

CFS & Global Systems Webex Meeting

28 January 2009

Agenda

PM Report (M Ross)

CFS (V. Kuchler)

LLRF: FLASH 9mA Program report (J. Carwardine)

Attendees

E. Paterson, V. Kuchler, J. Carwardine, M. Ross, T. Shudara, N. Toge, A. Enomoto, B. Chase, W. Bialowons

Meeting Summary

PM Report (Marc)

AAP (Accelerator Advisory Panel) Review

- The Executive Committee should approve the committee charge next week and it should be released shortly thereafter. The AAP committee has prepared a list of specific questions to be answered in the presentations to the committee. The Technical Area Group Leaders should have already received additional specific information via email from Marc Ross.
- The review will focus on the effectiveness of the TD Phase program leading up to a re-baselining of the ILC reference design in spring 2010.
- Each Technical Area Group Leader will be asked to make a formal presentation and be available to answer questions from the panel.
- Each presenter will develop a list of background documents that will then be provided to the committee ahead of the review. This background material will include major presentations, proceedings, and technical notes, and will be publically accessible from the TILC Indico site.

TILC09 Meeting in April 09

- Parallel sessions will follow the traditional format, albeit with slightly reduced available time because of the AAP review going on in parallel.
- A difference from other ILC meetings is that the PMs will be devoted to the AAP and therefore not generally available to participate in other parallel sessions.

FALC Meeting on January 19

- The FALC meeting on January 19th was the first meeting with the new Chair, Pierre Coulombe of the National Research Council of Canada.
- Marc made a presentation on the CLIC/ILC collaboration activities.

CFS (Vic)

Process Water and HVAC value engineering

- Alternatives identified during the value engineering process, including the klystron cluster, have been evaluated.

- CLIC information is being added to the comparative spreadsheet. XFEL and Project-X will be added as information becomes available.

Main Linac Alternate Tunnel Configuration

- Schematic drawings are being developed for the seven tunnel configuration alternatives that have been identified. The goal is to have evaluations for three of the alternatives completed in time for the AAP review.

Minimum Machine Study

- An initial organizational meeting was held in December at DESY.
- Work is proceeding on developing the new lattices and layouts.
- Regular meetings are being held with DESY and CERN to organize the 3-D drawing effort, and with FNAL to develop a CFS 3-D capability.

AAP Review Preparation

- Decisions need to be finalized on which information to post for the reviewers. Information will be included on process water value engineering, tunnel configuration studies, minimum machine, status of collaboration activities, and resource loaded schedules for CFS work through 2010.

ILC/CLIC Collaboration (slide from John Osborne)

- The main collaboration efforts in 2009 will include:
 - Developing a safety document compiling information that exists from other large projects. The chapters on CLIC and ILC will follow the same document structure.
 - Performing transport and installation studies, similar to the study that was performed for CLIC in 2008 and the study that was done for the ILC RDR.
 - Developing 3-D models using CATIA software for the tunnels and caverns for the positron source area, initially for the RDR layout and subsequently for the Minimum Machine options.

TTF/FLASH 9mA Program report (John C)

Beam dump repair

- DESY personnel are developing a plan for repairing the beam dump line in August during a three-week dedicated shutdown period. If this goes ahead, there would be a 1-2 week dedicated study period for the 9mA program. DESY Management will make the decision in late March on whether the repair and 9mA studies period will go ahead.

January studies

- There were two 16-hr studies shifts for the 9mA program earlier in January. Studies were limited to 10 bunches at 3nC/bunch. Studies goals were to study beam losses in the beam dump line, LLRF feedback and feed-forward studies, including increasing the regular gain, and gradient studies to attempt to identify potential practical limits for the anticipated 9mA study in September.
- With the beam dump not yet repaired, studies were limited to 10x 3nC bunches per pulse.

Mini-workshop on January 16

- The purpose of the one-day mini-workshop was to review technical system status and begin planning for the anticipated 1-2 week studies period in September.
- The agenda and presentations are posted on Indico here:
<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=3234>
- Improving instrumentation in the beam dump line was a major theme, with discussions on possible locations of new boms, a diamond-blade beam halo monitor on the dump exit window, and beam loss monitors. Also considered were options for providing additional steerers.
- High power RF component ratings may become a limiting factor in running with cavity gradients close to quench. There is a wide range of maximum gradients in the three cryomodules that will be the subject of high gradient studies.
- An important consideration from a planning perspective is that there will be no available machine studies time additional testing or commissioning of new systems between now and the anticipated 3-week shutdown in August. Careful planning and coordination will be critical for activities during the shutdown and during the subsequent studies run. Availability of personnel will be an issue for 24/7 operations coverage during the studies run.
- Planning for the dump line repair, other preparatory work, and the studies period will continue over the coming weeks.

The next CFS & Global Systems meeting will be held on February 25th.

John Carwardine