



Introduction and goals of the meeting

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Fifth ATF2 Project Meeting
December 19-21, 2007

Global Design Effort



Support our UK colleagues

- We would like to start from expressing **our complete support to UK colleagues**, in this difficult times, when STFC announced withdrawal from ILC and applied pressure of funding cuts to HEP and Universities research
- The **worldwide ILC community is mobilized to provide support** in many ways
- As one of the actions, the ATF collaboration is preparing letter that will **highlight importance of UK contribution to International Research Facilities**, such as ATF, stressing that such research **give immediate results** and may also give **direct opportunity for engagement of UK industry**



ATF

Accelerator Test Facility

ATF2

Scaled down model of ILC final focus

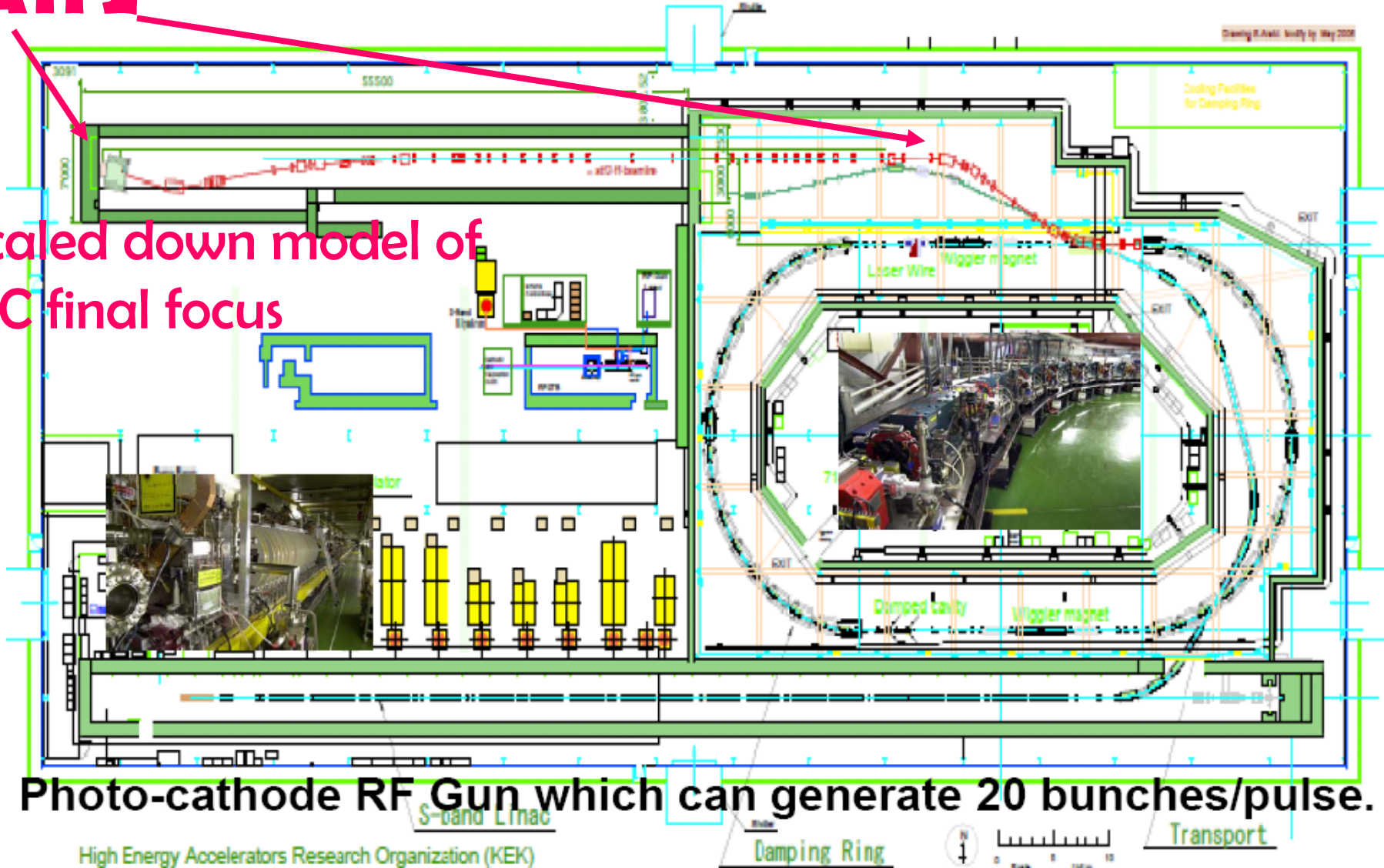


Photo-cathode RF Gun which can generate 20 bunches/pulse.

High Energy Accelerators Research Organization (KEK)

ATF2 construction



Assembly hall before construction



Assembly hall emptied for construction



Construction of reinforced floor



Construction of shielding



ATF2 goals & schedule

- ATF2 goals
 - **prototype ILC Final Focus system**
 - **develop FF tuning methods, instrumentation (laser wires, fast feedback, submicron resolution BPMs)**
 - **learn achieving ~35nm size & ~nm stability reliably**
 - **possibly test ILC Final Doublet prototype with beam**
- ATF2 final goal – help to ensure collisions of nanometer beams, i.e. luminosity of ILC
- ATF2 schedule
 - **start of commissioning with beam: Autumn 2008**
 - **commissioning & beam size studies: 2009**
 - **assessment of beam size studies: beginning of 2010**



Importance of ATF2 for EDR

- ATF2 goals are essential for *Engineering Design Report* phase of ILC
 - **The EDR phase extends to the middle of 2010**
- **ATF2 is one of central elements of Beam Delivery System EDR work**, as it will address a large fraction of BDS technical cost risk
- ATF2 results on beam size are expected to come within the EDR time, and will affect the EDR
