

## Programme:

- 1. Array status & Observatory update – L. Cerrigone*
- 2. Software development update – A. Schoenmakers*
- 3. Report from the Long Baseline Busy Week – A. Deller*

# Array Status

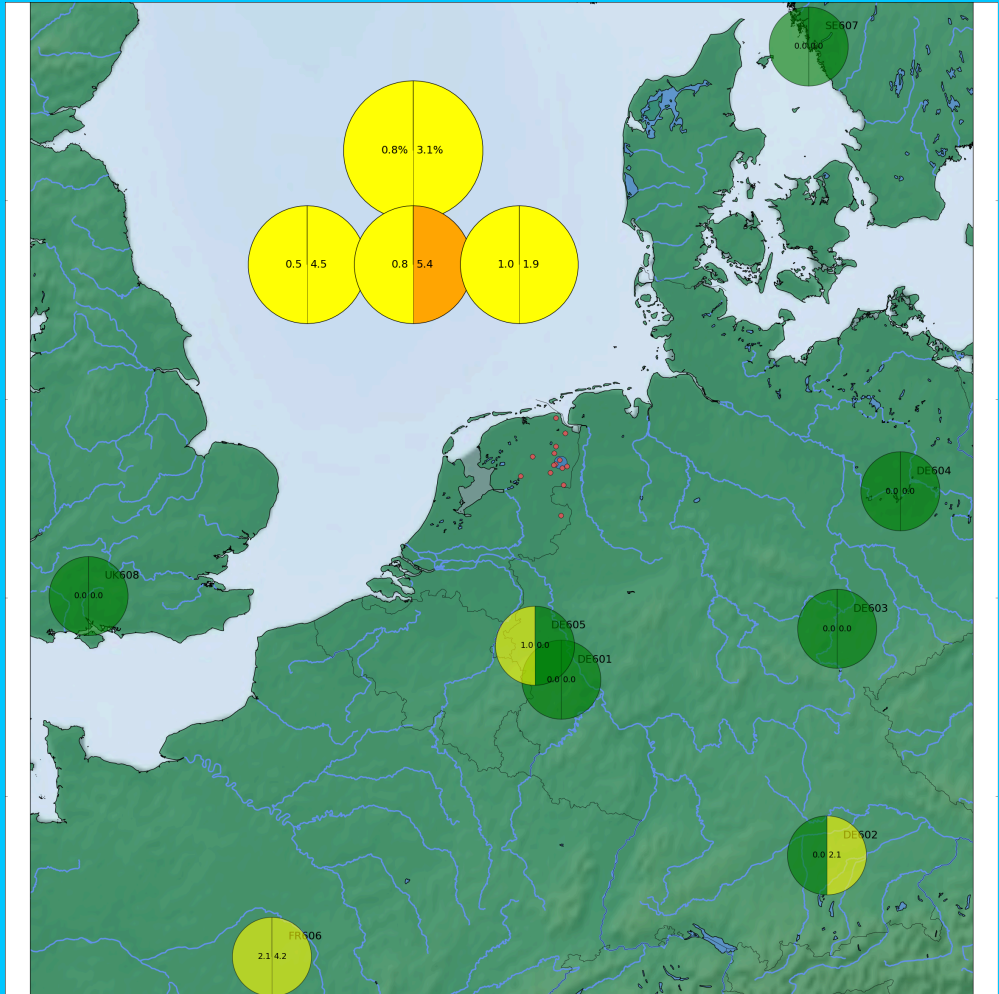


- Tests going on to have CS013 back in operations
- Station maintenance is going on and can be checked in the telescope schedule

# Overview, including IS

LBA: 0.8%; HBA: 3.1%

see [https://proxy.lofar.eu/array\\_status/](https://proxy.lofar.eu/array_status/)

