Science Support meeting September 29ᵗʰ 2014

Present: RP, RAF, Manu

Absent: MI, CT, WF

Minutes: RAF

Next meeting: October 6ᵗʰ 2014, 9: 30 am, Muller Room.

Agenda:

- *Action items*
- *Reports*
- *Announcements*
- *Redmine issues*
- *Week-end observations*
- *Plans for the week/week-end*
- *Table round*

- **ACTION ITEMS** (red – high priority; **bold = new**)

	STATUS		DESCRIPTION
RP		•	
MB	no progress	•	Update 'LOFAR Time Standard' webpage http://www.astron.nl/radio-observatory/observing-capabilities/depth-technical-information/lofar-time-standard/lofar-time-)
	no progress	•	Prepare MSSS LBA script
	active	•	Update validation script to attach pipelines to BF observations
	no progress	•	Implement observation tracker
	active	•	Include pulsar plots in the inspection plots overview (pulsar observations in genvalobs first)
WF	waiting	•	After proposal deadline, provide RAF+MI with usual spreadsheet listing all observations for Cycle 3 -> needed for preparing semester schedule prospects
	closed	•	Take over ingestion Pulsar data during RAF holidays
	closed	•	Delete Pulsar data once automatic processing is complete
	closed	•	Overview content LOFAR_PULSAR_ARCHIVE – **RAF should**

	Status	Task
	no progress	**continue**
	no progress	• Put in place procedures to make Cycle 0 data public and retrievable by 'street users'. Engage in discussion with Hanno. Make overview of implications for various Cycle 0 projects (meeting with Willem-Jan 2 October)
	active?	• Check with EoR people what's the current status of their processed data – were they all sent to the LTA?
	on hold	• Document issues we had with NorthStar during the Cycle 3 proposal deadline – Sim Solutions should fix bugs asap. No major updates for Cycle 4
	active	• Follow up the removal of TBB data from CEP2 – TBD in September
	active	• Create priority list for stations maintenance for the coming months
	active	• Implement web tool SB-frequency calculator
	on hold	• Prepare observations till end of Cycle 1 & 2 – train observers
	on hold	• Modify beam measurements scripts to change gridding (MI involved)
	on hold	• Create template to test all pipelines – Alwin needs to do this
		• Wednesday lunch talk – speak to Jason to fix a date
Manu	no progress	• Find list of targets Surveys Tier 1 and 2 and put it on ASTRON web pages
	no progress	• List of RFI-contaminated sub bands to be made available on validation plots web page and on ASTRON LOFAR web pages (involve RAF)
	no progress	• Document examples of good and bad data in inspection plots
	no progress	• HBA and LBA: define 'Standard observing mode', SBs list, time and freq averaging in preprocessing
	active	• Follow up coordination 'tiger team' CEP2 performance issues (see Redmine issue #6457)
	active	• Support CT in planning next steps towards implementation smart demix in operational system (CT test changing threshold)
	no progress	• Selfcal Cycle implementation in RO pipelines – monitor progress and highlight timelines (together with CT)
	active	• A few tasks from CT todo list
	new	• **RO update at the LSM**
RAF	no progress	• Make inventory of content LOFAR PULSAR ARCHIVE and delete data
	active	• Regularly and promptly ingest Cycle Pulsar data after processing
	no progress	• Plan repetitions in observing schedule of all Pulsar runs needing repetition because of accidental data deletion – it might need giving birth to Cycle 3 Google spreadsheet already
	active	• Commissioning BF+IM mode – coordination with Jan David
	no progress	• Test Pulsar pipeline in order to take over entirely processing of Cycle 3 Pulsar projects
	waiting	• Timing of Pulsar pipelines does not seem to be reliable – new calculations are needed – characterization!
	on hold	• End September: start ionospheric monitoring experiments

