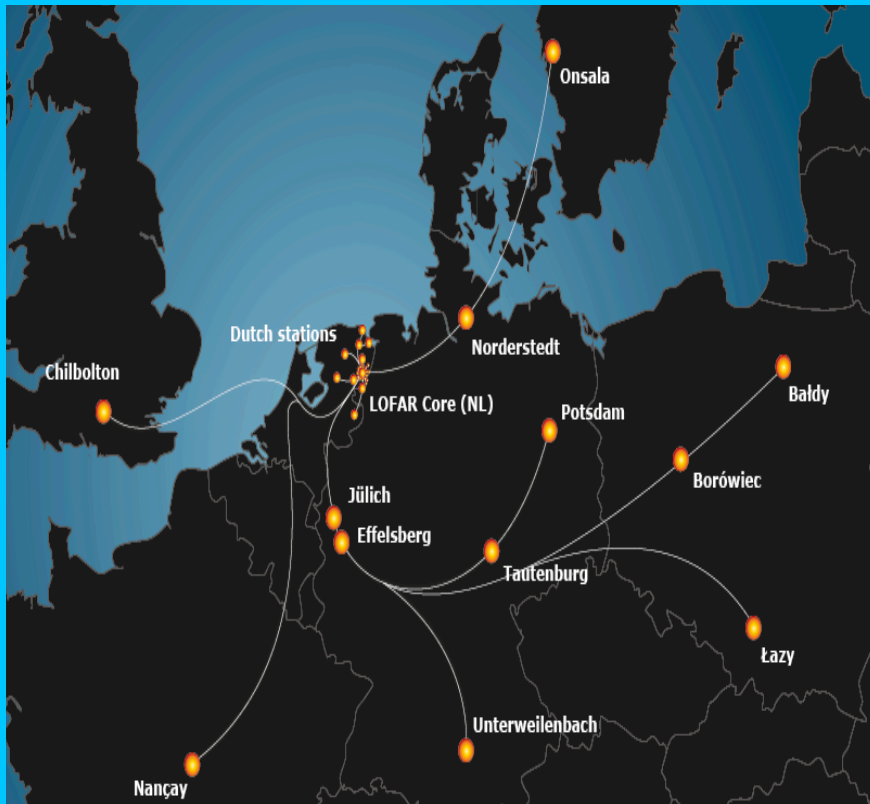


Programme:

- 1. Array status & Observatory update – A. Shulevski*
- 2. LOFAR census of non-recycled pulsars – V. Kondratiev*
- 3. AOB*

Array Status

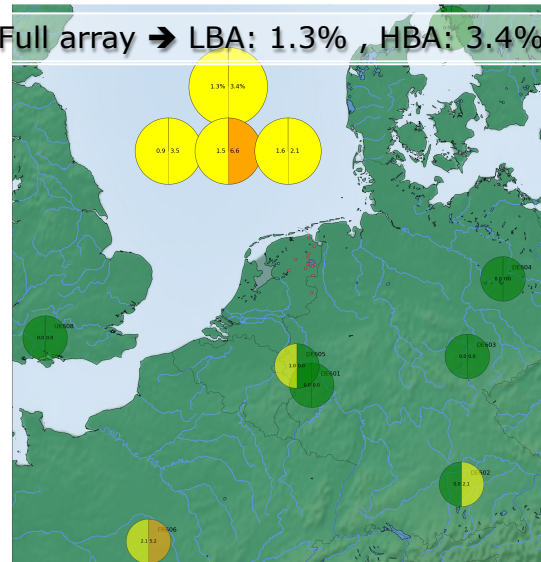


- 47 operational stations
 - 24 CSs
 - 14 RSs
 - 9 Is
- 3 new stations in Poland. Building process is finished. Waiting for network connection.
- CS013 operational again – HBA elements rotated – new RSP driver - included in test runs.
- CS103 broken SPU repaired, but still a problem in one HBA sub-station
- RS503 broken cables
- Station maintenance stopped. Will continue in spring.