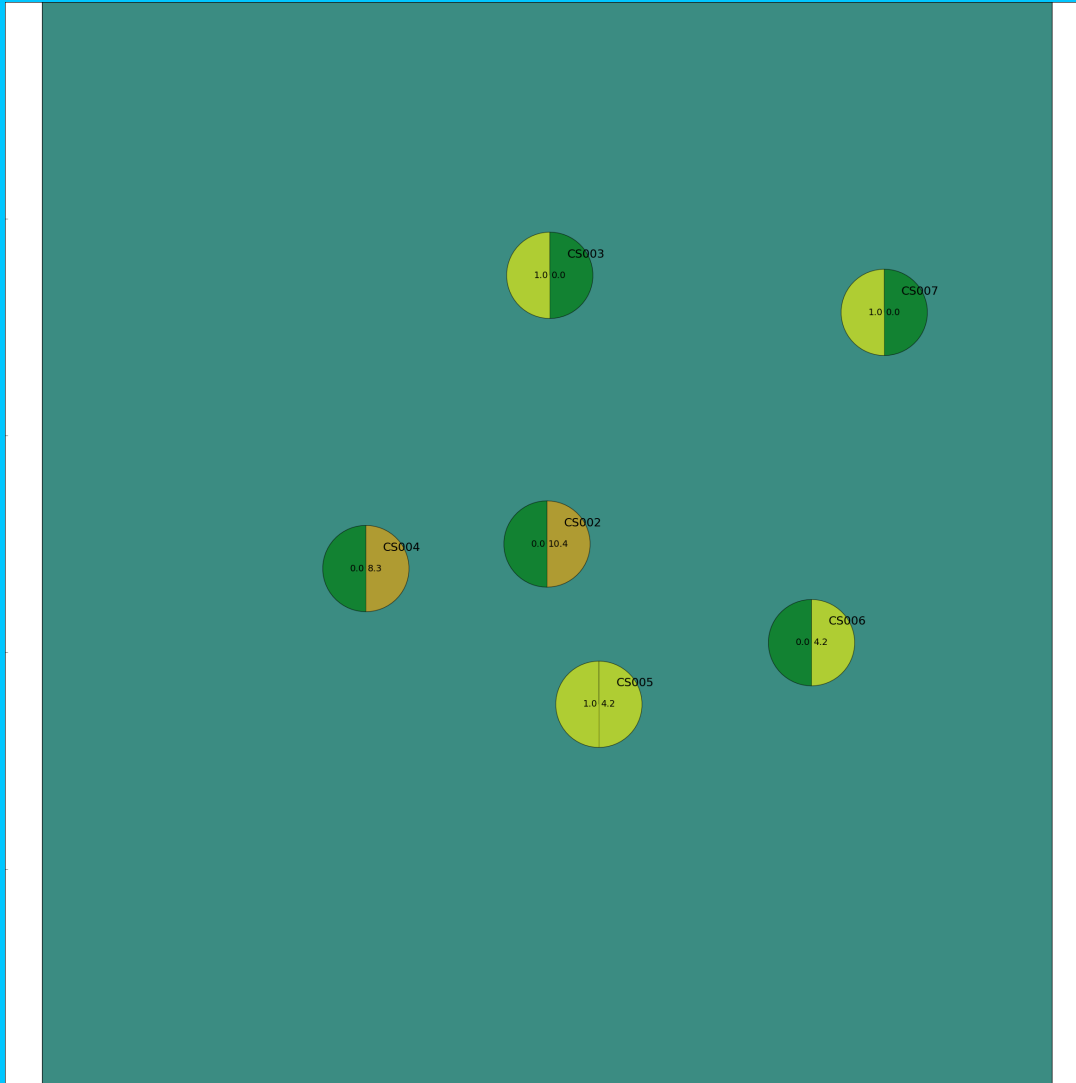


➤ Color coding for non-operational elements at the various stations

- All operational
- < 5% not operational
- < 15% not operational
- > 15% not operational

