ASTRON

Netherlands Institute for Radio Astronomy

MSSS Update

George Heald (MSSS Project Leader)
(on behalf of the MSSS Team)
LSM, 20/2/13

ASTRON is part of the Netherlands Organisation for Scientific Research (NWO)

LOFAR

MSSS-HBA Observing Status

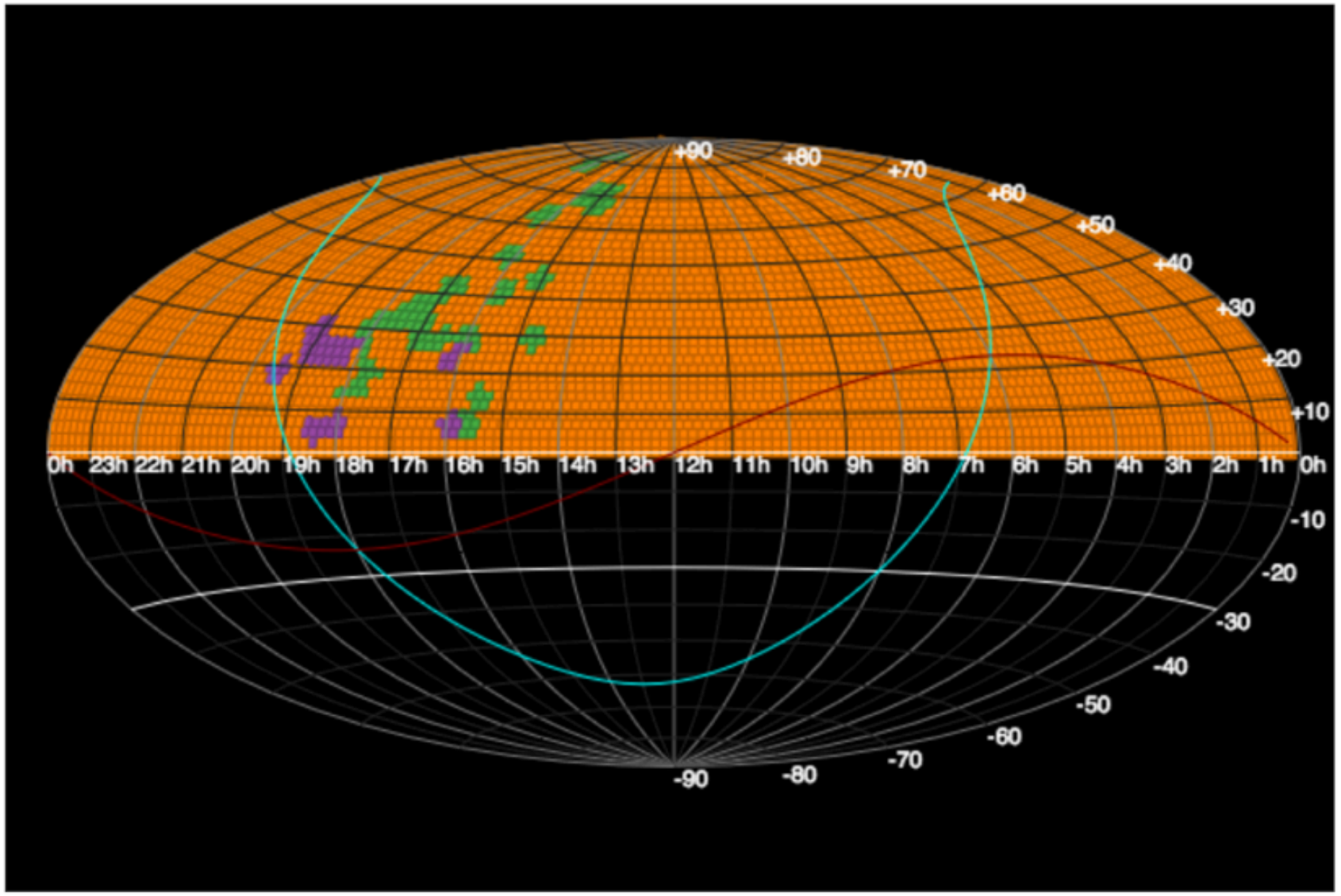
LOFAR ASTRON

LOFAR Observation Database

MSSS HBA

Number of Targets	3616
Number of Calibrators	8
Start Date	8 Feb. 2013
Stop Date	15 Feb. 2013
Completed Fields	180 (5.0%)
Information collected	19 Feb. 2013

Show me the data »



Hammer Projection

Map based on code from this project.

