

# LOFAR MSSS Multifrequency Snapshot Sky Survey



STATUS REPORT AND UPDATE

MULTIFREQUENCY SNAPSHOT SKY SURVEY

George Heald (MSSS Project Leader) (on behalf of the MSSS Team) LOFAR status meeting, 21/1/2015

## **Topics**



- MVF paper status
- Toward the first HBA catalog

#### MVF paper status



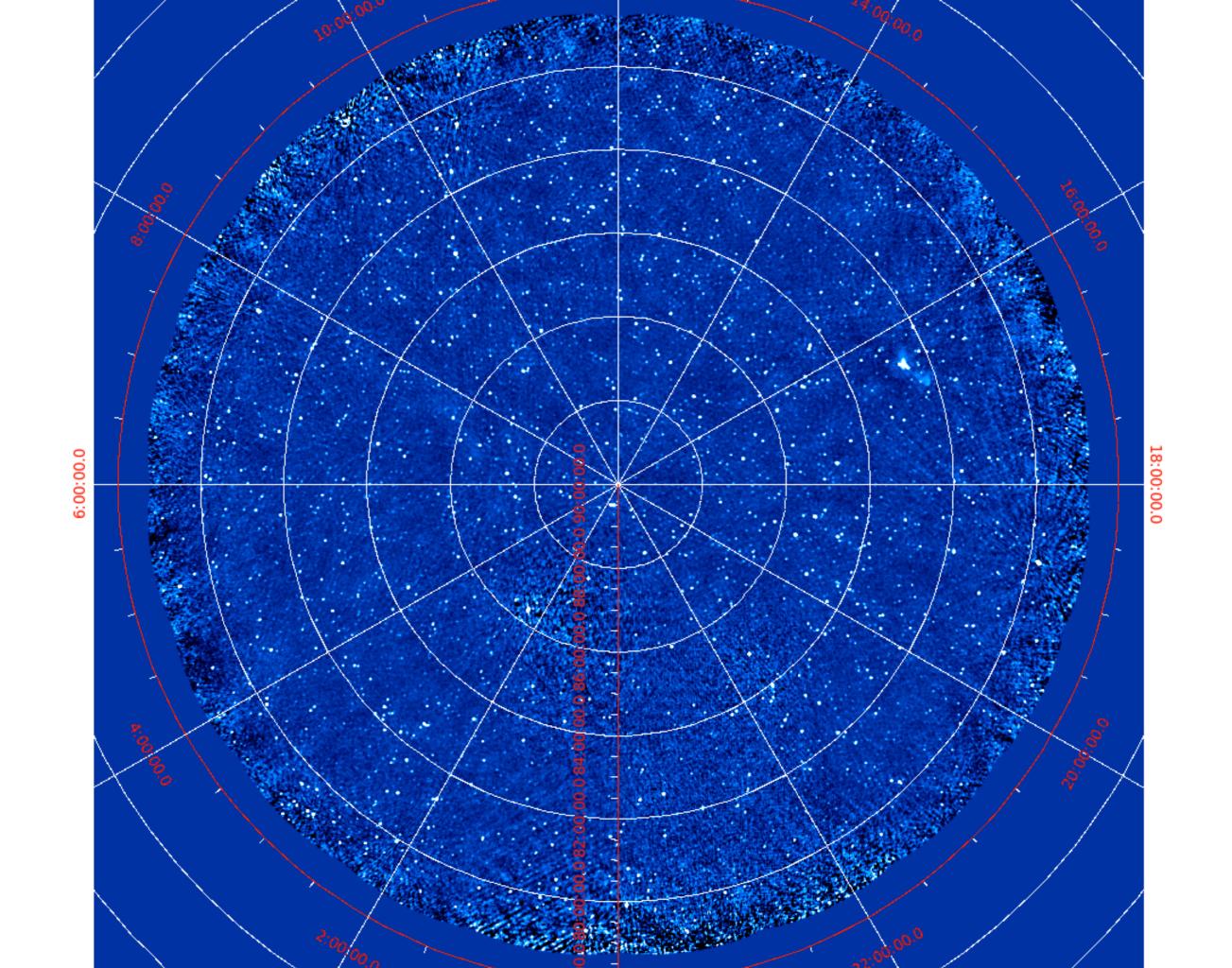
- MSSS Verification Field
  - 100 square degrees centered at (15h,69d)
  - Both LBA and HBA (~1000 sources)
- Paper submitted to A&A, referee report in hand

