

## Minutes of L-N/LBT Regular Teleconference

September 9, 2014; 17:00 – CEST (08:00 MST)

Attendees: Martin Kürster (MPIA); John Little (LBT/Summit); Al Conrad, Dave Ashby, Jonathon Kern, Dave Thompson (LBT/Tucson)

(last updated 16sep2014)

### 1. Updates from LBT

- *AdSec*

John Little provided the AdSec status update that was requested by the L-N team: DX intervention (Guido Brusa, Juan-Carlos Guerra-Ramon, and Michael Lefebvre) is underway in the clean room and is scheduled to complete by end of next week. Re-installation on the telescope and beginning of testing is scheduled for 22.sep.2014. Following tests, the first on-sky use will be for the LBTI run (Wed. October 1<sup>st</sup> through Tuesday October 7<sup>th</sup>)

- *Upper Instrument Access Platform (UIAP)*

Dave Ashby reported that the platform, which will also be used for laser tracker metrology, will be built next year and completed before the arrival of L-N next fall. Dave also confirmed that the visitor gallery modification will have been done by the time L-N arrives. New L-N requirements for the UIAP exist, but discussion was deferred until the next meeting since Ralph is critical for that discussion.

**Action to Al:** *Make sure the new L-N UIAP requirements are readable to everyone at the next meeting (for example, the current web links provided at the meeting require a password that is not available to LBT staff).*

- *FastLink Connection to DX AdSec via slave BCU*

An issueTrac has been created (#5275). Although the slave BCU is in position on the AdSec hub, firmware modifications and testing are still TBC. For the upcoming PF run, the PF team will have to (as before) unplug Argos and “borrow” its port. Dave Thompson and Al raised the possibility that a fiber “AB” switch might be a simpler approach to this problem, but this is a very new idea at this point.

**Action to Al:** *Keep this effort moving; which includes working with Arcetri via the IQ group to get the firmware complete and/or*

*pursue the fiber switch alternative (also contact James Dougherty to bring him into the loop).*

- *Vibration collaboration*

Al has initiated an effort to form a collaboration that brings together the efforts of Michael Boehm at MPIA and the efforts of the LBTI team; both are working on predictive methods to mitigate vibration. Dave Ashby suggested Michael might sit in on the vibration tiger team meetings, but the time of day for these meetings might make that impractical. Martin pointed out that both he (in the position of managing Michael's time on L-N, and in particular, Michael's work on the active control of the L-N WFS CCD stage) and Jörg-Uwe Pott (Michael's MPIA advisor/mentor and participant in past interferometer efforts by Michael at LBT) should be kept in the loop.

**Action to Al:** *Sort out the best mechanism to keep this idea for a collaboration going.*

- *Other*

Martin congratulated the team on successful completion of the cryo line installation (Harald and Werner's visit from the week of 11.aug.2014). John Little confirmed that both of the tests (az and el motion) were successfully completed following that visit.

## 2. Updates from L-N

- *Progress toward milestones*

- i. Martin pointed out that AIV updates are given in the core and full team L-N meeting minutes:

1. Verbatim from 02.sep.2014 L-N CTM minutes:

- TB: cabling has been finalized by the electronics department
- TB will now set up the SW for JMV
- TB: now we need to close the loop:
  - This should happen within the next two months
  - TB: The most important thing to happen before we can close the loop is SW debugging

- TB: I would like to have KR work on the reconstructor and on the performance of the loop so that he can give JB feedback for the SW
  - TB: so far I have seen tip-tilt being corrected by JB's SW, but there is no proper way to calibrate, i.e. of feeding light into the system
  - We also need to map the star enlargers
  - The cryostat is cold now
    - Tests by VN and Patrick Fopp are going on
    - When PB is back the cryostat will be warmed up so that work on the improvement of the baffling can commence
2. Verbatim from 09.sep.2014 L-N CTM minutes:
- TB: there is an issue with the Piston Mirror electronics which could not be powered
  - It is now in the E-workshop
  - CCD positioning task: MBoehm is working on this and will show TB preliminary results later this week
- ii. PAE is currently scheduled for 04.may.2015
  - iii. Much of the team has just returned from the August vacation period.
  - iv. Prior to the vacation period, the SX arm of the MHWS system had been aligned and the DX arm of the MHWS system installed.

Martin pointed out that, although the above points give an overview, the formal evaluation of progress toward milestones awaits the re-planning exercise that Ralph is leading.

Regarding PAE, Dave Ashby reported that 3 members will attend from the mechanical group, Dave, Robert Reynolds, and a laser tracker driver (Lee Dettmann, Jonathon Kern, or James Howard); the latter to make measurements of L-N envelope and interfaces.

- **Shipping**  
The decision for overall shipping strategy (complete-instrument-all-at-once vs. many pieces) was reached over the summer and a call for tender has been issued; offers will be opened in mid-October. John Little and Dave Ashby stressed that they want to be kept informed of dates and other details of the shipment as the date approaches.
- *LN on-site integration planning and cleanroom space requirements*  
Martin reported that Ralph is preparing a “Dis-assembly and re-integration” document. This document will answer the questions provided by Dave Ashby regarding duration in the clean room, cleanliness requirements, and equipment/personnel requirements. This topic will be continued at the next meeting when Ralph is there.
- *Commissioning plan*  
Tom is preparing the commissioning plan and there is a web page on trac (last link under “Project” on the main page). This document does **not** include planning for dis-assembly and re-integration, which is covered by the separate document given in the previous bullet.
- *Upcoming PF run (E2)*  
The run is scheduled for 8-10 October, shared with engineering. The PF team will consist of: Tom, Maria, Valentina, and Carmelo. Frank will support remotely from Heidelberg. Juergen may attend, but will more likely also support remotely from Heidelberg. Florian may attend to, among other things, install a new computer but this is unlikely. In any case, Doug Summers will be kept in the loop if a new computer is indeed planned for this visit.

The team plans to arrive on 06.oct.2014, pending status of the DX adSec. The goal of the run is to close loops on more than one star.

- *PF/E3*  
Depending on the success of E2, there may be an E3. Martin indicated that learning the potential time slot for an E3 would help the team with planning flights and personal schedules.

**Next Meeting:** Thursday 25.sep.2014, 0800 MST (1700 CEST).  
Subsequent meetings will then be held every other week.