## Minutes for AMiBA Engineering Telecom 20061026, UTC 1:00

Regular Meeting Time: UTC 1:00 Every Thursday

Patrick, CT, Ken, Ted, Johnson, Pierre, Su-wei, Chia-Hou, Joshua, Nishioka, Keiichi, GC, Paul Shaw, Pablo, Proty.

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- The Current Issues:
  - o Pablo:
    - Network and electrical problem in the past week. Problems were mostly resolved.
    - Receiver warmed up due to power outage. Now two rx are cold, another two being pumped down. All rx should be back on line at the end of the week.
    - Plan for sun scan, and delay measurement.
  - Electrical power quality on site. CT reported that intermittent power transit in the past week.
     Pierre suggested use of transit voltage sensor (TVS) for surge protection. Parts have been ordered. Pierre to revise the site electrical schematic with accommodation of the sensors. Hope it works.
  - Emergency power generator. Pierre planning on 50 KVA unit for parking the mount and close the shelter. New requirement to keep the compressors running. Each compressor consumes 5 KVA.
     Four of them consume total 20 KVA.
    - Issue: whether to use a larger capacity generator?
    - Pablo mentioned there would be a short period of time for receiver to warm up after power shut down, likely 10 minutes based on experience.
    - Should we exercise a strategy of switching the generator to compressor, after parking the mount?
    - Pablo and Pierre to enquire information on the switch.
  - Patrick: Rx-7 needs translation stage test for baseline calibration. GC and Ken will carry out the test before mounting the dish.
  - (1019) Patrick: 2<sup>nd</sup> OT mounted. Ready for testing. GC will run optical pointing test.

• CT:

- Analysis on count → Kevin based on hot/cold load. But the numbers from this run may need revision due to gain change in IF path.
- Proty raised question on why RMS is higher. CT: due to the RMS is measured with hot load.
   Higher input noise induce larger RMS.
- o Work on discreet readout board with Pierre. Will generate PCB schematic in a month.
- GC
  - Will verify system nosie with S/N measurement in the near future.
  - Optical pointing test with 2<sup>nd</sup> OT.
  - o Rx-7 translation stage test.
  - o Radio alignment.
- Pablo to take inventory on vacuum parts. Purchase if needed. Please check with the recent purchase by Johnson. Shipment should be in shortly.
- Coldhead service postponed after the current receiver test. Future logistics to be plotted out by Pablo, Ted, and Johnson.
- New compressor to be checked out. Ted to forward inspection procedures.
- Ted: Analyzing photogrammetry. Preliminary data show consistent result with the previous run (one year ago). Good sign. Preliminary result should come out by next week. Philippe and Ted will generate a report with some more time.
- Plan with 1.2 M prototype.
  - Due to its weight limit, this prototype is not likely to be the antenna for AMiBA 1.2M. Not clear urgency for testing, compared with other priority. However, if time and manpower permits, would like to measure its cross talk and dish temperature.
  - Will wait till new receiver chamber for mounting this dish.
- New prototype is likely to have reduced baffle. Patrick and CT are evaluating the impact on such proposal.

- MTC: Pablo will be in charge of site activity and coordination. Please pass your plan and request thru
  him.
- Priority:
  - o Get the AMiBA going on CMB observation by the end of this year.
  - 1.2 M dish
- (1012) Paul Ho: ask AMiBA to come up with nominal sensitivity. CT is after that.
- (1019) Scanner system on top of the platform for near field beam pattern measurement. System is in preliminary phase. Su-wei and Eugene are working on this.
- (1019) Kyle will be serving his mandatory military service in the next three months. Good luck to him. Ken will pick up the delay-line analysis.
- Major Issues:
  - (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:
  - (20060504) ACU occasional crashes. Cause unknown. Reboot the machine would resolve the situation.

Traveling Schedule to Hilo: Ken: 10/17 – end of year Guo-Chin: 10/12 – 11/10 Hiroaki: 11/11 – 12/9 Homin: Sometime in Nov Pierre: 11/15 – 12/15 Su-wei: 11/23 – 02/02/07 Keiichi: 12/2 – 12/30 Proty: 12/20 – 1/20/07 Locutus: 12/20 – 1/20/07 CT: 1/5/07 – 1/31/07

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Please contact MTC for managing this mailing list