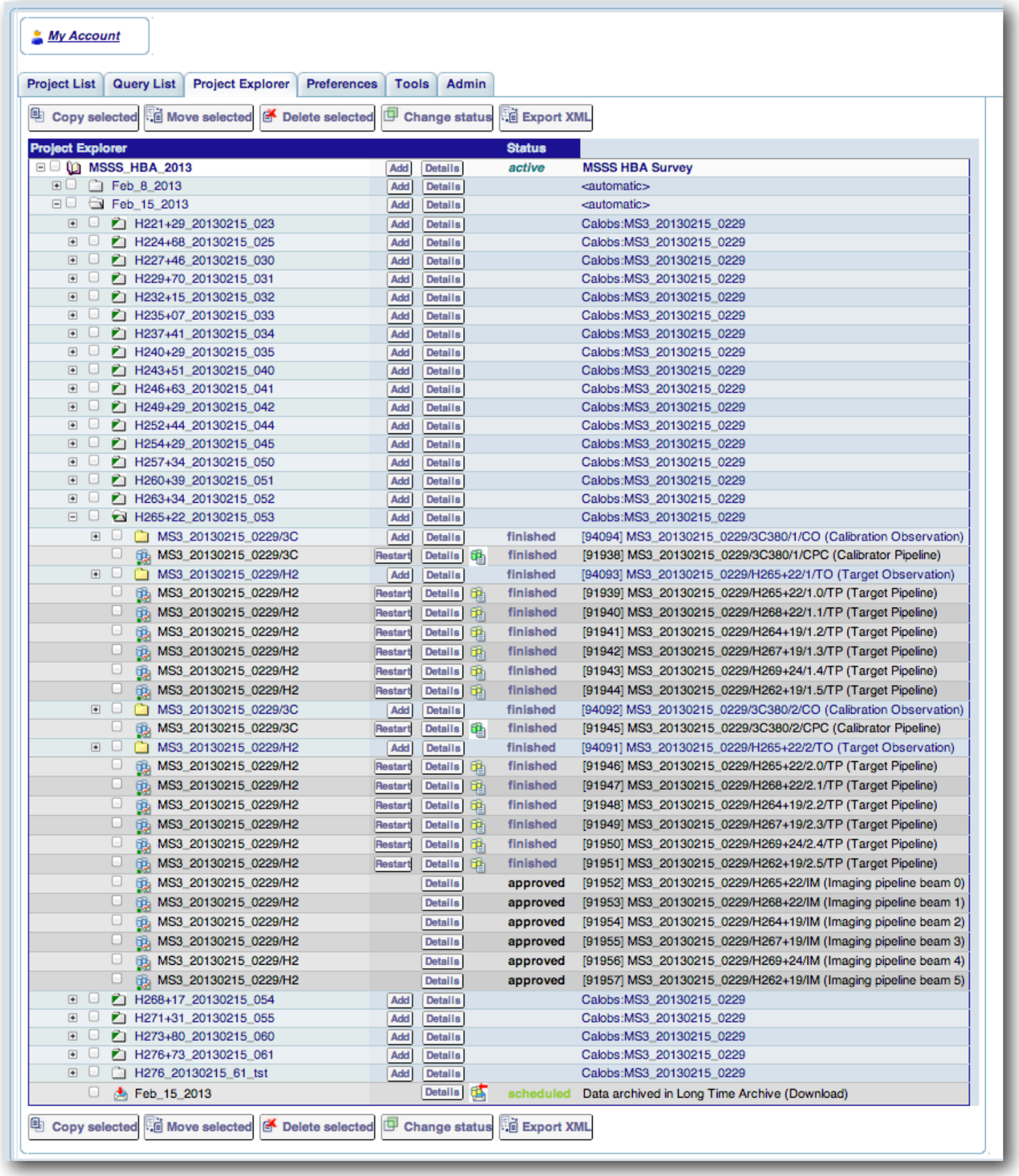
Data available on CEP (3.3%)
Data archived (1.5%)
Partial data available (0%)
Data missing (0%)
Not yet observed (95.2%)

Swinbank

MSSS-HBA data processing

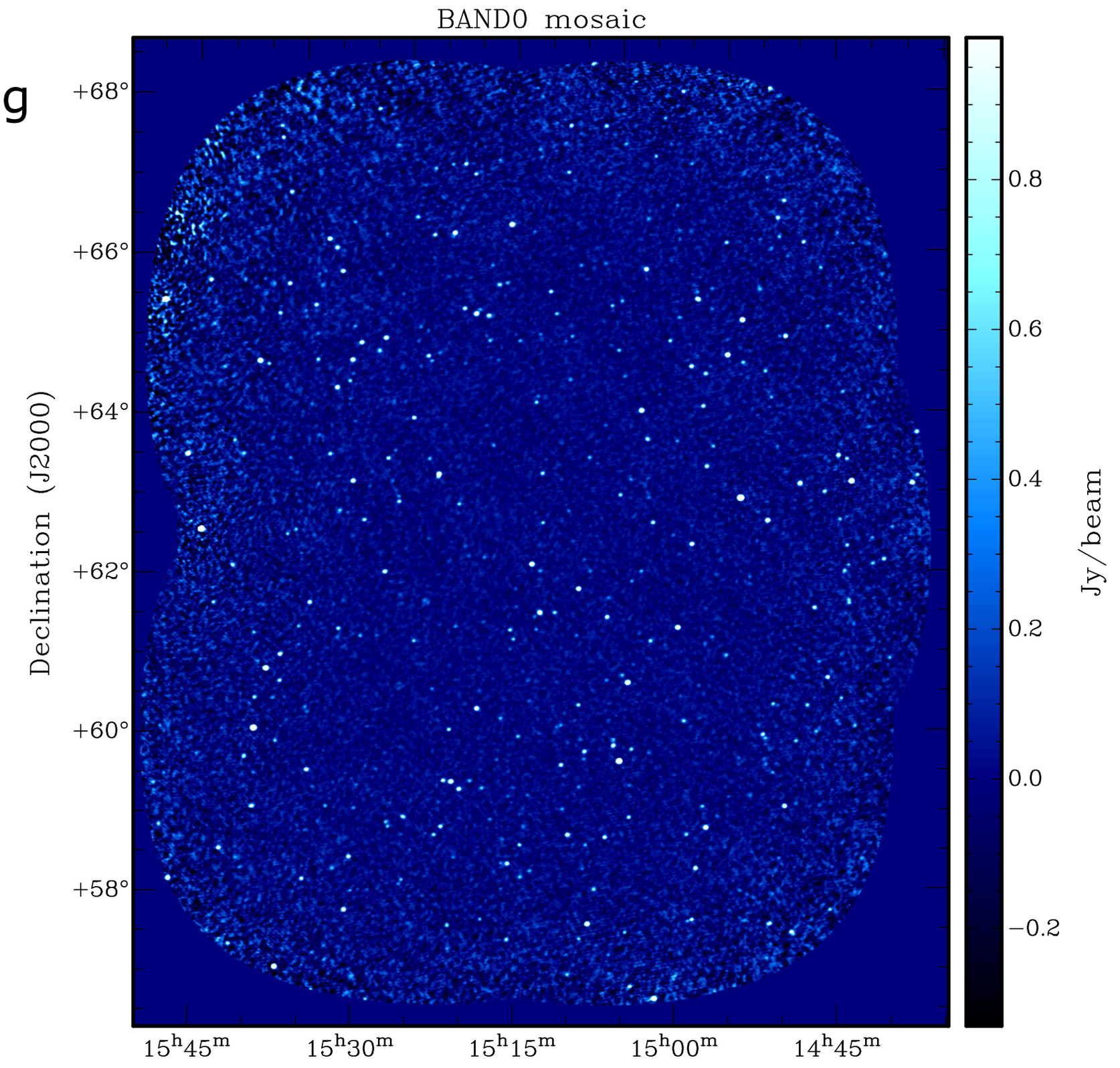
- Pipeline processing works automatically

