

# Notes of the ILT TO Telephone conference 2015-10-22

**Distribution list:**

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	Organization:	Date:
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<b>Approval:</b>	ASTRON	

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## 1 Attendees

Chair	R. F. Pizzo
Notes	R. F. Pizzo
Participants	DE601: Andreas Horneffer DE602: - DE603: Matthias Hoeft DE604: Christian Vocks DE605: - FR606: Jean-Mathias Griessmeier, Steve Torchinsky SE607: Tobia Carozzi, Henrik Olofsson UK608: Alan Doo DE609: Joern Kuensemoeller KAIRA: - POLFAR: Hanna Rothkaehl, Andrzej Krankowski NL: Bianca Bult, Roberto Pizzo

## 2 Minutes of the Previous Telephone Conference

- None

## 3 Announcements

- Cycle 5 LOFAR PC meeting will be on 28-29 October. After that, it will be clear whether LT5\_001 (PI = Serylak) is accepted.

## 4 Action Items

Nr	Description	Assigned to	Due date	Status
19/2	Jean-Matthias will contact Klaas for practical network issues regarding “data-cloning”	J-M. Griessmeier	26/02	Open
21/2	Make usage and error statistics of station switches available on a web-page	K. Stuurwold	23/04	Open
24/1	Implement comments/remarks from FR606 and DE609 to web page <a href="https://proxy.lofar.eu/array_status/STATIONS/HTML/index.html">https://proxy.lofar.eu/array_status/STATIONS/HTML/index.html</a>	S. ter Veen	27/08	Closed
26/1	Compile document on practical guidelines on how to mitigate/deal with DAB issues at DE609	M. Norden	22/10	Open
27/1	Integrate to stationtest webpage answer given to J.-	S. ter Veen	26/11	Open

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Class.: limited



**LOFAR Project**

	M. Griessmeier about how to decide whether additional elements need to be switched off in local mode			
27/2	Discuss with M. Noorden and H. Meulman the possibility to provide FR606 with a 'repair procedure', e.g. a list of things to check and decide which antenna part has to be replaced. Let J.-M. know about the outcome.	B. Bult	26/11	Open

## Comments

19/2: no progress

Action remains open.

21/2: no progress

Action remains open.

24/1: Sander has repaired the station test of DE609 and has addressed Jean-Mathias issues as well. For required follow-up actions, Menno/Henri should be contacted by Jean-Mathias.

Action closed.

*Jean-Mathias suggested Sander to integrate his answer to him in the stationtest webpage -> New action item open: 27/1*

26/1: Menno made good progress with the document. He started working on the measurement part. The proposed software is already made and tested and installed on DE609 in ILT mode.

*Question from J. Kuensemoeller: Can you please provide some insight what the software does? Is it just for measurements or a potential software solution?*

*M. Noorden: It is a change in the LOFAR configuration and MAC software (RSPDriver). It will be released in the next software Roll-out.*

*You can add a dB value to the default attenuation. For example for DE609 we have the possibility to add 4.5dB extra attenuation for the AD converter. This gives 13.5 dB*

reduction in the intermodulation products caused by clipping of the ADC (Scrum Task #7747).

Action remains open.

Nr.	Resolution / Decision	Meeting
1	The director ILT will require a written request for data cloning. A permission from the ILT operations is required prior to each data cloning observation.	2014-12-11
2	For proposals requesting the use of the international stations in single-station mode during ILT time, it is the PI's responsibility to verify – before submitting the proposal - that local resources are available to run such projects at the international stations. In its deliberations, the LOFAR Program Committee will assume that the submission of such projects are indicating that local resources will be available to accommodate it.	2014-12-11
3	DE601, Rubidium/ Maser switchover: As long as we switch back to the Rubidium after using the Maser, this will not affect ILT operations. We will use the Maser only very infrequently, so Menno agreed that we will probably manage to remember to switch back to the Rubidium whenever we use the Maser.	2015-01-29
4	Airco unit require a complete overhaul every year including a check on the coolant level	2015-01-29

## 5 Station Roll Out

### POLFAR (Menno Norden / Hanna Rothkaehl/ Andrzej Krankowski)

- The last Tiles were placed on 14 October 2015 at station Lazy. Repairs/checks were also finished on the same day. All three POLFAR stations are in good shape. The repairs were very minor and mainly polarity connection problems were encountered. A few coax cables also needed repair. The uncalibrated all-sky images for LBA show very similar sensitivity and a good working system. The Borowiec station showed some RFI in LBA. The local staff investigated the problem and found out that it was due to airco devices, from which it will be easy to get protection.
- Additional devices to be installed at Borowiec and Baldi to monitor the ionosphere.

