

Listing of Statistics for Run4-1998

Total Amount of User Time in this interval 1152.19 Hours

User periods in this interval

08/03/1998 08:00	To	08/10/1998 08:04	168.07	Hours
08/11/1998 08:01	To	08/17/1998 08:00	143.99	Hours
08/18/1998 08:00	To	08/24/1998 07:59	143.98	Hours
08/25/1998 08:01	To	08/31/1998 08:12	144.19	Hours
09/01/1998 08:00	To	09/07/1998 07:59	143.99	Hours
09/08/1998 08:01	To	09/14/1998 08:01	144.00	Hours
09/15/1998 08:00	To	09/21/1998 08:00	143.99	Hours
09/22/1998 08:00	To	09/27/1998 08:00	119.99	Hours

Delivered Beam	1076.88	Hours
Percentage of Scheduled Time	93.46	%
Downtime During Period	75.31	Hours
Percentage of scheduled time SR current > 10 ma	95.52	%
Average Delivered Current During This Period	78.16	ma
Total integrated Current During This Period	84.17	A-hr

Data from an on going fill (if one exists) is not used in Fill length calculations.

Mean Fill Duration in Period	33.65	Hours
Mean Fill Duration from Poisson Fit	35.18	Hours
Mean Time Between Faults (MTBF)	34.74	Hours
Faults per Day of Delivered Beam	0.69	

Valid fills Beginning in this Time Interval				Reason for Fill Termination	Length	Downtime is associated with the end of a fill.
Fill#	Start	End	Duration		of Downtime	The first fill of a period will have any downtime before the fill on the line above.

#	1	08/03 08:00	To	08/03 13:50	5.83	S1A:Q4 glitch	[PS]	0.00	0.76 par harmonic cavity work underway, ID IOC reboot
#	2	08/03 14:35	To	08/03 19:27	4.87	S1A:Q4 glitch	[PS]	1.22 Rad Monitor Reset IOCRunControl problems	
#	3	08/03 20:40	To	08/04 07:45	11.07	Int Refill: Low Current		0.18	
#	4	08/04 07:56	To	08/05 06:44	22.80	S1A:Q4 glitch	[PS]	1.01 subsequent bpld and rad mon trip while injecting	
#	5	08/05 07:44	To	08/05 11:57	4.21	S1A:Q4 glitch	[PS]	0.59 problems injecting	
#	6	08/05 12:32	To	08/05 18:41	6.15	S22A:Q3 ps trip	[PS]	4.89 problems replacing this and converters	
#	7	08/05 23:34	To	08/06 07:45	8.17	Int Refill: Low Current		0.09	
#	8	08/06 07:50	To	08/07 09:50	25.99	Int Refill: Low Current		0.34 orbit correction	
#	9	08/07 10:10	To	08/08 07:44	21.57	Int Refill: Low Current		0.49 Low injection efficiency	
#	10	08/08 08:13	To	08/08 15:03	6.82	S8A:Q1 trip	[PS]	3.65 Repair of S8A:Q1 and SR Dipole	
#	11	08/08 18:42	To	08/09 07:44	13.04	Int Refill: Low Current		0.11	
#	12	08/09 07:51	To	08/10 08:04	24.22	Int Dump: End of Period		0.00	

#	14	08/11 08:07	To	08/12 07:44	23.62	Int Refill: Low Current		0.10	1.33 BTS PS hampered injection efficiency
#	15	08/12 09:03	To	08/13 07:44	22.67	Int Refill: Low Current		0.17	
#	16	08/13 07:54	To	08/13 20:42	12.80	ComEd Power	[OTH]	2.03 Recovery of systems from ComEd transient	
#	17	08/13 22:43	To	08/14 07:45	9.02	Int Refill: Low Current		0.19	
#	18	08/14 07:56	To	08/14 13:35	5.64	RF2 crowbar	[RF]	2.30 PSS trip took ring down after enabling shutters	

