

Minutes for AMiBA Engineering Telecom 20070614, UTC 2:00

Regular Meeting Time: UTC 1:00 Every Thursday

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Outside USA Dial-in = 1 630 693 3224

- Mount operation:
 - General:
 - Jack length spikes statistics clearly show problem with jack 3. Analyzing the log file shows the jump statistics is consistent. This means the jumps last for at least hundreds of mili-sec.
 - Vertex asks for more data. We will ask them to come to Hilo to solve problems.
 - Pablo plans to swap the cable for encoders as a first test.
 - No update on 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'
 - 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
 - Derek and Peter start to troubleshoot the RR box row-1 "hair" problem. It is noted this problem happened after implementation of VGA tuning but could be unrelated.
 - Broken 2nd mirror of Ant2:
 - Ted asks for quote. We will make one but will not install it immediately. The concern is its alignment.
 - With the damaged mirror, we will lose efficiency and increase noise and also change the beam pattern. However, for on-axis observation, the problem is not very obvious.
 - IF power:
 - Jupiter fringe first taken after RR input power was raised from -12dBm to -8dBm. SN ratio will be analyzed.
 - DC offset:
 - No update.
 - Observations:
 - We have been observing cluster A1995 which is about 100mJy and requires at least two weeks of observation time. However, another cluster of interest A1689 is about to become a day time object soon. Therefore observation has been shifted to A1689 and A2390. Since they share the night, it will take between one to two weeks to finish.
 - RPFITS
 - Verified that RPFITS records the same data as mbtp ascii log. Until either of the problem below is solved, we will continue logging in ascii format.Current problem with RPFITS:
 - ACU-TCS delay prevents smooth operation of correlator thru a_boss.
 - 7rrll config mysteriously produces strange spikes in 4R6R traces.
- General site issue:
 - Generator is connected to our system. It should start within 30sec of power failure.
 - New compressor shows higher temperature when driving 4 cold heads at the same time but is fine with 3.
 - Shelter control (joystick) was ordered but not here yet. (not urgent)
- 13 element:
 - Pacing items:

- Mixers
- New IF/LO
- Rx
 - Haven't got LNA samples yet. MT will keep track on this item.
 - Rx8 and Rx9 are in Hilo
 - Ted has asked ITRI to speed up on the mixer block.
- IF/LO
 - Johnson and SW will order two sets of the current IF/LO module.
 - A decision should be made in the review of mini-IF/LO development in mid-July.
 - DRO is ready. SW is working on thermal control.
- Electronic box
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- 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
 - The new RO board is being tested. Next iteration layout is scheduled to be sent out by end of May and it would take two weeks to have the new board.
 - Peter will start integrate DC amp and corr module from mid June.
 - Actuator for correlator house has been sent to ARL for testing.
- 3rd section
 - Order to Wisewave has been placed. Johnson sent all materials to them.
- 1.2m dish
 - First two dishes will deliver in early July. The rest will be delivered at 4 dishes every two months.
 - Philippe reported an idea of new carbon fiber interface ring. Its main advantage is light-weight and possibility to change design to better support outer rim of platform. We should consider what rx position will never be used.
 - Total weight of 1.2m 13-element is about 4.5tons. It is 800kg over the spec of hexapod but still within safety margin.
 - Beam pattern:
 - Eugene will get in contact with CSIST for their capability and interest in near field measurement.
 - MT is contacting Prof. Chu's lab for near field tests.
 - The original far field measurement is still being considered.
- Calibration system
 - Pierre has generated a schedule.

Traveling Schedule to Hilo:

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

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

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