

Research Operations Division Boundary Physics (*H. Kugel*)

- ◆ Liquid Lithium Divertor (LLD) will not be installed until after 2009 run
- ◆ Pursuing “dual-track” approach to fabricating Cu-SS-Mo LLD plates
 - ▶ SNL: form, laminate SS to Cu, adjust shape, Mo coat
 - ▶ PPPL: laminate SS to Cu, bend to shape, Mo coat
- ◆ FDR on 12/17 for LLD Controls designed by SNL/NM
 - ▶ PPPL design of rack installation, cable trays, cabling in progress
- ◆ Continuing development of loading techniques for LLD in L-245 lab.
- ◆ Fabricating 3 new LITER units for Li-coating next year (incl. LLD)
- ◆ Preparing to install 2 lithium powder droppers for next run
- ◆ Installing vacuum interface and support stand on Bay-J lower port for **Material Analysis Particle Probe** (MAPP – Purdue University)
- ◆ LPI will be reinstalled to support the NIFS/JHU collaboration (3/09)

Research Operations Division Diagnostics (*R. Kaita, B. Stratton*)

- ◆ **BES** – collaboration with G. McKee (UWisc)
 - ▶ Installed oblique mounting tubes for lens assemblies
 - ▶ Lenses and optical fibers in procurement
 - ▶ UW building filter and detector assemblies
 - ▶ Complete installation in opening next year
- ◆ **Divertor bolometer** installed
 - ▶ Bay J top: 8 channels
 - ▶ Bay J midplane: 4 channels
 - ▶ Bay I bottom: 8 channels – now with heat shield
- ◆ **High-k scattering**: remote control tested and calibrated
- ◆ **MSE-LIF** (Nova): install next opening
 - ▶ Mezzanine extended to accommodate equipment
 - ▶ PDR for system in December
- ◆ Now calibrating diagnostics before closing (MPTS, CHERS, ...)

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RF systems (*J. Hosea*)

- ◆ Upgrading HHFW antenna to provide symmetric end feed
 - ▶ Design evolved from virtual to actual ground at strap center
 - ▶ 12 new feedthroughs installed and leak-checked
 - ▶ Now installing new backplates, straps and replacing Faraday shield
 - ▶ Expect to complete in-vessel work by 12/15
 - ▶ Start run with half strap operating unbalanced
 - ▶ Install external coaxial line during maintenance week(s) to provide symmetric balanced operation

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Physics Operations (*D. Mueller*)

- ◆ Preparing for β_N feedback control to be implemented next run
- ◆ Started discussions with LLD group to begin developing discharge scenarios and control strategies for operation with LLD