

Netherlands Institute for Radio Astronomy

# Programme:

- 1. Array status & Observatory update R. Pizzo
- 2. LTA status update- H. Holties
- 3. Making LOFAR Cycle data Public W. Frieswijk
- 4. LOFAR MSP population. Pulsar flux calibration V. Kondratiev



#### **Array Status**





- Repair by KPN of 12 faulty fibers between concentrator node and Groningen on Jan 6<sup>th</sup>
- TBB board broken on RS509
- CS013: clock error. Broken GPS cable.
  Replacement coaxial cable yesterday
- Lost contact with Weather station on 29/12.
  Solved.
- RS208: broken hard drive. Hardware collected and issue being investigated
- DE604: broken airco
- DE609: last configuration bits will be worked out this week by Surfnet. Station will go in production by the end of the week or beginning of next week

## **Overview, including IS**

LBA: 1.6%; HBA: 3.3%

see https://proxy.lofar.eu/array\_status/

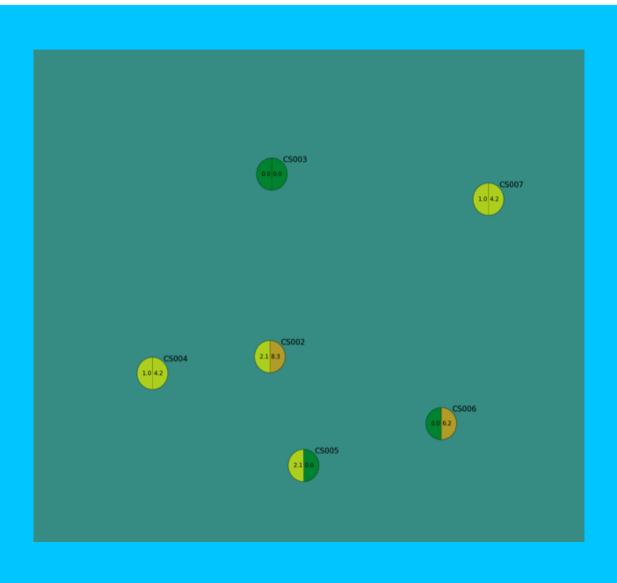




### **Superterp**

LBA: 1.0%; HBA: 3.8%

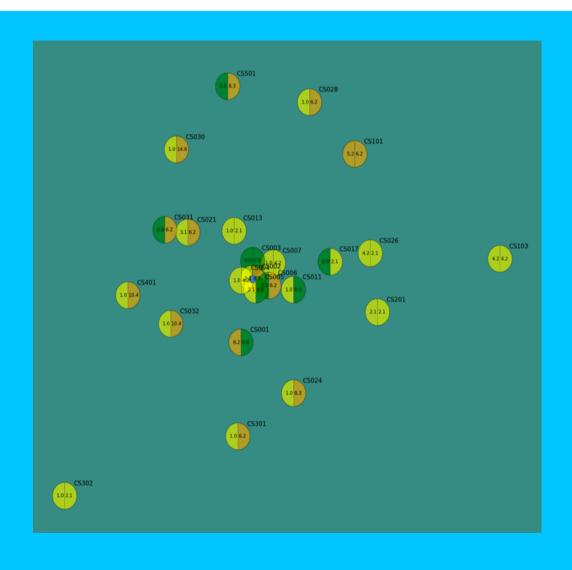




#### **Core Stations**

LBA: 1.8%; HBA: 5.2%





### **Remote Stations**

LBA: 2.2%; HBA: 4.0%





### News regarding the observing system Observations



- Observing system performed relatively fine during the last two weeks(Mostly EoR observations and TBB runs during the Christmas period)
- System issues:
  - Issue in multi beam HBA\_DUAL\_INNER observations where HBA 1 stations have a significantly higher signal than HBA 0 stations
    - Some RCUs remained in mode -1 on core stations, causing loss of signal. This problem did not occur when the observation was converted to single beam
    - Roll-back to LOFAR 2.6 on the stations fixed the issue
    - Solution in development being looked for
  - CS501 HBA1: problem in 8 bit mode on subbands 244-365 giving high visibility amplitude

