

Programmatic directions for 2006; we solicit team members' input and opportunities of discussion



- Analyze, publish, and present results from the 2005 run.
- Collaborate on C-Mod, DIII-D, MAST, JET.
 - a) ITPA relevant experiments
 - b) MAST experiments, with EBW, divertor, ELMs, etc.
- Provide some diagnostics, which can be effectively moved (cameras, spectrometers) to augment offsite collaborations.
- Enhance utilization of remote experimental participation.
- Participate in ITER Physics Tasks starting this year.
- Prepare for 2007 run, including Research Forum, etc.
- Identify a few viable research milestones for 2006, which benefit from 2005 run and support key milestones in 2007.
- Be ready for possible run in 2006.

FY05-07 milestones can take full advantage of the strong NSTX Research Team, assuming no run in '06



	FY05	FY06	FY07	FY09?
Exp. Run-Weeks:	17	0*	12*	
1) Transport & Turbulence: Physical processes that govern heat, particle & momentum confinement	Characterize q' & ∇T_e effects on electron transport		Measure high-k turbulence	
2) Macroscopic Stability: Role of magnetic structure on plasma pressure & bootstrap current	Study rotating plasmas close to "wall-stability" with EF correction	Compare EF/RWM data with theoretical models of stability conditions	Characterize effectiveness of closed-loop EF control	
3) Wave-Particle Interaction: Use of electromagnetic waves to sustain and control high-temperature plasmas	Assess effects of supra-Alfvénic ion driven instabilities on core J_{NB}	Compare fast ion driven mode data with non-linear simulation	Understand & optimize HHFW coupling	
4) Start-up, Ramp-up and Sustainment: Physical processes of magnetic flux generation			Assess CHI creation of closed magnetic flux	
5) Boundary Physics: Interface between fusion plasmas and normal temperature surroundings	Characterize pedestal and SOL of low-A, H-mode, high P/R plasmas			
6) Integration: Integration of external control and self-organization physics	Characterize high-B/S & low- V_L plasmas for $> \tau_{skin}$	Benchmark time-dependent scenario simulation with high-B/S & low V_L data		
			*OFES Guidance	
			Advanced Particle Control Decision Point	

Work together to strengthen these