# Superterp

LBA: 0.5%; HBA: 4.5%

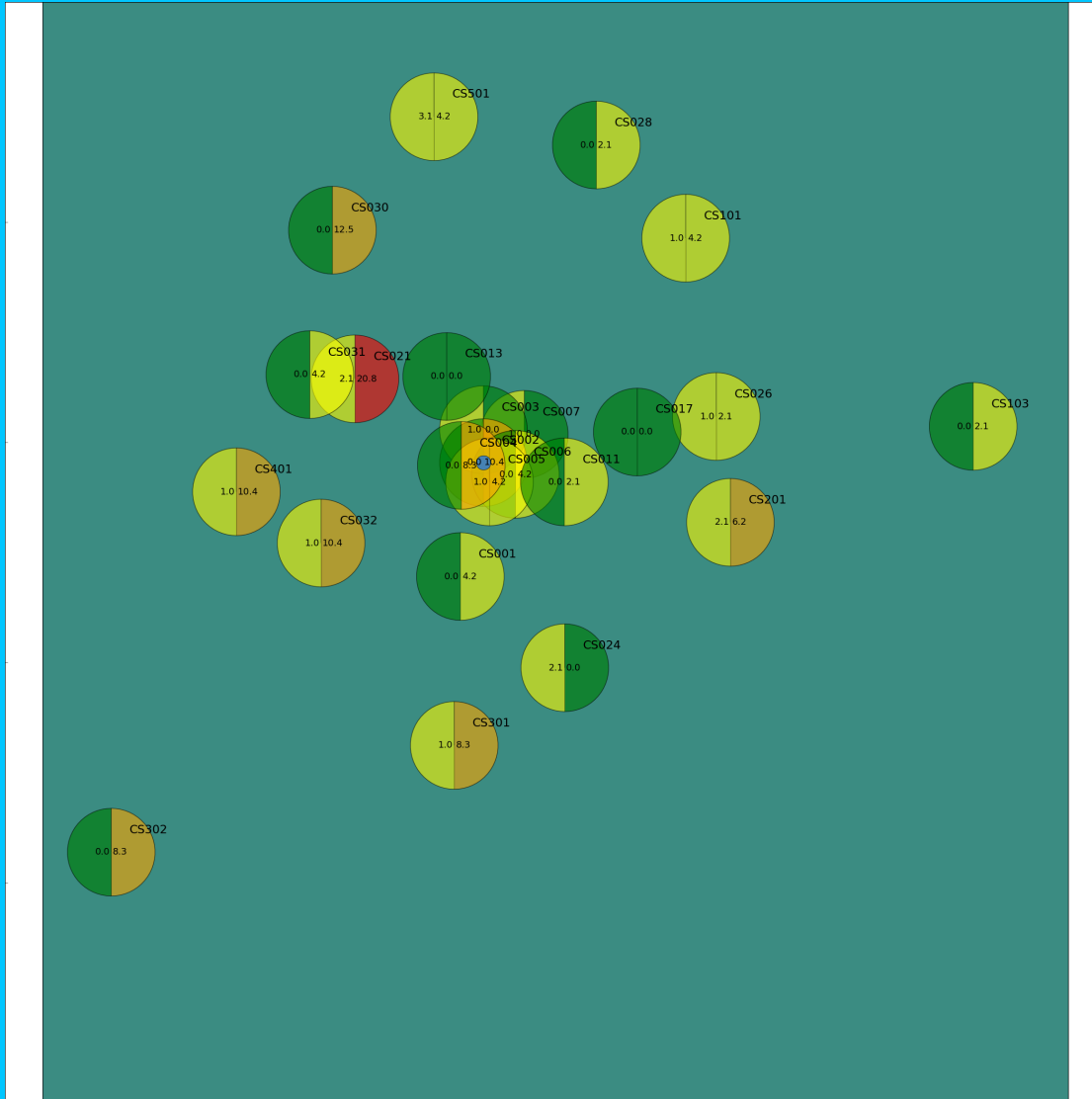


➤ Color coding for non-operational elements at the various stations

- All operational
- < 5% not operational
- < 15% not operational
- > 15% not operational