- We've used output of target pipelines to assess data quality & robustness of pipeline steps



MSSS-HBA now in 8-bit mode

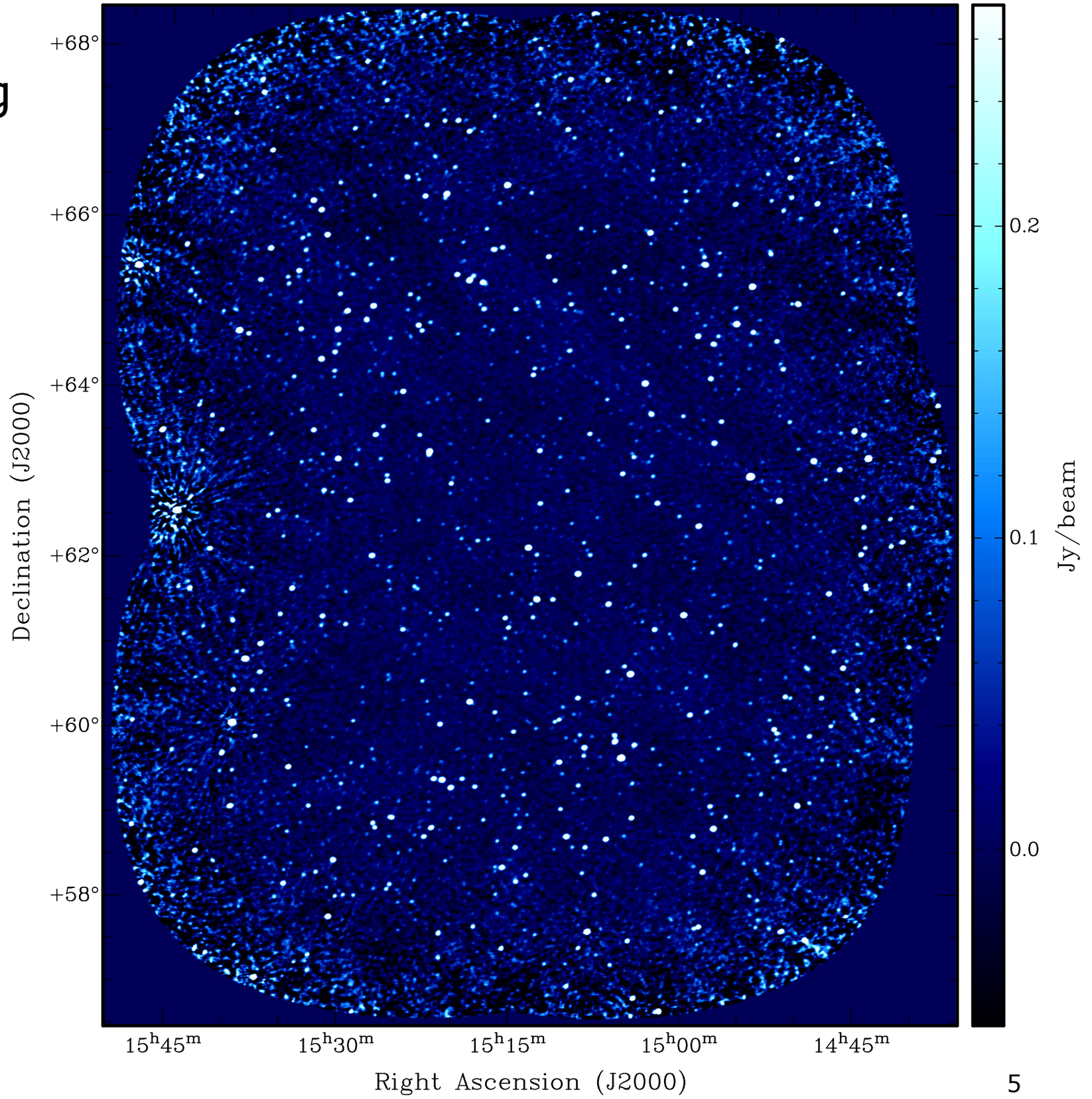
- Starting from pipeline output and (re)running some steps manually results in this mosaic
- Plan is to massage the imaging step



MSSS-HBA now in 8-bit mode

- Starting from pipeline output and (re)running some steps manually results in this mosaic
- Plan is to massage the imaging step

- Combining all bands leads to final image (σ=10 mJy/beam at resolution~2’)