	no progress	at CS013 • Go through small projects in cleanup module and delete data
	active	• On Monday, delete data in /staging3,4/pipeline older than 5 weeks – action from colleagues required
	new	• **Summarize scheduling issues Cycle 3 – send report to PC by Friday 24 October (involve MI)**
CT	active	• Station calibration (CS+RS) – we really need to make progress with this. Mode 1 in progress.
	active	• Start instructing Observers to take over Station calibration tasks
	active	• Participate in CEP3 testing
	on hold	• CITT participation
	on hold	• Investigate together with MB Olaf's method for station calibration
	active	• Coordinate systems (talk to Alwin)
	on hold	• Wednesday lunch talk – speak to Jason for a date
	active	• FRATS tests (get in contact with S. ter Veen – he's busy at the moment)
	active	• Take care of Pulsar projects during RAF absence (*check his to-do e-mail from Friday 5 September*)
	active	• Summarize status testing Smart Demix and start planning requirement workshop to understand what needs to be done to implement this in the operational system
		• Selfcal Cycle implementation in RO pipelines – monitor progress and highlight timelines (together with Manu)
MI	active	• Collect ideas on script to copy data from CEP2 to CEP3 and make sure that Arno follows those guidelines during the implementation
	active	• Participate in CEP3 tiger team
	closed	• Organize meeting to discuss progress long baseline pipeline
	active	• A few tasks from CT todo list
	new	• **Work with RAF on scheduling constraints Cycle 3 + work out Cycle 3 schedule**
All SSG	active	• Before leaving for working trips/holidays check your duties on the Google duty calendar and ask colleagues to replace you.

Note: some action items are from the User's meeting – check presentations at

http://www.astron.nl/lofarscience2014/programme_LUM.php

Weekly Reports

1. **Roberto:**

   • Cycle 3 proposals

2. **Wilfred:**

- …

3. **Carmen:**

   - …

4. **Manu:**

   - …

5. **Richard:**

   - …

6. **Marco**

   - …

General announcements

- Preparations tutorial data retrieval from LTA: Wed 1 October, 1 pm, Muller room

- Review Software Support system: October 6th, 2 pm, Oort room -> BE THERE!

- Layout office 6.10 will change -> soon 1 desk will be added for Luciano Cerrigone (starting beginning November)

- Mentorship system: do you use it? Do you find it useful?

Observational matters

- Technical reviews Cycle 3 proposals are available at

  https://www.dropbox.com/home/CYCLE%20FILES/LC3%20PROPOSALS

  In there you will find a folder named *TECHNICAL_REVIEWS*, which contains 2 files:

     - *cover_letter.pdf*
     - *technical_reports_cycle3.pdf*

- Starting from this week, also DE604 is switched to local mode every week together with all the other international stations.

- 160 MHz clock observing: Redmine issue #6754 created. It seems like a couple of days of work are needed for Pieter to make this working. It will be given priority. Science Support will have to follow up with station calibration.

- Some concerns have been raised by Software Support regarding the supportability of proposal LC3_007. 1 h of observation for this project will generate ~ 1400 entries in MoM. Some work is currently done in the pipeline to reduce this number merging two pipelines into one. The issue was discussed by RP with Hanno last week. We should go ahead and use this project as a test case to push development.

- The weather station data of the Superterp are now available on a Virtual server:

  ftp://ftp.astron.nl/outgoing/Cosmic/

- CEP3 – very little activity by beta testers so far. Beta testing period extended till October 24. Suggestion to close access to CEP1 to external users as of November 15th.

- CEP2 poor performance -> 'tiger team' in action. Manu: summarize status.

- Preparations review meeting software support.

