

KEK Trip Report

BAW Prep
S1 Global Status
Pilot Plant Status

BAW


- Four Day Mtg Sept 7-10 @KEK
- Review of Baseline Design of Main Linac...cavity gradient & RF schemes
- Planning for TDR content in 2012
- Major questions are
 - Gradient yield / spread
 - Klystron Cluster vs. Distribution RF scheme

The 1st BAW Announcement

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4593>

The 1st Baseline Assessment Workshop (07-10 September 2010) <http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=4593>

LOCAL: Asia/Tokyo login



The 1st Baseline Assessment Workshop

7-10 September 2010 KEK, Seminar hall, 1st floor, 4-goukan

[Home](#)

- Overview
- General Plan and Focusing Discussions
- Timetable
- Registration
 - Registration Form
- List of registrants
- Access
- Accommodation
- Workshop Dinner
- Wireless LAN
- VISA
- Committees
- Contact Us

Organized by ILC-GDE Project Managers:
Akira Yamamoto, Marc Ross, and Nick Walker
Hosted and locally organized by KEK LC office:
Chair: Seiya Yamaguchi
Scientific Secretary: Tetsuo Shidara
Administrative Secretary: Tomiko Shirakata

- Main Subjects:
 - Single-tunnel ML design and High Level RF System (Sept. 7 - 8)
 - Accelerator Field Gradient for SCRF Cavity (Sept. 9 - 10)
- Objectives and Goals:
 - Assessment of technical proposal in SB2009
 - R&D plan and goal in TDP-2
 - Impact across system interfaces, cost and schedule
 - Discussions toward consensus in GDE and Physics/Detector groups

Participants to the workshop (requested)

- GDE PMs/APMs
- GDE ADI team / TAG leaders
- Physics/Detector Representatives

Participants anticipated

- AAP and PAC members
- Internal and external experts

Time-Table / Agenda (Sept. 7)

updated: August 27

Day	Am/pm	Subject	Chair/presenter
9/7		Single Tunnel ML Design and HLRF -1	S. Fukuda / C. Nantista
	9:00 90 min	Opening and Introduction <ul style="list-style-type: none">- Opening address- Report from AAP- BAW1 objectives and goals	Chair: S. Yamaguchi <ul style="list-style-type: none">- A. Suzuki- E. Elsen- A. Yamamoto
	10:45 90 min	Single tunnel CF design and HLRF design <ul style="list-style-type: none">- Single tunnel CF design status (1 hour)- General HLRF design in SB2009 (30 min)	Chair: T. Shidara <ul style="list-style-type: none">- A. Enomoto- S. Fukuda
	13:30 120 min	HLRF KCS <ul style="list-style-type: none">-KCS design and R&D status (45 min)-Demonstration of feasibility (45 min)	Chair: S. Fukuda <ul style="list-style-type: none">- C. Nantista- C. Adolphsen
	15:45 105 min	HLRF – EU XFEL and RDR <ul style="list-style-type: none">- Introduction (20 min)- Experience from XFEL (1 hour)- RDR configuration (as backup) (10 min)- Discussion (15 min)	Chair: M. Ross <ul style="list-style-type: none">-M. Ross-W. Bialowons- S. Fukuda- ALL

Time-Table / Agenda (Sept. 8)

Day	Am/pm	Subject	Convener/presenter
9/8		Single Tunnel ML Design and HLRF -2	S. Fukuda / C. Nantista
	9:00	DRFS -DRFS design and R&D status -Installation strategy -(1 hour total)	Chair: C. Nantista - S. Fukuda - S. Fukuda
	10:45	HLRF and LLRF -LLRF requirements/issues for KCS 30 -LLRF requirements/issues for DRFS 30 -Requirements from Beam Dynamics 30	Chair: T. Shidara - C. Adolphsen - S. Michizono - K. Kubo
	13:30	Operational consideration - Sorting cavities in relation with HLRF 30 - Gradient and RF Power Overhead 30	Chair: C. Adolphsen - S. Noguchi - J. Cawardine
	15:45	Discussions and Recommendations - General discussions and questions - Summary and recommendations	Chair: A. Yamamoto - TBD - ALL

Time-Table / Agenda (Sept. 9)

