

LOFAR MSSS

Multifrequency Snapshot Sky Survey

Progress Update

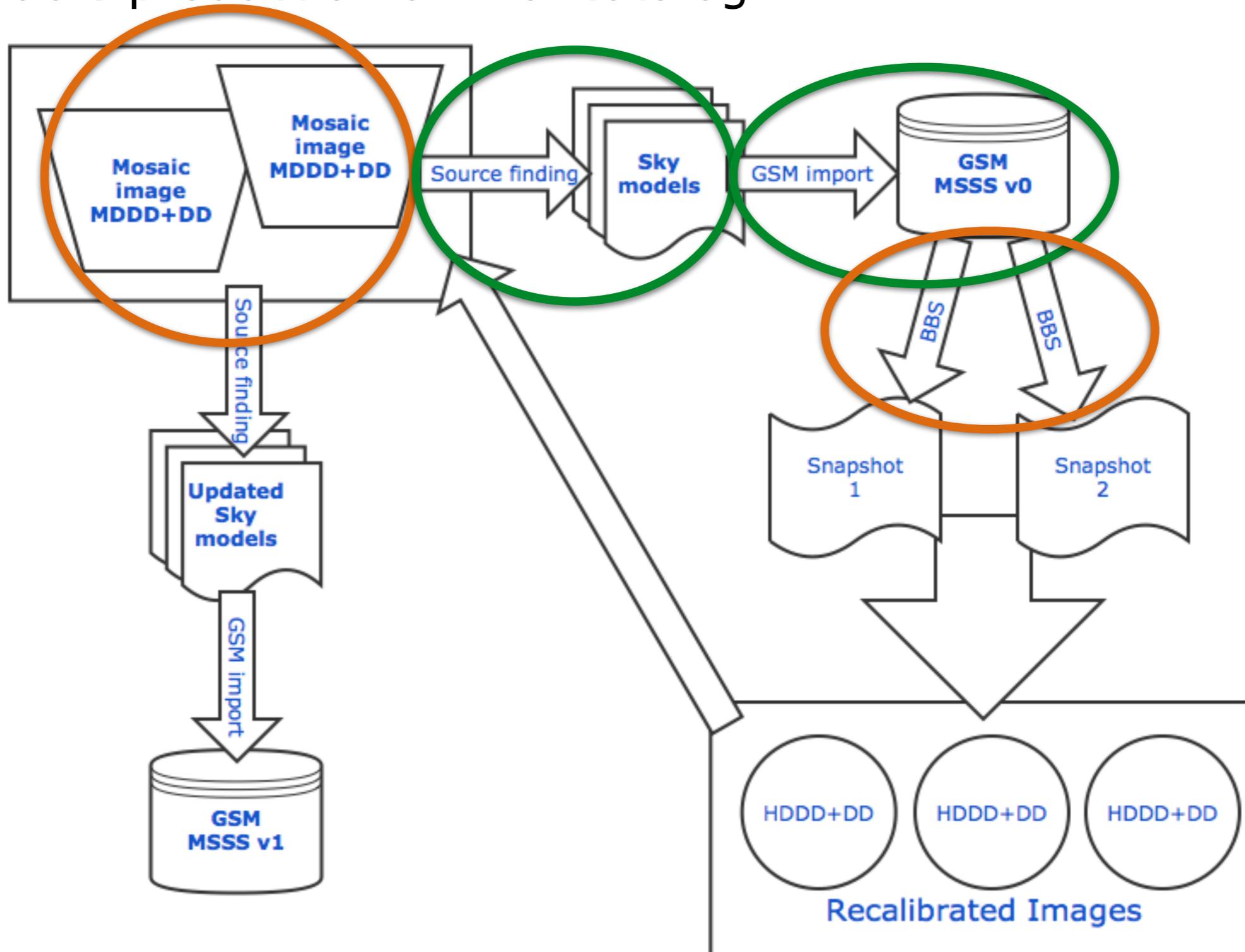
George Heald (MSSS Project Leader)

(on behalf of the MSSS Team)