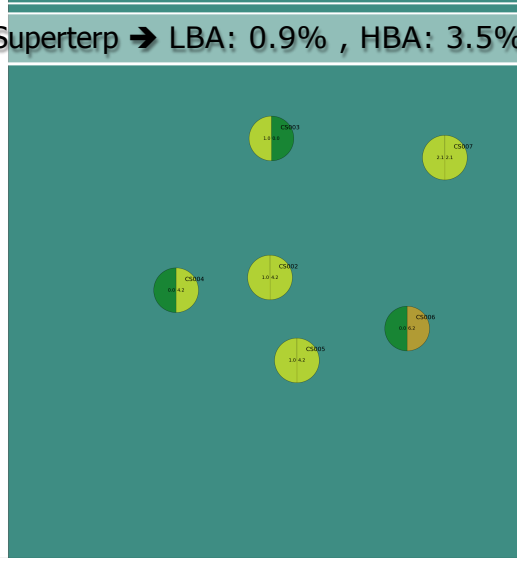
ANTENNA ELEMENTS STATUS



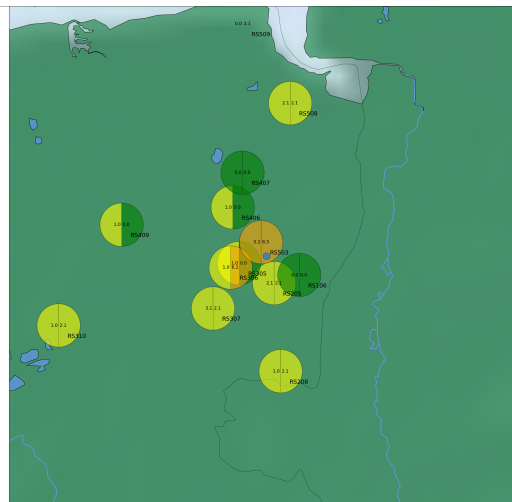
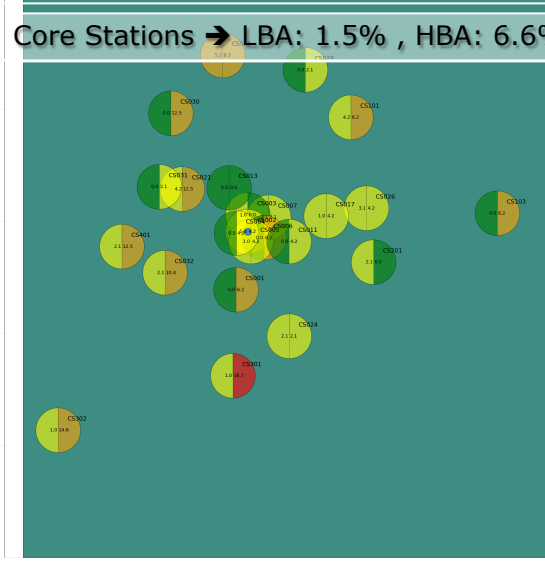
Full array → LBA: 1.3% , HBA: 3.4%



