

# UK608

Chilbolton LOFAR Station  
Current Status Report

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# UK608

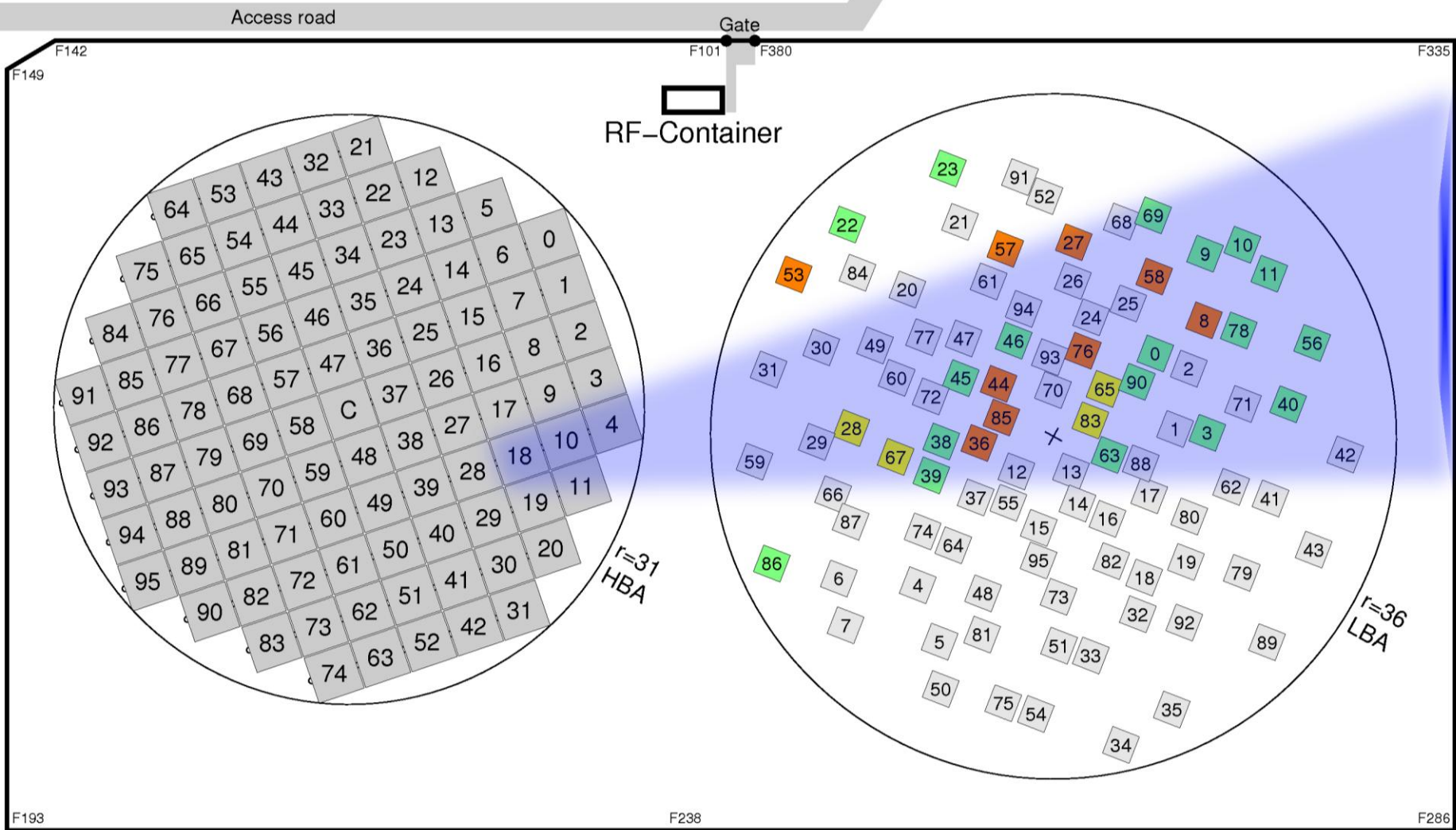
- Antenna arrays
- Control room
- Operations
- Software
- Issues





