

2/14/2005 DRAFT

To: Files
From: Nobu Toge
Subject: Trip Report, FNAL (Feb.4-5, 2005) and JLAB (Feb.6-7)

A. FNAL (Feb.4, 2005)

1. Participants

KEK: F.Takasaki, K.Yokoya, H.Hayano, K.Saito, K.Ueno, Y.Oda, N.Toge
FNAL: M.Witherel

2. Topics

MW: US budget situation. ~19M\$ cap till FY04, which had been finally removed. Now 16M\$ for SLAC, 3M\$ for FNAL. FNAL adds 3M\$ to it, so in total ~6M\$ in FY05.

FT: Remarks on the Japanese budget. The total Japan-US budget will remain approximately the same as the previous year (JFY04). Much bigger fraction will go to LC activities in JFY05, but the spending will tilt substantially towards building up the domestic infrastructure in Japan.

MW: Expressed "understanding" towards the JA situation. Will discuss with YT.

MW: P.Oddone comes to FNAL half-time in April-May; full-time in June; and officially takes over the office on July 1.

Misc topics:

1. Tevatron runs with L = E32 most of the time.
2. SLAC SPEAR in operation now; will move on to PEP-II by March.
3. BNL KOPIO in tentative, quasi-approved state.

B. FNAL (Feb. 5, 2005)

1. Participants

KEK: F.Takasaki, K.Yokoya, H.Hayano, K.Saito, K.Ueno, Y.Oda, N.Toge
FNAL: S.Holmes, S.Mishra, G.Balletini, N.Lockyer, H.Edwards, N.Solyak

2. Presentations

KEK Plans – Yokoya

C: ANL/FNAL interested in ATF program. Would like to know ATF beam schedule and would like to establish a closer communication link.

C: FNAL would like to know how "seriously" this overall ILC-Asia schedule is being taken by relevant parties. Background: tight US budget situation which makes it difficult to be consistent with the ILC timechart. (A: the budget request has been only submitted, not approved yet. The actual progress to see is subject to the real budget and other factors.)

STF – Hayano

Q: The cryomodule designs are not "final" in phase-1 STF, correct? (A: correct)

Q: Initial STF cryomodules include Qs or not? (A: No)

Cavities – Saito

Q: Specific plans for cavity mass production?

Q: EP capacity in Japan (A: 2 cav/week)

Japan-US – Toge

A repeat of previous presentations, plus a discussion on the Japanese-side Japan-US budget request and job assignments so far discussed with SLAC.

Q: Likelihood of full budget approval? (A: Likely to see 20-30% cut, so the program needs one more refinement cycle where discussion with FNAL will have chances of being incorporated)

FNAL/SMTF – Holmes

SMTF – Lockyer

New phasing scenario: 1, 2, 3. Information of internal budget discussions.

C: DESY cryo to FNAL in exchange for 3.9GHz harmonics cav from FNAL + DESY cryo to be delivered would be #10

C: ILC and other contents (PD, CW, RIA) within SMTF are by and large separate both technically and physically. A small number of “common asset” subjects include cryogenics.

Cav Design Calv – Solyak

3. Discussion

SMTF and STF cost estimates: Appear to be roughly consistent with each other.

Job schedule for 45MV/m: FNAL colleague remarked that it could be of a long-term effort (i.e. just because we may not see fast progress by Summer, 2005, it should not mean that we should kill it off soon).

KEK contribution cavities to SMTF: dressed or undressed? KEK has no budget or resources to dress the 4 cavity modules for SMTF. FNAL will have to figure out how to go about them. Possible participation by JLAB in this regard?

Required time schedule for the KEK cavities for SMTF: “to be dressed by mid-2006”.

Meaning of “FNAL contribution \$” in Japan-US cooperation? (A: Estimated added values in terms of FNAL labor when the HW components are built for use by ILC-Asia. Raw materials cost needs to be paid in addition.)

Expected time schedule for the delivery of FNAL contributions (proposed) to KEK: Modulator – likely mid 2006; Chechia – sooner (i.e. within 2005).

FNAL-KEK personnel assignment: See attached table. Let the experts start knowing each other.

Visitors from KEK to FNAL: Akemoto and Shidara to visit FNAL with regards to modulator development in March.

Relation to ANL, JLAB and Cornell: KEK proposes to ask FNAL as the “contact lab” for SRF matters (and SLAC for inj/FFS matters) within Japan-US. This does not exclude direct contacts between KEK and ANL/JLAB/Cornell, and actually they are encouraged, though. (H.Padamsee and W.Funk on the phone during part of this discussion)

Video conferencing: Need discussions.

C. JLAB (Feb.7, 2005)

1. Participants

KEK: K.Yokoya, H.Hayano, K.Saito, K.Ueno, N.Toge

JLAB: S.Chattopadhyay, P.Kneisel, W.Funk, C.Reece, W.Funk, A.Hutton
(deputy to S.C.), R.Rimmer (deputy to W.F.), C.Rode

2. C.Leeman (JLAB director)

Quick greetings. Leeman welcomed our visit and remarked that he values the collaboration opportunity through the Japan-US program.

3. JLAB Tour 1

Guided by P.Kneisel.

Areas visited: Test lab building. Clean room; Sheet-metal shop; EBW facility; Vacuum furnace; Mechanical tuners; assembly area; EP; vertical test stands; cryostat (horizontal) assembly area; cryostat (horizontal) test area; surface science lab

4. Presentations

Yokoya

Hayano

Saito

Ueno

Toge

Chattopadhyay – emphasis on three key areas (in the order of priority below):

1. Industrialization of 35MV/m
2. Beyond 35MV/m
3. Beam technologies

Funk – JLAB SRF programs and Japan-US

Kneisel – Collaboration programs (proposals)

5. Discussions

Possible categories of KEK-JLAB cooperation:

1. Numerous specific cooperative studies. Relatively small in scale and with clear focus. Examples: Kneisel's list.
2. KEK cavity contributions to SMTF: JLAB may have opportunities to participate here, particularly, in the area of "cavity dressing" and "testing". Need discussion with FNAL.
3. General SRF operational experience: KEK to send some junior persons for a period of time to participate in the operation of CEBAF.
4. Beam programs at ATF/ATF2:

Concerns: No funding clearly marked as "ILC" at/for JLAB.

6. Conclusions

Keep contact.

Try to strengthen KEK-FNAL-JLAB collaboration via KEK contributions to SMTF. Need to work through several channels – homework item.