Superterp → LBA: 0.9% , HBA: 3.5%



Core Stations → LBA: 1.5% , HBA: 6.6%



Remote Stations → LBA: 1.6% , HBA: 2.1%

All operational

< 5% not operational

< 15% not operational

> 15% not operational

- Repaired HBA tiles switched on
- Current status available at

https://proxy.lofar.eu/array_status/

STATION CALIBRATION

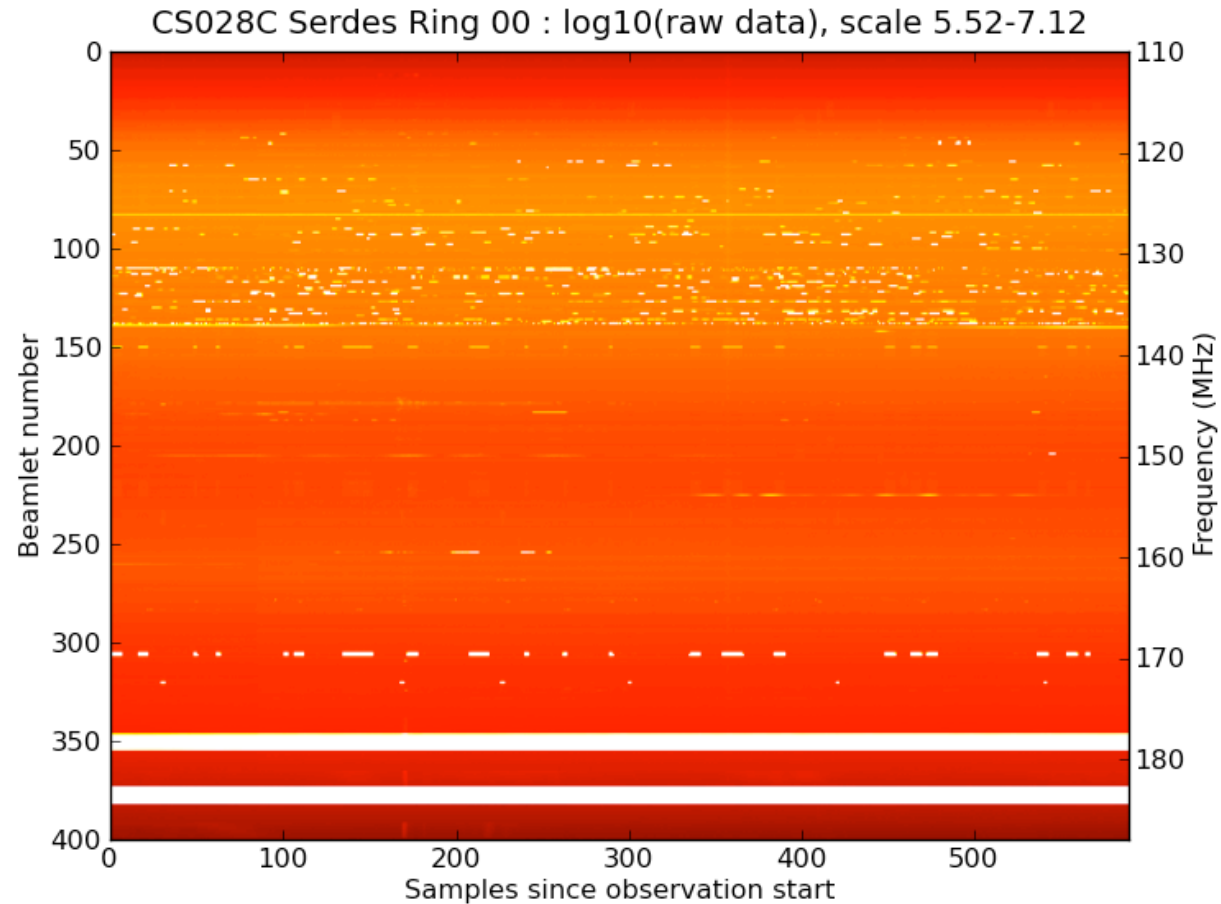


Station	mode 1/2	mode 3/4	mode 5	mode 6	mode 7
RS106	18-06-15	21-09-15	20-04-15		24-02-15
RS205	18-06-15	21-09-15	04-11-15		04-11-15
RS208	18-06-15	12-11-13	04-11-15		04-11-15
RS210	18-06-15	22-07-14	04-11-15		24-02-15
RS305	13-07-15	21-09-15	04-11-15		04-11-15
RS306	18-06-15	21-09-15	04-11-15		04-11-15
RS307	18-06-15	21-09-15	04-11-15		04-11-15
RS310	18-06-15	22-07-14	04-11-15		19-02-15
RS406	18-06-15	21-09-15	04-11-15		04-11-15
RS407	18-06-15	21-09-15	21-09-15		04-11-15
RS409	18-06-15		04-11-15		04-11-15
RS503	18-06-15	21-09-15	20-04-15		24-02-15
RS508	18-06-15	21-09-15	04-11-15		04-11-15
RS509	18-06-15	21-09-15	04-11-15		24-02-15
DE601		04-11-15	19-10-15		19-10-15
DE602		13-07-15	20-04-15		24-08-15
DE603		04-11-15	19-10-15		19-10-15
DE604		03-10-13	19-10-15		19-10-15
DE605		13-07-15	19-10-15		19-10-15
FR606		04-11-15	04-11-15		04-11-15
SE607		04-11-15	19-10-15		19-10-15
UK608		04-11-15	19-10-15		19-10-15
DE609		03-04-15	21-09-15		21-09-15

