

Minutes of L-N/LBT Regular Teleconference

Aug 13, 2015; 17:00 – CEST (08:00 MST)

Attendees:

- MPIA: Martin Kürster, Tom Herbst, Thomas Bertram, Ralph Hofferbert
- LBT-Tucson: James Howard, Al Conrad, Mike Gusick, Jim Wiese, Dave Ashby, Jeff Urban, Doug Summers
- LBT-Summit: John Little

(last updated 18aug2015)

1. LBT Readiness for I2

a. RH list-of-6 (+DA response)

- UIAP

We reviewed the two figures on the Twiki:

<http://wiki.lbto.org/bin/view/Instrumentation/LnLNPaPage>

Comments included:

- The ladder as shown blocks necessary access.*
- With a vertical ladder it is not easy (as it would be in the case of a staircase) for a person working alone to bring tools and equipment up to the access hatches.*
- Is the drawbridge off the table? Yes, however a 'lapeyre' staircase¹ might be possible, but it would be a tight fit.*
- The handrails over the hatches need a 90° rotation (i.e., they should mirror the orientation seen above the LBTI hatches).*
- What is the source of the blue 'cabinet' in the lower left? Is it the LBTI cabinet that was present on the gallery during Pathfinder? No. This is an old model received from MPIA. A newer model, which correctly eliminates this phantom cabinet, is in hand at LBTO.² The LBTI cabinets will be within the LBTI envelope (suspended from, and mounted below, the LBTI portion of the UIAP).*

Dave noted that this drawing is preliminary and was intended to gather preliminary feedback. The formal drawing package will be released to the three stakeholders (mountain management, LN, and LBTI) in two weeks. Regarding the fit test during I2: How will the cover-to-UIAP alignment take place? (Presumably a person standing on the UIAP while it's suspended from the crane is not allowed.) That will not be necessary: With the access plates removed, it should be possible for people to reach in from the side (?) The cover is on wheels and can be rolled for the fine positioning. It's lightweight (approx. 350 kilograms). The UIAP needs to have leg extensions or jacks to raise it above its nominal height during alignment. A written procedure is needed.

- Bolts

The configuration has been agreed upon. The actual cutting is not yet

¹ A lapeyre stair (<http://www.lapeyrestair.com/>) is an alternating tread staircase that can be steeper than a conventional staircase.

² The more recent model also corrects the cover depiction; i.e., it shows all 6 cabinets *inside* the instrument cover.

- complete, but will be in time for I2.*

 - Gallery modifications

Design is complete. There is a plenty of clearance for the LN cryostat to pass through. (The door height was increased to be on the safe side.) The doors will be sliding glass doors. The door is required for safety. It is located at the interface between the non-tipping entrance to the instrument gallery, and the gallery itself (which tips in elevation). Interlocks will be established and pinch points had to be considered. Demolition of the old gallery will take place soon; then the fabrication starts. LN communicated that for the instrument schedule, the UIAP is higher priority than the gallery modifications. In particular, UIAP is needed for I2 "Receipt & Bench Installation dry run", scheduled 08 - 25 Nov 2015, while the gallery is needed for I10 "Cryostat + Instrument Verification," scheduling requested for 26 Jun - 07 Jul. They have received the design as a PDF, but request a model.
 - Roof leak repairs

The contractor (M3) has been working on roof modifications to address leaks since early June. These modifications, flashing, plumbing, drains, etc, are intended to address 'perfect storm' conditions (e.g., strong hail followed by strong rain) like those seen during July 2014.
 - Mountain lab services

Single-phase on UPS and 3-phase on commercial, as specified in table 25 of the ICD, is required in the mountain lab just as it is on the telescope. This is needed for I2 in November. Are we set up to keep both LUCI and LN powered and cooled in the event of a LUCI emergency repair mission? John will check.
 - Ports

This is a work in progress (since before Pathfinder in early 2012). The ports can be shared between ARGOS and LN, but that situation is not ideal. Technically the port intended for the to-be-realized slave BCU is designated for ARGOS and therefore realizing that port is not an LN issue, but this is largely semantics. In any case, this item is lower priority than the other I2 preparations.
- b. Food issue

Frozen food provided by the vendor indicated in Christian's recent email has been accepted as the planned solution.
- c. Cleanliness of the mountain lab

A cleaning, including removing all cardboard, took place during July. Further cleaning (e.g., wipe down, sticky rollers, etc) can be applied; possibly during the first two weeks of I2, between the arrival of the team (7.nov.2015) and the time the bench rolls into the lab (23.nov.2015).
- d. WL communications re He cylinders

Questions from LBTO purchasing will be coordinated via Elliot.
- e. LBT staff required (crane op and full crew on 16 & 23; other?)

