

## Station Monitoring

Monitoring of the station environment and the status of the LCU can be found at: [https://lofarx.mpifr-bonn.mpg.de/cacti/graph\\_view.php?action=tree&tree\\_id=1](https://lofarx.mpifr-bonn.mpg.de/cacti/graph_view.php?action=tree&tree_id=1)

### Hardware Status as of 4. June 2013

#### Electronics:

All RCU modules plugged in.

#### High Band Antennas:

All tiles are working.

In tile 54 (RCUs 108/109) the element 9 is not communicating.

In tile 9 (RCUs 18,19) the element 16 shows strange features in the spectrum even though it has been recently replaced.

#### Low Band Antennas:

A number of LBAs show too little power, two show too high power (especially at low frequencies). This needs to be addressed at the next maintenance session.

Some (even-numbered) dipoles show little to no power in the spectrum (like as if the LNA is not working). The problem is not always consistent: some seem to recover without active intervention, some seem to recover after pulling and re-connecting the RCU.

| Date                                 | RCUs with low power in rcumode 3 |    |    |                 |                 |                 |                 |    |                 |    |   |                  |                  |                  |                  |     |                  |
|--------------------------------------|----------------------------------|----|----|-----------------|-----------------|-----------------|-----------------|----|-----------------|----|---|------------------|------------------|------------------|------------------|-----|------------------|
| <b>Maintenance<br/>16.10.2012</b>    | *                                | *  | *  | *               | *               | *               | *               | *  | *               | *  | * | *                | *                | *                | *                | *   | *                |
| <b>Wed<br/>1.02.2012</b>             |                                  |    |    |                 | 68 <sup>4</sup> | 72 <sup>4</sup> |                 | 78 |                 |    |   | 104 <sup>4</sup> | 130 <sup>4</sup> | 138              | 148 <sup>2</sup> | 150 | 152 <sup>2</sup> |
| <b>Wed<br/>18.01.2012</b>            | *                                | *  |    | *               |                 | 72              |                 | 78 |                 |    |   |                  | 130              | 138              | 148              | 150 | 152              |
| <b>Wed<br/>21.9.2011</b>             | 8                                | 12 | *  | 54 <sup>2</sup> | 68              | 72              |                 | 78 | 82              | *  |   |                  | 130              | 138 <sup>1</sup> | 148              | 150 | 152 <sup>1</sup> |
| <b>Thu<br/>11.8.2011</b>             | 8                                | 12 | 44 | 54              |                 | 72              |                 | 78 | 82              | 86 |   |                  | 130              | 138 <sup>1</sup> | 148              | 150 | 152 <sup>1</sup> |
| <b>Fri.<br/>8.7.2011<sup>A</sup></b> | 8                                | 12 | 44 |                 | 68              | 72              | 74 <sup>3</sup> | 78 | 82              | 86 |   |                  | 130              |                  | 148              | 150 | 152 <sup>1</sup> |
| <b>Mon<br/>4.7.2011</b>              | 8                                | 12 | 44 |                 |                 | 72              | 74 <sup>1</sup> | 78 | 82 <sup>2</sup> | 86 |   |                  | 130              |                  | 148              | 150 |                  |

| Date                          | RCUs with low power in rcumode 3 |    |    |  |    |    |  |    |  |    |    |  |     |     |     |     |
|-------------------------------|----------------------------------|----|----|--|----|----|--|----|--|----|----|--|-----|-----|-----|-----|
| Fri 1.7.2011 <sup>A</sup>     | 8                                | 12 | 44 |  | 68 | 72 |  | 78 |  | 86 |    |  | 130 |     | 148 | 150 |
| Wed<br>29.6.2011 <sup>A</sup> | 8                                |    | 44 |  |    | 72 |  | 78 |  | 86 | 92 |  |     | 138 | 148 | 150 |

**Notes:**

<sup>A</sup> No attempt to recover signal by switching rcumodes done.

<sup>1</sup> Recovered after switching to rcumode 1 and back (a number of times)

<sup>2</sup> Showed changing power levels.

<sup>3</sup> At 50-50 MHz about 10-15 dB reduced at 20 MHz about 30 dB reduced.

<sup>4</sup> Normal power at some times, reduced power at others

\* Replaced during maintenance visit, or before

**Computer Status as of 4. June 2013:****Data Taking PCs**

All lofarAN machines have new RAID disks configured ad RAID5 (12.7 TB storage space in total per machine).

The lofar BN machines have their disks in a RAID0 configuration, with the system as part of the RAID0.

Right now (4. June 2013) lofarB1 is offline due to a broken disk.

**Server**

lofarsrv is up

**List of spares as of 4. June 2013:**

| Description                     | Quantity (Note)  |
|---------------------------------|--|
| spare disks (2TB)               | 7  |
| RCU - Modules                   | 8<br>+ 1 with broken LBH connector (used for demonstrations) |
| HBA FE - Modules                | 0  |
| HBA Summators                   | 1 (communication, without voltage regulator)                 |
| "good, old style" LBA heads     | 8  |
| good, new-style LBA heads       | 0  |
| "LBA, HBA mechanics goodie bag" | 1  |

| Description                              | Quantity (Note)                |
|--|--------------------------------|
| 4 GByte TBB Memory modules               | 4 (spare, surplus ???)         |
| 2 GByte TBB Memory modules (old modules) | 48 (DDR 2, 667, CL5, ECC, Reg) |

## Important or Interesting Webpages

- The effelsberg station monitoring page: [https://lofarx.mpifr-bonn.mpg.de/cacti/graph\\_view.php](https://lofarx.mpifr-bonn.mpg.de/cacti/graph_view.php)
- The page of the Barix device in the container: <http://lofar-brix.mpifr-bonn.mpg.de/>
- The LOFAR Wiki: <http://www.lofar.org/wiki/doku.php?id=start>  
Needs a login to see anything. If simply registering is not enough, contact Arno Schoenmakers for more access.
  - Single station use at the LOFAR Wiki: <http://www.lofar.org/wiki/doku.php?id=singlestation:start>  
With quite a bit of information on dealing with a station, but rather unstructured.
  - Technical operations contacts at the LOFAR Wiki: [http://www.lofar.org/wiki/doku.php?id=operator:ilt\\_to\\_contacts](http://www.lofar.org/wiki/doku.php?id=operator:ilt_to_contacts)
- The international LOFAR schedule: <http://www.astron.nl/lofar-schedule/schedule/schedule.php>  
(Stations not scheduled for an ILT observations are usually free for local observations)