- Mode 5 and mode 7 tables installed on most Remote stations and FR606 on Nov 4.
- Mode 3 data installed on 5 international stations on Nov. 4
- Mode 6 test successful. Taken data for all stations planned.
- Current status

<http://www.astron.nl/radio-observatory/astronomers/current-status>

New beamlet statistics (BST) plots



log10 instead of median and frequency axis added

LOFAR 2.13



- Software roll-out November 2nd 2015
 - Update Station Software only
 - Better specifiable Attenuation settings
 - Improved robustness and speed for clock switches
 - 160 MHz included
 - TBB issues solved -> final testing TBD
- Introduced a problem with the spectral inversion
 - Only observed for the first observation after switching mode
 - Fix implemented
- Release notes: http://www.lofar.org/operations/doku.php?id=engineering:release_notes_lofar_2.13

Reminder CEP4



- CEP4 cluster will replace CEP2
 - Expected to be operational by beginning of 2016
 - CEP2 will be decommissioned on the same timescale
 - **Clean up requested by November 30**
 - Large data copy: contact science support first
 - Data cannot be stored on CEP4
 - DO NOT USE home directory for large datafile transfers
- LOFAR Data size calculator fixed
<http://lofar.astron.nl/service/pages/storageCalculator/calculate.jsp>

News regarding Cycle observations

Cycle 5 in progress.



Week 48	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								
Approximate LST		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3								
November	23	Mon	LT5_009 - NCP - HBA						System tests	LT5_004 - LOTAAS - 3hrs HBA; all international stations switched to ILT mode at 9 UT				System tests	LT5_004 - LOTAAS - 1hr HBA	STATIONTEST - spectral inversion	TBB + test runs			LC5_004 - T Tau - 8hrs HBA													
	24	Tue	LC5_004 - T Tau - 8hrs HBA			LT5_007 - P157+35 - 8hrs HBA						System tests						TBB + test runs			STATIONTEST												
	25	Wed	STATIONTEST	LT5_009 - 3C196 - 6hrs HBA						System tests	Recabling at Juelich: no ingests running, no obs with DE stations				System tests						TBB + test runs	LT5_007 - P028+46 - 8hrs HBA											
	26	Thu	LT5_007 - P028+46 - 8hrs HBA		LC3_007 - LOBOS Commissioning - 6hrs LST 6-12						System tests;	LT5_004 - LOTAAS - 3hrs HBA; all international stations switched to local mode at 9 UT						System tests	LT5_004 - LOTAAS - 1hr HBA	LT5_009 - NCP - HBA													
	27	Fri	LT5_009 - NCP - HBA						System tests																		TBB + test runs	LC5_013 - Galaxy - 10hrs LBA - CEP3					
	28	Sat	LC5_013 - Galaxy - 10hrs LBA - CEP3			TBB + test runs																		LT5_004 - LOTAAS - 4hrs HBA									
	29	Sun	LT5_009 - 3C196 - 6hrs HBA						TBB + test runs																								

➤ Detailed Cycle 5 schedule available here:

- <http://www.tiny.cc/LC5>
- ****Always cc 'sciencesupport@astron.nl' and include the proposal code in the subject line****
- **Cycle 4: 93% complete**

Cycle 5



- 33 out of 35 proposals accepted
- Long term allocations made up to and including cycle 8
- Total: 1598 observing hours, 1724 processing hours
- <http://www.astron.nl/radio-observatory/cycles-allocations-and-observing-schedules/cycle-5-final-allocations/cycle-5-final>