Bright sources

- In this case HerA causing problems

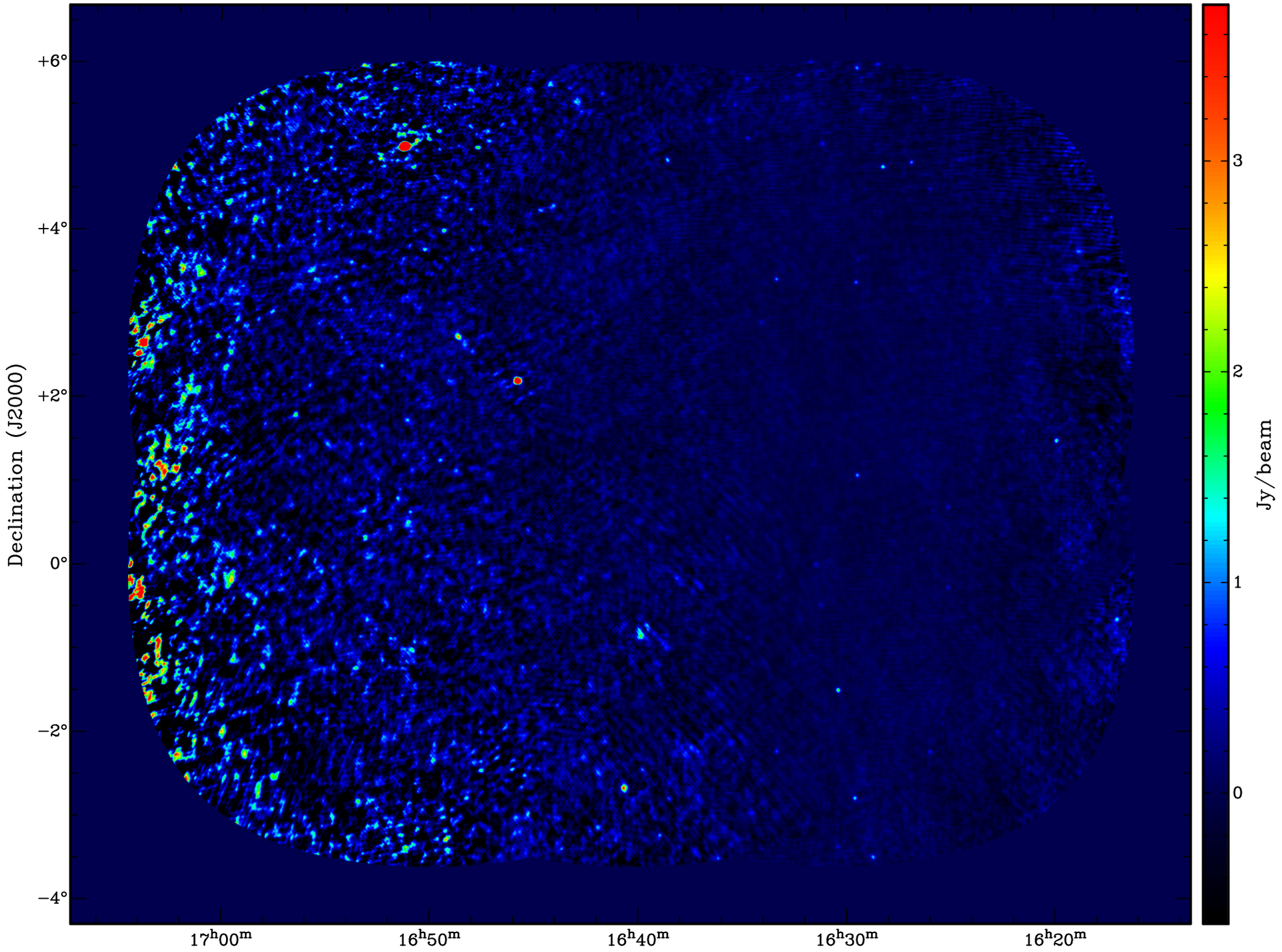


