

Update on NCP imaging

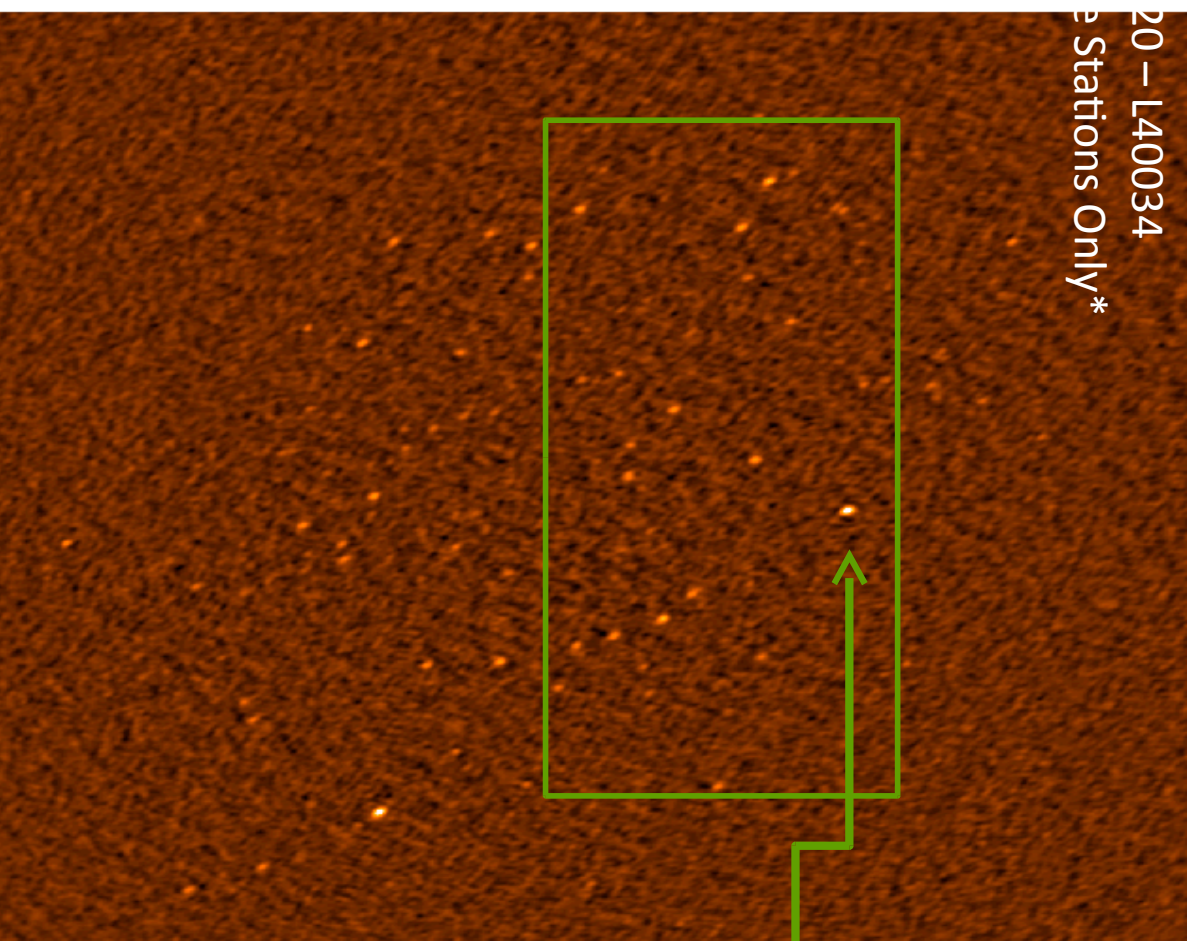
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