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

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- ◆ Proceeding with installation of a second LITER at Bay K upper
  - ▶ Resolving chits after comprehensive PDR on 10/4
  - ▶ Fabricating port covers with shutters – 2 on machine, 1 for offline tests
  - ▶ Test in L245 chamber with actual evaporation using a LITER unit
  - ▶ Challenging to complete test by 11/12 before APS
  
- ◆ Liquid lithium divertor module
  - ▶ Proceeding with thermal analysis of heater concepts for a divertor lithium containment ("tray") system
  - ▶ Planning for L-245 wetting tests of a flat metal surface to start after current LITER work completed
    - Possibly use LITER to coat plate heated above lithium melting point

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

- ◆ **P-CHERS/FIDA** installations have proceeded well
  - ▶ Collection optics and fibers (284) to analysis room are ready
  - ▶ Now performing in-vessel spatial calibration; photometric next week
- ◆ **Halo current sensors** installed
- ◆ **Remote control of High-k scattering mirrors** ready by start of run
  - ▶ Modified collection mirror mount to permit full scanning capability
- ◆ **Divertor bolometer upgrade** – Bay I lower and Bay J midplane
  - ▶ Parts are being machined
  - ▶ Detectors expected mid-October
- ◆ **MPTS calibration probe and collection optics polarizer**
  - ▶ Completed parts for in-vessel probe – install today, test next week
  - ▶ Polarizer now mounted; remove for bakeout

# Research Operations Division

## Diagnostics

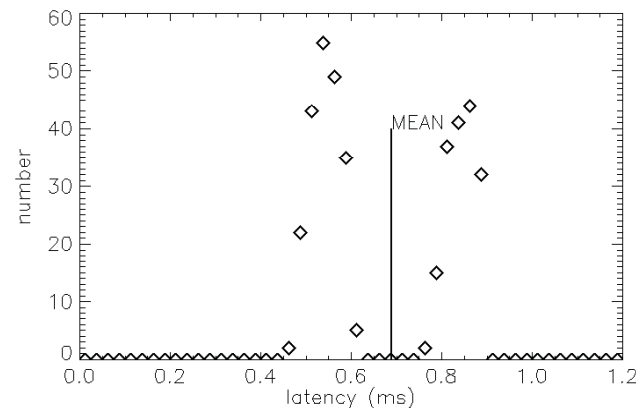
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- ◆ Many other diagnostic calibrations have been completed already:
  - ▶ Edge neutral density diagnostic
  - ▶ Fiberoptic arrays
  - ▶ High-k scattering
  - ▶ USXR arrays

# Research Operations Division

## Physics Operations

- ◆ Working to resume operation with new control computer system
  - ▶ Gas system will be integrated
  - ▶ Bugs and issues are being corrected
  - ▶ Measured latency of feedback loop path through PCS system



- ◆ Developing capability for NBI power control for next run
  - ▶  $\beta_N$  feedback should be straightforward

## Research Forum for FY'08 Run

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- ◆ The Research Forum to plan NSTX experiments in FY'08 will be held  
**Tuesday - Thursday November 27-29, 2007 at PPPL**  
(in the week after Thanksgiving)
  - ▶ Begin on Tuesday morning and finish around noon on Thursday
- ◆ See [http://nstx\\_rf\\_2008.pppl.gov/index.html](http://nstx_rf_2008.pppl.gov/index.html)
- ◆ Participation both in person and remotely is welcome and encouraged
- ◆ Milestones for FY'08 research are being finalized
- ◆ Proposals are sought for experiments to address the milestones and other research of high value and interest
  - ▶ Both new experiments and continuations of existing ones will be considered
- ◆ The organizational structure for FY'08 has been announced
- ◆ A provisional agenda and will be posted shortly