LSM, 03/09/2014

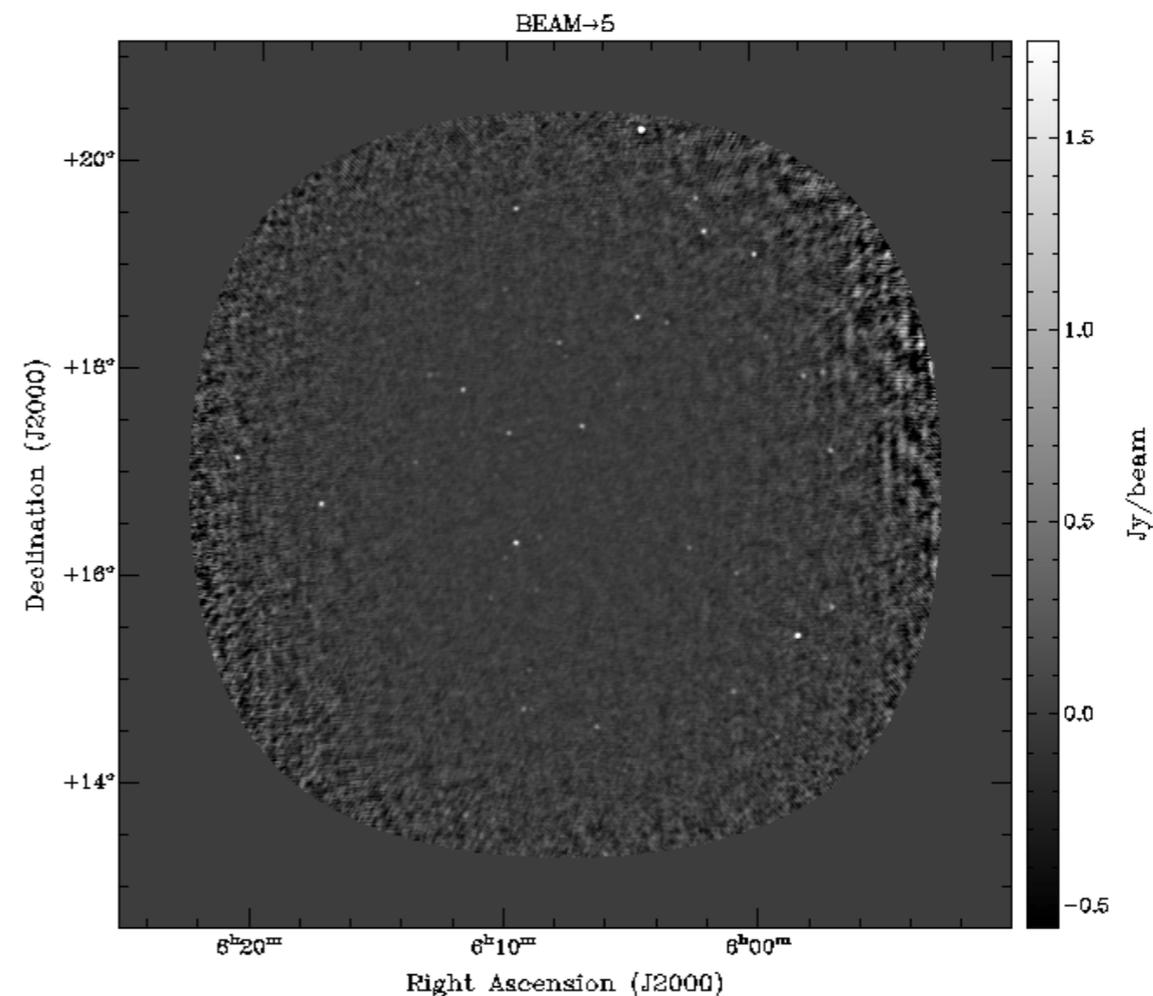
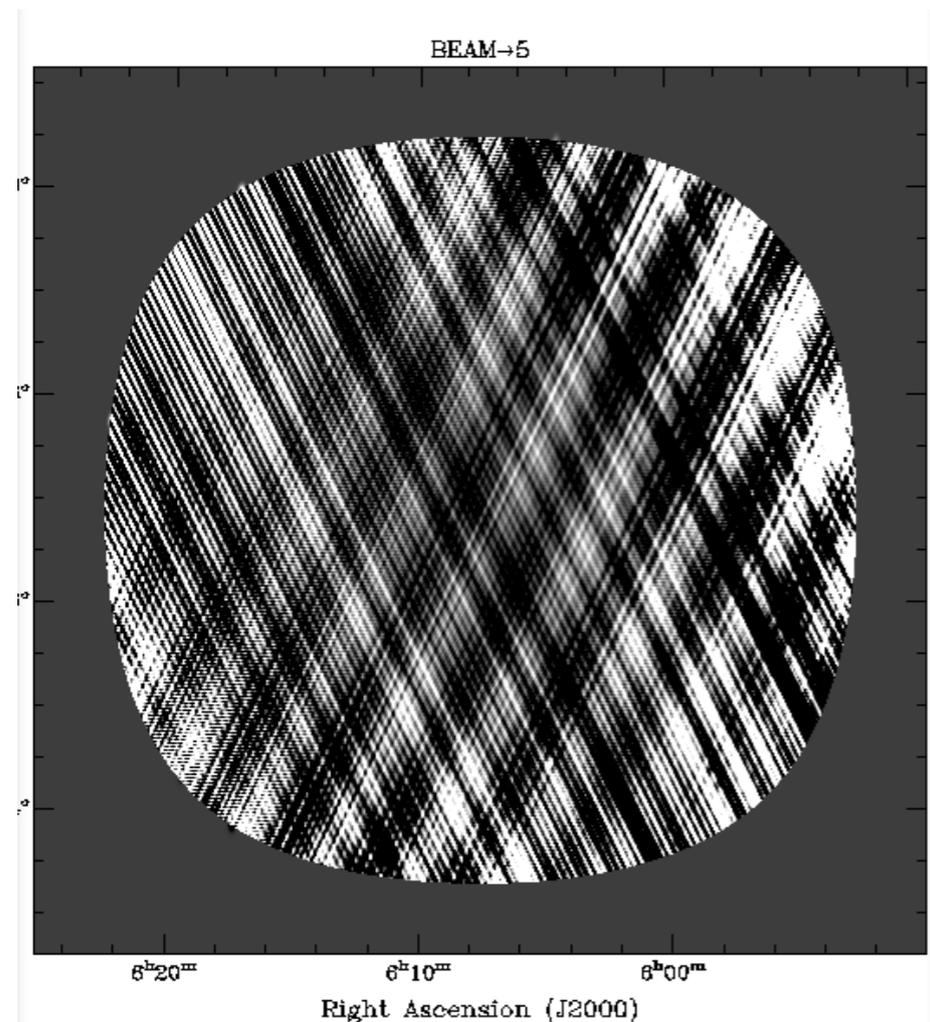