- ***Assessment of ATF2 studies on beam size are one of the top deliverables of EDR R&D plan***
- *What does it mean for us:*



Preparing for ATF2 start

- Internal friendly reviews by ATF collaboration
 - **at the project meetings like this one**
- **External formal reviews by ILC Project Managers**
 - **With invited independent reviewers & formal reports to PMs**
- The formal PM driven review tentatively suggested for late spring – early summer
- At this 5th ATF2 Project Meeting, we should **identify critical path items** – they will be the **topics of PM driven review**



Checking the readiness

- Status of construction
- Status of hardware essential for ATF2 goals
 - **How do we mitigate funding difficulties**
 - **How we focus on key systems**
- Overall integration of beamlines
 - **Any important systems missed from discussion?**
 - **E.g. what are specs for electrical noises & plans for grounding?**
- Procedures & shift organization
 - **How to ensure focus on the primary goals?**
 - **Is continuous (>week) operation required?**
 - **How to optimize shift schedule?**



Checking the readiness...

- ATF Damping ring readiness
 - Importance of routine achievement of design ϵ
 - Can we do this just with existing hardware?
 - Should methods like MIA be implemented?
 - Standardization & how to guarantee repeatability?
- Readiness of control system for envisioned tuning
 - How contribution of collaborators can be included?
- Readiness for remote participation
 - Number of remote participants will be increasing
 - Will communication hardware be ready?
 - Paper logbooks? Strongly encourage use of e-logs?



Schedule of the meeting

- Review of technical readiness of
 - **hardware, production plans**
 - **installation & integration**
 - **control system work, etc.**
- Planning for the future
 - **long term plans – Final Doublet upgrade, etc**
- Closed session on budget
 - **Friday 8am-9am**
- Technical Board and System/Group Coordinators meeting
 - **Friday afternoon**
- Forget the year party on Friday evening!



Let's start

- Next: Conventional facilities and construction schedule
 - **Conveners:**
Junji Urakawa, Nobuhiro Terunuma