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

- LLD PTP completed in December after resolving heater insulation issues
- After pumpdown, performed LLD ISTP at beginning of February
  - Controlled temperature of 3 plates to 320°C
  - On 4th plate, heater wiring in VV failed resulting in unheatable plate
- Current plan is to perform initial experiments with one plate cold
- Investigating heating plate with hot gas through "cooling" line
  - Cyclic thermal testing of feedthrough in progress: 55 cycles to date
  - Pressure tested bellows used inside VV in the LLD gas cooling lines
- Lithium Evaporators
  - 2 new LITERs on loading stands in South High Bay
  - 2 additional LITERs being assembled for faster turnaround
  - Reviewed today new technique for loading LITERs with molten lithium
    - Expect to fill with up to 80g *c.f.* <50g with solid pellets

Research Operations Division
Boundary Physics *[2]*

- LLD Diagnostics
  - Fast visible Phantom cameras mounted to view LLD
    - Calibrated response to near IR: 300°C should be measurable
  - Installation of Enhanced Divertor Spectrometer in progress
- Lithium Powder Droppers
  - Completed maintenance on one dropper
  - Preparing to calibrate its operation *after*
  - Decision on whether to use lithium powder stabilized by lithium carbonate or paraffin wax coating

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

- Pre-run calibrations completed including MPTS laser alignment and Rayleigh/Raman scattering
- Diagnostics being restored to operational configuration after bakeout
- Fast probe engineer (UCSD) at PPPL this week to recommission system
- Reviewed electronics for new high-density Langmuir probe array (UIUC)
- New Lyman-alpha Diode Array (LADA) installed (with LLNL)
- Beam Emission Spectroscopy (U. Wisc)
  - Fibers loaded in holder for inboard view; loading outboard view now
  - Received first detector box (8 ch) for installation in diagnostic room; second 8 ch box to arrive by end of March
  - Expect to be ready for commissioning when plasma operation starts

Research Operations Division
Diagnostics *[2]*

- Several new and upgraded diagnostics will be installed in Fall 2010
  - MSE-LIF (Nova Photonics) on track for installation in Fall 2010
    - Components in fabrication; order new Bay G port cover soon
    - Nova work on DNB, laser, and viewing optics proceeding well
  - MPTS Phase 4 (12 new channels for pedestal and ITB regions)
    - Major procurements underway: polychromators, filters
  - Real-time CHERS
    - Investigated options for CCD camera(s) to be purchased soon
  - Tangential FIDA (UCI)
    - Designing new ports for active and background views
  - New tangential SXR array (JHU)
    - Started designing new port
- Plan CDR in May to modify MPTS for new Center Stack

Research Operations Division
RF systems *(J. Hosea)*

- Repairing some failed (aging) HV power supply equipment
- Planning to start antenna conditioning early in operation
  - Aiming for coupled RF powers up to 5 MW
- Planned HHFW XPs aimed at
  - discharge startup and maintenance capability
  - optimizing heating of H-modes
  - understanding heat deposition on outer divertor during HHFW heating
  - fast-ion behavior with HHFW application

Research Operations Division
Physics Operations *(D. Mueller)*

- Physics Operator's training course was well attended
  - Thanks to the many contributors for excellent presentations
  - Five candidates volunteered for practical component of course
- Preparing control system for return to operation
  - Upgrades of the infrastructure have been installed and tested
  - Improved real-time compensations for RWM sensors
  - Improvements ready for real-time feedback of NBI (β control)
  - Developing XMPs for control of strike-point and X-point height
  - Modifications made to allow relay control for real time system identification
  - Modifications to allow use of PF4 with rtEFIT isoflux added

Run Weeks Plan 2010

March					April				May					June				July				August				
1-Mar	8-Mar	15-Mar	22-Mar	29-Mar	5-Apr	12-Apr	19-Apr	26-Apr	3-May	10-May	17-May	24-May	31-May	7-Jun	14-Jun	21-Jun	28-Jun	5-Jul	12-Jul	19-Jul	26-Jul	2-Aug	9-Aug	16-Aug	23-Aug	30-Aug
Bakeout, recovery		**ISTP, LLD fill**		**1**	**2**	**MW**	**3**	**4**	**5**	**6**	**MW**	**7**	**8**	**9**	**10**	**MW**	**11**	**12**	**13**	**14**	**15**	**Calib**	**Outage**			
						TTF					**HTPD**	**PSI**				**EPS, ICPS**										