Thomas provided details of I2 LBT support requirements in the cover email that came with the updated Gantt-chart schedule for I2. See Twiki for both:
<http://wiki.lbto.org/bin/view/Instrumentation/LnLNPage>

2. Plans for I2 (Receipt of Instrument and Bench Installation Dry-Run)

a. Shipping status

All containers and the big box will leave MPIA during early September (two trips: big box on the 3rd and containers by the 10th, possibly a few days earlier). The shipping company has guaranteed delivery to the base-camp by 02-nov-2015 (Monday), but delivery could come earlier and in stages. The MGIO equipment needed to offload the containers and the big box from the trucks is required on the day(s) of arrival to avoid excessive charges from the shipping company. How many days notice are required by MGIO? It is hard to give a firm number. One week is certainly sufficient, but shorter notice is likely OK. They do not operate on weekends or holidays. The exact day(s) of arrival will not be known until the date gets closer. The drive from Port Hueneme to base camp is expected to take 2 days, so once they depart there (around 29-oct-2015? earlier?) the exact arrival date will be known. That date can also be better estimated as the ship approaches Port Hueneme. LN has purchased all containers, so the time pressure to return the containers to the shipping company is relieved. All containers (some of which will be retained for storage; the others sold) can be easily accommodated for long-term storage at base camp.

b. Gantt Chart

Version 4 was provided on 13-aug-2015 and is on the Twiki:

<http://wiki.lbto.org/bin/view/Instrumentation/LnLNPaPage>

c. Safety (e.g., safety briefing and long shift restrictions)

Version 4 of the I2 Gantt chart builds in time for the safety briefing on the first day of the visit. Regarding restrictions on long shifts, at a recent management meeting at LBTO, the need to restrict long shifts, based on safety concerns, was raised for all commissioning teams visiting LBT. MPIA has internal regulations in place that restrict to a maximum of 6 10-hour days except in special cases. Version 4 of the I2 Gantt chart includes a complete day-off immediately before the critical week when LN is on the telescope (16-23 November), and 2 days of no-work-scheduled following.

3. PAE Action Item Review

a. Decision to freeze ICD with TBD items re IT (see notes on wiki)

Next = “before commissioning starts around middle of 2016 (issue 5.0).”

There is a common understanding that the IT information in section 7.2 is not up to date, however, agreement was reached last June between LN and LBTO that the up-to-date IT information could come later as above. In the meantime, LBTO requests any information (in particular an up-to-date block diagram to substitute for figure 98) and an indication of the fiber connections needed in the mountain lab (starting with I3 in January (??)) that Florian has available.

- b. Action item review:
- A7: LN team to provide laser scan of LN for the purpose of envelope verification.
Can be provided during September.
 - A13: LBTO will prepare the telescope for the power and utility installation for I2.
The power cables delivered during I1 will be installed on the telescope prior to I2.
 - A25: LBTO will recommend alternative flow meter solution:
New flow meters (that address the concerns raised at PAE) have been procured.
4. Other Business
- Three concerns about conflicts with LUCI commissioning were raised.*
- *Will LUCI-1 be reassembled and back on the telescope (i.e., not in the mountain lab) before I2? Yes.*
 - *Will the re-installation of LUCI-1 on the telescope conflict with I2? Not likely, but requires investigation.*
 - *Will the on-sky LUCI-2 commissioning 20-24 November (with possible requests from that team for day activities preceding those nights) conflict with I2? Action on A1 to raise this as a concern at LBT and with the LUCI team.*

Next Videoconference:

Thursday 10-sep-2015 8:00 MST (TBC; fall-back is 17-sep-2015)

UIAP is needed for I2 "Receipt & Bench Installation dry run", scheduled 08 - 25 Nov 2015 while the gallery is needed for I10 "Cryostat + Instrument Verification" scheduling requested for 26 Jun - 07 Jul 2016.