# 20	08/14	15:53	To	08/15	07:44	15.85	Int Refill: Low Current	0.13
# 21	08/15	07:52	To	08/16	07:45	23.88	Int Refill: Low Current	0.37 FOF had BPLD trip, refilled from 0mA
# 22	08/16	08:07	To	08/17	07:59	23.87	Int Dump: End of Period	0.02
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# 23	08/18	08:00	To	08/18	10:35	2.57	Shutter test switch[OTH]	0.00
# 24	08/18	12:56	To	08/18	15:09	2.22	RF4 arc detector [RF]	2.35 RF2 trips during refill
# 25	08/18	15:27	To	08/19	07:45	16.30	Int Refill: Low Current	0.30
# 26	08/19	07:54	To	08/20	07:45	23.85	Int Refill: Low Current	0.15
# 27	08/20	08:06	To	08/21	08:00	23.90	Int Refill: Low Current	0.35 Refilled from 0mA for bunch purity
# 28	08/21	08:15	To	08/22	08:00	23.75	Int Refill: Low Current	0.25
# 29	08/22	08:07	To	08/23	07:45	23.63	Int Refill: Low Current	0.12
# 30	08/23	07:53	To	08/24	07:59	24.10	Int Dump: End of Period	0.13
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# 31	08/25	08:01	To	08/25	17:55	9.89	IOC reboot [CTL]	0.01
# 32	08/25	18:24	To	08/26	07:44	13.33	Int Refill: Low Current	0.48 recovery, injection problems
# 33	08/26	07:53	To	08/27	03:17	19.41	RF#3 trip [RF]	0.15
# 34	08/27	03:43	To	08/27	07:44	4.03	Int Refill: Low Current	0.42 gather requested PS data
# 35	08/27	08:09	To	08/28	07:45	23.59	Int Refill: Low Current	0.42 BPLD trip while filling
# 36	08/28	09:13	To	08/29	07:44	22.52	Int Refill: Low Current	1.47 RF problems after RF system switch
# 37	08/29	07:56	To	08/30	07:48	23.88	Int Refill: Low Current	0.19
# 38	08/30	14:49	To	08/31	03:44	12.92	BPLD trip [RF]	7.01 S28A:S4 converter swap, SR dipole, PS comm problem
# 39	08/31	04:38	To	08/31	08:00	3.36	Int Dump: End of Period	0.91 problem injecting, rf phasing problems
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# 40	09/01	08:02	To	09/01	18:38	10.60	rf#2 [RF]	0.02
# 41	09/01	20:35	To	09/02	05:08	8.55	SR dipole trip [PS]	1.96 waveguide switch, problems with orbit correction
# 42	09/02	08:38	To	09/03	07:44	23.10	Int Refill: Low Current	3.50 recovery, problems tuning, rf#3 trip
# 43	09/03	08:17	To	09/03	17:55	9.65	rf#4 Relay S40 Cav [RF]	0.54 slow injection, rf3 trip
# 44	09/03	18:53	To	09/04	07:45	12.88	Int Refill: Low Current	0.95 bunch purity problem, rf3 trip while injecting
# 45	09/04	07:55	To	09/04	12:46	4.85	SR dipole trip [PS]	0.17
# 46	09/04	13:52	To	09/05	04:47	14.91	S25B:V3 to 0 amps [PS]	1.10 recovery
# 47	09/05	05:06	To	09/06	07:45	26.65	Int Refill: Low Current	0.32
# 48	09/06	08:57	To	09/07	02:19	17.36	Power Outage [OTH]	1.20 S19A:S3 converter swap
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# 49	09/08	08:01	To	09/08	14:58	6.95	3ID BPLD (RTF) [DIA]	0.00
# 50	09/08	16:35	To	09/08	17:36	1.02	3ID BPLD (RTF) [DIA]	1.62 bunch clock mod replace, rf related instabilities
# 51	09/08	17:56	To	09/09	07:45	13.81	Int Refill: Low Current	0.34 recovery
# 52	09/09	08:24	To	09/10	07:44	23.35	Int Refill: Low Current	0.65 3ID BPLD trip, RF2 trip, 80mA oscillation
# 53	09/10	07:59	To	09/10	21:00	13.01	SR Dipole Supply [PS]	0.24 5ID BPLD trip, 70mA oscillation
# 54	09/10	22:38	To	09/11	08:05	9.45	Int Refill: Low Current	1.63 recovery, S12A:H2 converter swap
# 55	09/11	08:18	To	09/12	07:44	23.44	Int Refill: Low Current	0.21
# 56	09/12	07:52	To	09/13	07:44	23.87	Int Refill: Low Current	0.14
# 57	09/13	08:32	To	09/13	11:48	3.27	SR Dipole Supply [PS]	0.79 beam inst, rf2 trip, ID-08 gap
# 58	09/13	13:41	To	09/14	08:01	18.33	Int Dump: End of Period	1.89 recovery, IOC problem, rf12 recovery, rf2 problems
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# 60	09/15	08:11	To	09/16	07:44	23.54	Int Refill: Low Current	0.00
# 61	09/16	08:37	To	09/17	07:44	23.13	Int Refill: Low Current	0.18
# 62	09/17	08:05	To	09/17	23:32	15.44	[PS]	0.88 S19B:S3 converter replacement
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# 63	09/17	08:37	To	09/17	11:48	15.44	Int Dump: End of Period	0.35 dumped beam to improve bunch purity
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# 64	09/17	13:41	To	09/18	08:01	18.33	Power Outage [OTH]	0.37 recovery

