



U.S. DEPARTMENT OF
ENERGY

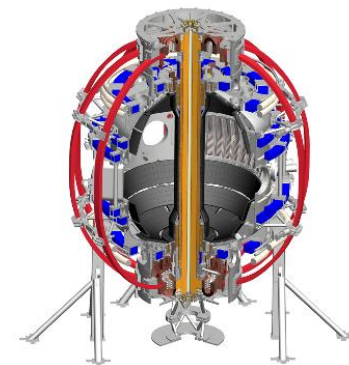
Office of
Science



MS TSG Meeting

PPPL

February 9, 2016



Latest run plan schedule for 2016

Goal is to operate 18 run weeks

- **December: 0.5 run weeks (XMP)**
- **January: ~ 2 run weeks (XMP, XP), PAC-37**
- **Two week maintenance: NBI T-line repair, Argon Purge System, LITER, Diagnostics**
- **February: ~ 3 run weeks**
- **March ~ 3 run weeks** **Maintenance: March 7th week?**
 - **Mid-run assessment in March/April**
- **April – June 9.5 run weeks, complete FY16 run**
 - Maintenance: April 11th week?**
 - Also mid run assessment?**

MS TSG received additional 0.5 days of priority 1 run time by increase from 16 to 18 run weeks

			Priority	P1 run time	P2 run time	CCE run time
1506	Low-beta, low-density locked mode studies	Myers	P1a	0	0	0.5
1515	High-beta n=1,2,3 error field detection and correction	Myers	P1a	0	0	0.5
1516	Optimization of PID dynamic error field correction	Myers	P1a	0	0	1
1543	Resonant error field threshold with non-resonant braking	Park	P1b	0.5	0	
1544	Make contact with NSTX for n=1 tearing mode stability	La Haye	P1b	0.5	0	
1545	RWM state space control physics	Sabbagh	P1b	0.5	0	
1517	Neoclassical toroidal viscosity at reduced collisionality (independent coil control)	Sabbagh	P1a	0.5	0	
1518	RWM PID control optimization based on theory and experiment	Sabbagh	P1a	0	0	0.5
1519	Massive Gas Injection Studies on NSTX-U	Raman	P1a	1	0	
1546	RWM Stabilization Dependence on Neutral Beam Deposition Angle	Berkery	P1b	0.5	0	
1547	Stabilization of radiated-induced tearing modes (RiTMs) using off-axis-heating	Delgado-Aparicio	P1b	0.5	0	
1582	RWM state space active control at reduced plasma rotation	Park	P2b	0	0.25	
1570	Multi-mode Error Field Correction with the RWM State-Space Controller	Sabbagh	P2a	0	0.25	
1548	3D plasma response data for MHD and transport code validations	Evans	P1b	0.5	0	
1571	Direct measurement of plasma response using Nyquist Contour	Wang	P2a	0	0.25	
1572	Comparative study of the Electro-magnetic torque application through feedback for NTM locking avoidance in DIII-D, RFX-mod and NSTX	Okabayashi	P2a	0	0.25	
1583	NTV steady-state offset velocity at reduced torque with HHFW	Sabbagh	P2b	0	0.25	
1573	NTM Entrainment in NSTX-U	Park	P2a	0	0.25	

XP Review Schedules

XP	TSG review	Final review
XP1506 Low-beta, low-density locked mode studies – Clayton Myers	✓	✓
XP1515 High-beta $n=1,2,3$ feed-forward error field correction – Clayton Myers	✓	✓
XP1516 Optimization of PID dynamic error field correction – Clayton Myers	✓	✓
XP1517 Neoclassical toroidal viscosity at reduced collisionality – S.A. Sabbagh	✓	✓
XP1518 RWM PID control optimization based on theory and experiment – S.A. Sabbagh	✓	✓
XP1519 Massive Gas Injection Studies on NSTX-U – Roger Raman	✓	✓

XP Review Schedules

XP	TSG review	Final review
Resonant error field threshold with non-resonant braking – Jong-Kyu Park		
Make contact with NSTX for n=1 tearing mode stability – Rob La Haye		
RWM Stabilization Dependence on Neutral Beam Deposition Angle – Jack Berkery		
Stabilization of radiated-induced tearing modes (RiTMs) using off-axis- heating – Luis Delgado-Aparicio		
3D plasma response data for MHD and transport code validations – Todd Evans		
RWM state space control physics – Steve Sabbagh		