Intention is to make the data products available after acceptance

#### Toward the first HBA catalog



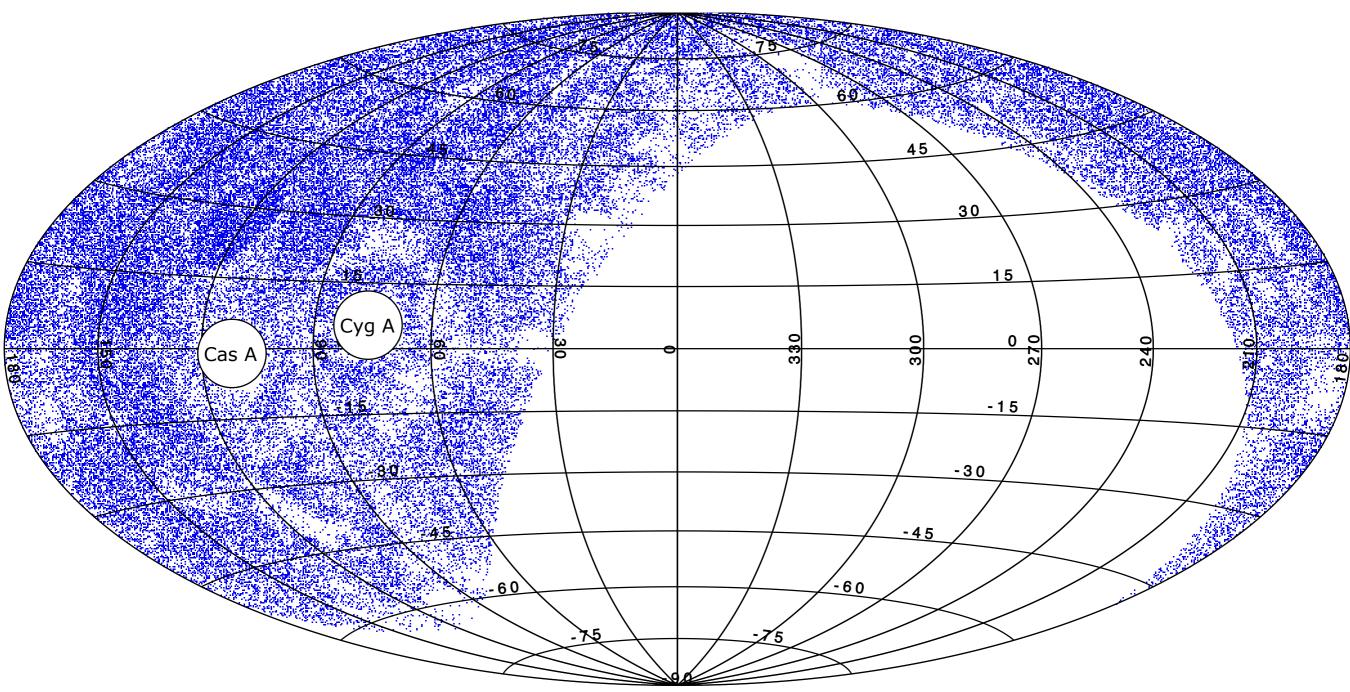
- All HBA mosiacs now finalized!
  - UVmin inconsistencies fixed
  - striping fixed where possible
  - 214 mosaics (each ~100 sq deg),
     including enlarged NCP mosaic (dec>=79d)
  - variable mosaic frame size with declination for easy stitching
- Huge quality control effort undertaken during end of 2014
  - PARTICULAR THANKS to Alex Clarke for a lot of work and very effective coordination...
  - ... and to the rest of the Quality Control team:
     Georgi Kokotanekov, Jonas Trüstedt, & Błażej Nikiel-Wroczyński



