Radio observatory report and current LOFAR issues

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LOFAR status meeting 20090121

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Outline

1. Observatory status
2. Status of issues
3. Observation queue

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System status

- Replaced AntennaArrays.conf on all stations
- Replaced OLAP.parset and Stations.py on CEP/OLAP
- Observed with new on-line software and correlator software at CEP.

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Bug list (SOLVED)

- Inconsistent positions of dipoles between stations/cep
- Why do we use boards 0, 5, 6, and 7 for output on CS010 instead of 0, 1, 2, and 3? $\Rightarrow$ because of 24 μstation mode. We may change this to 8,9,10,and 11 depending on whether Eric Kooistra can usefully debug at that setting.

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Bug list(OPEN)

- TP variations/ionospheric absorption (Ger de Bruyn)
- LBA RFI at fixed frequency combes (20 channels) very likely intermods (Albert-Jan Boonstra) Nicolas Pradel will verify this.
- No fringe at long baselines (James Anderson, Nicolas Pradel)
- CS010 unreliable/needs repeated commands before settings "stick" (is this still the case?)
- Non-hermiticity in ACM at 200 MHz clock (Eric Kooistra, 180 degree phase problem still there)
- Non-hermiticity in ACM blocks of intra-RSP board visibilities in waveform generator tests (Eric Kooistra)
- AC oscillations Pandey (nobody working on this)
- AC dips (Michiel Brentjens,useful data taken in psr busy week)

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Observation queue

- Tied array tests (Mol, Romein, pulsar group)
- Various pulsar observations (van Leeuwen, Hessels, Stappers)
- Frequency mosaic at 200 MHz clock, with CS016 (Pandey)
- Effelsberg-Exloo correlations (Anderson)
- TBB RFI experiments (Eijkelboom, Boonstra)
- TBB PPF inversion test (Singh)
- Solar observations: 10 min of baseband LBA data with Effelsberg (Anderson).
- Solar observations (Wise):
  - Simultaneous low and high band BF observations of the sun
    - Track Sun for 15 mins with high and low band
    - Frequency channels chosen to cover entire low and high bands
    - Write out raw BF data
  - Repeat above with the digital filter turned off so the low band data will go down to 10 MHz.

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