27</b>	<b>0.27</b>					
67	07/30/03 08:00	08/02/03 18:39	82.65	RF2 hybrid flow fit [ME]	104573		08/02/03 18:39	08/02/03 20:00	1.35	1.35	Water/ME	Water/ME	Water/ME	Store Lost	Valve solenoid reset [ME]
68	08/02/03 20:00	08/03/03 17:52	21.87	RF2 Xformer fit [OTHER]	104574		08/03/03 17:52	08/04/03 00:19	6.45	6.45	Other	Other	Other	Store Lost	Weather related RF2 Xformer fit, switched 13.2kv feed & providing RF sys [Other]
69	08/04/03 00:19	08/05/03 07:59	31.67	Int Dump: End of Period			08/05/03 07:59	08/05/03 07:59	0.00	0.00	Scheduled				
			<b>136.18</b>						<b>7.80</b>	<b>7.80</b>					
70	08/05/03 16:00	08/06/03 06:23	14.38	33ID rad.mon.fault [HP]	104577		08/06/03 06:23	08/06/03 06:32	0.15	0.15	HP/Intlk	Intlk/Rad	HP	Store Lost	33ID rad.mon.fault [HP]
71	08/06/03 06:32	08/11/03 07:59	121.45	Int Dump: End of Period			08/11/03 07:59	08/11/03 07:59	0.00	0.00	Scheduled				
			<b>135.83</b>						<b>0.15</b>	<b>0.15</b>					
72	08/13/03 08:00	08/14/03 20:32	36.53	IOCS23FB reboot [CTL]			08/14/03 20:32	08/14/03 21:05	0.55						
					104582		08/14/03 20:32	08/14/03 20:48		0.27	CTL	CTL	CTL	Store Lost	Differences in Maintenance & Operations setpoints when rebooting of IOCS23FB [CTL]
					104582		08/14/03 20:48	08/14/03 21:00		0.20	OAG/Software	Software/OAG	OAG	Inhibits Beam to User	Datapool orbit correction error [OAG]
					104582		08/14/03 21:00	08/14/03 21:05		0.08	CTL	CTL	CTL	Inhibits Beam to User	Continuation of original fault [CTL]
73	08/14/03 21:05	08/15/03 14:12	17.12	S38 tuner temp fit [RF]	104583		08/15/03 14:12	08/15/03 14:30	0.30	0.30	RF	RF	RF	Store Lost	S38 tuner temp fit [RF]
74	08/15/03 14:30	08/18/03 15:59	73.48	Int Dump: End of Period			08/18/03 15:59	08/18/03 15:59	0.00	0.00	Scheduled				
			<b>127.13</b>						<b>0.85</b>	<b>0.85</b>					

### Downtime for Run 2003-2

Fill #	Start	End	Length	Loss Reason	DIN #	Audit	Start	End	User Length	System Length	Cause	System	Group	Type	Description
75	08/19/03 08:00	08/21/03 07:51	47.85	S38 C1 Temp trip [RF]			08/21/03 07:51	08/21/03 09:45	1.90						
					104585		08/21/03 07:51	08/21/03 08:16		0.42	RF	RF	RF	Store Lost	S38 tuner temp fit [RF]
							08/21/03 08:16	08/21/03 09:09		0.88	RF	RF	RF	Inhibits Beam to User	Beam retained for less than one hour.
					104586		08/21/03 09:09	08/21/03 09:45		0.60	RF	RF	RF	Inhibits Beam to User	S38 tuner temp fit, interlock bypass [RF]
81	08/21/03 09:45	08/21/03 14:06	4.35	IOC S25FB [OPS]			08/21/03 14:06	08/21/03 14:37	0.52						
					104587		08/21/03 14:06	08/21/03 14:21		0.26	OPS	OPS	OPS	Store Lost	Error in RTFB Reboot procedure [OPS]
					104587		08/21/03 14:21	08/21/03 14:37		0.26	CTL	CTL	CTL	Inhibits Beam to User	Software bug when switching between P.S. modes [CTL]
82	08/21/03 14:37	08/21/03 22:16	7.65	Pwr sag ComEd [other]	104588		08/21/03 22:16	08/21/03 23:10	0.90	0.90	Other	Other	Other	Store Lost	Recovery from Power bump [Other]
84	08/21/03 23:10	08/25/03 23:59	96.82	Int Dump: End of Period			08/25/03 23:59	08/25/03 23:59	0.00	0.00	Scheduled				
			<b>156.67</b>						<b>3.32</b>	<b>3.32</b>					