



Muon Accelerator Program: Program Management Group Meeting Minutes

February 16, 2012

Minutes: Dan Kaplan (IIT)

In attendance (AFAIK): Giorgio Apollinari, Alan Bross, Eric Colby, Rick Fernow, Steve Geer, Stuart Henderson, Dan Kaplan, Craig Moore, Mark Palmer, Vladimir Shiltsev, Steve Virostek

INDICO Link: <https://indico.fnal.gov/conferenceDisplay.py?confId=5263>

Agenda:

1. MAP Update and Review of Critical Issues (MuPAC meeting, DOE Review, FY12 Budget issues, RF Testing, HTS situation) – Mark Palmer
2. MICE magnet status and schedule -- S. Gourlay or S. Virostek
3. MICE RFCC Plan – A. Bross
4. Discussion – M. Palmer lead

Palmer Talk:

Q (Geer): To whom will MuPAC report?

A (Henderson): formally, Pier

Q (Apollinari): What sort of DOE review is planned? Comparative?

A (Henderson): Like the LARP reviews, i.e., not comparative

Q (Geer): Why did DOE request a review in early summer? In order to be in time possibly to impact the FY13 budget?

A (Palmer & Henderson): No - they just thought a review was overdue so should be done sooner rather than later.

Palmer emphasized need for MAP R&D performance metrics.

Q (Apollinari): Which CC cryostat?

A (Palmer & Bross): The first one for MICE is the most critical.

Geer: Note that \$11.2M planned in FY13 means shortfall (w.r.t. \$17.5M projected, inflation-corrected, MAP budget) is 35%, i.e., millions of dollars - this will require



both a serious descoping of our activities and a strong pushback.

Palmer: Key items in next 20 months include RFCC component testing in MTA and a "full" MTA RFCC test (with a single RF cavity) - none of this represents new scope.

Q (Geer): But taking on BSSCO R&D would be.

A (Palmer): The BSSCO 3-year proposal appears to be dead. If MAP deems it important enough to pick up, it would be new scope.

Q (Kaplan): Do we need BSSCO if YBCO works?

A (Palmer): BSSCO is very desirable for HEP applications generally - potentially has more flexibility than YBCO, e.g., for high-field dipoles.

A (Geer): Industry is more likely to support BSSCO, whereas YBCO could become orphaned - BSSCO has "better coattails."

A (Apollinari): Agrees

A (Palmer): But for MAP all we need to do is prove feasibility of final cooling - this does not necessarily include establishing industrial support for our solution.

Henderson: Will meet with DOE soon, but we're not expected to present MAP FY13 plan yet - however, they want to see the plan by April-May, including institutional funds distribution and goals.

Virostek Talk:

Q (Kaplan): Will Harbin weld MICE CC (2nd and 3rd) cover plates?

A (Virostek): Yes

Bross Talk:

Discussion on Slide 13: So far the requested AD resources have not been found.

Q (Shiltsev): What are the main schedule risks?

A (Bross): Are Qi Huan windings good? We'll know about the first one this summer. If so, then main risk is whether Fermilab can go out for bids on cryostat in FY12, i.e., will funding be sufficient?

Q (Moore): Is beam required for the RFCC test?

A (Bross): No - but maybe it would be desirable at the very end.

Q (Henderson): How do current milestones compare to previously "published" dates?

A (Bross): We don't really know the current milestones yet, but we know that they'll be very late compared to previous.



A (Kaplan): In June 2011 we told MICE Project Board that goal is both RFCCs delivered by 4/13, while plan now is that the first (MTA/MuCool) CC won't be available until 9/13.

A (Bross): _If_ Qi Huan coils are good, and we find a US vendor for cryostating, could deliver CCs relatively quickly, i.e., by end-2015, _if_ \$\$ available in time.

Q (Henderson): Has Fermilab provided resources needed for MTA program?

A (Bross): Need substantial engineering, design/drafting, and technician effort to figure out and plan RFCC installation in MTA (a tight squeeze), or elsewhere, plus an additional tech in order not to delay current MTA program - as it is, we're always waiting for techs, never high enough priority - and we're in same boat w.r.t. effort for testing first CC.

Palmer: What's at risk is continued schedule creep - we need to mitigate this up front! Very complex technical activities are envisioned, and are necessary.

Henderson: Apollinari is planning an internal CC testing review on Wednesday.

Action Items:

1. Need full "rackup" of resources with timeline - Henderson and Palmer to meet with AD next week
2. Palmer invites feedback on FY13-14 plan.
3. Complete MuPAC charter and send it out and reconstitute the committee.

Next Planned Meeting:

Thursday, March 15, 1PM CST