

## COBALT

## Project Update



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# General

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- Project (mostly) within time and budget
  - 1 month delay compared to original schedule
  - 2 features will slip into early 2014
- Hardware rolled-out
  - Initial performance tests indicate it will meet the requirements
- Network upgrade: finished end of September
  - BG/P and COBALT connected to all stations and CEP2
- Commissioning Plan available
- <http://www.lofar.org/wiki/doku.php?id=cobalt:start>



# Functional Software

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- Planning / timeline updated
  - ‘Coherent de-dispersion’ and ‘Combined imaging & pulsar observations’ slip into next year
- Correlator
  - Software ready for commissioning
  - Performance tests indicate 80 stations can be handled
- Beamformer
  - New design of pipeline
  - Implementation is ongoing
  - Initial performance tests indicate requirements will be met (but benchmark cases need to be detailed)
- Fly’s eye mode
  - No significant extra work

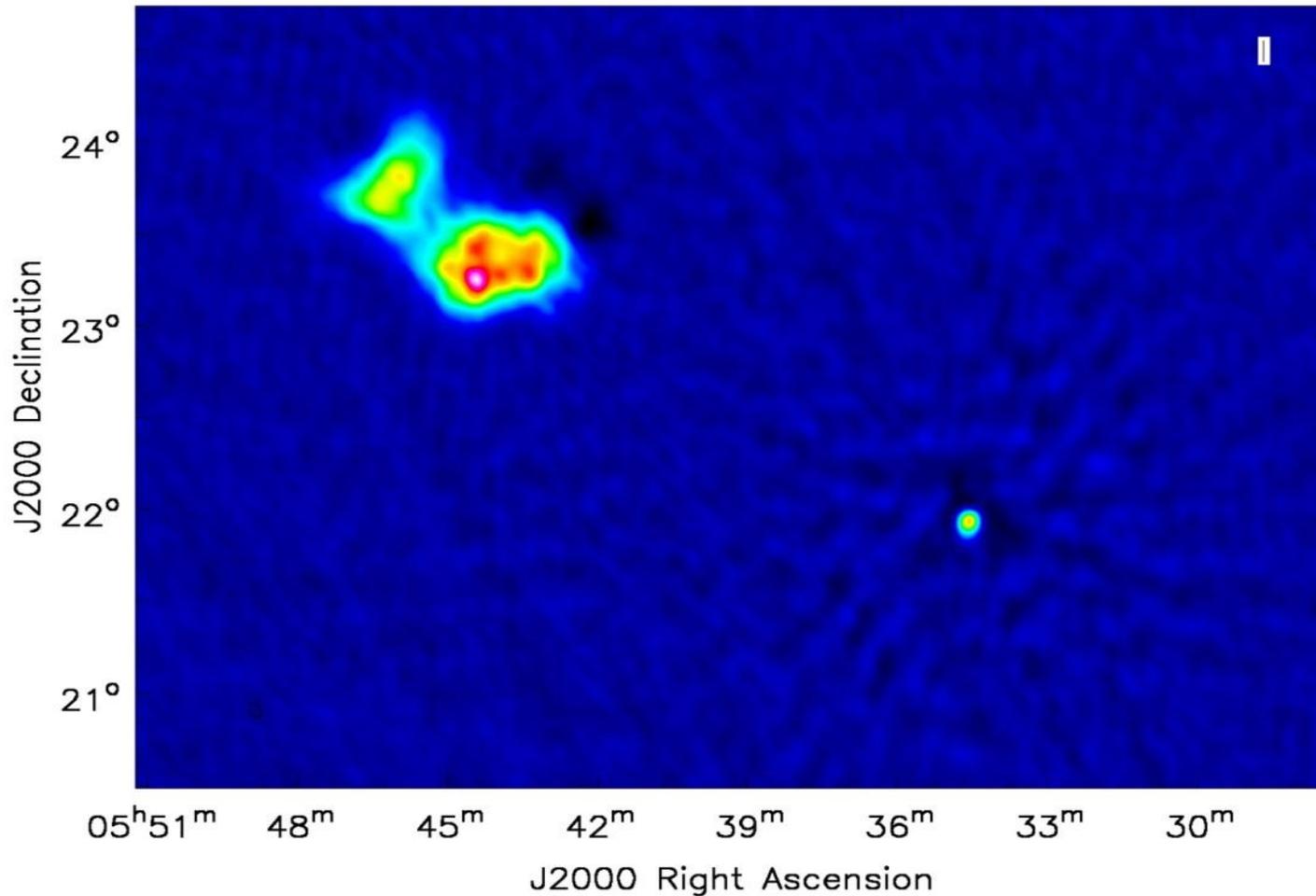
# First functional test (on DAS4)