Image using only 2 MHz bandwidth

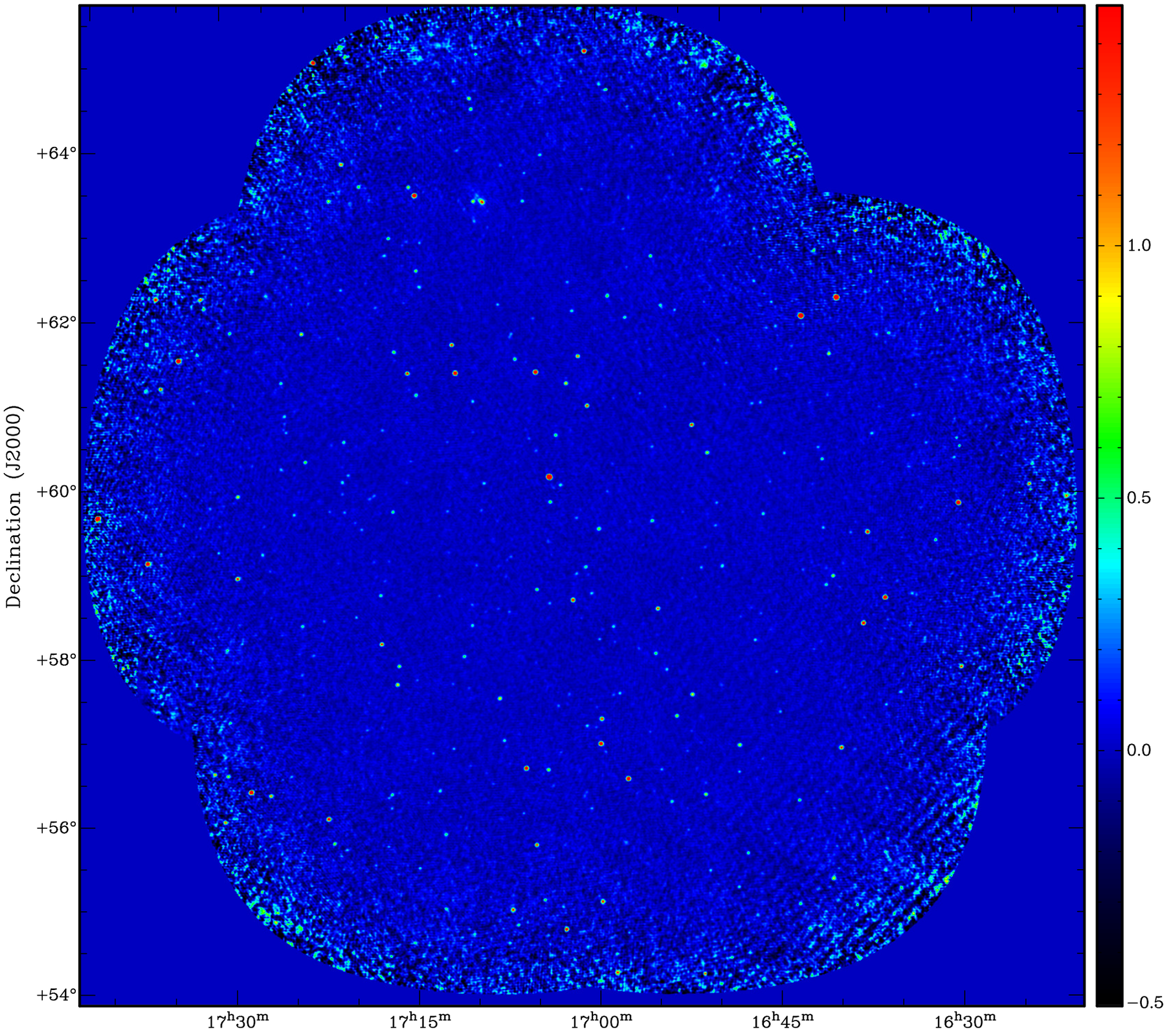


Image using all 16 MHz bandwidth

