

## Minutes for AMiBA Engineering Telecom 20070412, UTC 1:00

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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

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- Mount operation:
  - a\_boss/ACU socket lost:
    - Problem resolved after rebooting TCS and later rebooting ACU.
  - Backward transformation error:
    - Still a severe problem if operating through a\_boss manually. Using scripts in a\_boss show backward transformation error. Need to consult Vertex.
    - Three events of kinetic error. This stops the scripts.
  - ACU-HPC stop:
    - MTC proposes to repeat the problem by placing the hub or cable back. Just to identify the source. (low priority)
  - On-source flag (OSF):
    - New Vertex software solved part of the az=0 crossing problem (6 success/2 fail). This will be checked again.
    - High-elevation and az=0 crossing will cause OSF missing.
    - A\_boss will stop if OSF is not set. Michael is going to make the timestamp in log file more accurate to cross check events.
  - General:
    - We should put together a troubleshooting guide. (Procedures for network problems, etc.)
- Testing on site:
  - Rx status
    - SW checked Ant4IF2 and Ant2IF1 and phsw are still working.
    - CH is taking another set of stability data.
    - Ant6 cold head temp is oscillating. We may need to warm it up, pump, and cool it down again. Also need to check its service record.
  - Observations:
    - Off-center observation of a 1.7Jy point source (SMA cal list). 10arcmin from center would reduce 50% flux. 4 scans should be enough to make an image.
    - Jupiter scans were done for radio alignment and SNR analysis. LL SNR increased by almost factor of 2 compared to previous data (etd0).
    - Tuning VGA does not improve the SNR of RR. Suggest to check SNR by setting VGA to higher gain.
  - Ground pickup:
    - KU analyzed the ground pickup and it shows definite elevation dependence.
  - Noise spectrum:
    - HN reported spectra of 5 hour noise data. Most baselines show white spectrum above 0.001Hz. More discussions offline.
  - Dish/Rx/Platform tilt:
    - Pablo reported dish-rx tilt at most 1'; rx-platform tilt at most 1'.
  - IF power alignment:
  - Radio alignment:
- General site issue:
  - Road paving has completed. Some places are narrower. Must drive carefully.
  - Shelter control (joystick) need to be fixed.
  - Expect the emergency generator to arrive the first week of May.
- 13 element:
  - Rx
    - Rx8 and Rx9 will be ready by end of May.
    - Short of Subharmonic mixers. We will get quotation from ITRI after some modification of the drawings. Expect 2-3 months.
    - Expecting 10+ LNA in a few weeks. They should come with room temperature data.
  - IF/LO
    - IF parts are ok.
    - Expect to get miniature IF/LO at end of June. It will be tested in lab for about 1

- month.
- Dashun found a way to simplify the bracket design. It can be finished in this week.
- DRO is ready. SW is working on thermal control. A comment was added that 7-element DRO seems fine without a 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
  - CT will spend more time on the RO board.
- 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.
- 1.2m dish
  - Ted reports first two dishes (25kg) will come in 3 months.
  - Cotech projects with a schedule of 4 dishes every 2 months after the first one.)

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Traveling Schedule to Hilo:

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