# 63	09/17	23:54	To	09/18 07:45	7.85	Int Refill: Low Current	0.14
# 64	09/18	07:54	To	09/19 07:45	23.86	Int Refill: Low Current	0.13
# 65	09/19	07:53	To	09/19 21:02	13.14	P0 lost sync [CTL]	0.40	recovery
# 66	09/19	21:26	To	09/20 07:45	10.32	Int Refill: Low Current	0.10
# 67	09/20	07:51	To	09/20 15:19	7.47	Power line glitch [OTH]	0.57	recovery
# 68	09/20	15:53	To	09/21 08:00	16.11	Int Dump: End of Period	0.00
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# 69	09/22	08:31	To	09/22 19:45	11.23	Int Refill: Low Current	0.51	par rf timing problem, rt fdbk problem
# 70	09/22	20:37	To	09/22 22:11	1.57	rf3 trip [RF]	0.87	trouble injecting from par, rf3 cav 1 OverPower trip
# 71	09/22	22:41	To	09/23 07:45	9.07	Int Refill: Low Current	0.49	recovery
# 72	09/23	07:59	To	09/23 14:23	6.40	rf3 trip [RF]	0.24
# 73	09/23	15:24	To	09/23 19:45	4.34	Int Refill: Low Current	1.02	repair/recovery
# 74	09/23	19:51	To	09/24 07:45	11.89	Int Refill: Low Current	0.11
# 75	09/24	07:53	To	09/24 10:40	2.78	S37B:S3 OI trip [PS]	0.14
# 76	09/24	12:25	To	09/24 19:46	7.35	Int Refill: Low Current	1.75	repair, delay due to incorrect initial diagnosis
# 77	09/24	20:35	To	09/25 03:45	7.16	S13A:Q5 ps trip [PS]	0.82	cap off the S33A:MT water supply hoses
# 78	09/25	06:16	To	09/25 09:00	2.73	Int Dump: End of Period	2.52	recovery, ps tech called in to resolve problem
# 79	09/25	12:25	To	09/25 12:31	0.11	sec 36,38 cav power [RF]	3.41	visit by dignitary
# 80	09/25	13:26	To	09/25 19:45	6.31	Int Refill: Low Current	0.91	recovery, restart injectors
# 81	09/25	20:54	To	09/26 07:44	10.84	Int Refill: Low Current	1.14
# 82	09/26	07:55	To	09/26 19:44	11.82	Int Refill: Low Current	0.18
# 83	09/26	19:58	To	09/27 07:59	12.02	Int Dump: End of Period	0.23
							0.01