DRAFT: Minutes of ML-SCRF Technology Meeting (121219)

Date & Time:
14:00-14:58 GMT, December 19, 2012, via Webex.

Participants:
H. Hayano, P. Pierini, T. Peterson, C. Nantista, S. Fukuda, A. Yamamoto, M. Ross, J. Carwardine, C. Pagani, and T. Shidara

Presentation files are available at the following Indico site:
http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=5930

1) Report from Project Managers (Akira Yamamoto and Marc Ross)

Akira started the meeting by visiting the usual SCRF related meeting schedule.

There were two events last week; ILC-PAC and an event to celebrate the completion of the design reports where TDR and DBD were handed to ILCSC Chair Jonathan Bagger from B. Barish and S. Yamada. http://lcdev.kek.jp/LCoffice/OfficeAdmin/ILCSympo.html

External Cost Review is tentatively scheduled on February 6 and 7 in London, ICFA/ILCSC on February 21 and 22 will start the next organization led by Lyn Evans, IPAC, ECFA-LC 2013, and so on.

Akira and Marc reported on the ILC-PAC Review (at KEK, 13-14 December) rather extensively. This review, chaired by Lyn, will be the last review and was focused on technical part, especially speaking SCRF part by extending membership from DESY experts. Accelerator part was reviewed on the 1st day and KCS presentation by C. Adolphsen was added by the strong request from the committee. Marc reported the summary of closeout by Lyn that the committee was satisfied with the presentations in general and it should now profit enormously from the industrialization of the XFEL and not stop there. DESY experts expressed their concerns with KCS and cryomodule assembly. Work on Toshiba coupler with a larger coupling range was recommended to be continued. http://ilcagenda.linearcollider.org/conferenceDisplay.py?ovw=True&confId=5843

Tom Peterson asked what kind of discussions were there for tuner issues. Marc replied that since the blade tuner was selected as a baseline in the TDR, DESY experts concerned with its reliability.

2) Reports from Group Leaders (Hitoshi Hayano, Tom Peterson and Shigeki Fukuda)

Hitoshi reported that the operation of the Quantum Beam (QB) accelerator at STF was continued but no X-ray had detected. There is a vibration trouble in the 4-mirror laser storage resonator and another collision studies are scheduled this Friday with some remedies in the resonator. Extension of the QB studies to next year will be discussed after reviewing the study results of this week. Marc asked the status of LLRF tests in QB studies. Hitoshi explained that Shin Michizono and his student were performing digital RF control tests for two cavities successfully.

Tom had no report on cryogenics, but Marc invoked the 1.9 K operation issue which Lyn commented at the PAC review. Tom replied that although magnets and cavities might be different, tradeoff between 1.9 and 2.0 K operations should be considered during the post-TDR period.

Shigeki had no report on HLRF, but expressed his plan in the coming STF stage; continuing R&Ds with MBK and DTI Marx modulator which is an in-kind contribution from SLAC. There is a possibility to procure another Marx for future STF project and KEK is interested in the technology transfer on the SLAC/P2 Marx modulator.

3) Further Actions (John Carwardine, Akira Yamamoto, Marc Ross and Carlo Pagani)

John briefly reported the status for TDR finalization. Concerning technical content, final drafts for each part were submitted to PAC just before the review and no specific requests came from Lyn for changes to the TDR content. Need to confirm with Barry whether the EC will ask for some changes, for example in response to PAC comments. Otherwise, the technical content is considered frozen aside from making any necessary corrections.

The editorial team starts the preparation for the publication-ready to be formally released in June; final detail checking of text, formatting, layout, figures & tables, references. There are various ILC-Notes that need to be written that have been cited but are place-holders. Formatting, layout, etc are to be developed with detector, physics, and communicators to end up with a single set of volumes. Publication will be in print, electronic, online (web).

Akira asked the authors to visit the following forge sites, check the text, especially speaking on

references, and add references more adequately.
https://forge.linearcollider.org/attachments/download/1585/20121210-TDR1-PAC.pdf
https://forge.linearcollider.org/attachments/download/1586/20121210-TDR2-PAC.pdf
https://forge.linearcollider.org/attachments/download/1587/README.pdf

Akira shortly explained the external cost review at London (tentatively scheduled on 6, 7 February) chaired by Norbert Holtkamp. Although agenda are under consideration, SCRF will be reviewed on the 1st day, partly in parallel. Shigeki Fukuda (HLRF), Chris Adolphsen (HLRF), Paolo Pierini (Cryomodule) and Tom Peterson (Cryogenics) are strongly requested to participate in the review physically. SCRF webex meetings, dedicated for the preparation to this external cost review, are scheduled at usual webex time slots on Jan. 9 (Cavity, CM, Cryogenics), Jan. 16 (RF power system), Jan. 23 (Cavity, CM, Cryogenics), and Jan. 30 (RF power system and overall check).

Marc will distribute the comments of the last internal cost review which was held at FNAL last November and mentioned that to rely on the present EXEL experience was the key comment from the reviewers.

Carlo was requested to make comments on the cryomodule assembly and expressed his concerns with duplication both in infrastructure and in manpower for cavity and cryomodule assemblies. Akira mentioned the adopted in-kind contribution scheme in the TDR, but agreed that the review might be necessary in future.

Akira asked Paolo to prepare a general parameter table for cryomodule chapter of the TDR in the same way as other chapters. Paolo promised to send it to John soon.

4) Further Plans and Meetings

ML-SCRF Webex	16 January (tentative), or 13 February
External Cost Review (London)	6-7 February (tentative)
ICFA/ILCSC (Vancouver)	21-22 February
IPAC (Shanghai)	12-17 May
http://www.ipac13.org/	
ECFA/LC2013 (DESY)	27-31 May
http://lc2013.desy.de/	
SRF2013 (Paris)	23-27 September
http://www.srf2013.fr/	
LCWS-2013 (Tokyo)	11-15 November