

NSTX Operation FY'04

<u>Week</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
Feb 17, 03 – Jan 11, 04	Outage for TF Repair				
Jan 12 – 16	TF coil reassembled	Buswork reconnection and checkout			ISTP-1 TF tested to 53kA
Jan 19 – 23	ISTP-1 PF coil tests	ISTP-1 Combined fields First Plasma	MP-2 ⁹ Control system MPTS alignment	MP-2 ⁴ Control system (MG breaker trip)	Rayleigh scattering
Jan 26 – 30	MP-24 ²⁷ rtEFIT develop't	XP-416 ³⁴ Edge rotation	MP-24 ¹³ rtEFIT develop't (N ₂ event)	MP-24 ¹⁴ rtEFIT develop't First NBI	MP-24 ¹⁶ rtEFIT develop't Boronization 20
Feb 2 – 6	MP-24 ³⁰ rtEFIT develop't	XP-421 ⁸ High β (high κ) Boronization 21	XP-421 ²³ High β	XP-421 ³⁵ High β $\beta_T = 37\%$	XP-414 ²² High β_N rampdown $\beta_N = 7$
Feb 9 – 13	Maintenance Week				
Feb 16 – 20	MP-3 ²⁰ Magnetics calib'n MP-6 ¹⁹ HHFW cond'n	XP-415 ²⁵ Mode locking	XP-418 ²⁵ MAST H-mode comparison	XP-418 ²³ MAST H-mode comparison	MP-6 ³⁴ HHFW cond'n Boronization 22
Feb 23 – 27	XP-421 ²² High β	XP-421 ¹⁸ High β	XP-414 ²² High β_N rampdown	XP-417 ¹⁵ Fast ion spectrum	XP-432 Long-pulse H-mode
Mar 1 – 5	MP-11 ¹⁹ He density scan MP-6 ¹⁸ HHFW cond'n	MP-6 ³⁷ HHFW cond'n	XP-403 ⁴¹ HHFW current drive	MP-30 ²⁵ HHFW breakdown	MP-30 ³⁰ HHFW breakdown MP-3 ¹⁰ Magnetics calib'n
Mar 8 – 19	Maintenance Period (NB calorimeter, CHERS dump, bakeout)				
Mar 22 – 26	Boronization 23 (hot)	Maintenance Period (NB calorimeter, conclude bakeout)			
Mar 29 – Apr 2	² Restart and check noise on magnetics	MP-9 ²⁰ Post-boron assessment	MP-3 ¹⁹ Magnetics calibration	MP-32 ¹⁹ Develop rt-EFIT standard shapes	XP-426 ²² Fast-ion induced MHD & loss

NSTX Operation FY'04 (2)

