

LOFAR MSSS *Multifrequency Snapshot Sky Survey*

Update

George Heald (MSSS Project Leader)
(on behalf of the MSSS Team)
LOFAR Status Meeting, 29/5/2013



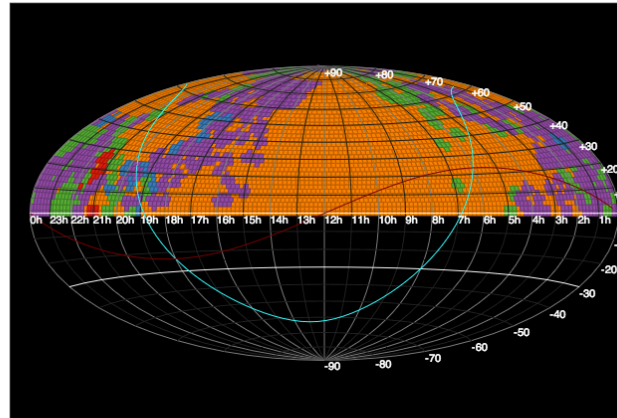
- MSSS-HBA started recently, and is ~38% complete!

LOFAR Observation Database

MSSS HBA

Number of Targets	3616
Number of Calibrators	8
Start Date	8 Feb. 2013
Stop Date	17 May 2013
Completed Fields	1291 (35.7%)
Information collected	21 May 2013

Show me the data >

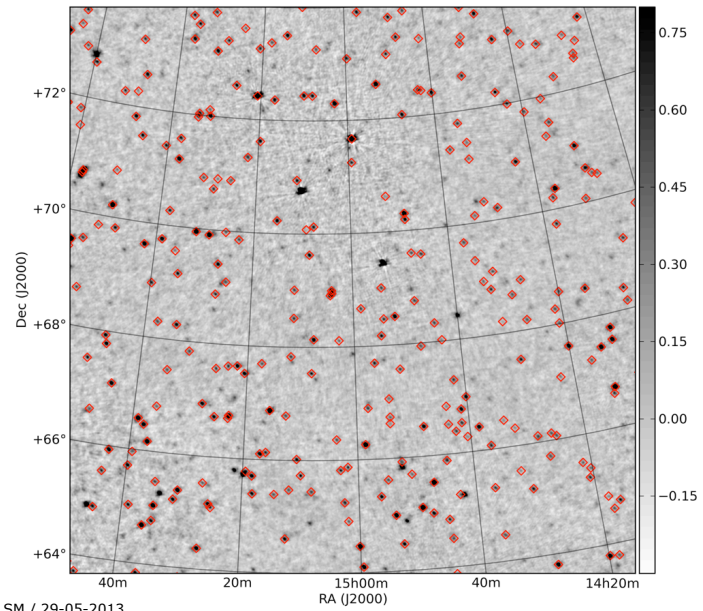


Hammer Projection

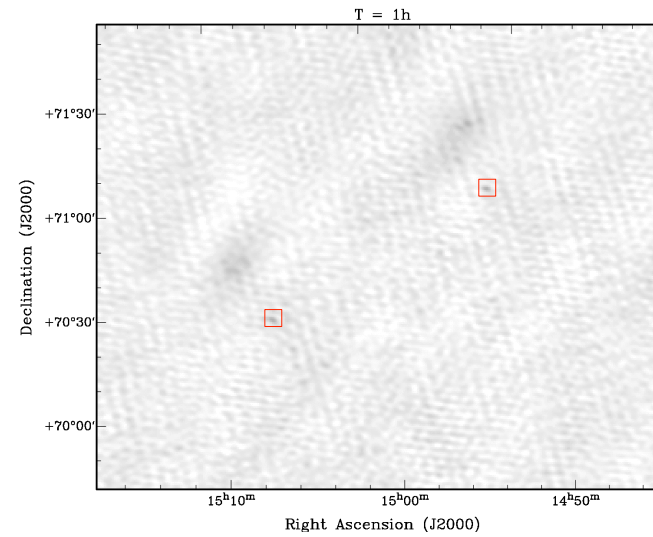
Map based on code from [this project](#).