# Core Stations

LBA: 0.8%; HBA: 5.4%

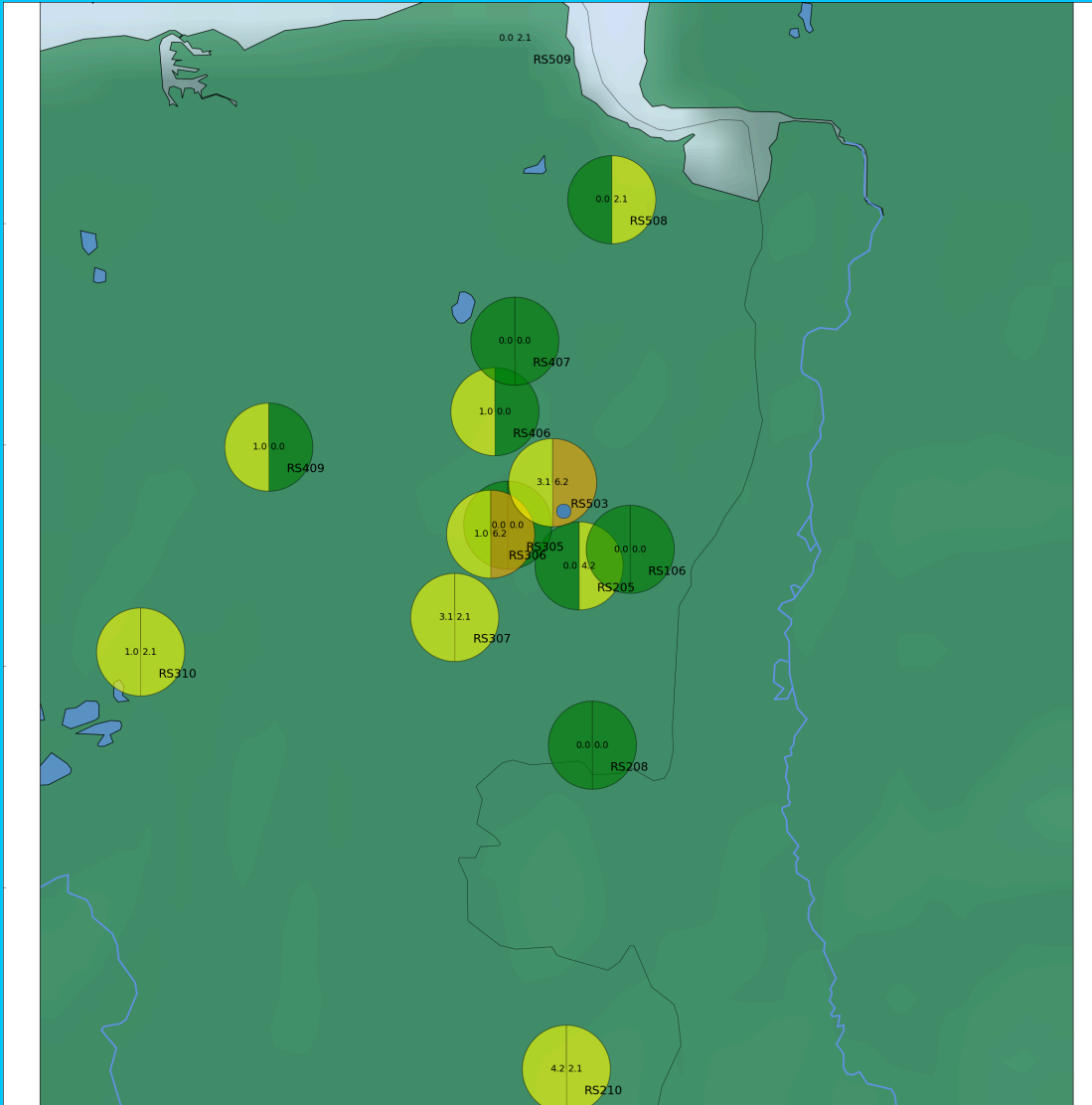


➤ Color coding for non-operational elements at the various stations

- All operational
- < 5% not operational
- < 15% not operational
- > 15% not operational

# Remote Stations

LBA: 1.0%; HBA: 1.9%



Color coding for non-operational elements at the various stations

- All operational
- < 5% not operational
- < 15% not operational
- > 15% not operational

- Station calibration: mode 7 tables were updated for international stations (except UK608 and DE605). New mode 3 tables for the Dutch stations and modes 5 and 7 for RS407 are ready to be installed as soon as the schedule allows so. Mode 5 data will be collected this week for all stations.
- Encouraging results have been obtained by M. Brentjens and his Summer student, who performed a pilot study of station calibration with holographic data. A talk will be given about this project at the next LSM by M. Brentjens.
- Locus41 on CEP2 crashed on 26<sup>th</sup> Aug. It was kept out of the production until it was stable again.
- Shutting down of stations because of heating was experienced over the last weekend.

# News regarding the observing system

CEP3 info and user schedule available at

<http://www.lofar.org/operations/doku.php?id=cep3:star>

Policy about access to CEP3 available at

<http://www.astron.nl/radio-observatory/observing-capabilities/depth-technical-information/cep-and-lta-computing-facilitie>

Users are expected to make full use of the resources assigned to them within the period agreed upon. The granting of extensions is not the default and is expected to become less likely, due to the increasing demand for CEP3 time.



# News regarding the observing system



During the period 29 June – 24 August the Radio Observatory pipelines wrote LOFAR Measurement Sets (MSs) in a manner inconsistent with the MS definition in CASACORE 2.0.

Also, all LOFAR MSs have been generated with two tables (STATE, PROCESSOR) missing. Since its 4.1 release, CASA checks for the content of these tables, which causes a failure.

Users working with CASA 4.1 or higher on MSs generated before 2 Sept 2015 need to fix their data sets.