Project Code	PI	Title	Awarded observing hours	Awarded processing hours	Awarded observing hours	Awarded processing hours	Awarded observing hours	Awarded processing hours	Awarded observing hours	Awarded processing hours
			CYCLE 5		CYCLE 6		CYCLE 7		CYCLE 8	
LC5_001*	R. Fallows	Monitoring of Ionospheric Scintillation with LOFAR	0,0	12,0						
LC5_002	Z. Pleunis	A 135-MHz LOFAR Survey for Millisecond Pulsars in Unidentified Fermi-LAT Gamma-Ray Sources	20,0	0,0						
LC5_003	O. Ulyanov	Probing pulsar magnetospheres at 10-90 MHz with LOFAR (Part II)	6,0	4,8						
LC5_004	R. Ainsworth	VLI Investigations of a Protostellar Jet with LOFAR	8,3	12,5						
LC5_005	N. Jackson	LOBOS: the LOFAR Long-Baseline calibratOr Survey - II	0,0	0,0						
LC5_006	K. Chyzy	Magnetisation of the universe - the LBA studies of NGC 4449	9,0	30,0						
LC5_007	J. Peek	The Unexplained Pressure in the Closest Cold ISM	12,5	10,0						
LC5_008	V. Jelic	Studying the local interstellar medium	24,0	0,0						
LC5_009	D. Winterhalter	A SYSTEMATIC SEARCH OF THE 10 NEAREST STARS FOR PLANETARY MAGNETOSPHERE EMISSIONS (a continuation from Cycle 4)	20,0	32,0						
LC5_010	R. Breton	Deep Observation of Possible Extended Emission Surrounding a Pulsar	2,0	21,0						
LC5_011	M. Alves	Towards the physical properties of Faraday filaments	8,0	0,0						
LC5_012	J. Vink	Investigating the peculiar nature of mixed morphology supernova remnants: VRO 42.05.01 and W63	18,0	74,4						
LC5_013	M. Iacobelli	Characterizing Galactic MHD turbulence with LOFAR	20,0	70,0						
LC5_014	M. Brienza	Exploring radio-loud AGN recurrent activity with LOFAR: Part Two	24,5	122,5						
LC5_015*	S. ter Veen	FRATs: Commensal Real-Time Searches and Localization of Fast Radio Transients	0,0	27,0						
LC5_016	S. Nandi	A low frequency study of a new sample of double-double radio galaxies	8,0	20,0						
LC5_017	F. De Gasperin	The LOFAR LBA Exploratory Survey	64,0	77,0						
LC5_018	K. Mikhailov	The Low-Frequency Profile of the Recycled High-Energy Pulsar J1614-2318	6,0	2,5						
LC5_019	J. Truemper	Blazar-Jet Kinetic Power from Low-Frequency Radio Observations	21,0	110,0						
LC5_020	M. Perez-Torres	Mapping the spectral turnover of the Luminous Infrared Galaxy Arp 299	12,0	54,0						
LC5_021	R. Schulz	Probing the size, age and jet power of radio-loud narrow-line Seyfert 1 galaxies	0,0	0,0						
LC5_022	B. Marcote	First detailed study of a gamma-ray binary outburst at 150 MHz and search for extended emission	36,0	76,0						
LC5_023***	J. Broderick	Electromagnetic follow-up of LIGO gravitational wave alerts: a pilot study with LOFAR	24,0	48,0						
LC5_024	Y. Candès	Imaging the Pulsars in Globular Cluster M13	0,0	0,0						
LC5_025	R. Wijers	ARTFAAC commissioning and early science	0,0	0,0						
LTS_001**	M. Serylak	Studying Pulsars and the Interstellar Medium using International LOFAR Stations	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
LTS_002***	J.-M. Grießmeier	Measuring the energy of Saturn's lightning	28,0	0,0	28,0	0,0	28,0	0,0	28,0	0,0
LTS_003	J. Verbiest	Pulsar Timing with LOFAR	141,4	57,0	141,4	57,0	141,4	57,0	141,4	57,0
LTS_004	J. Hesselle	LOTAAS: the LOFAR Tied-Array All-Sky Survey	260,0	364,0	260,0	364,0	260,0	364,0	260,0	364,0
LTS_005	G. Mann	Long-term proposal for solar observations with LOFAR	60,0	60,0						
LTS_006	L. Morabito	Long Baseline Studies of High-redshift Radio Sources: Constraining particle acceleration and cold gas	19,0	95,0						
LTS_007	H. Rottgering	LOFAR surveys: Opening up a new window on the Universe	181,4	308,3	106,0	180,2	0,0	0,0	0,0	0,0
LTS_008	E. Enriquez	Searching for MHz emission from brown dwarfs	36,0	36,0	42,0	42,0	0,0	0,0	0,0	0,0
LTS_009	A. G. de Bruyn	The LOFAR EoR project	529,2	0,0	200,0	0,0	200,0	0,0	200,0	0,0
LTS_010*	S. Buitink	Precision Measurements of Cosmic Rays with LOFAR	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
		TOTAL	1598,3	1724,0	777,4	643,2	629,4	421,0	629,4	421,0