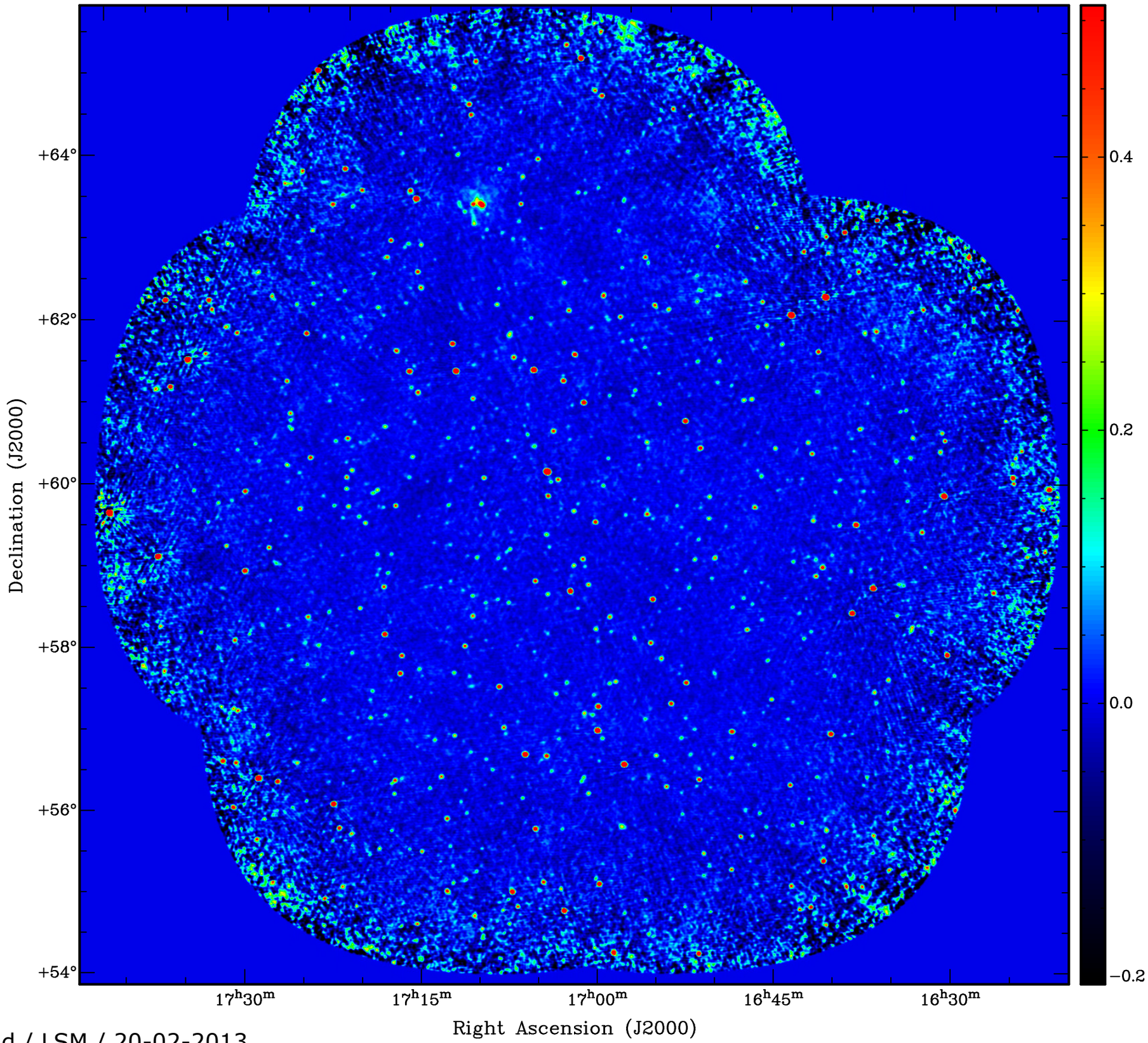
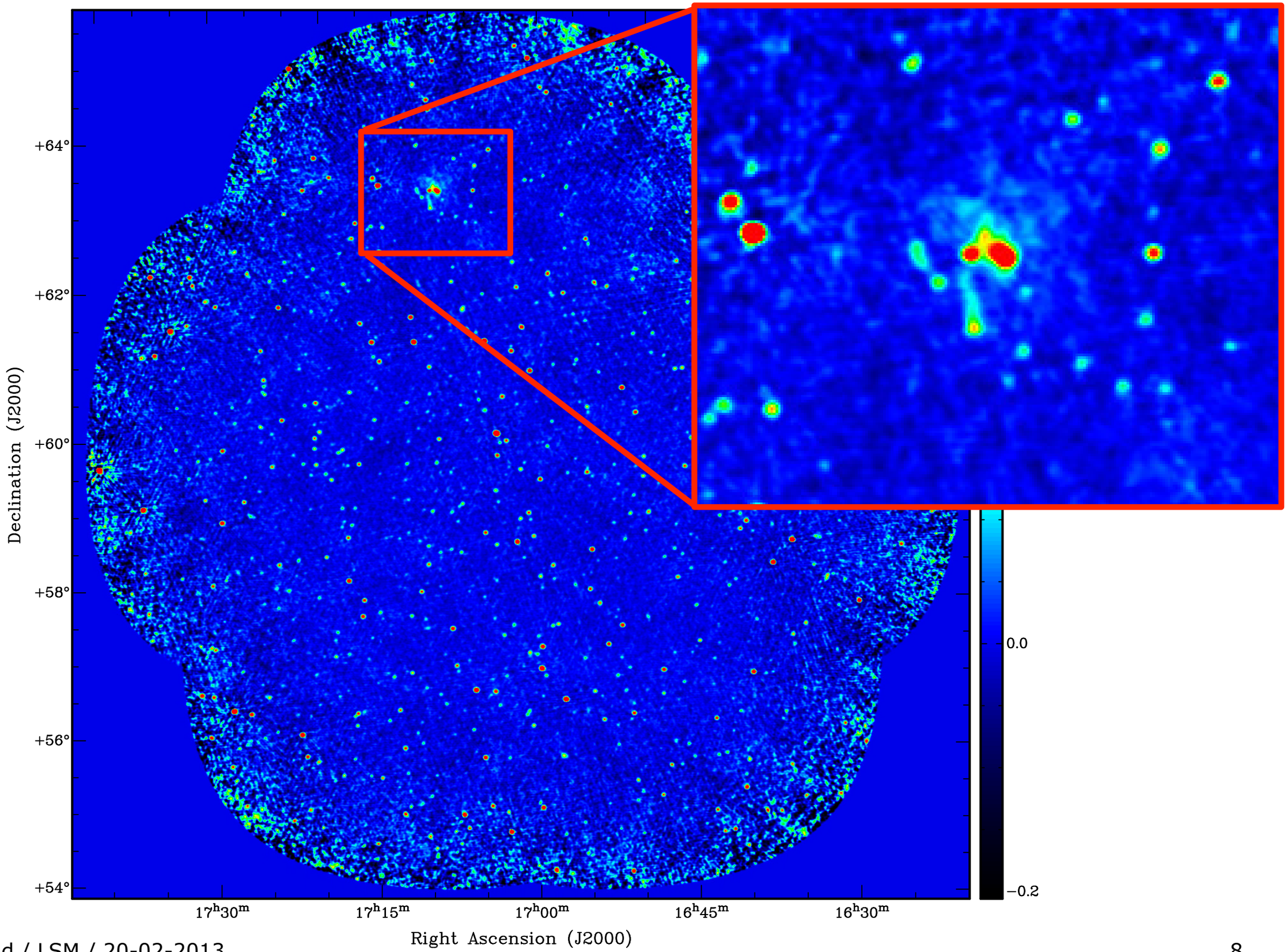
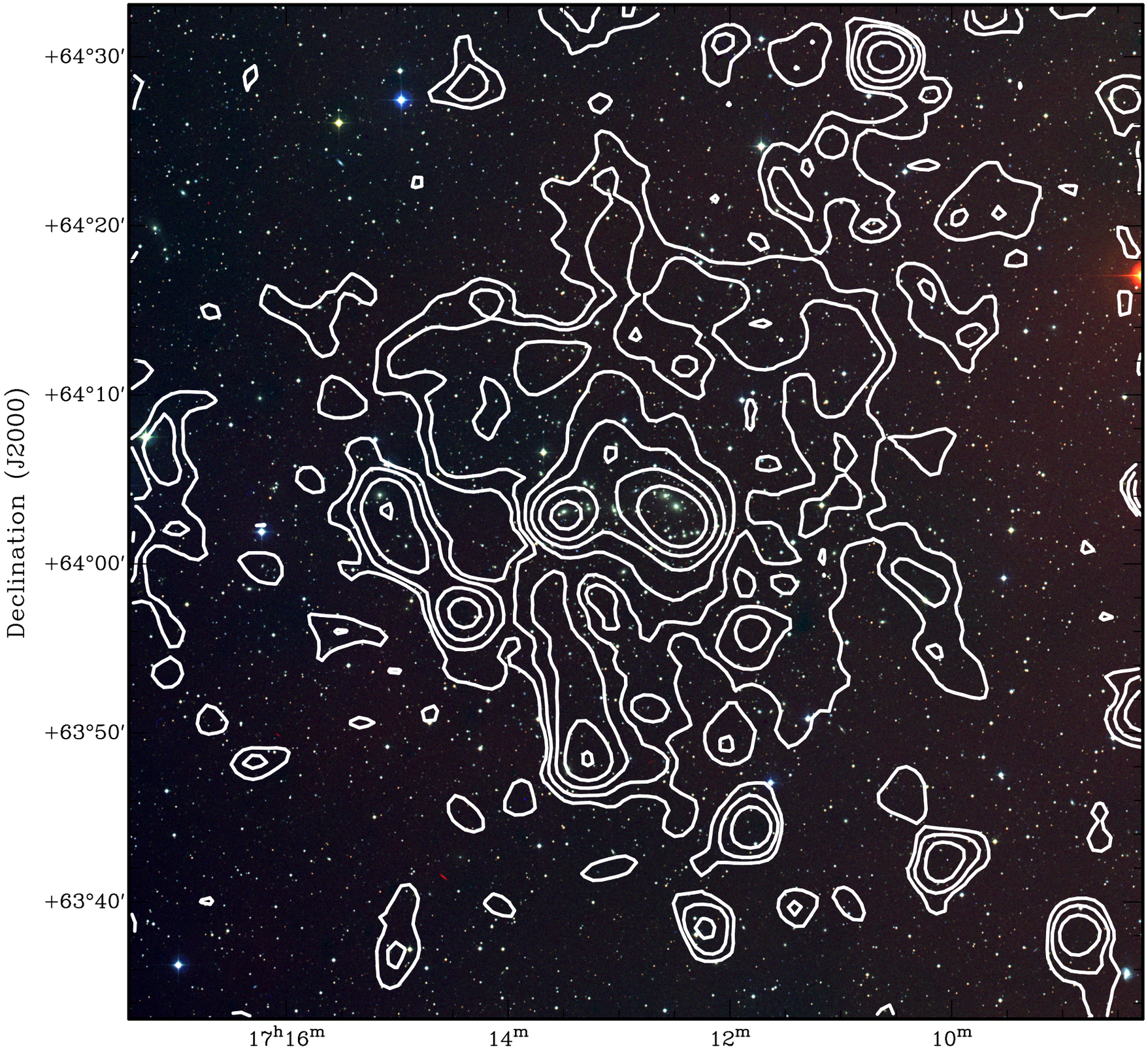


