

# Minutes for AMiBA Engineering Telecon

Meeting Date: 14-Jul-2005

Participants:

Australia:

USA: Keiichi, Hiroaki, Ted, Philippe, M.T.

Taiwan: Chia-Hao, C.T., Johnson, Joshua, Patrick, Pierre, Shockly, Kyle, Po-I

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Outside USA Dial-in = 1 773 843 6301

Minutes Recorder: Kyle

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## I. New Action Items:

**Ted** - investigate the selection of cherry-picker and articulating boom.

**Pierre** - Top priority to find a solution to improve the shelter.

## II. Previous Action Items (still open):

(07/Jul/05)

**Philippe** - Prepare mechanical measurement of the platform. Contact photogrammetry people.

## III. Closed Action Items (as of this meeting):

**Ted** - verify/mark the hole pattern on the interface ring.

**Homin/Guillaume** - fix the problem of Linux CCD control software.

**Philippe/Ted** - To arrange a crane to lift the platform in order to mark the interface ring.

**Ted** - investigate the new optical telescope mounting structure. (finished?)

## IV. Miscellaneous Discussions:

Platform:

**Philippe** - Schedule of the platform: Interface ring will should arrive this Friday. It will be shipped to ML on Monday. We have arranged a crane to lift so we can fit and mark the interface ring with the platform on the ground. We expect to remove the dummy ring on Jul/24 for one to two days, and then install the interface ring and the platform. Optimistic schedule is to finish by the end of July.

**M.T.** - We need a plan for the photogrammetry. Should we send some people to train?

**Philippe** - We will do loading test of platform on the ground next week. And we hope to do full loading test in early Aug, but we need further planning on the schedule.

Site:

**Ted** - I have found a new Gini-3422N model in Honolulu, and now I waiting for quotation. The one suggested by Michael (TA-34N) is discontinued but can be found in 2nd-hand market.

**M.T.** - Joshua will come to do the 48V power distribution. First from container to cone and later from cone to platform when the platform is installed.

Shelter:

**M.T.** - The shelter is getting dangerous. I almost stopped people from operating it. Fixing it should be our top priority. Pierre please work on this issue.

Paul - Should we find a consultant to help us?

**Ted** - The temporary fix of shackle on the truss is damaging the structure. It is ok temporarily. I have designed a new attachment that uses a hoist ring to avoid damaging the truss.

**M.T.** - Let's revise the site safety regulation. All of you need to talk to Ted or M.T. before going to ML.

Receiver:

**Johnson** - All five mixers are improved. Now we have three for spare.

**Chia-Hao** - I ordered some w/g components. They will arrive at the end of July.

**Ted** - I have quoted for the 3rd compressor and additional adsobers.

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**M.T.** - We have some LNA's sent back for repair. How soon will we have them depends on Todd Gier's schedule.  
(14/Jul/05)

**Johnson** - We expect to ship Rx5 and Rx6 in mid Aug after IF/LO is finished.

**C.T.** - About the circular polarizer, Millitech has a matching product but does not guarantee low-T operation. We bought two and will test them after they arrive.  
(30/Jun/05)

**Pierre** - We still need the fencing. I got three quotes but all expensive.

**M.T.** - Kevin has suggested some cheap, ready made, dog house that may suit our need. I will hold this issue until we find a good solution.  
(09/Jun/2005)

**Pierre** - Two quick fixes to the LNA power supply card.

1. Reverse the protection diode instead of removing it should provide a protection at 3V.
2. The polarized capacitor at output is reversed and I suspect it is dead. They should be replaced.

### Mount:

**Patrick** - Stephan said he's still working on the problems we gave them.

**Patrick** - Michael continued to find evidence that Jack1 has problems. It is unclear whether the problem is in hardware or in software.

**Keiichi** - We will continue to take data for Michael to analyze the problem.

**M.T.** - After Keiichi leave, we will take the optical telescope to Hilo to improve the mounting design. It is better to work with real thing at hand.

**Homin** - We can now use the linux version software to take both dark and light image. Guillaume is doing subtraction of the two frame. Once it is finished, we can do 'autodark' from Linux software.  
(14/Jul/05)

**Guillaume** - I can now take both light and dark images using my Linux software by changing the filter. Somehow I can not control the shutter as a preferred way to take the dark image.

**Patrick** - Vertex asked some questions last Friday regarding my report. No new report.

**Patrick** - Plans for the optical telescope:

- (1) Two screws to help stabilize primary mirror.
- (2) Designed a mounting structure with two sided support of the tube.
- (3) Need an extended support for the camera.

**Patrick** - Sheng-Yuan showed me a spare telescope for SMA, but there are still some problems before it can be used.

### LO/IF:

**Shockly** - No update this week.  
(30/Jun/05)

**Johnson** - The VGA should arrive around end of July, but I will email to check the status of the order.

### Correlator:

**C.T.** - I am waiting for the backplane to come back from fabrication. I am also doing some control diagram for people to understand.

**C.T.** - We will have another discussion about how to install the correlator box onto platform.  
(30/Jun/05)

**Homin** - I would suggest Ted to measure the real dimension on the platform for the correlator bracket and Po-I can talk to machine shop about our requirement.

### Calibration System:

**Kyle** - I want to have a discussion with CT, MT and Derek about some issues of the calibration system. On the other hand, Pierre is helping to design the configuration of the calibration prototype.

**Kyle** - We plan to have a small PC in the calibration box to directly control all the components. And we command the calibration system remotely (in the container) through ethernet.

**M.T.** - Please talk to Homin about what kind of software you need, and whether it can be integrated with the rest of the control system.  
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**Kyle** - I need a signal switch and a mixer for the monitoring/feedback of the calibration signal. I got some quotes and will work on them to make a decision on what to order.

### Helium Lin:

**Chia-Hao** - We can ship the helium lines with the receivers.  
(14/Jul/05)

**Chia-Hao** - I have got the helium lines ready. I don't know when to ship yet.  
(30/Jun/05)

**Ted** - I will use the 9m helium line in Mauna Loa to test the routing. I have also given some lengths to Helix in Taiwan. They will help us estimate the pressure drop.

### Misc:

**M.T.** - We will clean the prototype dome ourselves by the end of July.  
(30/Jun/05)

**M.T.** - Some people have been complaining the logistics to Mauna Loa. I will ask Mauna Loa people about sleeping in the site and think about how to improve our buildings.  
(16/Jun/2005)

**Patrick** - Need some help for a 30m long 48V power cable. It is needed when we want to do pointing with the platform.