Minutes for AMiBA Telecon 20071206, UTC 2:00

Regular Meeting Time: UTC 2:00 Every Thursday
USA Dial-in = 1-877-505-6247; passcode 8339148 #; mod_code 2917771 #
Outside USA Dial-in = 1 630 693 3224

- Platform crack:
  - CMA proposed to patch only CFRP part, inside and outside. This approach is more favorable. CMA plans to use original epoxy and Cotech wants to use a different choice which has better shear resistance but less stiffness. Epoxy will be tested and a decision between bidders made soon.
  - Cotech proposed to patch the crack together with the steel supporting ring with CFRP. And they need one month to prepare material plus three weeks for site work.
  - Pablo is designated to find a resolution for the kind of mount problem that leads to platform damage in the future.
  - Pointing and deformation may change if there exist cracks. Need to check obs. data.
  - For safety reason, all mount operation is suspended till further notice.
- Mount operation:
  - General:
    - Guillaume's 'simhexapod' visualizes mount operation from log files. There is questions for next step. Including stress analysis? Real time display for observer?
    - Vertex has ,just sent us a new version software which should solve the skypol-lock issue. Testing of the software is suspended.
  - Problem lists :Vertex issue
    - Summary from telecon with Vertex: If error occurred while operating on HPC (neutral), one should check for error LED on PLC thoroughly before resuming the operation. Vertex could install another a logger to record HPC log file. We plan to add this task to next Vertex site trip. Vertex have one spare CPU for ACU and PTC. We will place an order.
  - Problem lists: Our side
    - Michael has changed the polarization sequencing in CCD code. Also removed temporary code in a_boss related to skypol/hexpol issue assuming Stephan's new code works.
    - user-friendly input for tracking with defined hexpol.
- Testing on site:
  - Lab
    - Johnson will swap the OMT to see if the noise spikes seen with Rx8 can be removed next time he goes to Hilo.
  - Rx status
    - Four cold heads are at room temperature. Pablo has shut them down.
    - Ant2 IF/LO still in Hilo and will be used for lab testing for the time being.
    - CH has ordered five more temperature controllers and are waiting for components.
    - CH will compare IF power variation with and without temperature control
  - Correlator
    - 2R7R shows constant high counts, probably due to its RO IC since the demodulation doesn't work. Check later.
  - Broken 2nd mirror of Ant2
  - IF power:
    - S/N increased from VGA 5V to 3V (adam) but didn't from 7V to 5V.
    - LL baselines show IF noise dominate. RR baselines show IF noise is only marginally stronger than the backend noise (dcamp and RO). Suggest to increase RR IF power.
    - Investigation of dc-offset and 2R abnormal pattern continues.
    - Ant3IF2 TP shows zero counts and is not changing with input power under etd 2.
    - Jupiter fringe first taken after RR input power was raised from -12dBm to -8dBm. SN ratio will be analyzed.
  - DC offset:
    - After tuning the LO power during day time, only a few baselines show increased offset toward the end of night as expected. LO for two LO need fine-tuning later.
  - Pointing:
    - Two OT's are ready for pointing.
  - Observations:
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- General site issue:
  - Proty brought up a suggestion to have an instrument log to help data processing.

- 13 element:
  - Rx
    - Another three mixers bonded by Taiyang. Johnson and Mark will package them for Eugene to test.
    - Pablo will lookup new compressor (Oxford or CTI new model).
  - IF/LO
    - Prototype 1 is under testing. Now testing its temperature compensation.
    - SW has order two sets of the current IF/LO module. Longest lead time for components is 3 months.
  - RO and correlator
    - RO is on schedule. Next site testing is planned in Jan.
    - Shen-Hsin is working on revising the correlator board.
    - Next will work on the correlator electric box. Estimated time to finish in two months.
    - We will find a machine shop to manufacture the correlator frame using drawings from ARL. It should be done in two months.
  - 3rd section
    - 3rd section packaging is finished and being sent back to us.
  - 1.2m dish
    - Cotech has got 10 dishes finished. #1 and #2 sent back for re-coating. #9 and #10 in Taipei for beam pattern tests. The rest are in Cotech warehouse.
    - MT suggests shipping two dishes to Hilo for cross-talk measurement.
    - Dashun and Eugene are working on the near field measurement and may have result in this week.
  - Platform modification
    - MT will ask Philippe to start from the most conservative design of new platform. 13 holes only, close-packed, 1.4m spacing. Kyle designated to find if we need more flexible design.
    - Paul Ho emphasized importance of reconfigurability in terms of scientific capability of 13-element and 19-element. Factor of two or three in sensitivity should not drive the design.
    - Pablo questioned if we should consider config with less redundant baselines.
    - CBI design seemed flexible but MT reported it is not stiff enough according to Philippe's analysis. Kyle questioned if we should relax the stiffness spec.
    - 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
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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, hyhuang@asiaa.sinica.edu.tw, nishioka@asiaa.sinica.edu.tw, jhpw@phys.ntu.edu.tw, keiichi@asiaa.sinica.edu.tw, blog.locutus@gmail.com, 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, r91222045@ntu.edu.tw, skyjadel@gmail.com, sandor@asiaa.sinica.edu.tw, wyhwang@phys.ntu.edu.tw
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