- Current push toward making intermediate catalog
- Will enable production of final catalog

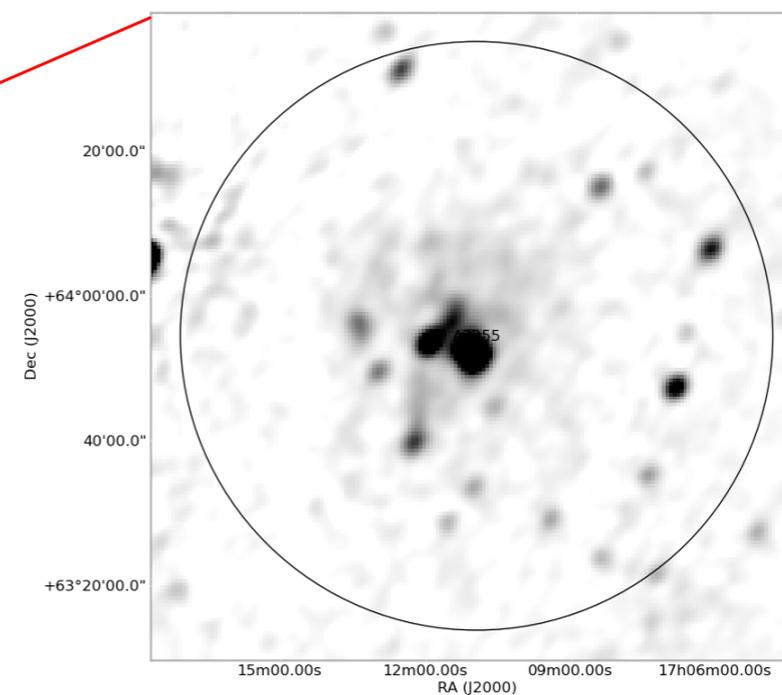
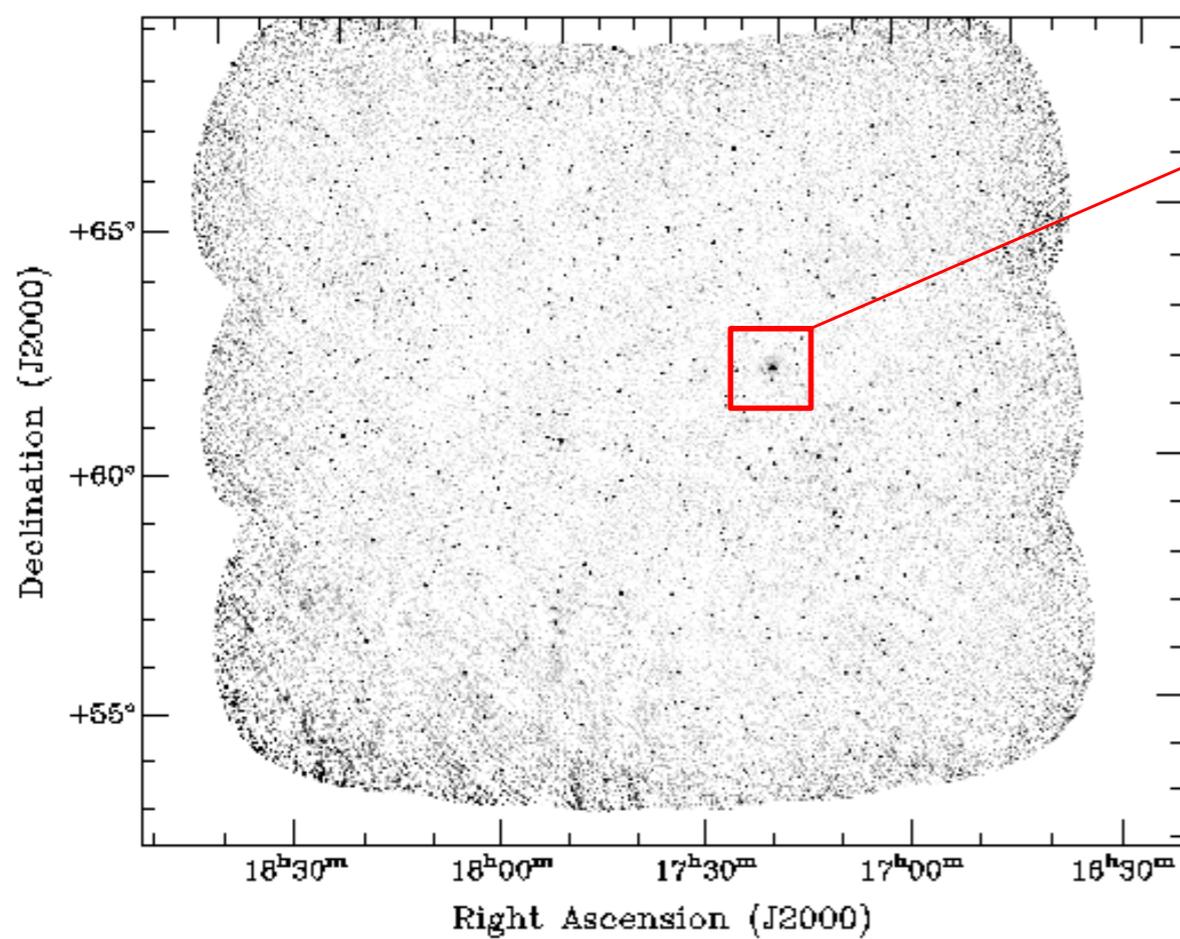


- Images deleted (568 fields * 8 bands)
- Mosaics deleted (219 mosaics * 8 bands)
- Initial images now recollected and/or recreated