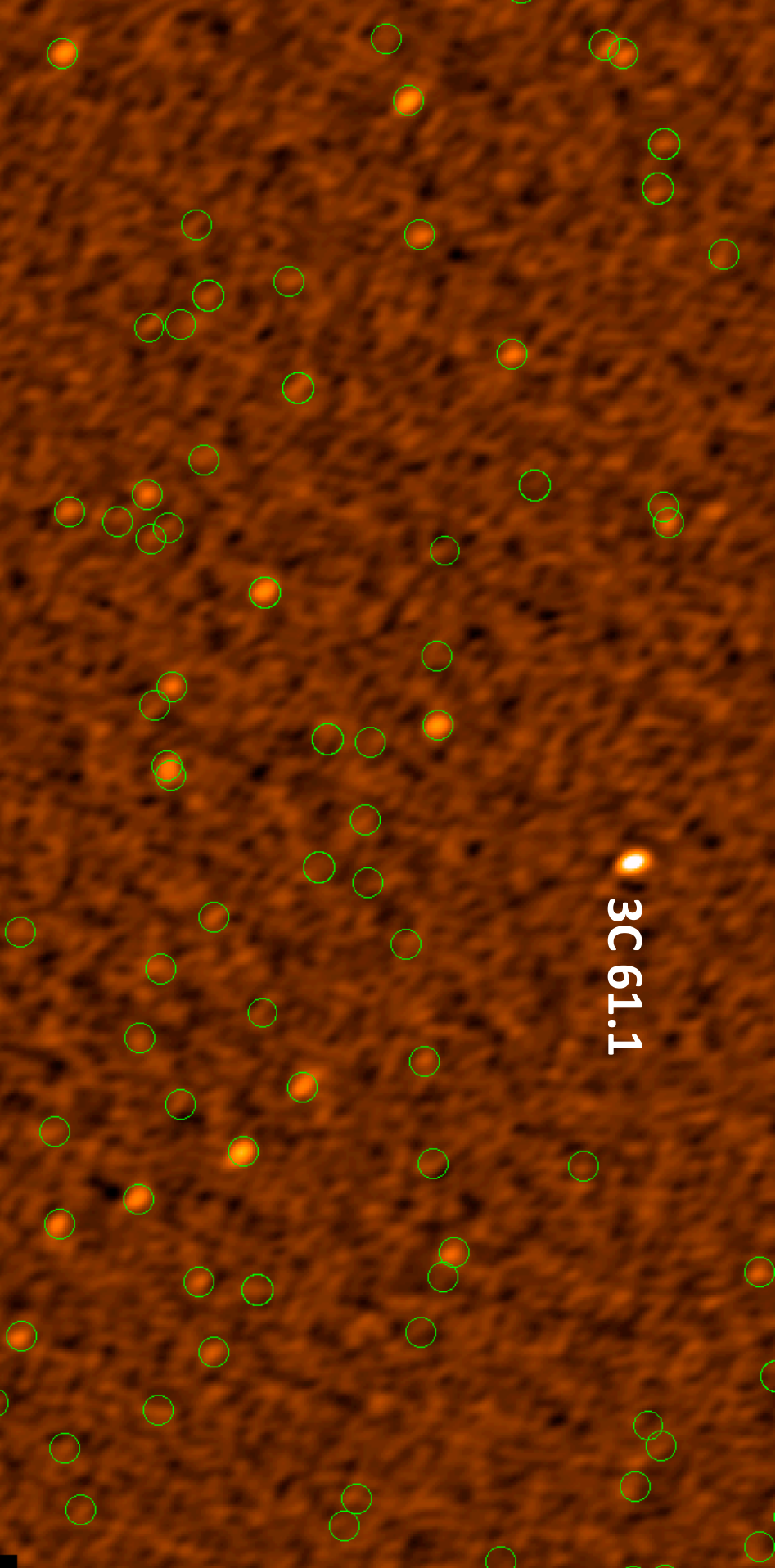
NCP Observations So Far...

