

# FY05 NSTX RUN LOG

FY 05 Run started on April 14, 2005 and completed on September 13, 2005  
 FY 2005 Joule Milestone: 17 weeks  
 Completed: 17.97 weeks, producing 2221 plasmas.

<u>Date</u>	<u>Run Time (Daily hrs)</u>	<u>Accumulated FY Run Time (hrs)</u>	<u>Accumulated FY Run Weeks (40 hours / week)</u>	<u>Plasma Attempts</u>	<u>Plasma Achieved</u>	<u>Experimental Topics</u>	<u>XP/XMP #</u>
4/14/05	7.1	7.1	0.18	9	6	NSTX Plasma Control	XMP-20
<b>Week's End</b>		<b><u>7.1</u></b>	<b><u>0.18</u></b>				
4/25/05	8.87	15.97	0.40	19	15	Hot Boronization Eval	XMP-38
4/26/05	11.05	27.02	0.68	33	28	Long-Pulse DN Plasmas	XP-508
4/27/05	9.28	36.3	0.91	32	25	Supersonic Gas Injector	XP-516
4/28/05	9.4	45.7	1.14	39	35	MSE Calib with NBI	XMP-33
4/29/05	8.31	54.01	1.35	35	24	MSE Calib with NBI / Supersonic Gas Injector	XMP-33 / XP- 526
<b>Week's End</b>		<b><u>54.01</u></b>					
5/2/05	8.87	62.88	1.57	15	11	Lithium Pellet Injection	XP-515
5/3/05	9.32	72.2	1.81	18	11	High-Performance LSN	XP-507
5/4/05	6.9	79.1	1.98	22	17	Ohmic H-mode	XP-506
5/5/05	10.7	89.8	2.25	44	41	Fast reciprocating probe	XP-523
5/6/05	9.59	99.39	2.48	30	26	Fast reciprocating probe / DN with new PF 1A	XP-523 / XP- 508
<b>Week's End</b>		<b><u>99.39</u></b>					
5/9/05	8.46	107.85	2.70	22	18	DN with new PF 1A	XP-508
5/10/05	10.95	118.8	2.97	23	20	High-Performance LSN	XP-507
5/11/05	9.74	128.54	3.21	29	21	Stability limit with DN with new PF 1A	XP-502
5/12/05	9.22	137.76	3.44	28	27	Electron transport with reversed shear	XP-522
5/13/05	9.55	147.31	3.68	22	20	SN-Long-Pulse Dischs. / DN with new PF 1A	XP-507 / XP- 508
<b>Week's End</b>		<b><u>147.31</u></b>					
5/16/05	9.25	156.56	3.91	28	28	DN with new PF 1A	XP-508
5/17/05	10.82	167.38	4.18	38	31	Electron transport with reversed shear	XP-522
5/18/05	9.29	176.67	4.42	19	17	DN with new PF 1A	XP-508
5/19/05	11.61	188.28	4.71	31	29	Stability limit with DN with new PF 1A	XP-502
5/20/05	7.1	195.38	4.88	32	28	CHI Operation / Electron transpnt with RS	XMP-39 / XP- 522
<b>Week's End</b>		<b><u>195.38</u></b>					
5/31/05	8.52	203.9	5.10	24	21	CHI Operation	XMP-39
6/1/05	9.47	213.37	5.33	28	26	EF-RWM Coil Reponse / EF and locked mode	XMP-37 / XP- 503
6/2/05	11.53	224.9	5.62	35	33	High beta-p with current ramp-down	XP-528
6/3/05	9.7	234.6	5.87	30	30	Outboard Divertor Detouchement with NBI	XP-520
<b>Week's End</b>		<b><u>234.6</u></b>					
6/6/05	9.23	243.83	6.10	31	27	Error-Field and Locked Modes studies / RWM Spectroscopy	XP-503 / XP- 501
6/7/05	8.92	252.75	6.32	27	22	RWM Spectroscopy	XP-501
6/8/05	8.73	261.48	6.54	23	21	RWM Spectroscopy / Active RWM rotation control	XP-501 / XP- 524
6/9/05	5.31	266.79	6.67	4	4	Ohmic H-modes	XP-506
6/10/05	9.48	276.27	6.91	41	40	Transient CHI Start-up	XP-531
<b>Week's End</b>		<b><u>276.27</u></b>					

