## Minutes for AMiBA Engineering Telecom 20070510, UTC 2:00

Regular Meeting Time: UTC 1:00 Every Thursday USA Dial-in = 1-877-505-6247; passcode 8339148 #; mod\_code 2917771 # Outside USA Dial-in = 1 630 693 3224

- Mount operation:
  - HPC touch screen problem on some nights. Ken reported it may be a grounding issue of the operating person.
  - Often encountered backward transformation problem on ACU in the beginning of night. It took one to two hours for the problem to resolve by itself. Rebooting ACU sometimes help but not always. The issue has been reported to Vertex.
  - General:
    - Michael will visit Hilo the Jun/3 to Jun/8.
    - Kyle will put together a troubleshooting guide.
  - Problem lists :Vertex issue (PK summary)
    - (1) ACU response delay: can cause a 'stop' or non-smooth scan -> likely to be a Vertex problem, but we need to be sure about our network
    - (2) lost program track commands in ACU stack: will loose on-source flag, stop
    - (3) invalid backward transformation, kinematics error can cause a 'stop'
    - (4) problems with az=0 crossing in dec scan likely related to (1) and (2)
    - (5) recent pointing: some sequences of preset, startrack seem to fail if a pol drive is required. Not yet clear.
  - Problem lists: Our side (PK summary)
    - correlate 1st OT -2nd OT data, especially polarization pointing: I am working on that
    - improvements on control software: change in polarization pointing to save time, more
    - user-friendly input for tracking with defined hexpol Not very pressing items, but we need to keep working on it.
- Testing on site:
  - Rx status
    - Compressor #3 has a failed fan. There are spares to be replaced.
    - Ant6 temperature is slowly rising. It will be serviced next week.
    - CH will send a report on the work of corr box temp controller.
  - IF power:
    - Jupiter fringe first taken after RR input power was raised from -12dBm to -8dBm. SN ratio will be analyzed.
  - DC offset:
    - DK suggests to swap Rx and phsw to correlator in order to see if DC offset is related to receivers. (planned)
  - Observations:
    - New radio alignment data has been taken and waiting for analysis result.
      - Previous A2142 SZ map was affected by mis-connected IF cables. Estimated
        15% of useful baselines were affected. Proty will generate a new corrected map.
        Clean map will be studied later.
  - RPFITS
    - New rpfits and new mbtp was tested at the same time, but new mbtp still has some problem. Next time we will take rpfits data and compare it to ascii data using old mbtp (not at the same time).
    - Proty forwarded Michael's new package of rpfits routines. It will be studied.
    - Discussing about whether we should assign one person from our team to take care of rpfits issues.
- General site issue:
  - Pablo will generate a shelter/site operation procedure document.
  - Shelter control (joystick) was ordered but not here yet. (not urgent)
  - Expect the emergency generator to arrive the end of May.
- 13 element:
  Pacing
  - Pacing items:
    - Mixers
    - New IF/LO

- Rx
  - Ming-Tang will contact Tod about the shipping schedule of LNA (was supposed to be in Hilo already)
  - Rx8 and Rx9 will be shipped out next week (mid May).
  - Will visit the vendor for mixer block tomorrow.
  - Johnson found a local vendor of vacuum valve. Concerns are whether is has
    - good warrant because it is not a standard off-the-shelf product.
- IF/LO
  - Prof. Chu's student need more time on the new IF/LO prototype. It is about six months delay. It will be tested in lab for about 1 month after we get it. Ming-Tang will discuss with Prof. Chu about it offline.
  - IF parts are ok.
  - DRO is ready. SW is working on thermal control.
- Electronic box
  - Joshua finished a new electronic box with new backboard. It will be used in the lab for new Rx testing.
- Compressor and He line
  - Compressor order is pending onsite testing result. (Pablo?)
  - CH ordered a pair of hard He line. Soft He line has shorter lead time and can be ordered later.
- RO and correlator
  - Linearity of the new v2f component is very good. Most part will be ready by end of year.
  - New RO PCB will come back in one month.
  - Mark is making new XY and TP modules. Derek has all the XY Marki correlator. These will be stored in Hilo for assembly.
- 3<sup>rd</sup> section
  - Order to Wisewave has been placed. Johnson is sending all materials to them.
- Correlator housing
  - Ted reported an estimated schedule of 5 months. No update on correlator housing. Will start working on it at end of May.
- 1.2m dish
  - Cotech changed dimension of the hexagonal supporting plate at bottom of primary. Philippe will analyze to see if it has any impact. Schedule is unchanged.
  - First two dishes will deliver in early July. The rest will be delivered at 4 dishes every two months.
  - Need some clever idea to reinforce the platform once 1.2m dishes are installed. (related to platform deformation)
  - Total weight of 1.2m 13-element is about 4.5tons. It is 800kg over the spec of hexapod but still within safety margin.
- Calibration system
  - Pierre will generate a schedule.

Traveling Schedule to Hilo:

ASIAA Hawaii: http://pmo.asiaa.sinica.edu.tw/Hilo%20office/ AMiBA Website: http://amiba.asiaa.sinica.edu.tw/ Distribution List: kylin@asiaa.sinica.edu.tw, ctli@asiaa.sinica.edu.tw, dkubo@sma.hawaii.edu, homin@asiaa.sinica.edu.tw, cchan@asiaa.sinica.edu.tw, shchang@asiaa.sinica.edu.tw, pmkoch@asiaa.sinica.edu.tw, pierre@asiaa.sinica.edu.tw, ydhuang@asiaa.sinica.edu.tw, chiuehth@phys.ntu.edu.tw, kyl@asiaa.sinica.edu.tw, nishioka@asiaa.sinica.edu.tw, ihpw@phys.ntu.edu.tw, keiichi@asiaa.sinica.edu.tw, r91222042@ntu.edu.tw, mkesteve@atnf.csiro.au, raffin@asiaa.sinica.edu.tw, hueiwang@ew.ee.ntu.edu.tw, pshaw@asiaa.sinica.edu.tw, yjhwang@asiaa.sinica.edu.tw, f87026@ew.ee.ntu.edu.tw, ho@cfa.harvard.edu, jbp@cmu.edu, swchang@asiaa.sinica.edu.tw, thc@ew.ee.ntu.edu.tw, chchang@asiaa.sinica.edu.tw, ken@asiaa.sinica.edu.tw, fabi@asiaa.sinica.edu.tw, poshiro@asiaa.sinica.edu.tw, jlim@asiaa.sinica.edu.tw, wwilson@atnf.CSIRO.AU, pablo@asiaa.sinica.edu.tw Please contact MTC for managing this mailing list