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

- Fabricated LITER-1d for higher lithium deposition rate on lower divertor
  - Performing thermal testing today in L-245
  - Load with lithium (~50g) later this week
  - Hold FDR then install on NSTX next week
  - Fabricate second cartridge for testing evaporation offline in L-245
- Developing technique to inject stabilized lithium dust using LPI
  - Used LPI offline to investigate performance of special sabots
- LPI has now been reinstalled on machine for TESPEL experiments
- Meeting held with R. Nygren on 2/27 to discuss joint SNL/PPPL project to build liquid lithium module for experiments in FY'09
  - Now defining requirements and location in lower divertor region
- Performed boronizations 58 (10g), 59 (5g) 60 (5g)

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

- First light observed on Poloidal-CHERS
  - Camera that had twice developed thermal leak appears to be fixed
  - Software development continues
- Major assault on diagnostic ground loops has made good progress
- SXR transmission grating spectrometer developed problem during bakeout with gasket on intensifier – being repaired & recalibrated at JHU
- SPRED developed problem with HV standoff – now repaired
- High-k scattering source power supply failed again – repaired at UCD
  - Now setting up for radiometric calibration *in situ*
- Made some progress on diagnostics during current outage
  - Still have work to do on reflectometers [UCLA]
- Held workshop on diagnostic developments for 5-year plan

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

- HHFW and ECH-PI operating
  - Injected HHFW power on 40 shots
  - Power level to 1.7MW peak

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

- Wall conditions continued to improve during first two weeks of run
  - End of flattop for 3-source 1MA shot increased to 0.8s (1.2 s in 2006)
- Operating with Skybolt control computer system as before
- Upgrade to fast multi-processor servers
  - All PPPL-developed modules fabricated and bench-tested
    - Install in NTC as access becomes available after bakeout
  - All major code components approaching completion or complete
    - GA programmers (Peneflor, Walker) have helped progress
  - PTP in maintenance week 4/16 and ISTP for final maintenance week
- CHI: aim for 2kV operation
  - Installed new fast voltage monitoring to assess risk from spikes
  - Upgraded charging power supply