### HBA catalog version 1



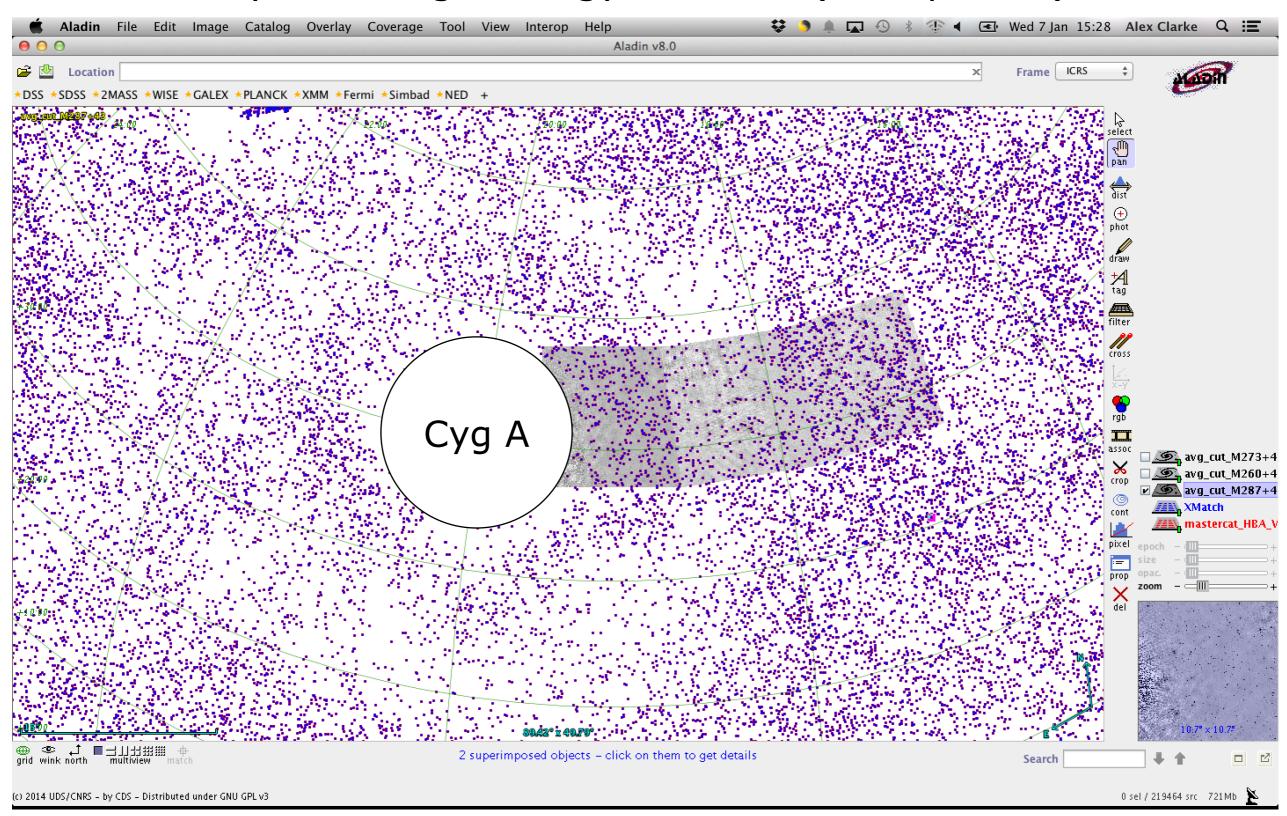
- Mosaics completed; most in good shape after a great deal of quality control in the MSSS team
- First catalog in hand: a little more than 100,000 sources



## Large-scale variations in HBA catalog



Rudimentary demixing strategy not ideal (as expected)



#### Next steps



- Top priority: fix flux scale (see LSMs: 1 Oct and 26 Nov 2014)
  - for MSSS: post-hoc scalar correction
  - for 'normal' imaging applications: fix in beam model
- Populate postage stamp server with images and catalogs
  - through http://msss.astron.nl web portal
- Continue to push early science projects
  - coordination telecon with science working group leaders to be held soon (email coming this week)
  - efforts already underway in several groups
- Data release!