UK608, Chilbolton

- Storms of 3<sup>rd</sup> and 5<sup>th</sup> January 2012
  - Gale force winds
  - Gusts up to 30 m/s



- Two modes of failure

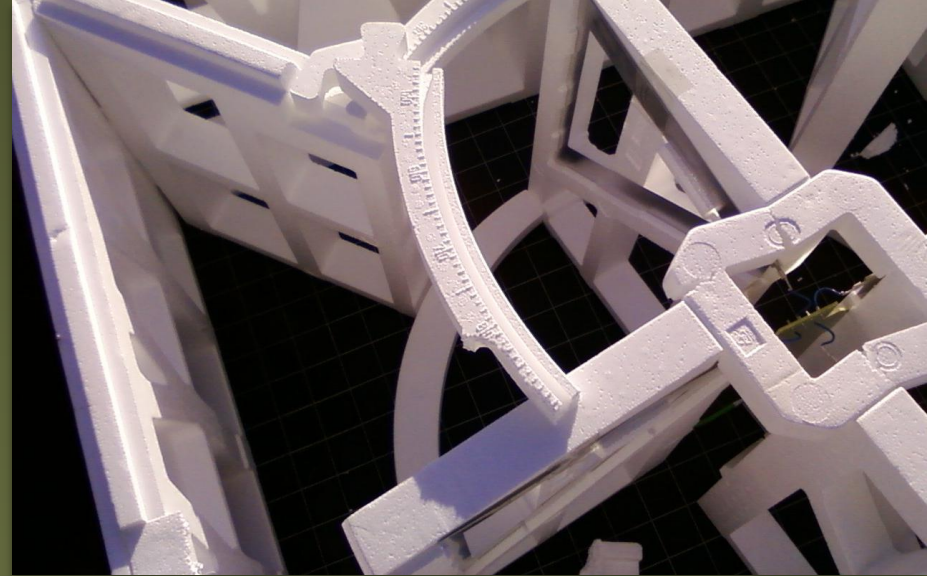
- 1xHBA cover lost → 10xLBA destroyed, 1xLBA damaged
- 3xLBA failed → 3xLBA also destroyed





UK608, Chilbolton

- HBA#18 cover
  - Damaged caused due to loose anchor lines
  - Result of anchor movement in reconstituted soil



UK608, Chilbolton

- Cover tears and broken elastic
  - Quickly followed by loss of polystyrene lids
  - Some internal breakage, but electrically still in order





UK608, Chilbolton

- 3 × LBA failures
  - 1 bent (shown) and 2 ripped out completely
  - 6 cables stripped





- Additional anchor pegs
  - 8 additional pegs per LBA





- Repair day
  - 15 February 2012
  - 28 volunteers from various universities

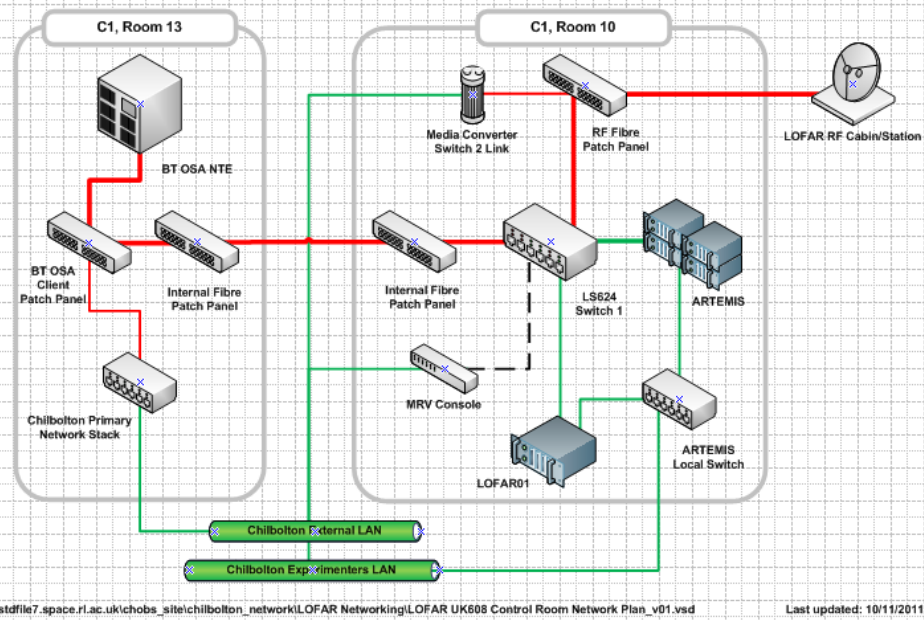
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- New control/server room
  - Split partition, sound proofed
  - 3x60A 3-phase power, UPS, aircon