- With each LBA MSSS observation, a single sub-band is placed on the NCP.
- Presently ~3000 x 11 min snapshots at ~60 MHz from November 2011 to now.
- Currently 8 observations are concatenated together prior to imaging - of course many other possibilities.

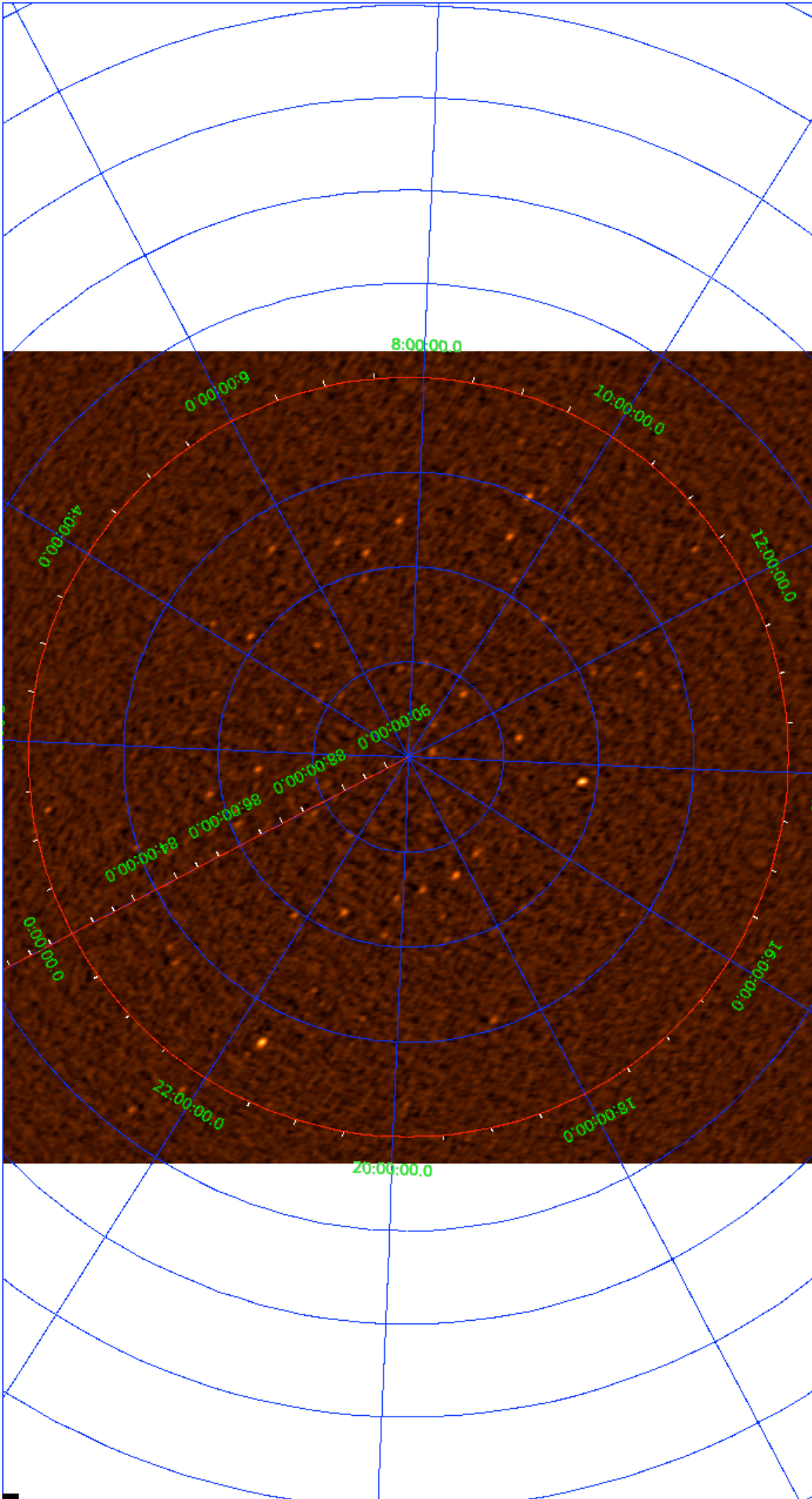
NCP Image Example



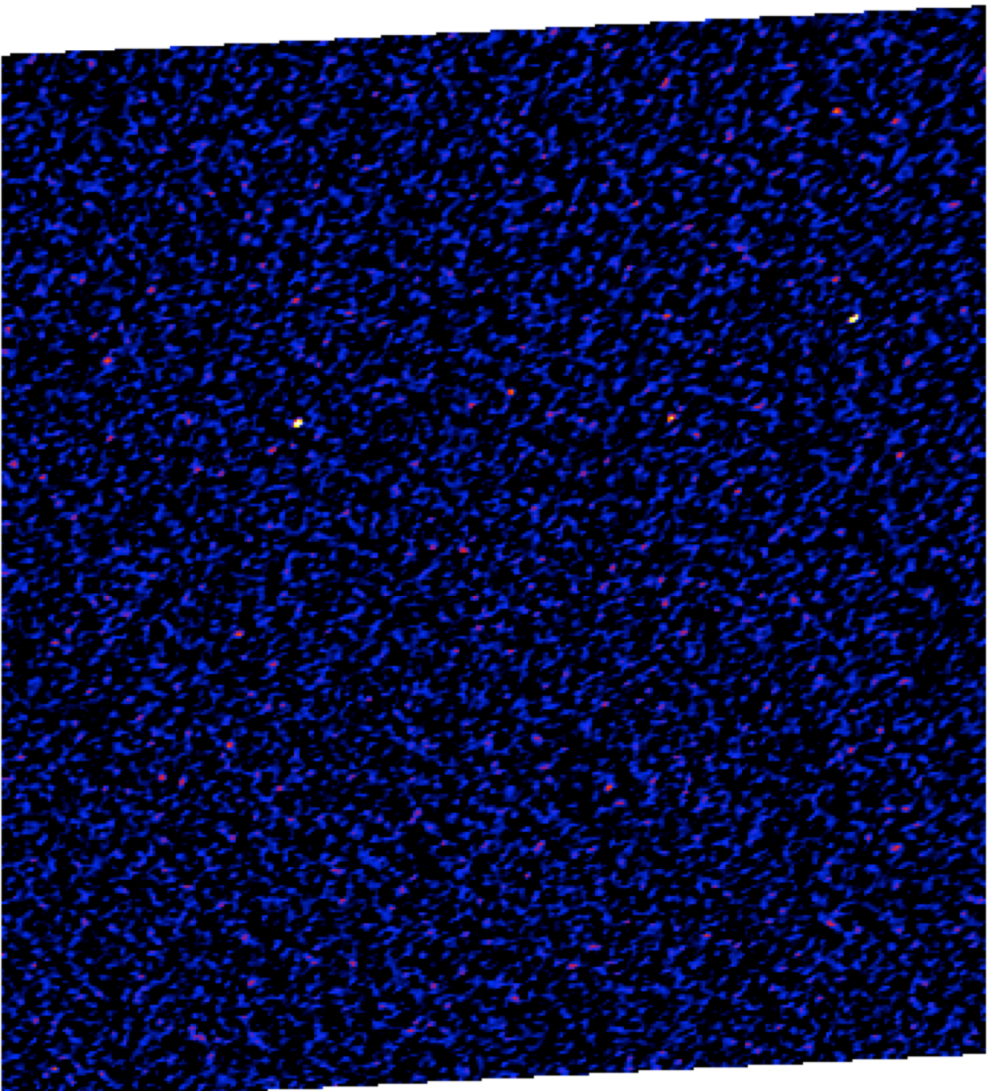
- 8 observations concatenated together before imaging step.
- 3C 61.1 brightest source in field – partially subtracted here (to ~40% of original level...still trying to improve the model).
- Currently imaged with CASA – 1024 x 1024 pixels, 60 arcsec in size.
- Angular resolution 480 arcsec x 310 arcsec (BPA 30 deg; robust=0 weighting)
- RMS ~ 500 mJy/beam (cf. ~100 mJy/beam for an image made from 9 snapshots and 8 bands)



- Overlay of VLSS sources (without 3C 61.1)



NCP: The Movie



- 70 images (groups of 8 snapshots) from 2011 December 24 to 2012 January 23.

Current & Future Work

- Assess general image quality.
- Develop reduction strategy specific to NCP, e.g. refine our flagging setup.
- Start using AWimager on a more regular basis (some issues at the moment); bring in remote stations.
- Improve the subtraction of RC 61 1 (and