Day	Am/pm	Subject	Convener/presenter
9/9		Cavity: Gradient R&D and ML Cavity Gradient	R. Geng/A. Yamamoto
	9:00	Introduction and Current Status - Technical address for the 2 nd part of WS (20 min) - Overview from RDR to R&D Plan 5 (45 min) - Progress of cavity gradient data-base/yield (25 min)	Chair: M. Ross - A. Yamamoto - R. Geng - C. Ginsburg
	10:45	R&D Status and further R&D specification - Fabrication, testing, & acceptance for XFEL/HG (45) - R&D expected in cooperation w/ vendors (15) - R&D w/ a pilot plant w/ vendor participation (15)	Chair: E. Kako - E. Elsen - M. Champion - H. Hayano
	13:30	Short-tem R&D and Specification - Field emission and strategy to settle ... (20) - Gradient, Spread, Q0, Radiation: R&D specification, standardization	Chair: R. Geng - H. Hayano -
	pm-2	Long-term R&D ACD subjects and goals - Seamless/hydro-forming, Cavity shape variation, VEP, Thin Film, Large-grain, ..	Chair: R. Geng (AY) (Rongli to propose)

Time-Table / Agenda (Sept. 10)

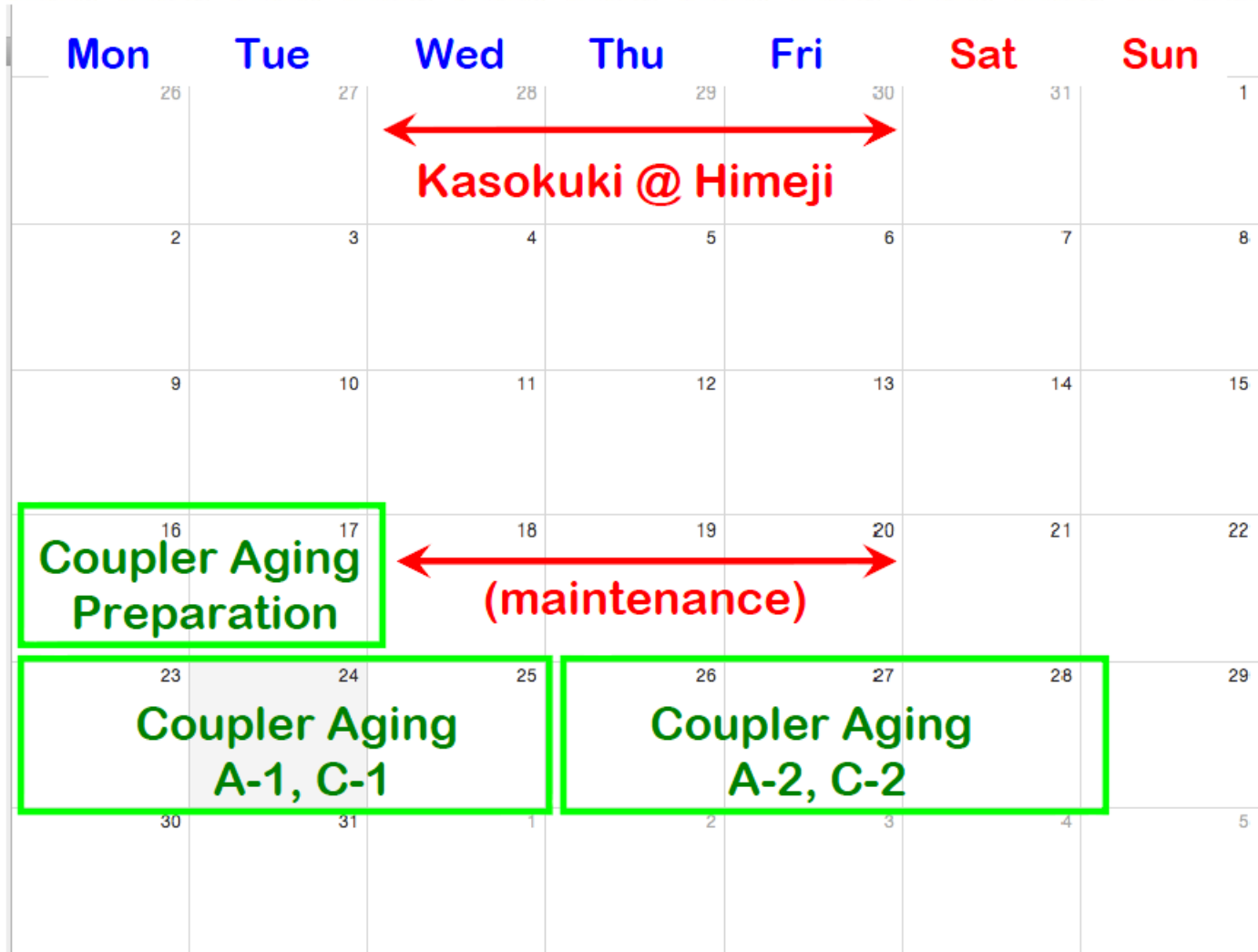
Day	Am/pm	Subject	Convener/presenter
9/10		ILC accelerator gradient and operational margin	A. Yamamoto and J. Kerby
	am-1	Gradients from VTS to Operation - Introduction: Overview on ILC gradient specification at each testing / operation step (30 min) - Terminology definition (20 min) - EU/Ams experience from VTS/HTS/Cryomodule (30 m)	Nick Walker A. Yamamoto M. Ross -C. Ginsburg
	am-2	Operational margin -STF experience from VTS, Cryomodule incl. -LFD (45 min for both) -Gradient and Cavity Tilts; Other 'uses' of margin 20 - Accelerator Operation gradient margin 25	- E. Kako - E. Kako - K. Kubo - N. Walker
	pm-1	Cost Impacts - List of systems / technical components affected by gradient specification change - Reminder on cost effects	A.Y. & J. K. - J. Kerby - P. Garbincius
	pm-2	General Discussion and recommendation - General discussions - Summary and recommendations	PMs (AY, MR, NW) - All

