

Minutes for AMiBA Engineering Telecom 20070531, 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:
 - General:
 - Vertex updated part of ACU software to enable encoder information for analogue output monitoring.
 - PTC touch screen has been calibrated and there's only one instance of error afterward.
 - Pablo temporarily heated up ACU and confirmed the blue screen problem is temperature related.
 - Michael will visit Hilo the Jun/3 to Jun/8. A list of tasks:
 - Rpfits to ascii.
 - Skypol lock problem in a_boss but not in test_va.
 - Tracking with constant Hexpol.
 - Sun avoidance?
 - 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
 - Correlator box LL had some problem and is fixed now. LO module for Ant4 had some problem and will be fixed soon.
 - IF power:
 - Jupiter fringe first taken after RR input power was raised from -12dBm to -8dBm. SN ratio will be analyzed.
 - DC offset:
 - Derek and Peter tested dc offset with absorber and both etd0+nodemod and etd2+demod mode. RR box does not show large offset as opposed to blank sky result.
 - Removing phase switch control would make IF2 power increase by 5dB. (Johnson and Su-Wei explained later as VGA control was removed along with phsw, so VGA was at max gain.)
 - Observations:
 - Proty pointed out data in the past month look strange. It is recommended that we take drift scan of planets every night to verify the validity of performance.
 - Proty will answer some questions regarding the results of radio alignment offline.
 - Kyle reported the correlator output of RR box first row has some problem for a more than 1 month. CT suspects the problem in data box. Further investigation is necessary.
 - RPFITS
 - CT took rpfits and mbtp log files at the time using new tkds and tkcor from Taipei. There seems to be no more glitches than the old software. We will use a_boss to take more data.
 - Proty forwarded Michael's new package of rpfits routines. It will be studied.

- General site issue:
 - Prototype has been decommissioned. Moving out of Waianuenue office is complete.
 - Shelter control (joystick) was ordered but not here yet. (not urgent)
- 13 element:
 - Pacing items:
 - Mixers
 - New IF/LO
 - Rx
 - LNA has not been shipped out due to some concern in the gate current leakage. However, a few samples will be sent to Hilo for testing and immediate use.
 - Rx8 and Rx9 are on the way to Hilo and should arrive this week.
 - Ted has asked ITRI to speed up on the mixer block.
 - Johnson found a local vendor of vacuum valve.
 - 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
 - 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
 - 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 is sending all materials to them.
 - 1.2m dish
 - Philippe reported the modified design by Cotech will have smaller deformation.
 - 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.
 - 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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