

2005/09/16

To: Distribution
From: N.Toge
Subject: Minutes of the LC Leaders Meeting at KEK

Date: Monday, September 12, 2005

Time: 10:05 – 10:15

Attended: KYokoya, KSaito, T.Tauchi, S.Fukuda, S.Noguchi, N.Terunuma, K.Kubo, H.Hayano,
T.Shidara, N.Toge, K.Hosoyama, Y.Morita, T.Higo, F.Takasaki, K.Ueno

Place: KEK Bldg 3, 7F, Meeting Room

1. General Communication and Discussion

Discussions were made on the following issues:

- High gradient cavities (Saito)
 - On Sep.6 and on Sep.7, 2005, an accelerating gradient of ~51MV/m was reached with an L-band single-cell "re-entrant" cavity, fabricated by the Cornell group, and surface-treated with electro-polishing at Nomura Plating Co in Japan. The measurement was done at a vertical cavity test stand at KEK. See the report at <http://lcdev.kek.jp/ML/WG5/msg00078.html> .
 - Similarly on Sep.9, 2005, an accelerating gradient of ~47MV/m was reached with an L-band single-cell "low-loss" cavity, fabricated by the KEK group, with a cavity design derived from the scheme developed at Jefferson Lab. The measurement was made at a vertical cavity test stand at KEK. See the report at <http://lcdev.kek.jp/ML/WG5/msg00079.html> .
 - The multipactor phenomena which set in at ~20MV/m should be addressed, in order to improve the performance yield of the cavities. Contamination, such as sulfur and others, which may be introduced during electro-polishing etc is a possible culprit. The focus of the next efforts will be to track them down and eliminate them

2. JFY2005 Interim Status and Budget Discussions

The rest of the morning and the bulk part of the afternoon were spent to go through the interim reports from each of the work groups, their budget status and the possible needs for redirections of efforts. While the contents of the specific budget discussions are not to be made available publicly, some highlights of technical discussions are reproduced below.

- ATF (Terunuma) and injector-related efforts (Kuriki, reported by Terunuma)
 - There is an issue with the limitation of the maintenance budget. The break-downs of old hardware are having impacts on the beam time availability (currently guess-timated, on the average, to be ~10%). While beam programs try to take such time loss in their planning, the programs planned by overseas collaborators take a hard hit if they turn out to have a "bad luck". More work is worthwhile to numerically quantify this issue and submit a well-defined proposal for JFY2006.
- ATF2 (Tauchi)
 - The magnets to build for ATF2 now have a reduced unit price, compared to the original projection. However, since more magnet units will be built, the budget allocated for magnets manufacturing in JFY2005 will be all spent.

- Following the proto-prototype, two prototype units of cavity BPMs for regular quads will be built before moving on to the production. While the unit cost for the cavity BPM is not completely fixed, the budget allocated for the BPMs will be all used.
- While the magnet movers will be contributed from SLAC, the mechanical interface between the SLAC movers and the ATF2 magnets are required. Also, a new magnetic field measurement device was decided to be built. Consequently, a budget shortage exists in the area of magnet movers, support and measurements.
- The FFTB laser fringe monitor (Shintake monitor) for IP beam size measurements have been brought back from SLAC. The group is lacking the budget to half the laser wavelength, although new laser system might be contributed from collaborators (not determined).
- STF RF Sources (Fukuda)
 - The group is having a difficulty procuring the desired amount of L-band RF components for system monitoring, because of the budget shortage.
 - For construction of a new modulator to be contracted in JFY2006, more work is necessary to nail down the cost estimate.
- STF Basic Infrastructure (Hayano)
 - While only ~16% of the JFY2005 has been committed yet, all the remaining work to do in JFY2005 has responsible parties preparing the contractual procedures.
- 45MV/m Cavities (Saito)
 - Additional budget is necessary if the group is to direct its focus on systematic studies of surface treatment procedures with more single-cell cavities.
- 35MV/m Cavities (Noguchi)
 - Additional budget is necessary since the manufacturing contract of 35MV/m cavities have ended up with a price higher than originally envisaged.
- Cryostats (Tsuchiya)
 - Some budget saving is expected possible. A revised spending plan is proposed.
- Cavity Manufacturing Infrastructure and R&D (Ueno)
 - Additional budget is desirable for the clean-room construction and manufacturing R&D.

Next meeting: Interim status and research strategy discussion at 10AM (Bldg 2, 2F) on Wednesday, Sep. 14 (10AM, Bldg 2, 2F). Regular LC Leaders Meeting at 10AM on Monday, Sep. 26, 2005 (Sep. 19 is a holiday).