Image using all 16 MHz bandwidth

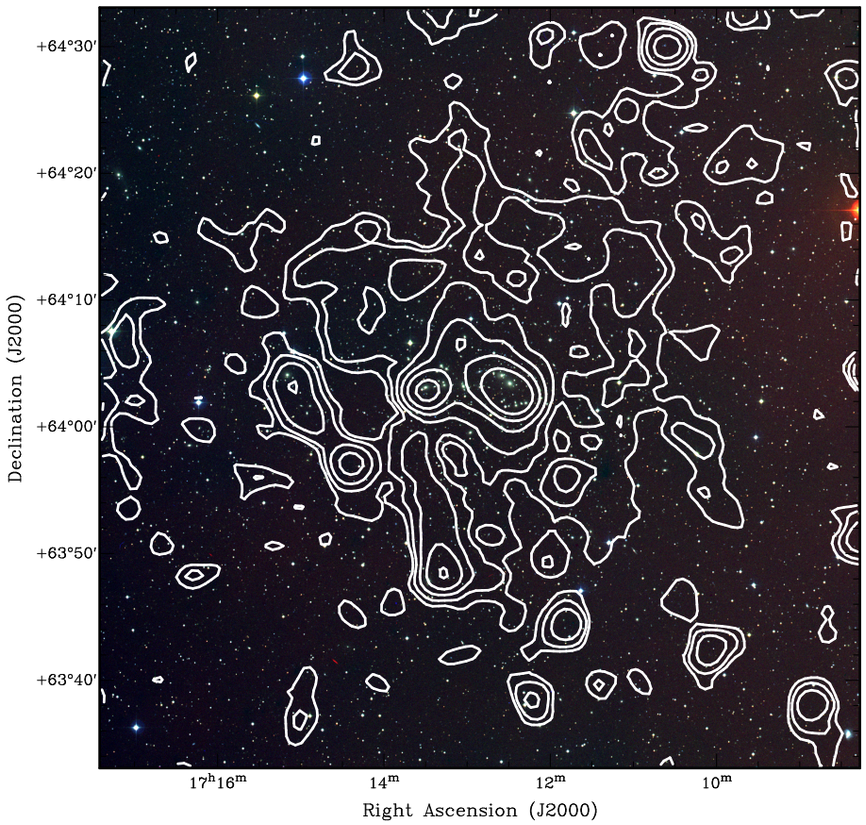


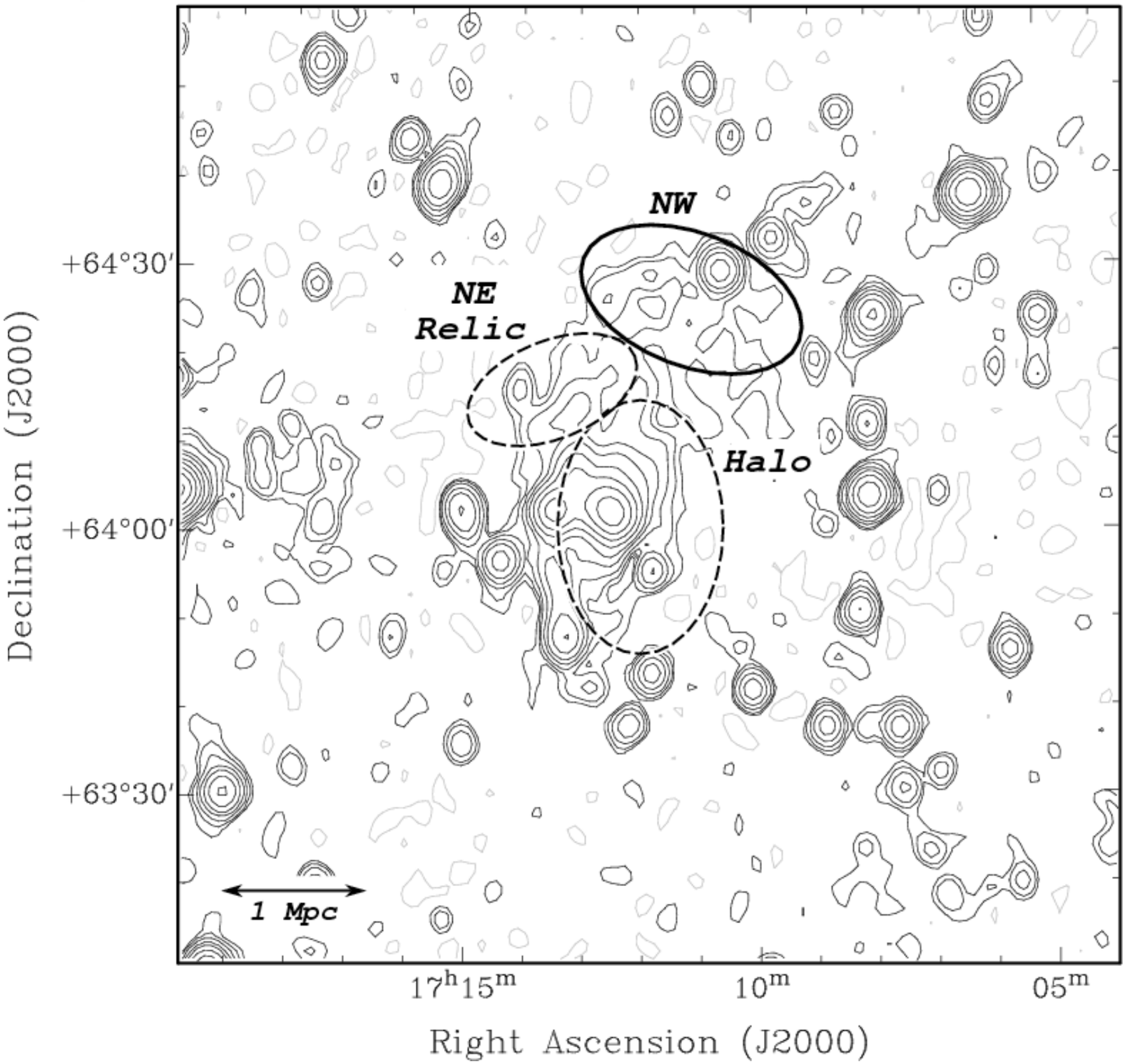
That fuzzy thing: Abell 2255

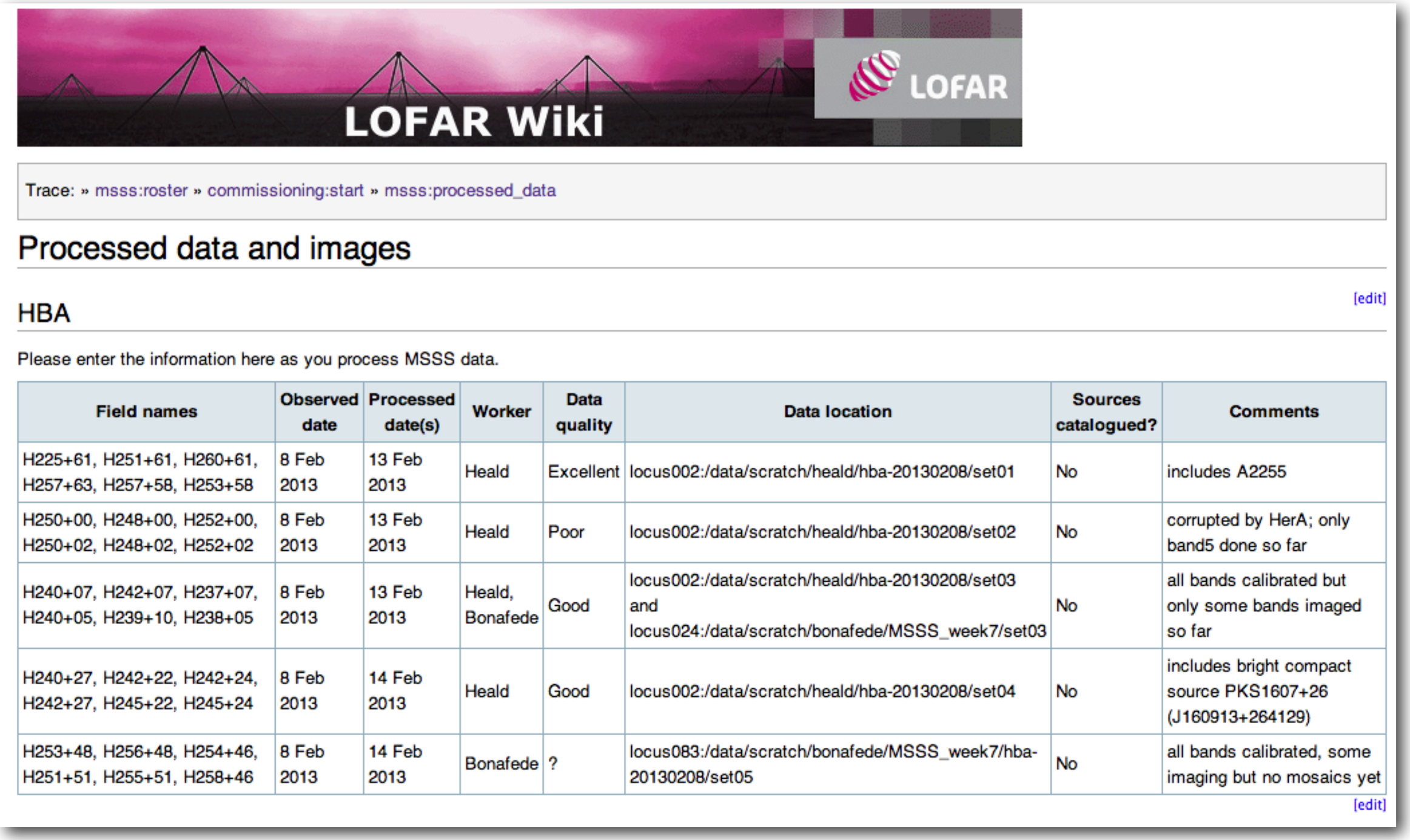


MSSS-HBA: Abell 2255

- cf Pizzo & de Bruyn (2009)
  WSRT, 150 MHz





Next steps

- Continue producing images from ongoing MSSS-HBA observations
- Careful source flux/position assessment (ongoing this week)