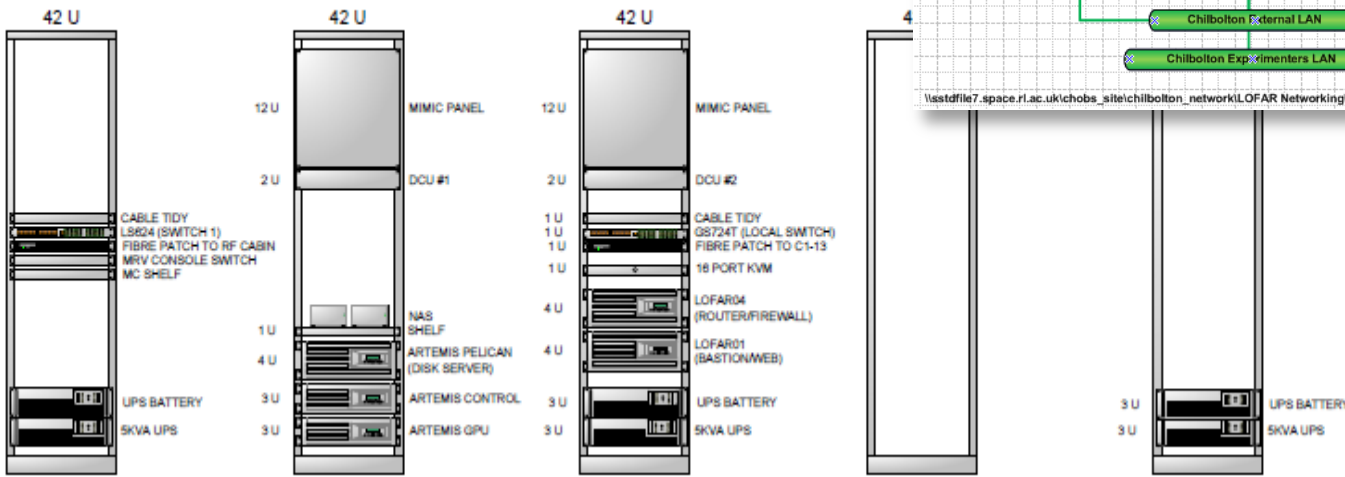
\\astdfile7.space.rl.ac.uk\chob\_s\site\chilbolton\_network\LOFAR Networking\LOFAR UK608 Control Room Network Plan\_v01.vsd Last updated: 10/11/2011

**ASTRON**

**ARTEMIS**

**LOCAL**

**SP**



- 5 x 42U 19" racks
  - ASTRON, ARTEMIS, SEPcam, SEProc, local, etc.
  - Revised internal network, new 3-scr console



