Availability Meeting Notes – October 6 / October 7, 2009

Marc Ross, Chair

This summary was written by Marc and lists his conclusions.

Attendees: Carwardine, Fukuda, Himel, Paterson, Shidara, Terunuma, Yokoya

We discussed the preparation of the Availability Task Force section and appendix in the '**SB2009 Rebaselining Proposal Document'**. The pointer to the LCWA09 Availability Task Force presentation is included in the Indico meeting location.

Indico meeting location: http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4198

Note that the Availability Task Force has a dedicated area with ILC-EDMS where all material is posted in addition to the indico site. This needs to be updated and structured.

NEXT Availability meeting: October 13 (2100 SLAC, 2300 Fermilab) / October 14 (0600 DESY, 1300 KEK) 2009.

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 Review:

The goal of the availability task force is to provide viable availability models for SB2009. These are to be presented at the upcoming GDE meeting "ALCPG09", Sept 29 - Oct 3, 2009 for review and comment by the GDE community at large. The models (possibly revised) will be submitted to the Project Director by the end of 2009 along with the recommendation that they become part of the ILC TDP2 baseline. It is important to note that the components of SB2009 which most strongly impact ILC availability are the ML single tunnel, the low power option and the two HLRF options (KCS and DRFS) and the task force work will be limited to these dominantly ML issues. *Work on combinations of SB2009 components and Reference Design – RDR - components, (for example a single tunnel high power configuration), will be very limited.*

Summary:

(The summary that follows is a mixture of conclusions developed at the meeting ideas developed in the days that followed. It reflects Marc's conclusions.)

Since the purpose of the meeting was to develop the outline for the Availability section and appendix in the '**SB2009 Rebaselining Proposal Document'**, an effective way to summarize our discussion is to put forth a suggestion:

1) The general structure of the Proposal has been assembled by the Project Managers and Nobu Toge, (http://ilc.kek.jp/SB2009/SB2009NNKTRev3.ppt - slide 2). The Availability Task Force has two obligations:
    a. A Top-Level Summary of our work, about 2 – 3 paragraphs, to be included in the main body and
    b. A record of our work that has all pertinent details, to be called Appendix 1. (Note that slide 2 in the presentation lists this as to be contributed by 'TMH'. The contribution should be listed as Availability Task Force.)
2) During the meeting it was agreed that we would discuss where and how the Top-Level Summary was included in the Proposal with Nobu at the next meeting.
3) The Summary should present (in roughly this order):
    a. Our results and likely impact
    b. Why we have arrived at a different conclusion (using the identical tools) from the RDR
    c. The key 'ingredients' or recommendations we made and accepted in our process (and their impact)
    d. A ranked list of outstanding issues and concerns
4) Appendix 1, 'Report from Availability Task Force', should be structured roughly along the lines of the Task Force sub-groups.
    a. Introduction
    b. Report from the 'Analysis' subgroup (subgroup 2) – this may seem out of order, but it is this sub-group who will support the 'MTBF input' choices in the table (slide 22 of http://ilcagenda.linearcollider.org/materialDisplay.py?materialId=slides&confId=4198 , labelled 'MTBF's)
    c. Availability design of the two HLRF schemes (note that the designs are described in Section 4.6.2 and 3):
        i. Distributed RF System
        ii. Klystron Cluster System
    d. Simulation Results
    e. Plans
5) It is important to note that most asked questions were about the input data, both at the GDE Workshop and within our meeting. Typically:
    a. Where does the information come from? How is it documented?

b. What will the anticipated improvements cost? How would you judge the impact of a more 'QA' driven / pre emptive testing program?

c. What strategy do you have to recognize and develop this in your R & D plan (or project plan)? (John indicated that the improvements in power supply – includes controller - seen at APS took many years to realize.)

d. Note: We have an ongoing development effort on intrinsically redundant power supply systems at ATF – supported by SLAC and KEK. The system has 40 units and has operated ½ year.

Task force planning and homework:

At our next meeting, we will review writing assignments and our approach to the Availability Task Force report.

Presentations by:

 Sub-Group 2: John

 DRFS: Tetsuo

 Availsim results: Tom

 Introduction: Marc