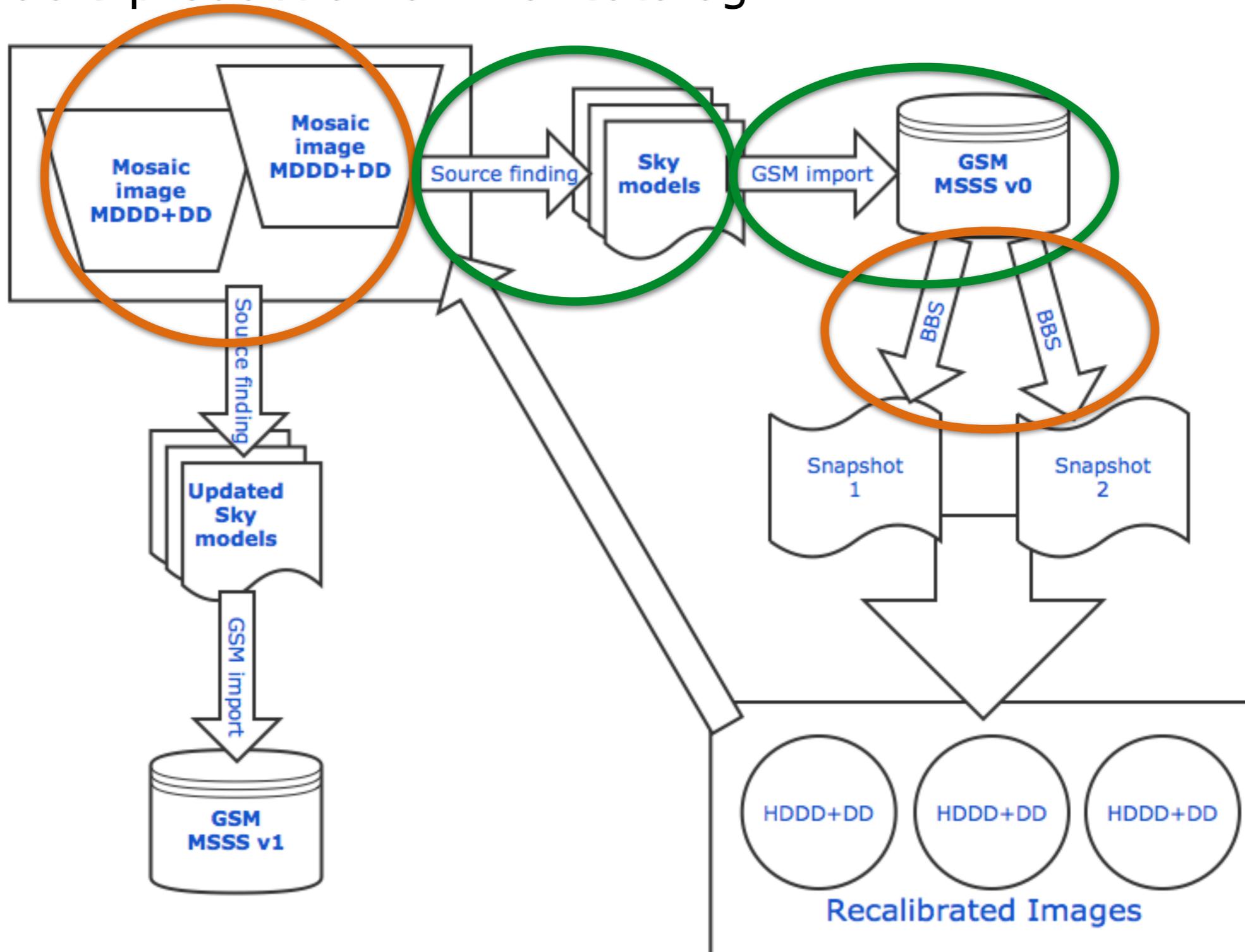
- Images deleted (568 fields * 8 bands)
- Mosaics deleted (219 mosaics * 8 bands)
- Initial images now recollected and/or recreated
- NB: substantial image quality control effort during the summer (by Luke Pratley, Victoria University of Wellington)