# **News regarding the observing system Pipelines**



- I. Problem with incorrect status of pipelines of LC3\_007 on Dec 22nd
  - Investigations showed that this is related to a MAC bug: If a pipeline
     ObservationXXXABC is running and another pipeline Observation
     YYYABC starts, where ABC is the same for both pipelines, there will be
     a collision in MAC and both pipelines might or might not correctly report
     back their status to OTDB/MAC/MoM
  - MAC restarted on Dec 22<sup>nd</sup> -> fixing status of pipelines running on lhn001 when MAC was restarted + pipelines that experienced issues because of MAC bug
  - Pipelines scheduled at a reduced rate during last two weeks
  - A fix for the MAC bug will be investigated
- II. Issues with long baseline pipeline when more than one SB per locus node fix rolled out into production yesterday

# News regarding the observing system CEP



#### > CEP2:

- Locus100: cannibalized for spare parts
- Locus080: Infiniband problems -> network cables changed
- Overview of content of LOFAR\_PULSAR\_ARCHIVE -> significant amount of data could be deleted to prepare for observations during the Christmas break
- CEP1: nodes switched off
- CEP3: in use by limbo, Cycle users
  - Policy regulating access to CEP3 and data handling available at http://www.astron.nl/radio-observatory/observing-capabilities/depth-technical-information/cycle-1-observing-and-processin

# **News regarding Cycle observations CYCLE 3**



Mark	_	UT	0		2	3		5	6	7	8	9	10	11	12	42	14	15	40	17	18	19	20	21	22	23
Week 2 Approximate			7	8	9	10	11	12	13	14	15	16	17	18	19	13 20	21	22	16 23	0	10	19	3	4	5	6
January	5	Mon		LC3_028 - EoR NCP							IoS/TBB runs LC3_014 - LOTAAS								LC2_ 025 - RAs 6-9							
	6	Tue	LC2_(	LC2_025 - RAs 6-9 IoS/TBB runs						STOP DAY									SYSTEM TESTS; loS/TBB runs							
	7	Wed	SYSTEM TESTS; loS/TBB runs; all i								international stations switched to ILT mode at 9 UTC									STATIONTEST						028 - 3C196
	8	Thu	LC3_028 - EoR 3C196 IoS/TE								3B runs LT3								_001 - Pulsar Timing							
	9	Fri	LT3_001 - Pulsar Timing; all internati												node at 9 UTC				IoS/TBB runs							_028 - 3C196
	10	Sat	LC3_028 - EoR 3C196 loS/TBB runs							LC3_014 - LOTAAS				IoS/TBB runs					LC3_028 - EoR NCP							
	11	Sun			LC3_028 - EoR NCP							LC3_030 - RA 16					LC3_080 - RAs 22	loS	S/TBB r	uns	LC3_030 - RAs 2.7		TBB ins			
										e-VL	BI - 13	Jan	9 UT	- 14 Ja	ın 13	UT										
Week 3		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
Approxi	12	Mon	-	8	EoR 30	10		TBB ns	13	LC int station	C3_014 CTAAS; ternation ns switched at 9	all nal hed to	17	18	19	20	21	22	23 LC2_007 - L87s 21.23	0	1	2	3	4 LC2_007 +L87s 0.2.4.5	5	6
	13	Tue		LC2_007 -LS36 67.9.11 LC3_0 08- TEST LC2_0							s 11-17				LC2 007 -LS% 19 B2045-1				LC3_028 - EoR NCP							
	14	Wed	LC3_028 - EoR NCP							LC2_007 -LS7s 15-10 LC3_014				14 - LOTAAS			LC	LC3_027* - 2201+315				LC3_018 - 4C43.15 - 8.75hrs				
	15	Thu	LCS	3_018 -	4C43.1	15 - 8.7	5hrs																			028 - 3C196
	16	Fri							56.0+7	036 - 1RXS 56.0+792204 - 3hrs 27								LC3_028 - EoR NCP								
	17	Sat		LC3_028 - EoR NCP							LC3_014 - LOTAAS							TAAS								_008 - - 9hrs
	18	Sun		LC3_008 - P45 - 9hrs							LC2_039 - B1957+20 - 10.7hrs															028 - 3C196

- Detailed Cycle 3 schedule available here:
- https://docs.google.com/spreadsheets/d/ 1jDWvZmpH0ycusJTwBsMU6SxQYK5efawtk0jHSxMbo9M/pubhtml
- > 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\*\*

#### **CALENDAR LOFAR activities**



Next LSM : 21 January

Cycle 4 proposal call : End of January

Cycle 4 proposal deadline : Beginning of March

Next Stop Day : 3 March

Second LOFAR Users Meeting : 1 June, Assen

The 2015 LOFAR Community : 2 – 3 June, AssenScience Workshop

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

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