* = pyggybacking mode
 ** = stand alone mode
 *** = trigger




Documentation and resources



LOFAR slides for general use available

LOFAR DOCUMENTATION

Important sources of documentation about LOFAR are:

- [Technical Information web pages](#)
- [The LOFAR Wiki](#) 
- [LOFAR Data school presentations](#) 
- [LOFAR: The LOw Frequency ARray](#) 
- [The LOFAR Imaging Cookbook](#) (for a description of the imaging software reduction)
- [LOFAR slides \(useful material that can be used to prepare presentations about LOFAR capabilities\)](#)



The LOFAR imaging cookbook v18.0 is released

Documentation and resources

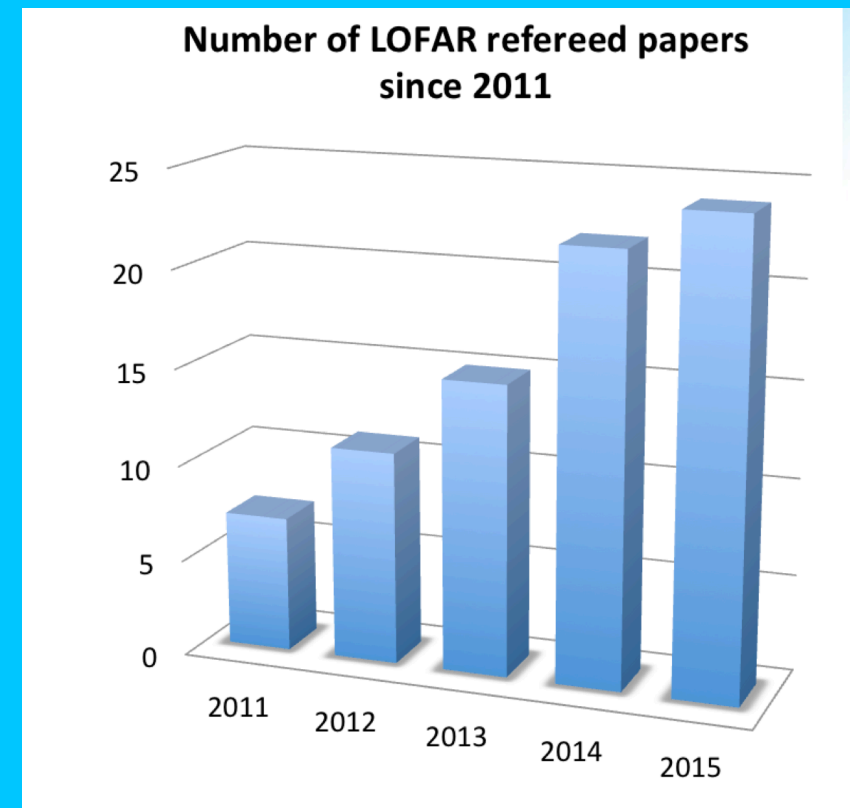


LOFAR user script repository is online on GitHub:

<https://github.com/lofar-astron/LOFAR-Contributions>

LOFAR papers overview available:

<http://www.astron.nl/general/lofar/lofar-papers/lofar-papers>



CALENDAR LOFAR activities



- Stop day : 1 December 2015
 - Software roll-out : 7 December 2015
 - Next LSM : 9 December 2015
- Note: The BBS database server name ldb001 will be replaced with the alias ldb during the stop day. Users should modify their setups accordingly.

Note: subscribe to lofar-news and lsm mailing lists:

<http://www.astron.nl/radio-observatory/subscribe-lofar-news-and-lsm-mailing-lists/subscribe-lofar-news-and-lsm-mailing-li>

LSM presentations:

http://www.lofar.org/wiki/doku.php?id=public:lsm_new:start