S1 Global

- Warm Coupler Processing started
 - 2 day delay while installing DESY equipment, but schedule made up by end of last week.
- KEK tuning problem in linkage between motor and tuning mechanism..opened and will be fixed.
- ACC011 fix not possible (guess is coupling is problem here as well), but remaining 7 cavities to be tuned to ACC011 frequency
- Continues to proceed according to original schedule

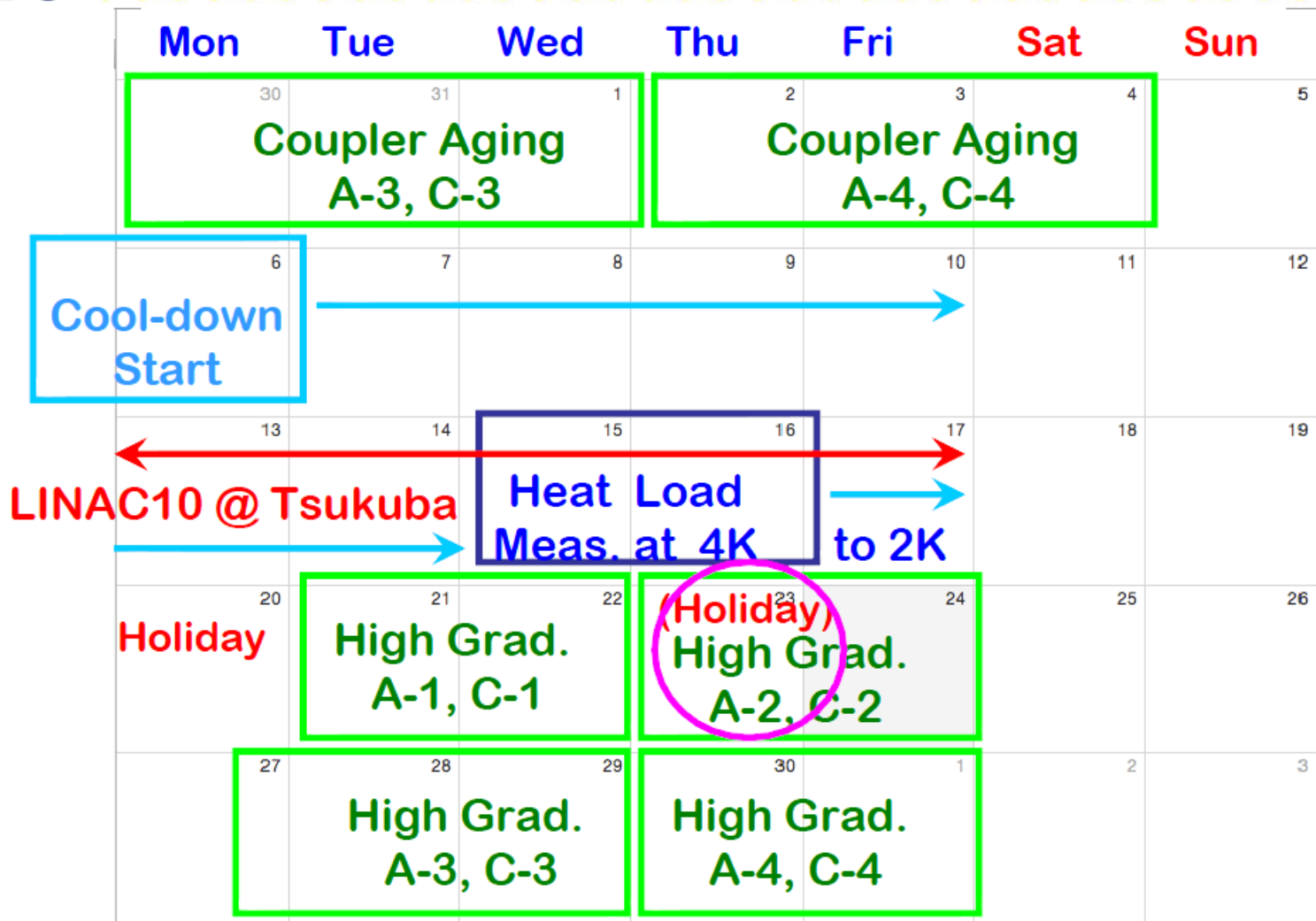


August, 2010





September, 2010





October, 2010

Mon	Tue	Wed	Thu	Fri	Sat	Sun
27	28	29	30	1	2	3
4	5	6	7	8	9	10
	Lorentz D. A-1, C-1		Lorentz D. A-2, C-2			
11	12	13	14	15	16	17
Holiday	Lorentz D. A-3, C-3		Lorentz D. A-4, C-4			
18	19	20	21	22	23	24
Dynamic Loss C-1		Dynamic Loss C-2	Meas. C-3	C-4	FNAL (T. Peterson)	
25	26	27	28	29	30	31
Dynamic Loss A-1		Dynamic Loss A-2	Meas. A-3	A-4		