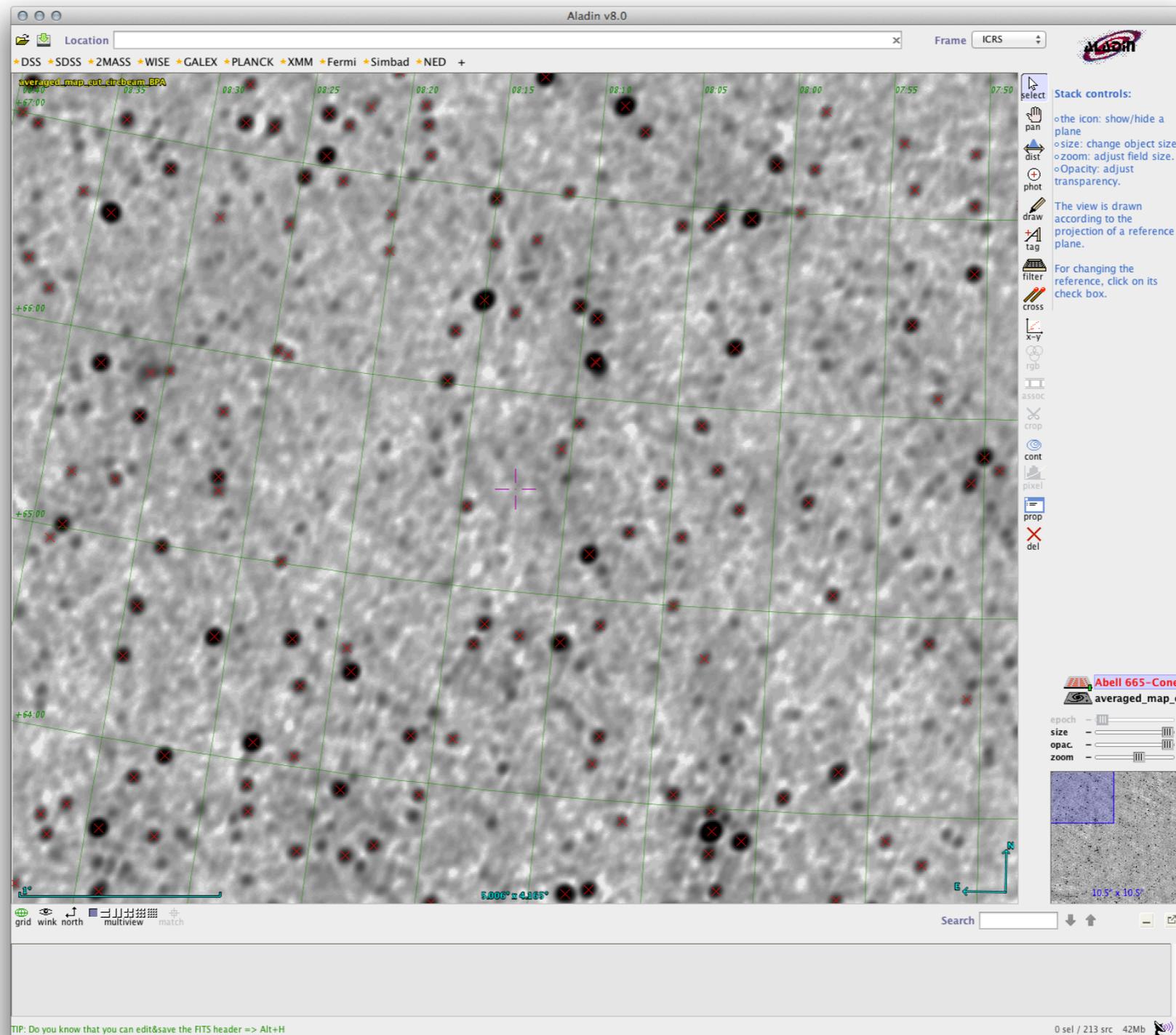
SEARCHING THE MOSAICS



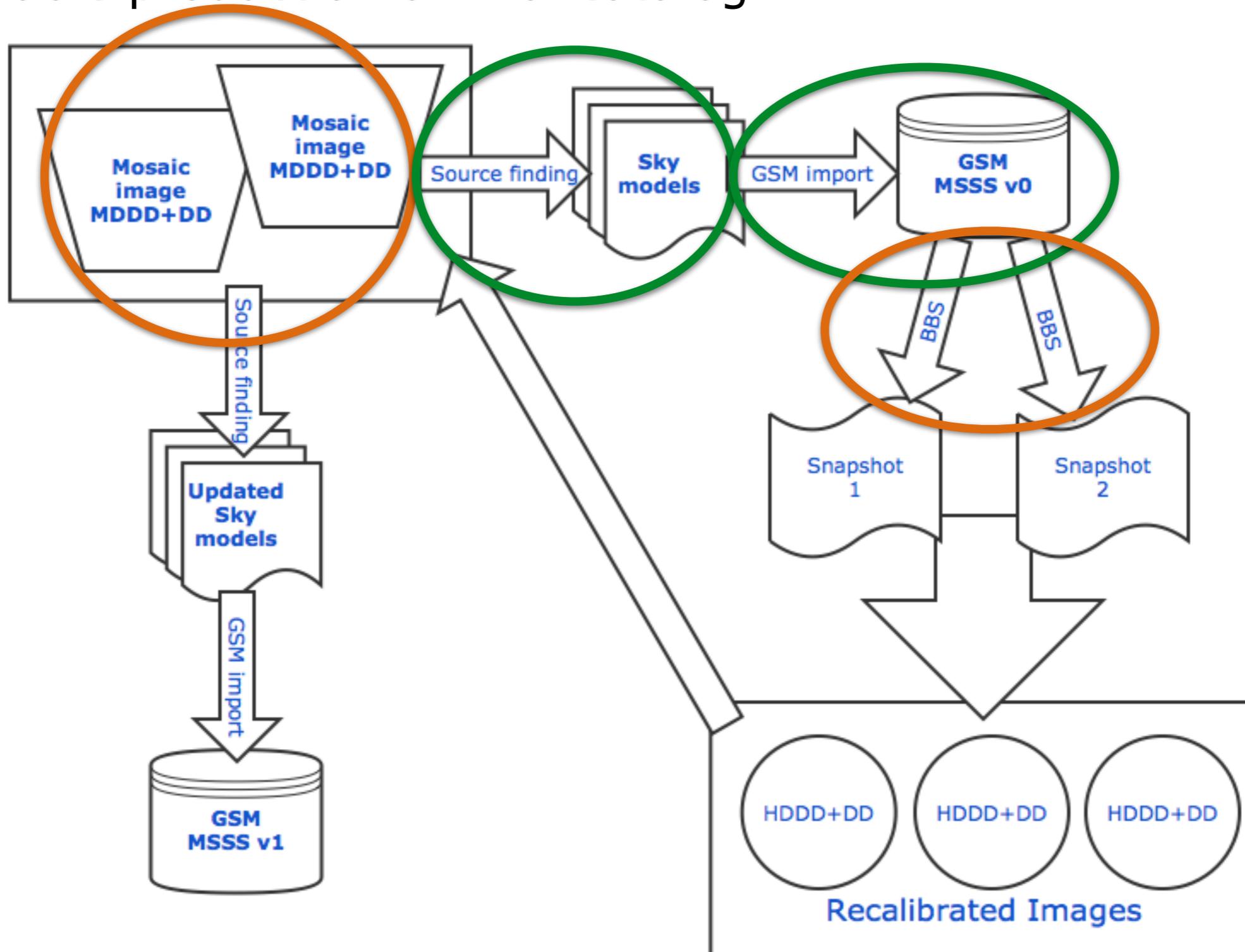
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- Using scripts developed by Georgi Kokotanekov & Luke Pratley
- Making use of VO interface created by Mike Sipior @ ASTRON