- Disk Space on CEP2:

project/task/data type	SAS id	run date	duration	expire date	expired	deleted	exist	# files	file size	total size
LC1_014										127.4 TB
LC2_025										115.4 TB
LC2_010										63.4 TB
LC2_015										58.2 TB
LC2_026										57.8 TB
LT2_003										56.3 TB
Commissioning2014										38.5 TB
MSSS_HBA_2013										27.1 TB
LC2_014										20.0 TB
2014LOFAROBS										11.0 TB
LC2_007										9.7 TB
LC1_032										9.6 TB
LC0_035										9.3 TB
LC2_027										6.8 TB
LC2_028										6.5 TB
LC1_020										6.2 TB
LC2_012										5.9 TB
LC1_035										5.3 TB
COBALT										3.3 TB
LC1_057										2.9 TB
LC1_047										2.8 TB
MSSS										2.8 TB
MSSS_test_2012										2.3 TB
Unidentified (in /data/Lxxxxx)										2.0 TB
LC2_035										1.9 TB
LC1_041										1.8 TB
CosmicRays										1.7 TB
LC1_008										1.6 TB
LC2_003										1.4 TB
LC0_034										1.2 TB
DDT2_001										1.2 TB
LC1_052										1.1 TB

Total size of selection

The total size of the selected projects is:662.6 TB
The total size of the selected tasks is:0 kB

OK

Free:	% Used:	Unknown data:	Free:	% Used:	Unknown data:	Free:	% Used:	Unknown data:	Free:	% Used:	Unknown data:
locus001 7.2 TB	64%	5%	locus026 6.2 TB	69%	5%	locus051 6.4 TB	68%	3%	locus076 6.5 TB	68%	4%
locus002 1.0 TB	95%		locus027 6.5 TB	67%	6%	locus052 5.5 TB	72%	4%	locus077 6.3 TB	68%	5%
locus003 6.9 TB	65%	5%	locus028 5.7 TB	71%	5%	locus053 6.6 TB	67%	4%	locus078 5.9 TB	70%	3%
locus004 7.4 TB	63%	5%	locus029 6.4 TB	68%	6%	locus054 7.3 TB	63%	4%	locus079 7.4 TB	63%	3%
locus005 7.3 TB	64%	5%	locus030 5.5 TB	72%	8%	locus055 8.3 TB	59%	12%	locus080 19.7 TB	1%	1%
locus006 7.3 TB	63%	6%	locus031 6.2 TB	69%	5%	locus056 6.5 TB	67%	4%	locus081 5.6 TB	72%	4%
locus007 6.5 TB	68%	5%	locus032 5.4 TB	73%	4%	locus057 5.5 TB	72%	4%	locus082 6.7 TB	66%	3%
locus008 7.2 TB	64%	7%	locus033 4.4 TB	78%	78%	locus058 19.8 TB	1%	1%	locus083 5.1 TB	74%	74%
locus009 7.2 TB	64%	5%	locus034 6.2 TB	69%	8%	locus059 6.1 TB	70%	69%	locus084 5.6 TB	72%	22%
locus010 6.9 TB	66%	7%	locus035 6.4 TB	68%	4%	locus060 6.0 TB	70%	8%	locus085 6.2 TB	69%	3%
locus011 7.3 TB	63%	5%	locus036 5.4 TB	73%	5%	locus061 6.5 TB	68%	3%	locus086 6.4 TB	68%	3%
locus012 6.3 TB	68%	6%	locus037 6.5 TB	67%	5%	locus062 6.6 TB	67%	3%	locus087 7.0 TB	65%	3%
locus013 8.0 TB	60%	59%	locus038 6.0 TB	70%	4%	locus063 6.8 TB	66%	3%	locus088 6.6 TB	67%	3%
locus014 6.7 TB	67%	7%	locus039 6.5 TB	67%	4%	locus064 6.5 TB	68%	4%	locus089 6.4 TB	68%	3%
locus015 6.0 TB	70%	10%	locus040 17.1 TB	14%	2%	locus065 2.2 TB	89%	86%	locus090 7.0 TB	65%	4%
locus016 6.2 TB	69%	5%	locus041 6.2 TB	69%	4%	locus066 6.6 TB	67%	3%	locus091 5.1 TB	74%	15%
locus017 7.1 TB	64%	4%	locus042 6.5 TB	68%	4%	locus067 6.2 TB	69%	4%	locus092 18.6 TB	7%	1%
locus018 6.8 TB	66%	6%	locus043 6.8 TB	66%	4%	locus068 5.9 TB	70%	4%	locus093 19.3 TB	3%	3%
locus019 6.1 TB	69%	6%	locus044 6.0 TB	70%	70%	locus069 7.2 TB	64%	3%	locus094 19.5 TB	2%	2%
locus020 6.3 TB	68%	6%	locus045 6.5 TB	67%	3%	locus070 6.0 TB	70%	4%	locus095 2.1 TB	89%	89%
locus021 6.4 TB	68%	5%	locus046 5.5 TB	72%	4%	locus071 6.5 TB	67%	6%	locus096 3.9 TB	80%	80%
locus022 6.2 TB	69%	69%	locus047 6.6 TB	67%	4%	locus072 6.2 TB	69%	5%	locus097 201.3 GB	99%	99%
locus023 6.6 TB	67%	5%	locus048 5.0 TB	75%	22%	locus073 5.6 TB	72%	5%	locus098 4.8 TB	76%	76%
locus024 3.8 TB	81%	81%	locus049 7.0 TB	65%	3%	locus074 5.7 TB	71%	4%	locus099 1.6 TB	92%	92%
locus025 8.3 TB	59%	5%	locus050 6.8 TB	66%	3%	locus075 5.6 TB	72%	5%	locus100 17.3 TB	14%	13%