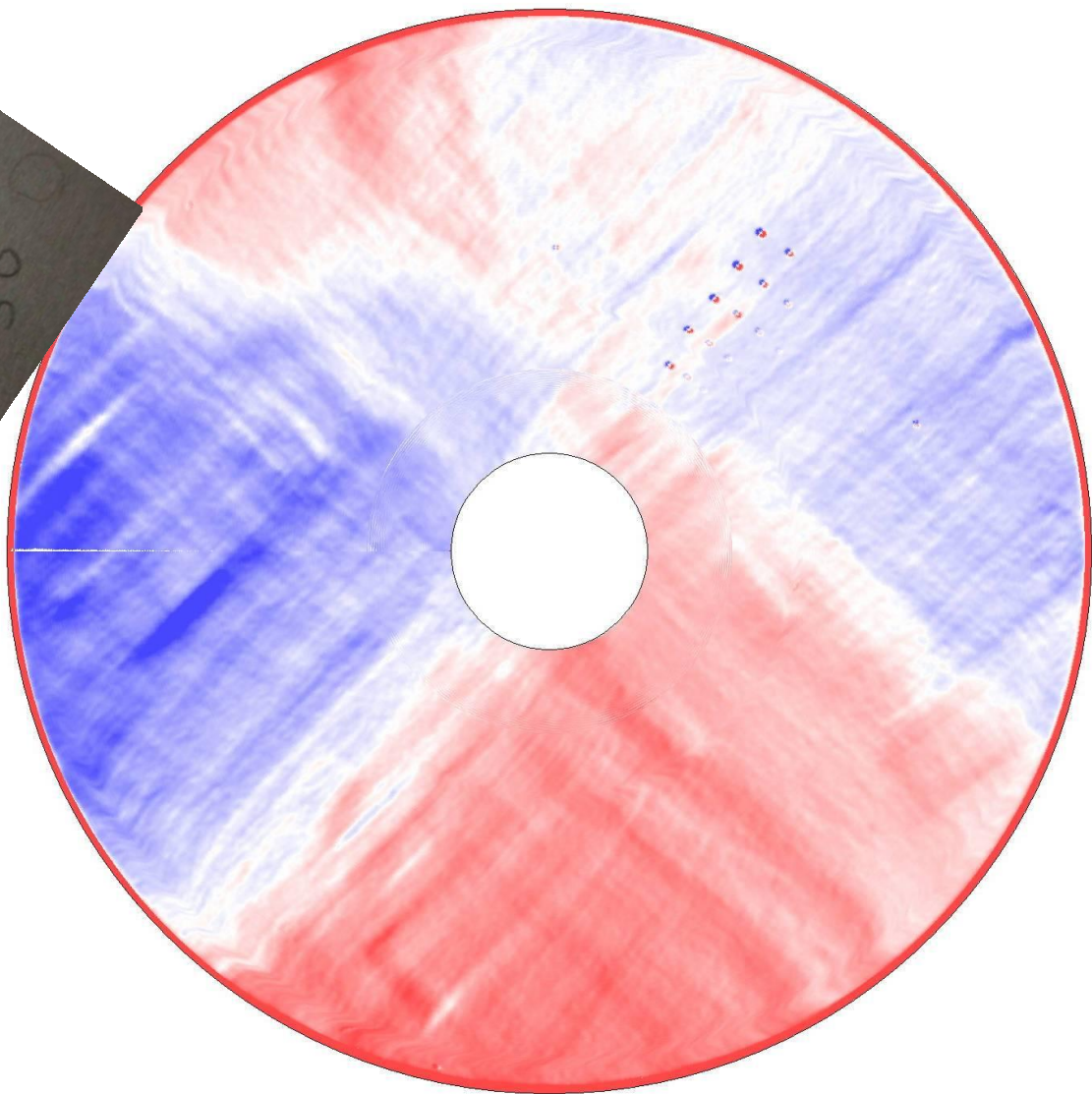
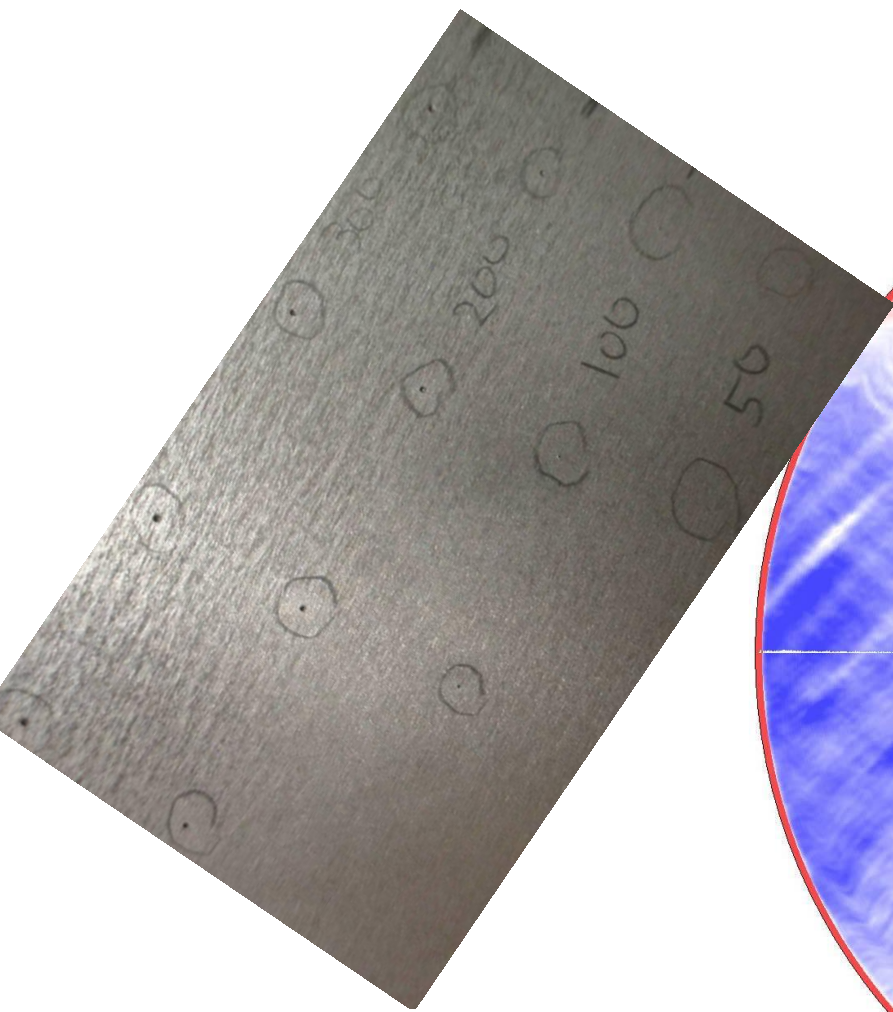


November, 2010

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	1 4 Cavity Control	2 (Holiday)	3 Dynamic Loss A 4 cav.	4 Dynamic Loss C 4 cav.	5 6	7
	8 8 Cavity Control	9	10 Dynamic Loss 8 cav.	11 Dynamic Loss 8 cav.	12 13	14
	15 LLRF	16	17	18	19	20 21
	22 (Holiday) Heat Load at 2K	23	24	25 Calibration by Heater	26	27 28
	DRFS Preparation					
	29 DRFS	30	1	2	3	4 5

Pilot Plant

- KEK Making a 'model' production facility, open to users, on site.
- Should be in full operation ~next April? (EBW machine)
- Press in place
- Welding studies
- Eddy Current Scanning (w/ Kyoto)
- Laser Inspection system



20100830 SRF mtg

JSKerby – KEK trip