Note: * after shot tally indicates extended shift of operation

Week	Monday	Tuesday	Wednesday	Thursday	Friday
Apr 5 – 9	XP-432 16 Long-pulse LSN	XP-402 2 Long-pulse DN	Water leak	Water leak	Water leak
		Computer problem			XP-402 7 Long-pulse DN
Apr 12 – 16	XP-402 12 Long-pulse DN	XP-402 13 Long-pulse DN	XP-419 26 H-mode threshold	XP-401 23 H-mode scaling	XP-401 8 H-mode scaling
	XP-417 14 NPA scan	XP-407 19* RWM study			MP-6 24 RF conditioning
	Boronization 24	β_T 38%			
Apr 19 – 23	XP-419 19 H-mode threshold	XP-425 30 HHFW H-modes	XP-403 44 HHFW current drive	XP-413 26 HHFW heating of NB H-mode	XP-408 27 RWM rotation damping
	XP-418 7 Shape dependence of L-H			XP-423 21* PF frequency resp.	Boronization 25
Apr 26 – 30	XP-427 25 Neoclassical Tearing Modes	XP-402 39* Long-pulse DN 1s, 1MA pulse	XP-434 33 Edge Characterization	XP-440 31 Early H-mode	XP-432 47 Long-pulse LSN He conditioning, 1.25MA, β_T 40%
May 3 – 7	Maintenance Period (RWM coils, CHI cap. bank)				
May 10 – 14	Water leak (PF1A buswork)		Water leak	XP-429 17 Between-shots boronization	XP-441 41 HHFW power deposition
			XP-429 7 Between-shots boronization	XP-409 13* Gas comparison	
May 17 – 21	MP-32 20 rtEFIT develop't	XP-428 32* RWM dissipation	XP-437 34 Edge turbulence	XP-446 36 ELM study (Mini boroniz'n)	MP-30 22 HHFW breakdown
	XP-409 19 Gas comparison			XP-443 11 PF-only startup	
May 24 – 28	XP-431 30 Solenoidless startup	XP-411 30 q(r) & e-transport (Mini boroniz'n)	XP-425 31 HHFW H-mode	XP-413 47* HHFW heating of NB H-mode	XP-439 33 Core turbulence (Mini boroniz'n)
May 31 – Jun 4	Holiday	XP-421 35 Troyon scaling (Mini boroniz'n)	XP-446 35 ELM study	XP-447 28 SOL flows	MP-33 13 MSE calibration
				XP-415 12* Mode locking	XP-415 5 Mode locking
Jun 7 – 18	Maintenance Period (RWM coils, PF4 jumpers, PPPL Open House)				

NSTX Operation FY'04 (3)

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Jun 21 – Jun 25	XP-442 15 OH H-modes (Mini boroniz'n)	XP-409 31 Shoulder injector	XP-451 40 Early H-mode for HHFW heating	XP-413 23 HHFW H-modes	XP-449 35 Chirping modes (TF flashover)
	XP-423 10 Vertical instability	XP-450 12* ELM study		XP-441 22* HHFW modulation	
Jun 28 – Jul 2	Repair TF coil		VV ground fault	ISTP PF4 commission	ISTP PF4 commission XP-448 28 Outer PF startup
Jul 5 – Jul 9	Holiday	XP-402 22 Long-pulse DN (Mini boroniz'n)	MP-34 7 Li pellet injector commissioning (OH bus leak) First Li pellet injection	XP-432 20 Long-pulse LSN	XP-442 3 OH H-modes
		XP-432 19* Long-pulse LSN (adapt to 0.35T)		MP-34 18* Li pellet injector commissioning	XP-454 14 L-H trans with GPI XP-450 15 ELM study
Jul 12 – Jul 16	XP-450 2 ELM study	XP-437 19 Bndry turbulence	XP-435 21 ITB dynamics	ISTP RWM coil comm.	XP-455 16 RWM coil effects
	XP-403 42 HHFW current drive with MSE	XP-438 10* Divertor detach't	XP-414 17* High β_N rampdown	XP-455 18 RWM coil effects XP-452 9* Mode stabiliz'n	XP-452 15 Mode stabiliz'n
Jul 19 – Jul 23	XP-403 38 HHFW current drive	XP-452 19 Mode stabiliz'n (Mini boroniz'n)	XP-421 14 Troyon scaling (Mini boroniz'n)	XP-432 16* Long-pulse LSN	ISTP 1 CHI cap bank
		XP-421 11* Troyon scalin	XP-411 29* Conf't & rev. shear		
Jul 26 – Jul 30	XP-432 23 Long-pulse LSN	XP-405 12 EBW mode-conv.	XP-406 36 CHI	XP-406 38* CHI	XP-406 38 CHI
	MP-33 12* MSE calib'n	MP-33 31 MSE calib'n	First operation with CHI cap bank		
Aug 2 – Aug 5	XP-406 35 CHI	XP-448 2 PF-only startup	XP-421 18* Troyon scaling (Mini boroniz'n) (OH PS delay)	XP-421 13 Troyon scaling	Start of Outage
				MP-35 6 SGI commission	
		XP-443 28 Outer PF startup	MP-35 SGI commission	XP-448 11 PF-only startup	
Aug 6 – Sep 30	Outage				