Data available on CEP (10.3%)
Data archived (25.4%)
Partial data available (1.7%)
Data missing (0.6%)
Not yet observed (61.9%)

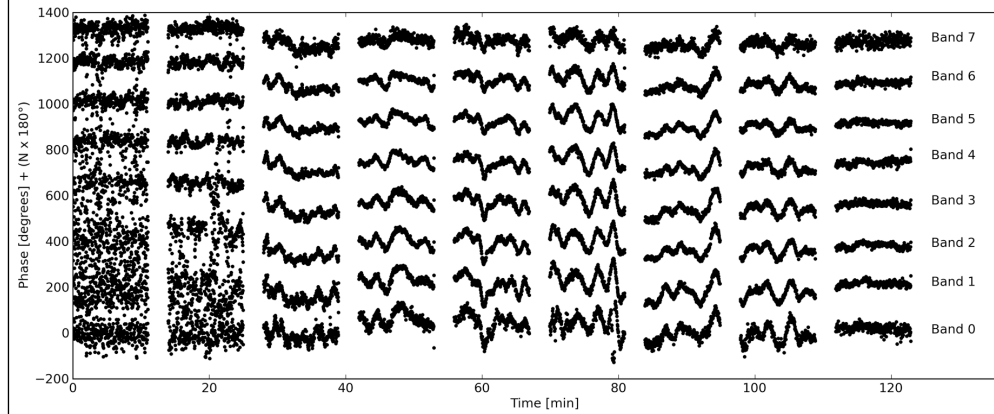
- LBA 46 mJy/beam, 2' resolution



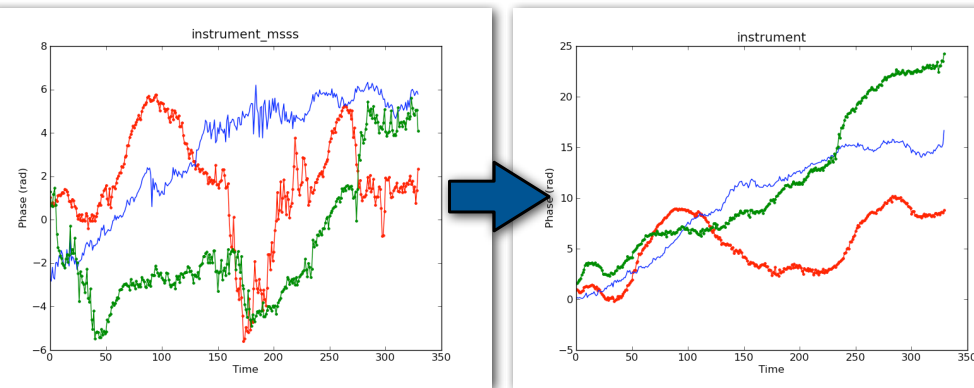
- Sequence of 9 snapshot (11 min each) images @ 31 MHz
- Direction-independent calibration before imaging



- Clear from phase solutions which snapshots are most strongly affected
- Shown here: CS302LBA (referenced to CS002LBA)



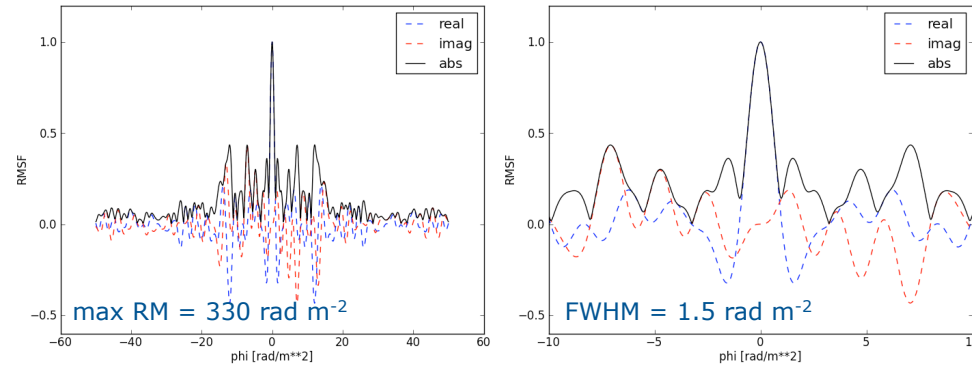
- Zeroing in on the right parset for determination of directional gain phases



van der Tol

- Intention is to feed these into awimager for widefield correction

- Frequency coverage in HBA allows for shallow polarization search



- Imaging step is currently awkward:
 - awimager "channel" mode does not work
 - casa imager does not apply beams
- Preliminary images produced (in Fan region) and further testing needed - e.g. field around PSR B1937+21 is already observed

