

## Programme:

1. *Array status – H. Munk*
2. *Observatory update – E. Orru'*
3. *LTA update– A. Renting*
4. *MSSS update - G. Heald*
5. *Using lunar occultation to measure the global redshifted 21 cm signal between 36 and 84 MHz - H. Vedantham*
6. *HBA Tied-Array observations of Radio Recombination Lines - L. Morabito*

- Connection problems CS021
- A network cable in Maastricht broke and need to be fixed. DE stations were unreachable for 2 days
- StationControl down - TBB record off on the CS011 & CS030 problem has been fixed and should not happen anymore - keep monitoring
- CEP1 problems in lse019 staging4 not complete for few days - now solved
- CEP2 stable
- BG/P: out of memory 4096 channels! 2048 channels for beamformed data is the limit now

# News regarding the observing system

## Station station



- Generally problematic: CS032 clock board (TDS) of station CS032, subrack 1 is replaced yesterday...still problematic today
- Temperature problems on several stations (early May): CS026,CS032,CS007
- Airco DE603, unusable/fixing
- Clock DE602, unusable being replaced
- DE601: April 18th new antennafiles files adopted for DE601, unfortunately based on a wrong HBA tile rotation (196 degrees instead of 16 degrees).

The implication is that between April 18th and May 16th, ILT observation will have been done with a wrong iHBADeltas file. This affects all HBA observations in that period. Observations in local mode will not have suffered as long as the 1\_7 release of the software was used.

# News regarding the observing system: Stability & performance

- Overall stability is good:
  - Observations stable
  - Pipelines stable
    - Occasional swapping
    - Specifications errors
- Issues:
- status of mom unreliable both for observations and pipelines: implying a number of manual checks in different system (e.g. logs, OTB, schedule, navigator..) by SciSup
- processing stable: human predictions for duration keeping large margin missing, avoiding overlap of too many processes (memory limit) and crashes.
- batch scheduling IS CRUCIAL to increase the efficiency of the processing and the total % usage of the cluster. Failed pipeline does not restart automatically but human intervention is required, another could start in the mean time.

# News regarding the observing system : Archive

- Still in queue data from February with incomplete metadata.
- Better with new observation which suffer less of incomplete metadata.
- See A. Renting presentation for more details.

## Station calibration

Developing an automatic way to perform it

# News regarding Cycle 0 observations



Week number	week day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
22, 27th May	Mon	LC0_019 (EoR)				Investigation week-end failures; Stress system runs; TBB runs				Commissioning OH - 7 hrs				Stress system runs + TBB runs				DDT_003 - Elais - 6 hrs							
	Tue	DDT_003 - Elais - 6 hrs		Stress system runs + TBB runs				<b>ROLL OUT SOFTWARE V. 1.14</b>				MSSS - HBA - 8 hrs													
	Wed	MSSS - HBA - 8 hrs				System recovery; DE601,DE602,DE605,FR606,SE607,UK608 switched to ILT mode at 9 UTC				Pulsar tests + system stress runs - 24 hrs															
	Thu	Pulsar tests + system stress runs - 24 hrs								Stress system runs + TBB runs				DDT_003 - Elais - 6 hrs											
	Fri	DDT_003 - Elais - 6 hrs		Stress system runs + TBB runs		LC0_030 - Sun+IPS - total of 24 hrs of observation TBD - international stations required								DDT - GRB130427				Stress system runs + TBB runs							
	Sat	Stress system runs + TBB runs												Stress system runs + TBB runs				LC0_015 - Groth Strip - 10hrs							
	Sun	LC0_015 - Groth Strip - 10hrs		Stress system runs + TBB runs		Stress system runs + TBB runs				Stress system runs + TBB runs				DDT_003 - Elais - 6 hrs											

- Detailed Cycle 0 schedule till the end of the 'semester' available on ASTRON website:

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

- Check the schedule and inform Science Support in case of issues

- Cycle 0 above 100% efficiency with respect to 50% efficiency expected
- MSSS HBA – passed from 8 hrs per week to 16 hrs per week - completion of the survey expected middle 2013
- Commissioning (OH Oonk, SgrA\* Heald)
- Some DDT proposals submitted and partly accepted. Already scheduled and some of them observed.

**characterization** for Cycle 1. Two standard fields: 3C48 and L070+69

- Processing time avg, demix n sources, imaging time with ST, CS, RS max baselines. Noise fct of frequency using the MSSS pipeline.
- awimager is still old version, Ger should be able to validate the new version. Values will be scaled according to the new version.

## General info

- new demix strategy proposed during the imaging BW 17, under evaluation time for implementing it in NDPPP. Not yet clear when implementation will start for automatic pipeline.
- new version of casapy Casa 4.0.1: old scripts might not work



## CEP news:

- CEP-2: stable overall
  - A few locus nodes experienced reboot or hanging, causing crashes of pipelines
  
- CEP-1:
  - staging areas not archive, old disks not stable no back up. Users should save data on their facilities after these are copied in staging# by SciSup.
  - Users delete old data. RO will send email with the request to delete data older than a certain date. It is in your own interest answering to RO. If no answer data will be deleted with an automatic script without further notification.

# CALENDAR of requested busy weeks and other LOFAR activities



<http://www.astron.nl/radio-observatory/astronomers/commissioning/commissioning-plan>

- June 17 : Imaging Busy Week for experts, Dwingeloo
- June 4 : CEP Stop day