Minutes for AMiBA Telecon 20110317, UTC 2:00

Regular Meeting Time: UTC 2:00 Every Thursday
USA Dial-in = 1-877-505-6247; passcode 8339148 #; mod_code 2917771 #
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- General issue:
  - Receive the power supply for corr and a spare CTI compressor, going to install & test.
  - Transfer the software for TS because of a crack on the control laptop.
- Operation on site:
  - Lab
    -
  - IF/LO & Rx status
    - Fringes for Ant11 & 12 look OK, will see the performance in obs. Also the Mini-LO on Ant12 needs more data to determine its state.
    - Ant9: the compensation cables and the delay look OK. Plan to swap dishes with Ant9 to check the optical path.
  - Readout & Correlator
    - A script is needed to compare time diff between CCC, TCS and GPS.
  - Observations:
    - Will do more radio sources for radio pointing since the tilt is not well predicted by the model. Long track of a single source per night is easier for flagging.
    - Need a volunteer to be at Hilo to join the site team.
- Dish , Mount, Pointing:
  - Kyle and Proty compared the radio-alignment results and found some discrepancy. They have identified the difference in each approach, mainly the determination for transit time and the equations-solving technique. Proty will check the residual after correction.
  - “stretch” the hexapod before obs might help on pointing deviation near the zenith.
  - Vertex todo: to install another logger to record HPC log file on next site trip.
- Platform, Deformation:
  - Victor is trying to estimate the flux recovery in another approach by including the noise and discarding the phase Info rather than the amp. The later is agreed to under-estimate the recovery ratio.
  - The feasibility to use the laser-ranging technique? The technique can provide z-axis information.
  - Strain-gauge measurement has similar results as before. Need further comparison.
  - Ask Vertex for codes to calculate the reacting force.
- Data Analysis & Science:
  - Proty will provide info from his pipeline for Sandor's uvfits generation, which is required in later Miriad analysis.
- Progress Action Items:
  - (1) compared the radio-alignment data referenced to calibration @ different elevation, the S/N loss can be ~20%, varied by elevation; while the S/N loss for 2-patch data can be controlled <~5%. This brings the ground pick-ups to be concerned. We may adopt other obs strategies.
  - (2) Kyle updated on deformation modeling. The individual dish pointing seems to be more dominant than deformation in terms of flux recovery. Victor will reduce the modeling at the outer ring by factor 2 for better tilt estimates; recheck photo.g data with targets on dish.
  - (4a) small residuals left in the global pattern while the measurement error is large. The current analysis method (OT difference) may not be sufficient to model the residuals. Probably close this case.
  - (5) Keiichi reported simulated images of circular profile. Uv-coverage doesn't improve much in this case. Sandor will make new models of asymmetric profile, and also optimize the exposure time for the limited hexpol range.
  - (6) working on the pipeline to be robust on the shape measurement. {Mar. 10}
  - (8) reprocess with adding Kyle's correction; not a clear trend so far.

- Beyond 13 element:
  - Platform modification
    - Current plan to monitor platform deformation is to predict with FEA model and verify with photogrammetry (few tens of orientations), plus strain gauge

monitoring.

- Calibration system
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Traveling Schedule to Hilo: (current)

- Johnson

Traveling Schedule to Hilo: (proposed)

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