Size LOFAR_PULSAR_ARCHIVE -> 343 TB

Redmine Issues to verify

- None

Station report

- *Last week:*

    o RS503 in maintenance.
    o CS007 RSP/TBB down.
    o DE601 mode 3 calibration run performed.

- *Station test:*

    o Not performed this weekend.

Past weeks observations

Observations

- LC1_14 Sept 25 12:00 UT - Sept 26 12:00 UT –> all finished

- Cosmic ray Sept 26 13:30 UT - Sept 27 02:20 UT –> finished

- LT2_003 LOTAAS Sept 27 02:46 UT - Sept 27 05:53 UT –> finished – FE check plots ok.

- Cosmic ray Sept 27 06:10 UT - Sept 27 20:51 UT –> 17:51 UT COBALT problem: lost connection Could not copy parset to cbt007

- LC2_026 Sept 27 21:00 UT - Sept 27 22:00 UT –> aborted due to cobalt problem

- Cosmic ray Sept 27 23:10 UT - Sept 28 08:10 UT –> aborted due to cobalt problem

- LC2_026 Sept 28 09:00 UT - Sept 28 12:00 UT –> aborted due to cobalt problem

- Cosmic ray Sept 28 12:00 UT - Sept 28 17:15 UT –> aborted due to cobalt problem

- LC2_19 EOR Sept 28 17:37 UT - Sept 29 05:09 UT –> aborted due to cobalt problem

Pipelines

- LC2_014 sasid 243577 (restarted in MOM by EO) 2014/09/25 22:30 - 2014/09/26 10:30 UT –> finished

- LC1_014 sasid's 245243 - 245587 1 at a time from 2014/09/25 22:40 - 2014/09/26 10:30 UT —> finished

- LC1_014 sasid's 245589 - 245961 2 at a time from 2014/09/26 10:30 - 2014/09/26 16:28 UT —> finished except for 245831 (still active after 15 hrs)

General comments:

- COBALT now rebooted. Some discussion about making COBALT more robust so that remaining nodes continue processing if one goes down.

Week and Week-end plans

- **Do not leave the nights empty – fill them with validation runs and TBB observations**

- **Stress the system by observing in various modes. Report bugs to developers and work together for solutions**

- ***In test runs, when available, ALWAYS include the international***

Duties are reported in this Schedule

Table round

- Teun: Network problem last night affecting CEP systems (very high percentage of lost blocks on ping between computers) seems resolved, but cause needs investigating.
- Arno: Test time needed to COBALT/PVSS data transfer tests.