Update on S0 Work in the Americas Region

Mark Champion 08 July 2008





Preliminary data on Accel cavities A12, A15 and A11:

- 1. A12 first test after first S0 processing reached 36.6 MV/m. Q0=7-8E9 at 35 MV/m, Q0=1e10 at 31.5 MV/m. Next is reprocessing with USC+HPR.
- 2. A15 first RF test (No 120C bake) reached 17 MV/m, hard quench in cell pair 3/7; other cells reached 28-33 MV/m. Next is thermometry test and LDM inspection.
- 3. A11 bulk EP was aborted due to abnormal EP parameters. Next is to mix new electrolyte and bulk EP.



Jefferson Lab fine-grain cavities completed this week





Progress at Argonne and Fermilab



- Preparation this week for electro-polishing of AES single-cell cavity at Argonne
 - Will optimize and qualify EP system with single-cell cavity before trying another nine-cell cavity
 - This particular cavity was BCP-processed and tested to >25 MV/m at Cornell late last year
- Installation of high-pressure rinsing system and related hardware ongoing at Argonne
 - Plan to be ready for complete processing in October
- Preparing for test of 325 MHz single-spoke resonator (SSR) at Fermilab vertical test stand
 - Part of High Intensity Neutrino Source (HINS) 60 MeV H- source
 - Previous test at ~13 MV/m; design calls for 10 MV/m
- Accel cavity A6 being fitted with variable input coupler for next vertical test





- Plan to BCP-process and test new Niowave-Roark single-cell
 1.3 GHz cavities
 - Presently undergoing quality control inspections at Fermilab



ILC ART review held at Fermilab recently



ILC Americas Regional Team Review, June 30

- Department of Energy & National Science Foundation annual review
- Presentations available at: http://ilcagenda.linearcollider.org/conferenceDisplay.py?confld=2755
- Positive closeout session
 - Reviewers impressed at progress despite budget woes, and concerned about implications of FY09 continuing resolution