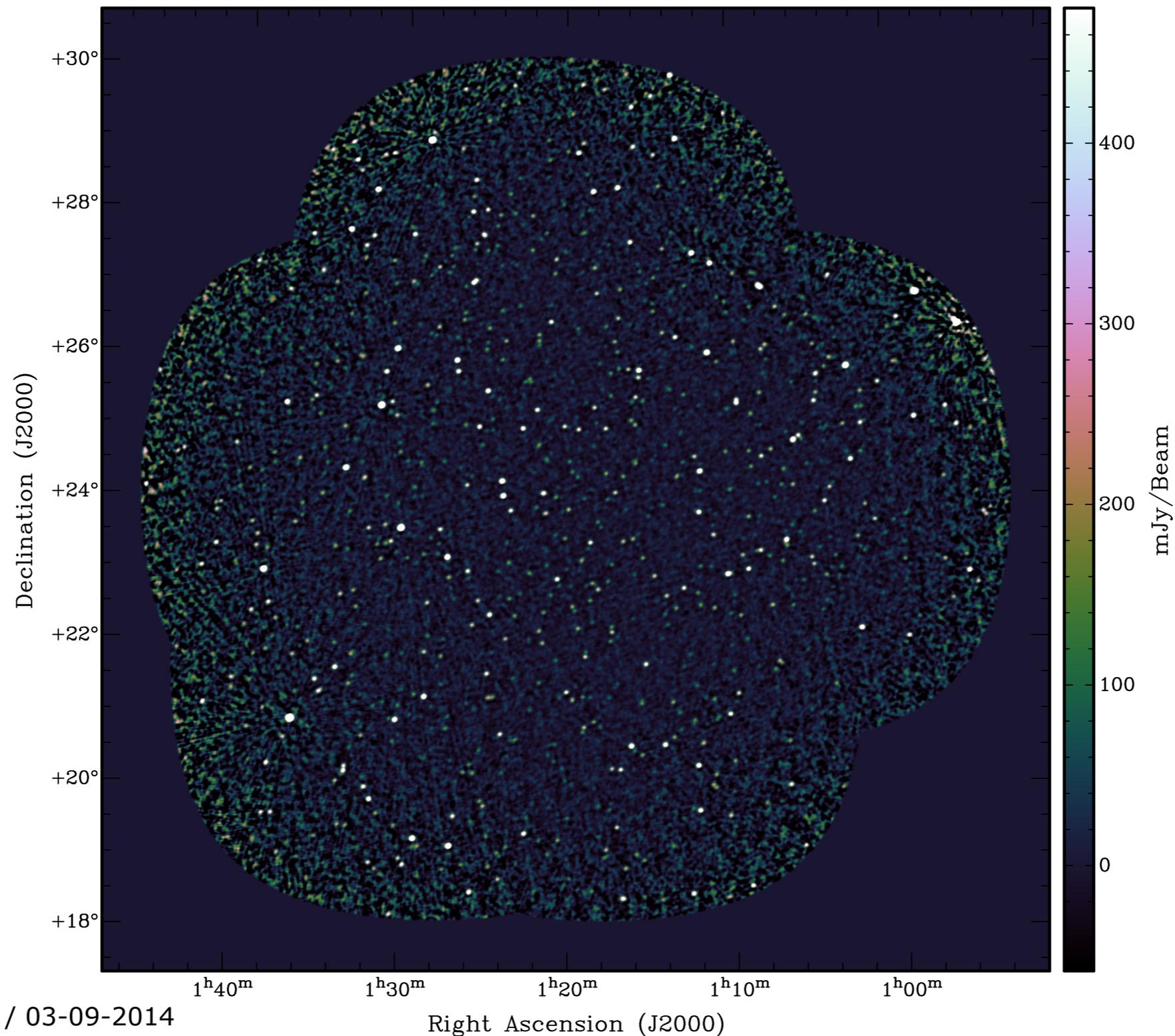


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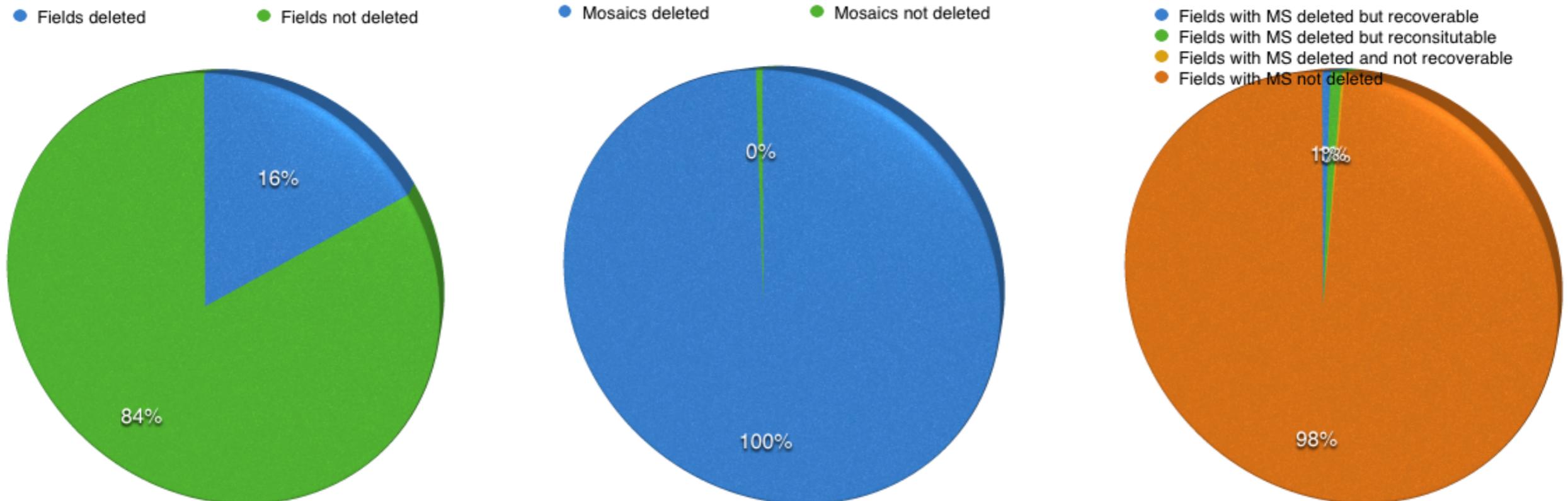


- Subbands & combined band MSs (visibilities):
 - Raw visibilities stored in LTA
 - Pipeline products (flagged, demixed, averaged) along with intermediate by-products (solution tables etc) located in /data/scratch/lofarsys/Observation### largely deleted
 - Final pipeline products in /data/L### still largely present
 - Based on intensive data inventory as well as deletion impact report from Jan David:
 - Fields with partial but sufficient vis data: 20
 - Fields with deleted vis data but recovery possible: 28
 - Fields with deleted vis data, no recovery possible: 7
 - Custom data handling required (current pipeline expects different data products)

- Reconstituted calibration & imaging script using alternate data products (also, BAND0 images needed to be recreated)



- MSSS impact (**subject to update as reconstruction proceeds**):



- reconstruction effort underway
- data backup solutions moved up in priority
- will request reobserving 7 fields (2 pointings = 30 min)

- This week and next: continued recovery of recoverable data
- Next week: copying image data to local compute facility
 - a) backup
 - b) enable catalog creation during network reconfig
- Remainder of 2014: recalibration & reimaging, final catalog

- NB: HBA data volumes (post pipeline)
 - vis: ~ 80 TB
 - images: ~ 1 TB
- Expected LBA data volumes (post pipeline)
 - vis: ~ 120 TB (accounting for tavg, favg, Nbl, Dt, Nfields)
 - images: ~ 1 TB