An email was circulated to inform PIs about these issues. A script to fix the problems mentioned above is available at

<http://www.astron.nl/radio-observatory/observing-capabilities/depth-technical-information/system-notes/lofar-measurement->

Cycle 5 proposal deadline is approaching (9 September at 12:00UT – noon!)

Northstar manual at

<http://www.astron.nl/sites/astron.nl/files/cms/PDF/LOFARPSP.pdf>

A list of known issues when submitting a proposal in Northstar has been added in the new version of the manual. We recommend PIs to read the manual before creating a new proposal.

## ***New rules***

Targets must be listed per priority ranking

State if and how your processing can be split between ASTRON and another institute

## ***Known issues***

Long lists of comma-separated subbands generate an internal error

Lists of several hundreds of targets generate an internal error

Estimates of data size and processing time may be severely off (cross check with the tools on the LOFAR web site)

Cycle 5 proposal deadline is approaching (9 September at 12:00UT – noon!)

Three new stations may become available in Poland during cycle 5. If you need these new stations for your scientific goals, **say it explicitly** in your proposal.

Although the 160 MHz clock may become available during cycle 5, this is **not offered** at the time of the deadline. If it becomes available, commissioning proposals will be taken in consideration.

The self-calibration pipeline cannot be offered at this point in production. It can be run in stand-alone mode on CEP3.

Cycle 5 proposal deadline is approaching (9 September at 12:00UT – noon!)

The information about commensal observations (simultaneous Beam Formed and Imaging) has been updated and can be found at

<http://www.astron.nl/radio-observatory/observing-capabilities/depth-technical-information/major-observing-modes/commensal>

The P/O estimates of the beam formed data have also been updated. The new values are at

<http://www.astron.nl/radio-observatory/observing-capabilities/depth-technical-information/major-observing-modes/beam-form>