June 2013

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Sun and Tau A 2013-06-17





# Integration in Observatory

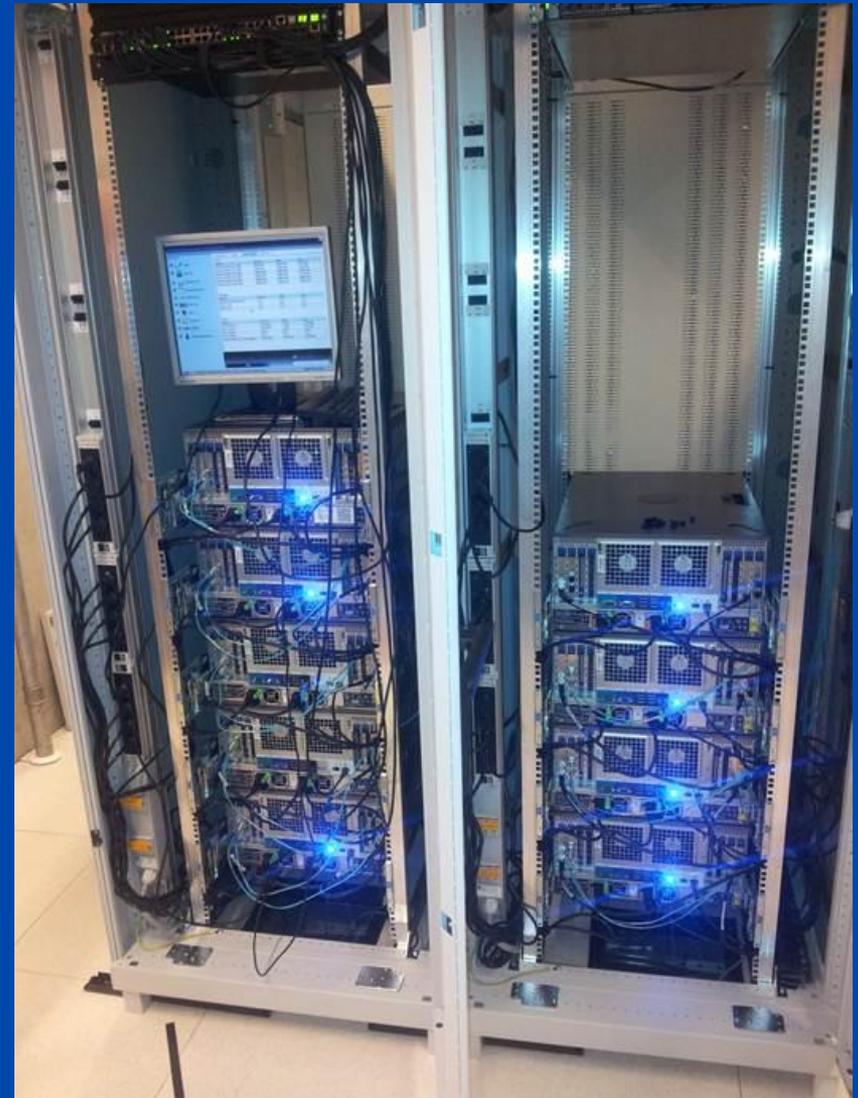
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- Correlator Pipeline software rolled-out on September 30
  - Available for full system testing / commissioning
- Beamformer Pipeline
  - Coherent Stokes: planned for Oct 31
  - Incoherent Stokes: planned for Nov 30
  - Fly's Eye: planned for Dec 15
  - Note: on these dates *commissioning* can start



# Hardware

- Scenario 1 Hardware
  - 8+1 nodes
- Certification to be done





# Network

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- Upgrade finished end of September
- BG/P and Cobalt both connected to all stations and CEP2
- Currently tracking down the last issues
- Observations using BG/P have started again



# Upgraded network

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LSM 2 October 2013





# Remaining Timeline

Date	Activity	Deliverable
September	Network reconfiguration	
End of September	Integrated Correlator pipeline	
September-> Early October	If needed: Scaling up to larger system	
Oct./ Nov.	Full system tests (incl. Observatory) / Commissioning	
30 November	Integrated Beamforming Pipeline	
End of November	Operational Readiness Review	
15 December	Integrated Fly's Eye mode	
31 December	Cobalt replaces BG/P as production system	
Q1 2014	Coherent de-dispersion Parallel observations (Imaging + Pulsar) Performance scaling (if needed) Removing old hardware	



# Questions?

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