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Netherlands Institute for Radio Astronomy

Programme

- 1) Array status Harm Munk
- 2) Observatory update Wilfred Frieswijk
- 3) Cranking up the resolution of MSSS John McKean
- 4) LC0_003: status update Jess Broderick
- 5) LC0_019: status update Ger de Bruyn.
- 6) LC0_034, 011, 008: status update Jason Hessels

Array Status





Current Status:

- 37 operational NL stations
- 24 CSs
- 13 RSs
- 8 ISs

UK608: TBB memory upgrade installed Repairs started (15/4) on CS006. DE602 maintenance April 23-24 Repair DE605 April 25 (damaged coax?) NL stations TBB memory upgrade installation planned for two weeks starting April 29 RS210: network connection expected by mid May

Network, CEP Status



Network

- Still unresolved network problems on the link from DE601
 - Weekend observation April 6/7: 100% flagging

BG/P

• network node running failure in Rack 01: no impact on LOFAR ops

CEP-I/II

- LOFAR portals migrated to High Availability systems
 - 'Gnome' desktop replaced by lightweight desktop: 'icewm'

Next stop day: Tuesday, May 7







Core





Core x01 and outside





Remote





International





CEP usage last two weeks





News regarding the observing system

Overall system stability is good

- Observations stable
- Pipelines stable
 - occasional swapping, too many processes (scripts to handle it)

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- some failed subbands due to node-crashes

Issues

- Recent failures
 - Some recent International runs full flagging
- * upgrade the flash of the S1 switch at DE601 (A. Koers)
- possibly related to older sw versions [updated this week], tests tomorrow
 - LBA heavily affected by ionosphere (solar activity)
 - BG crash over the weekend affecting several runs
- Oscillating tiles
 - Repairs started (CS005,6); new station tests, implementation follows soon

News regarding the observing system: Updates, issues, tests

LOFAR

• Development

- focus: bug fixes, preparation/scheduling-efficiency improvement
- ✓ current sprint, next rollout May 28
- ✓ XML generator for preparation of cycle 0 runs
 - automatically generating observations + pipelines (v9, block structure)
- Updates of MoM, Scheduler and SaS/MAC to improve functionality and stabilize the system

News regarding the observing system: Tests, MSSS, other



- Station tests, monitoring etc... continue
- Continuation MSSS HBA survey
 - 1 block per week
 - ✓ LBA fields
- VHECR stand-alone
- Commissioning
 - Lenc field (O. Wucknitz)
 - ✓ NGC891 ToO (D. Mulcahy)
 - ✓ LB under investigation (A. Deller)
 - ✓ B0823+26 joined with WSRT



- Raw/processed data ingest to LTA (LCO, commissioning) is ongoing (data to user ~week)
 - ✓ some issues with space in Juelich have been solved
 - ✓ staging service suffered from firewall issues, solved
 - incomplete/-correct metadata
- LC019 data transferred to Target cluster
- Processed LCO data transferred to CEP1 for expert processing (maximum of 4 weeks guaranteed)

News regarding Cycle 0 observations



- Cycle 0 continuing at >80% efficiency
- Projects:
 - ✓ LC0_002, LC0_003, LC0_006, LC0_007, LC0_009, LC0_011, LC0_012, LC0_013, LC0_015, LC0_017, LC0_019, LC0_026, LC0_032, LC0_034, LC0_037, LC0_038, LC0_039, LC0_041, LC0_042, LC0_043
 - LC0_010, LC0_014, LC0_044 (stand-alone)
- Detailed schedule; contact science support in case of issues

16, 15th April	Mon	LC0_019 (EoR) - NCP - hrs			DE601, FR606, SE607, UK608 switched to local mode at 9 UTC; investigation of week-end failures; test LC0_037 run		Stress system runs + TBB runs		LC0_037 - A1914 - 8hrs		
	Tue	LC0_037 - A1914 - 8hrs	L. L.	C0_034,11	,008- pulsars runs - 9 hrs	sars runs - 9 hrs Stre		runs	LC0_037 - A1914 - 8hrs		
	Wed	LC0_037 - A1914 - 8hrs	Stress syste ru	m runs + TB ins	LC0_039 monitoring: DE601, FR6 switched to ILT mode at 13 UTC; F beam tests; TBB tests; test system v stations	601, FR606, SE607, UK608 3 UTC; FE monitoring runs; system with all International tions Stress			LC0_019 (EoR) - NCP - hrs		
	Thu	LC0_019 (EoR) - NCP - hrs		Stress system runs + TBB runs	Test system with all international stations		Stress system runs + TBB runs		C0_019 (EoR) - NCP - hrs		
	Fri	LC0_019 (EoR) - NCP - hrs		ToO - NGC891 with WSRT - 12hrs				L	C0_037 - A1682 - 10	Ihrs	
	Sat	LC0_037 - A1682 - 10hrs			MSSS - HBA		LC0_034,11,008- pulsars runs - 9 hrs		LC0_004 - MG 131+0456 - 4 hrs	MSSS HBA - MISSIN FIELDS	
	Sun	MSSS - HBA - MISS	ING FIELDS	St	tress system runs + TBB runs		LC0_003 - Zeni	th fields - 24 I	hrs		

https://www.astron.nl/radio-observatory/lofar/cycle-0-schedule/cycle-0-schedule

CEP news: Stopday April 9



- Portals: The Lofar portal and its companions ns1, ns2 and smtp have been replaced by a set of Ubuntu 12 virtual systems.

- Network: The NAA networks of KNMI and TNO have been connected to the new 4-portinterfaces of the new portal machines. In the near future NAA will be completely separated from the Lofar network.

- BG/P: Only one problem was found in rack R01-M1. A service request was send to IBM. This has no influence on Lofar operations.

- Central services: Updates and reboots
- LCU family: No updates / reboot needed
- CEP1: reboot lfe001 & lfe002

- CEP2: Reboot: Ihn001, Ihn002, locus001-094, locus101 and Fan speed adjusted: Ihn001, Ihn002, locus022, locus030, locus085

Next stop-day: May 7 (Tuesday)

http://www.lofar.org/wiki/doku.php?id=engineering:stopday_procedure

CALENDAR of requested busy weeks and other LOFAR activities



Commissioning

- <u>http://www.astron.nl/radio-observatory/astronomers/</u> <u>commissioning/commisioning-plan</u>
- Cycle 0
 - <u>http://www.lofar.org/wiki/doku.php?id=operator:schedule</u>

15-19 Apr	Imaging busy week
13-16 May	MKSP (13-15 workshop + 16-17 busy days)
15-17 May	NAC
7 May	CEP stop-day