# News regarding Cycle observations

## CYCLE 4



| Week      | UT      | 0  | 1 | 2                            | 3 | 4                                    | 5   | 6                       | 7                                | 8                           | 9                            | 10                                     | 11  | 12                          | 13               | 14   | 15              | 16                         | 17                  | 18 | 19              | 20  | 21                | 22 | 23 | Sup Sci on Duty | Softw. Eng. on Duty      | eVLBI / unavailable stations | Network Issues               | MAINTENANCE    |             |
|-----------|---------|--|---|------------------------------|---|--------------------------------------|---|-------------------------|----------------------------------|-----------------------------|------------------------------|--|---|-----------------------------|------------------|--|-----------------|----------------------------|---------------------|----|-----------------|-----|-------------------|----|----|-----------------|--------------------------|------------------------------|------------------------------|----------------|-------------|
| September | 2 Wed   | LC4_007 - 4C48.48 - 9hrs LBA ALL-INT REPEAT      |   |                              |   |                                      | TBB + test runs   |                         | System tests                     |                             | LC4_016 - Sun - 2hrs LBA     |  | LC4_034 - P248+48 - 8hrs HBA - repetition |                             |                  |  |                 | TBB + test runs            |                     |    | LC              | JDM |                   |    |    |                 | Tonjes RS503 maintenance |                              |                              |                |             |
|           | 3 Thu   | TBB + test runs                                  |   |                              |   |                                      | System tests  |                         | LC4_016 - Sun - 2hrs LBA         |                             | LC4_034 - P235+40 - 8hrs HBA |  |   |                             |                  | Station calibration mode 5 - Cas A - ALL-INT |                 |                            | StV                 | NV |                 |     | 18-19UT SE607 out |    |    |                 | Tonjes CS030 maintenance |                              |                              |                |             |
|           | 4 Fri   | Station calibration mode 5 - Cas A - ALL-INT     |   | TBB + test runs              |   |                                      | System tests; all international stations switched to local mode at 9 UT |                         |                                  | LC4_030 - LOTAAS - 3hrs HBA |                              | System tests                           |   | LC4_004 - Pulsar Timing HBA |                  |  |                 |                            | StV                 | AR |                 |     |                   |    |    |                 | Tonjes CS028 maintenance |                              |                              |                |             |
|           | 5 Sat   | LC4_004 - Pulsar Timing HBA                      |   |                              |   |                                      |   |                         |                                  |                             |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 6 Sun   | TBB + test runs                                  |   |                              |   |                                      | LC4_030 - LOTAAS - 3hrs HBA   |                         | TBB + test runs                  |                             | LC4_030 - LOTAAS - 3hrs HBA  |  | LC4_030 - Follow-up - 5 x 15 m            |                             | LC4_04 - 2057+21 |  | TBB + test runs |                            | LC4_030 - Follow-up |    | TBB + test runs |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | Week 37 | UT   | 0 | 1                            | 2 | 3                                    | 4   | 5                       | 6                                | 7                           | 8                            | 9                                      | 10  | 11                          | 12               | 13   | 14              | 15                         | 16                  | 17 | 18              | 19  | 20                | 21 | 22 | 23              | Sup Sci on Duty          | Softw. Eng. on Duty          | eVLBI / unavailable stations | Network Issues | MAINTENANCE |
| September | 7 Mon   | TBB + test runs                                  |   |                              |   |                                      | SOFTWARE ROLL OUT   |                         |                                  |                             |                              | Commissioning - B1834+620 - HBA 2repet |   |                             |                  |  | Manu+StV        | JS                         |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 8 Tue   | LC4_030 - LOTAAS - 3hrs HBA                      |   | LC4_034 - P232+45 - 8hrs HBA |   |                                      |   |                         |                                  |                             |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 9 Wed   |  |   |                              |   |                                      |   |                         |                                  |                             |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 10 Thu  |  |   |                              |   |                                      |   |                         |                                  |                             |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 11 Fri  |  |   |                              |   |                                      |   |                         |                                  |                             |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 12 Sat  | LC4_032 - LST0-9 - HBA                           |   |                              |   |                                      | LC4_030 - LOTAAS - 3hrs HBA   |                         | LC4_032 - LST13-0 - HBA          |                             |                              |  |   | LC4_009 - M13 - 4hrs HBA    |                  | LC4_032 - LST19-20 - HBA                     |                 | LC4_005 - Peg51 - 5hrs LBA |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 13 Sun  | LC4_005 - Peg51 - 5hrs LBA                       |   | LC4_009 - M5 - 4hrs HBA      |   | LC4_003 - B1822 - 30hrs HBA          |   | LC4_009 - M5 - 4hrs HBA |                                  | LC4_04 - 1809+17            |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
| Week 38   | UT      | 0  | 1 | 2                            | 3 | 4                                    | 5   | 6                       | 7                                | 8                           | 9                            | 10                                     | 11  | 12                          | 13               | 14   | 15              | 16                         | 17                  | 18 | 19              | 20  | 21                | 22 | 23 | Sup Sci on Duty | Softw. Eng. on Duty      | eVLBI / unavailable stations | Network Issues               | MAINTENANCE    |             |
| September | 14 Mon  | LC4_012 - HD17156 - 6hrs LBA DO NOT MOVE! - CEP3 |   | LC4_030 - LOTAAS - 3hrs HBA  |   | LC4_026 - 1803+784 - 4hrs HBA - CEP3 |   | LC4_04 - 2057+21        |                                  |                             |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 15 Tue  | LC4_012 - HD17156 - 6hrs LBA DO NOT MOVE! - CEP3 |   | LC4_034 - P229+45 - 8hrs HBA |   |                                      |   |                         | LC4_007 - 3C9 - 9hrs LBA ALL-INT |                             |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |
|           | 16 Wed  | LC4_007 - 3C9 - 9hrs LBA ALL-INT                 |   | LC4_030 - LOTAAS - 3hrs HBA  |   | LC4_04 - 1809+17                     |   |                         |                                  |                             |                              |  |   |                             |                  |  |                 |                            |                     |    |                 |     |                   |    |    |                 |                          |                              |                              |                |             |

- Detailed Cycle 4 schedule available here:
- <https://docs.google.com/spreadsheets/d/14JsJfKfXsRk1vzYzaFhZH3jTeFbFHT5GyuF3NyI3Qdw/edit#gid=0>
- Changes can be applied on a daily basis! Contact Science Support in case of questions/issues
- **\*\*Always cc 'sciencesupport@astron.nl' and include the proposal code in the subject line\*\***

- Next LSM : 16 Sept – volunteers welcome!!
- Software roll out : 7 Sept
- Cycle 5 proposal deadline : 9 Sept **at 12:00UT**
- LOFAR Surveys meeting in Leiden : 14-16 Sept

Note: to subscribe to the lofar-news mailing list:

<http://www.astron.nl/radio-observatory/subscribe-lofar-news/subscribe-lofar-news>