# Minutes for AMiBA Engineering Telecom 20060727, UTC 1:00

Regular Meeting Time: UTC 1:00 Every Thursday

Participants: Australia:

Hilo: Ken, Johnson, MTC MLO: Ted, (Joshua), (Peter)

Taiwan: CT, Patrick, CH, Su-Wei, Homin

USA Dial-in = 1-877-505-6247; passcode 8339148 #; mod code 2917771 #

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### Upcoming Milestone

o Oct. 3, 2006, Yuan Lee site visit. AMiBA Dedication

#### The Current Issues:

- (0727) Ted: Shelter motor: M1 & M2 finally gave up. New 3-phase motors were installed. Excellent turn around. Pierre cautioned that the motors deliver much power than the previous ones. Since the proper control mechanism was not in place. Caution not to pull down the shelter(Joshua, Peter, and Ted)
- 1.2 M dish fabrication:
  - (0727) Ong pushed to deliver the prototype "as is". Our major concerns: the weight of the dish (47 kg). Philippe propose a design to reduce baffle weight by 40%. Ong would need at least two months time to implement the new baffle.
- · System Testing:
  - o (0727) Ken: Sun scan for testing compensation cables. Baseline involving rx1, 6, and 7 were bad. But the data may suffice for analysis. Need more time in analysis.
  - o (0727) CT: Problems related to rx1, 6, and 7were likely on the phase switching electronics. Johnson would look into the issue in the coming week.
  - o (0727) PK: Need another run of pointing test. Ken would carry it out.
  - o (0727) Johnson: Would proceed change of configuration to compact after the pointing run.
  - o (0504) Testing Schedule (Kyle)
    - Remove 1<sup>st</sup> OT and install 60cm dishes. Dish/Rx alignment with TP from sun. (??) *Late June or early July? Two weeks*.
    - Planets! (??) July.
- Hexapod testing:
  - o (0607) No update from Vertex on the backward transformation failure.
- Site & Hilo Lab:
  - o (Log0530) container door damaged. Please kept door closed before fixed.
  - (0526) Vendor was working on an enclosure. Need a schedule.
    - (0504) emergency power generator (Pierre)
  - o (0504) Firewall (John & Homin), need update
  - Few more tasks or issues need to be discussed or taken care of:
    - Transformer to be moved out of control room
    - Automate the weather station
    - A Site PA system (Over internet?)
    - Lighting protection. Enlist professional help.
    - Fabric replacement (Long term, but important.)
    - Supporting cone insulation?
    - Platform covers for drop-thru holes (CFRP, strong structure)?
    - A stair way up to the platform might have to order an off-the-shelf model and modify it?
    - Crane?
- · Calibration:
- RX/IF/LO:
  - (Log0607) 60 Hz ground loop appeared in IF/LO output?
- Correlator:
  - o (0727) CT: Next trip (August) worked on software upgrade, in particular, fix the output format. Hardware would be on fixing the interference problem in the read-out board.

- Software update:
- Dish:
  - 1.2 M dish fabrication:
    - (0727) Ong pushed to deliver the prototype "as is". Our major concerns: the weight of the dish (47 kg). Philippe propose a design to reduce baffle weight by 40%. Ong would need at least two months time to implement the new baffle.
    - (0607) Philippe: 1.2 m prototype weighted more than 35 kg, 10 kg in dish and 25 kg in baffle. Could use thinner baffle and reduce weight by 10 kg. Needed to check pointing in this case, (concern with the secondary). Reminded people that the baffle was needed for secondary support.
  - The 2<sup>nd</sup> platform survey
    - (0607) Ideas were convergent. Kyle kept on discussing a execution plan.
    - (0511) Kyle proposed another run of photogrammetry.
- Major Issues:
  - (20060607) Dish baffle: ground pickup? Reflective or not?
  - (20060517) Large temperature variation in correlator. Major problem. Resolution to be investigated.
  - (20060507) DRO & receiver overnight stability. Got measurement. DRO over night seemed OK in both phase and amplitude. MT urged everyone to look into what were the realistic numbers we were after. Would come back to this issue again.
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- Intermittent Issues:
  - (20060517) Too much activity and work load in correlator computer? Resolved with extra computer in the cone area? Monitoring computer under the hexapod, permanent or not?
  - (20060504) ACU occasional crashes. Cause unknown. Reboot the machine would resolve the situation.
- Calibration:
- RX/IF/LO:
  - (Log0607) 60 Hz ground loop appeared in IF/LO output?
  - (0531) Johnson: Rx-7 on platform and tested.
- Correlator:
- Software update:
- Dish:
- Some lingering ideas (Need further sharpened...)
  - o (0511) Proty addressed data storage on site.

# Traveling Schedule to Hilo

Ted Huang
July 18 -- Aug 31
Johnson Han
July 11 - Aug 31
Joshua Chang
July 1 - Aug 31
Ken Chen
July 8 -

ASIAA Hawaii: http://pmo.asiaa.sinica.edu.tw/Hilo%20office/

AMiBA Website: http://amiba.asiaa.sinica.edu.tw/

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