



## **LOFAR NEWSLETTERS JULY-AUGUST 2018**

Previous LOFAR newsletters are collected [here](#).

### **Announcements:**

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- Cycle 11 proposal submission deadline: Thursday, 6 September, 12 UT (noon). The call is available [here](#). For Cycle 11, there will be 650 observing hours and 900 processing hours available, in addition to the long-term allocations made during the past review process.
- Dysco (the visibility compression tool) will be activated in the Radio Observatory pipelines during the software roll out planned on 10 September. The PI's of accepted Cycle 10 imaging projects will receive further details about the implications for their data. Documentation about the results of the commissioning tests will be made available online during the next few days.
- The next LOFAR Family and Users Meetings will take place in The Netherlands between 20-23 May 2019. The first announcement and further details about the meetings will be distributed soon.
- The [5<sup>th</sup> LOFAR data processing school](#) will take place at ASTRON between 17-21 September 2018.

## Array status:

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- 38 stations operational in the Netherlands: 24 core and 14 remote stations. 13 international stations operational: DE601, DE602, DE603, DE604, DE605, FR606, SE607, UK608, DE609, PL610, PL611, PL612, IE613.
- Maintenance is currently active at various Dutch and international stations.
- The overview of non-operational antenna elements for LBA and HBA is available [here](#).

## Observing System Status:

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- At the end of July, several CEP4 systems crashed due to a Lustre bug. the Robinhood Policy Engine has been temporarily disabled to speedily bring the system back to an operational mode. An upgrade of the Lustre version is being planned and will be performed on 1 October. To allow this, production observing will be put on hold between 30 September and 4 October.
- The exceptionally warm weather in the Netherlands over the past two months caused a few observing failures and delays in the exploitation of the observing programme.
- Oscillating tiles have been detected and disabled at various stations and are being maintained in the current maintenance season.
- Data loss is experienced for observations taken in mode 6 (170-230 MHz) and is currently under investigation.

### **Software development status (J. Annyas):**

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- The LOFAR Efficiency project made further progress in its first phase, which is associated with the replacement of MoM.

### **Data Quality Working Group (M. Iacobelli)**

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Progress has been made on the following activities:

- infrastructure to monitor station clocks as well as RFI's environment. The latest monitoring environment will be in production by the end of August and will allow the characterization of the RFI impact per station and baseline, frequency. The service will be first used by the RO. It will be made available to the users by the start of Cycle 11.
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- diagnostic of station performance: usage of satellites as FE calibrators demonstrated to not be practical for providing a quantitative measure of the system response. Efforts are now devoted to use standard calibrator sources (i.e. 3C sources) as FE calibrators.

### **CITT2 (E. Orru', T. J. Dijkema)**

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- Pipelines: the Prefactor 3.0 pipeline is being developed by the CITT. It is suitable for initial calibration of HBA, LBA, and Long Baselines data. In the calibrator field it allows automatic identification of stations to be flagged due to a bad bandpass. The development now extends to the target field, which is currently being tested.
- Calibration: a new method ("constraint") for enforcing smoothness in full-Jones calibration in the direction dependent calibration solver of DPPP is

now available. All solutions are now stored in hdf5 files (h5parm) instead of parmdb. Applycal can take either h5parm or parmdb.

- Imaging: imaging with the LOFAR beam model is now possible with wsclean+IDG. This has given very encouraging results in particular in the polarisation signal. The combination wsclean+IDG, which further allows to image using phase screens, is also being tested.

## Observing Programmes

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- Cycle 10 observing programme: 55% complete. The observing schedule can be found [here](#).
- Cycle 9 observing programme: 96% complete. The rest is being observed with second priority during Cycle 10.

## CEP news:

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- CEP4
  - See above
- CEP3:
  - Cluster info and schedule available [here](#).

## Calendar next LOFAR activities:

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*The dates of LOFAR Status Meetings, roll-outs and stop days are listed in an online calendar that is available [here](#). In particular, we emphasize:*

- Cycle 11 proposal submission deadline: 6 September, 12 UT (noon).
- Submission deadline for progress reports associated with active LT10 projects: 3 October, 12 UT (noon).
- LOFAR Family and Users Meetings: 20-23 May 2019
- Next LOFAR bulletin: August 2018