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6/13/05	11.3	287.57	7.19	33	31	Stability limit with DN with new PF 1A	XP-502
6/14/05	9.55	297.12	7.43	22	20	Long-Pulse LSN	XP-507
6/15/05	9.55	306.67	7.67	40	36	HHFW High Power	XMP-26
6/16/05	11.37	318.04	7.95	48	46	HHFW High Power	XMP-26
6/17/05	9.65	327.69	8.19	38	34	HHFW Current ramp-up	XP-521
<b>Week's End</b>		<b>327.69</b>					
6/20/05	8.98	336.67	8.42	23	22	rtEFIT development / Divertor detouchment	XMP-32 / XP-520
6/21/05	10.95	347.62	8.69	48	43	HHFW heating efficiency / MSE Calibration	XP-527 / XMP-33
6/22/05	8.86	356.48	8.91	49	45	Optimize CHI breakdown	XMP-39
6/23/05	9.28	365.76	9.14	23	19	MSE Calib with NBI / Rotation damp in RWM	XMP-33 / XP-524
6/24/05	8.28	374.04	9.35	46	39	Transient CHI start-up	XP-531
<b>Week's End</b>		<b>374.04</b>					
7/5/05	1.69	375.73	9.39	0	0	Power supply problem	
7/6/05	9.17	384.9	9.62	29	26	Long-pulse DN plasmas	XP-508
7/7/05	10.71	395.61	9.89	44	39	TAE vs q and grad q	XP-617
7/8/05	9.71	405.32	10.13	29	27	Rotation damp in RWM	XP-524
<b>Week's End</b>		<b>405.32</b>					
7/11/05	9.56	414.88	10.37	31	29	Electron transport with reversed shear	XP-522
7/12/05	11.6	426.48	10.66	54	48	Lithium Pellet Injection	XP-515
7/13/05	9.44	435.92	10.90	30	28	EF/RWM ELM mitigation	XP-525
7/14/05	11.13	447.05	11.18	47	43	Lithium Pellet Injection	XP-515
7/15/05	9.55	456.6	11.42	29	29	EF/RWM ELM mitigation	XP-525
<b>Week's End</b>		<b>456.6</b>					
7/18/05	6.97	463.57	11.59	24	23	Electron transport with reversed shear	XP-522
7/19/05	10.87	474.44	11.86	39	36	EF and locked modes	XP-503
7/20/05	8.75	483.19	12.08	37	35	HHFW Coupling / OH H-mode	XP-527 / XP-506
7/21/05	10.71	493.9	12.35	31	29	NSTX-DIII-D RWM Similarity Exp	XP-512
7/22/05	8.24	502.14	12.55	33	28	NSTX-DIII-D RWM Similarity Exp / X-ray Crystal Spectrometer	XP-512 / XMP-40
<b>Week's End</b>		<b>502.14</b>					
7/25/05	9.2	511.34	12.78	27	23	High beta with new PF 1A / Early H-mode	XP-502 / XP-508
7/26/05	9.85	521.19	13.03	38	36	High beta with new PF 1A / Early H-mode / Long pulse in LSN	XP-502 / XP-508 / XP-507
7/27/05	8.92	530.11	13.25	31	28	ELM characterization	XP-530
7/28/05	9.59	539.7	13.49	28	25	Long-Pulse Plasmas at Lower Toroidal Fields	XP-509
7/29/05	9.32	549.02	13.73	42	41	Transient CHI	XP-531
<b>Week's End</b>		<b>549.02</b>					
8/8/05	9.59	558.61	13.97	25	24	iITB identity Experiment	XP-513
8/9/05	11.52	570.13	14.25	39	38	Outer PF Start-up / Early H-Modes	XP-510 / XP-507
8/10/05	7.99	578.12	14.45	30	30	HHFW Current Ramp-up	XP-521
8/11/05	7.76	585.88	14.65	25	20	Rotation damp in RWM	XP-524
8/12/05	7.77	593.65	14.84	28	25	CHI added to induction / Merging Start-up	XP-533 / XP-511
<b>Week's End</b>		<b>593.65</b>					
8/15/05	8.15	601.8	15.05	23	19	H-mode pedetsal with Aspect Ratio	XP-529
8/16/05	11.52	613.32	15.33	36	35	L-H Power Threshold-NBI	XP-505

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8/17/05	9.23	622.55	15.56	35	31	L-H Power Threshold- HHFW / Electron transport with pellet	XP-505 / XP- 534
8/18/05	7.68	630.23	15.76	26	20	ELMs and Confinement with plasma shape	XP-526
8/19/05	9.65	639.88	16.00	44	40	CHI added to induction / Merging Start-up	XP-533 / XP- 511
<b><u>Week's End</u></b>		<b><u>639.88</u></b>					
8/22/05	6.33	646.21	16.16	25	22	Elect trap with pellet / ELM heat pulse	XP-534 / XP- 539
8/23/05	11.12	657.33	16.43	50	47	HHFW-CD with MSE / HHFW heating with RS	XP-537 / XP- 538
8/24/05	8.94	666.27	16.66	31	28	EBW Emission / SGI fueling	XP-514 / XP- 531
8/25/05	9.75	676.02	16.90	59	55	Transient CHI	XP-531
8/26/05	9.28	685.3	17.13	46	42	Transient CHI	XP-531
<b><u>Week's End</u></b>		<b><u>685.3</u></b>					
9/6/05	6.79	692.09	17.30	24	16	Moveable Glow Probe / Long-pulse DN plasmas	XMP-43 / XP- 508
9/7/05	0	692.09	17.30	0	0	OH Feed water leak	
9/8/05	8.82	700.91	17.52	48	46	MSE Calib with NBI	XMP-33
9/9/05	9.61	710.52	17.76	45	42	Transient CHI	XP-531
<b><u>Week's End</u></b>		<b><u>710.52</u></b>					
9/12/05	2.05	712.57	17.81	6	6	Magnetic Calibration / Moveable Glow Probe /	XMP-3 / XMP-43 / XP-
9/13/05	6.28	718.85	17.97	27	25	Transient CHI	531
<b><u>Run Completed</u></b>		<b><u>718.85</u></b>				Transient CHI	XP-531
<b><u>Totals</u></b>		<b><u>718.85</u></b>	<b><u>17.97</u></b>	<b><u>2476</u></b>	<b><u>2221</u></b>		
		Run Hours	Run Weeks	Attempts	Plasmas		