## 6 Station statuses

### 6.1 Dutch Stations (Menno Norden/Henri Meulman)

- Maintenance is still ongoing. Because of rain, wind or cold, maintenance did not take place on some days.
- For CS013 there is a plan to rotate back the HBA elements to the originally intended position. This might take place during the coming weeks.

### 6.2 DE601 Effelsberg (Andreas Horneffer)

- We performed some maintenance; otherwise the station seems to work as usual.
- We replaced the broken fans in two of the 48V power-supply modules. Now they work again.
- We replaced several LBAs on 6. October, unfortunately we ran out of spares, so we couldn't fix all broken LBAs.
- On 13. October we did HBA maintenance. The two non-communicating tiles were due to broken modems on the RCUs, those were replaced with spares. While doing this we also exchanged the RCUs with the numbers 109 and 153. We also replaced several broken rubber-bands on the HBAs.
- GLOW:
  - All 6 stations are regularly switched to GLOW mode.
  - The connectivity between the interface computer and the LCU in DE604 still needs to be fixed.
  - DE602 has a significantly reduced sensitivity (to pulsars) since the Rubidium was replaced. Because the sensitivity is higher when using only one subrack, I suspect that a new station calibration is needed (*R. Pizzo: we are investigating this at ASTRON*)

### 6.3 DE602 Unterweilenbach/Garching (Ado Arnolds)

- Broken Rubidium was replaced on October 13. Seems that there is some decrease in SNR after that. Might be that a calibration run is required (*RP: this is being looked into*).

## 6.4 DE603 Tautenburg (Matthias Hoefft)

- Nothing to report. Everything is running smoothly from our point of view.

## 6.5 DE604 Potsdam (Christian Vocks)

- Nothing to report. Everything is running smoothly from our point of view.

## 6.6 DE605 Jülich (Arpad Miskolczi)

- Nothing to report. Everything is running smoothly from our point of view.

## 6.7 FR606 Nançay (Jean-Mathias Griessmeier)

- FR606 is working nominally.
- Nançay staff is very busy with NenuFAR, and had no time to fix broken antennas.

## 6.8 SE607 Onsala (Tobia Carozzi, Henrik Olofsson)

- Minor problems with blocked drainage (Small amounts of water in HBA tile closest to drainage sink). It's under control, and we plan to flush drainage pipe to make sure it is not blocked.
- One LBA element is down. Work is in progress to put it back.

## 6.9 UK608 Chilbolton (Alan Doo)

- HBA Tile #061 has been observed with intermittent RFI. So far it has been localised to that tile, but recommended to Menno it be added to PVSS until checked. This and other tiles highlighted by the latest Station Test as oscillating will be looked at this Friday, weather allowing.
- As previously notified a UPS power outage at Chilbolton Observatory will occur on Tuesday 12 November, between 0700UT and 1700UT. All comms to UK608 will be isolated from power. An extended outage is expected during this period which will affect the lightpath and all LOFAR ICT in the Observatory main building.

- We shall be arranging for PAT testing of the RF Cabin on the day of the power outage, in compliance with STFC requirements.

## 6.10 DE609 Hamburg/Bielefeld Station (Joern Kuensemoeller)

- New calibration tables have improved data quality a bit, but further action is still required in order to reduce significant RFI.
- Measurements from Nils Boehmer and new technician Gerrit Jansen were done on Friday, 16th. Analysis still ongoing.
- According to the landlord of our field, some LBA antennas have fallen in bad weather and were then re-positioned by him without notice. We have no clear indication which antennas are affected and when this has happened exactly. We asked him to inform us about the details in future. *R. Pizzo: we will check the results of the next station test to see whether they highlight anything worrying.*

## 6.11 KAIRA (Derek McKay)

- No input received

## Questions, Issues, Remarks

- DE601: A. Horneffer wrote a script that can read out and display the status of the 48V power supply modules. It can now be found at:

[http://www.lofar.org/wiki/doku.php?id=singlestation:start&#power\\_supply\\_monitoring](http://www.lofar.org/wiki/doku.php?id=singlestation:start&#power_supply_monitoring)

It requires pysnmp which needs to be installed first. At some time this functionality might wind up in iStnMonitor.

- FR606: for antenna repair, we have Menno's instructions on **how** to repair things, which is very useful. It would be very helpful to have, as a complement, something which tells us **what** to repair, for example a “repair procedure”, e.g. a list of things to check and how to decide which part has to be replaced. *R. Pizzo: Bianca will discuss*

*this point with Menno and Henri next week and will let Jean-Mathias know (new action item 27/2 open).*

## 7 AOB

- ...

## 8 Date of next conference

Schedule for ILT telephone conferences in 2015:

- Thursday, November 26
- Thursday, December 17