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Operating budget ~£200k

- ASTRON subs
- Network
- Staff
- Misc

Core staff

- 0,1 Management
- 0,1 Maintenance, operations
- 0,1 Network computing

SEPnet staff

- 1,0 Development

LOFAR-UK staff

- 0,2 Support and outreach

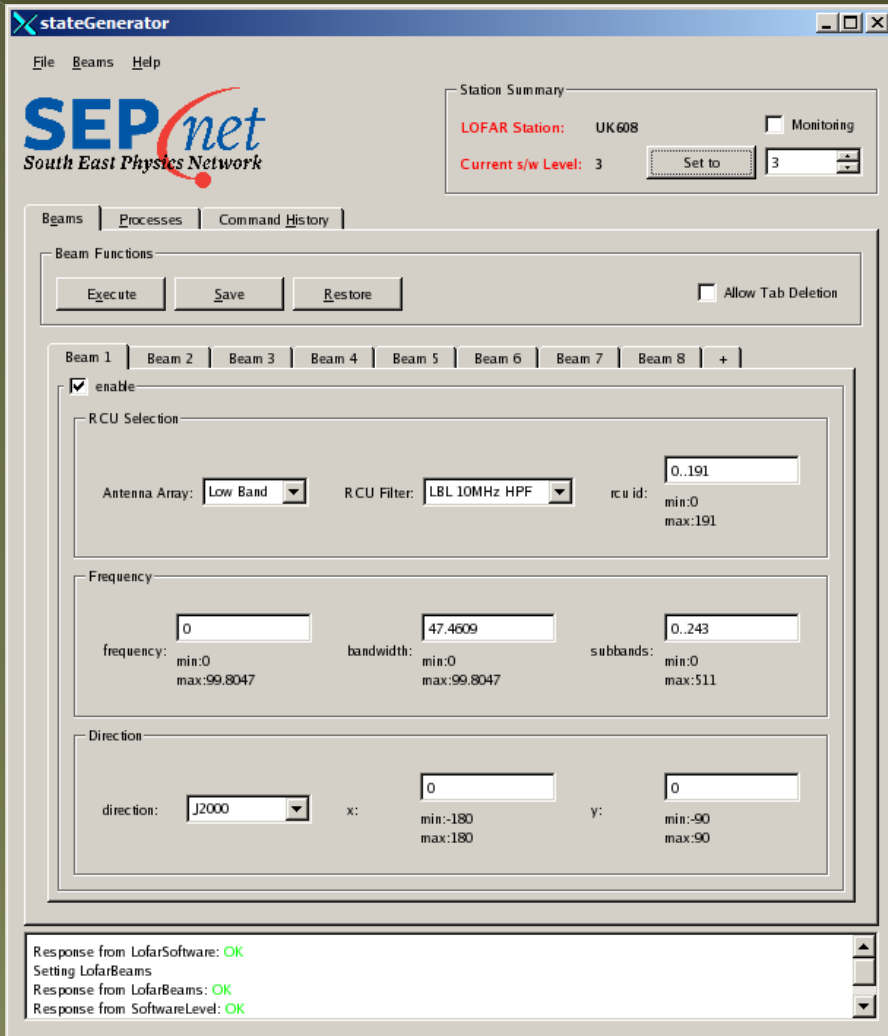
Stand-alone

- Currently ~4%

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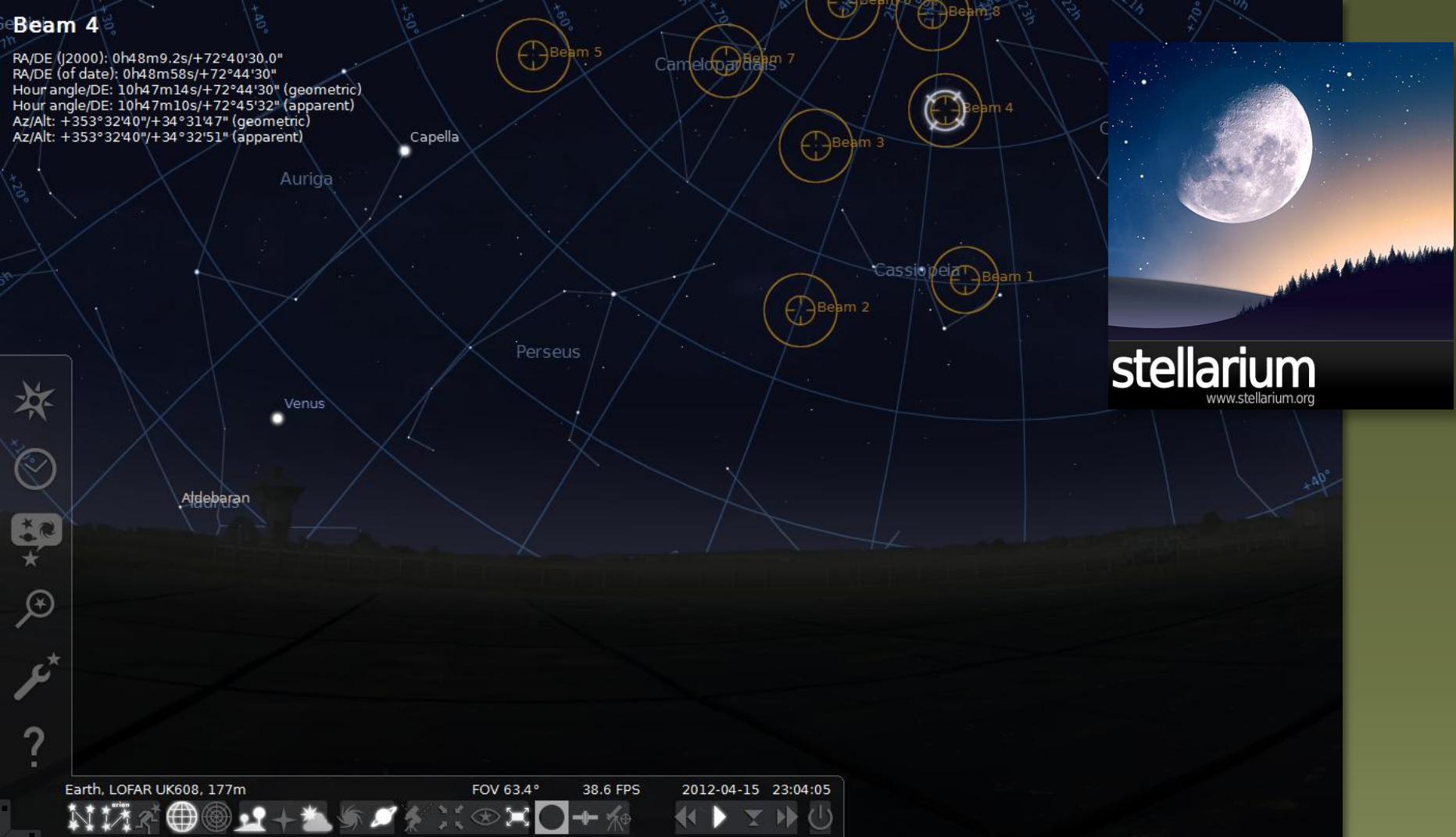
SEPnet GUI lofar01

SEPnet server  
& authentication

LOFAR utilities

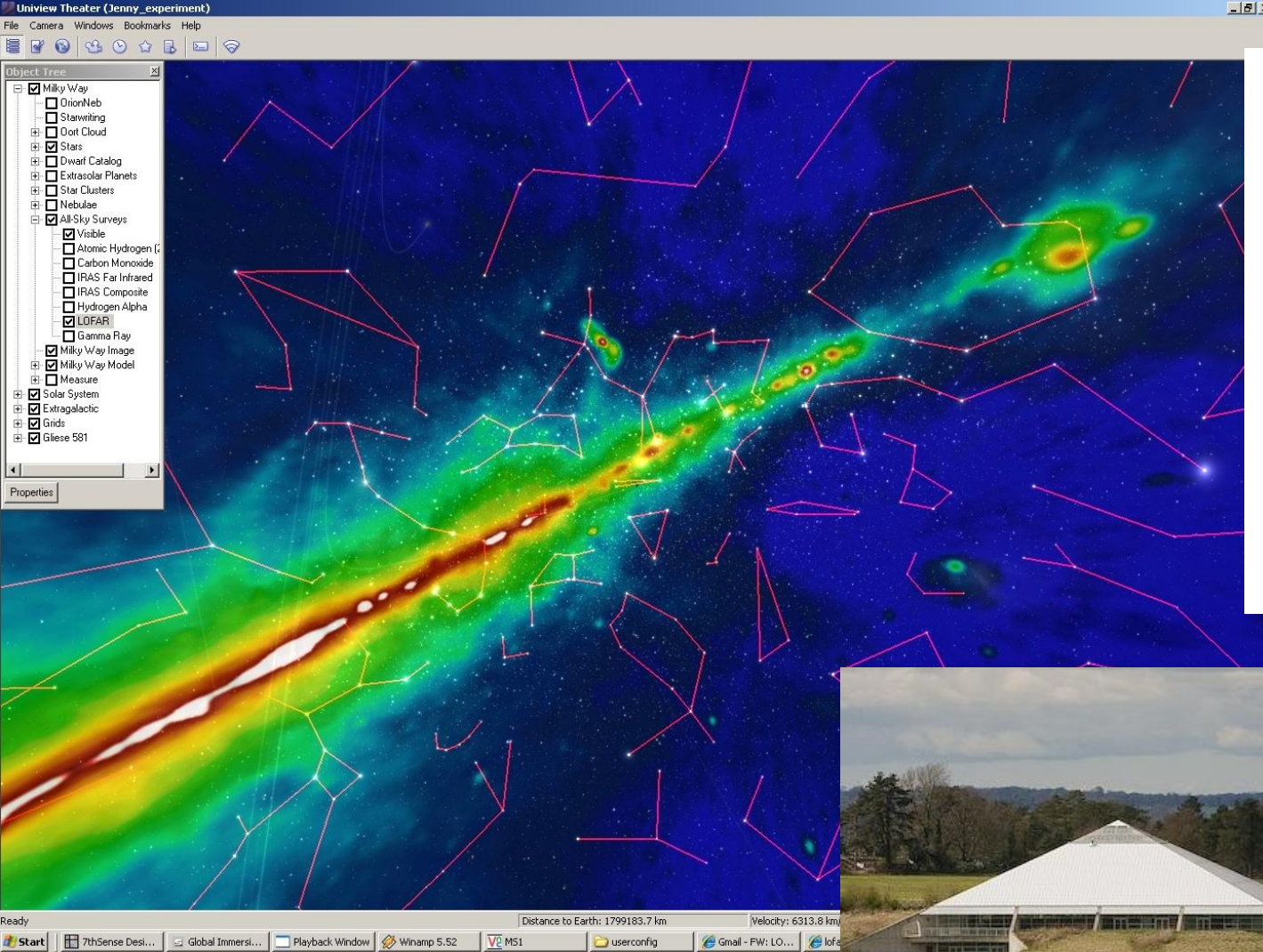
LCU

- SEPnet control GUI
  - Allows control of LCU processes
  - Also controls 3<sup>rd</sup> party instrumentation (e.g. ARTEMIS)



- Stellarium control system
  - Visual interaction, uses SEPnet server, with audio link-in
  - Prototype interace, HBA landscape





RAL Space



- LOFAR planetarium
  - Joint outreach project
  - Import data into digital planetaria (e.g. UniView)

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## Done...

- Repairs
- Building works
- Station handovers

## Remaining...

- Funding staff effort
- HBA#37 summator
- Station status information
- 5-ns problem
- Schedule for ASTRON visit





# End

With thanks to all those who contributed from LOFAR-UK, Rutherford Appleton Laboratory, Chilbolton Observatory, SEPnet (South East Physics network), ASTRON and countless others. Particular thanks to A. Doo, J. Shipway, A. Fletcher, I. Bukowska, D. King, J. Lass, D. Ladd, M. Clarke, G. Gratton, S. Guest, H. Morris, V. Graffagnino, B. Swinyard, R. Harrison, C. Callard, P. Best, *et al.*



<http://www.lofar-uk-org/>

