

LC0_003: status update

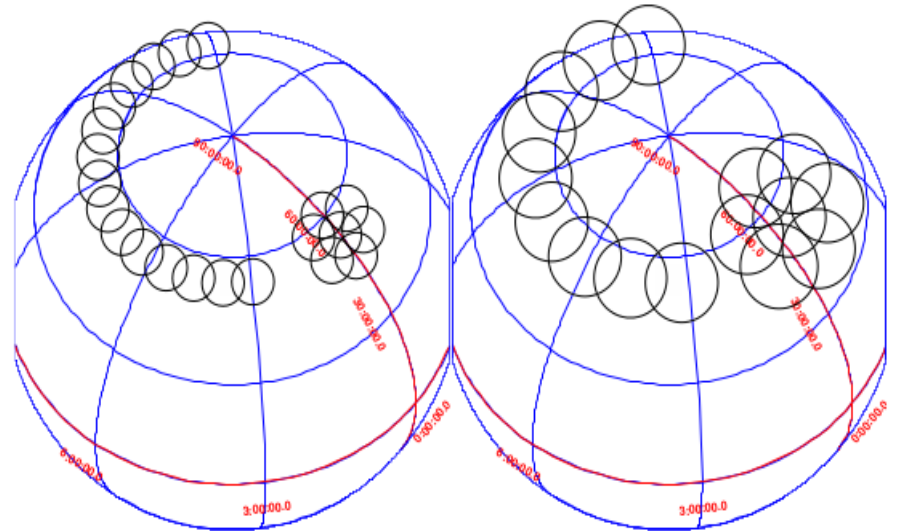
Jess Broderick (on behalf of the LOFAR TKP)

1. Zenith strip monitoring

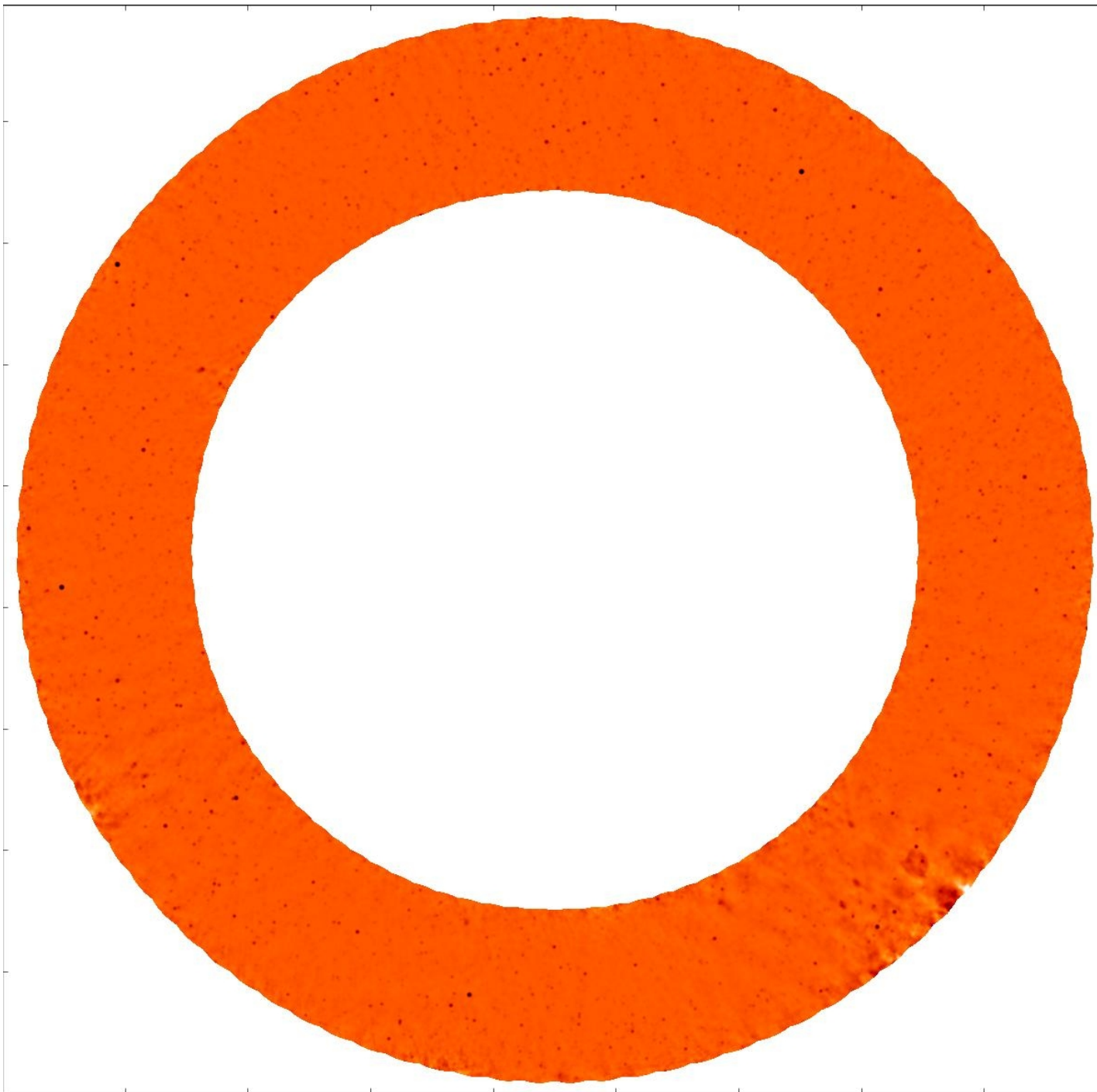
- * 144 hours; 6 x 24 hr scans (4 in the HBA, 2 in the LBA), one per month.
- * $> 1500 \text{ deg}^2$ sky coverage (up to $\sim 5000 \text{ deg}^2$ in LBA).
- * Pre-processed data calibrated and imaged at U. Southampton and U. Amsterdam. Images run through the transients detection pipeline (TraP).
- * **3 HBA runs so far** (Feb. 10, Mar. 10, Mar. 24), plus two earlier test runs. Preliminary analysis of Feb. 10 and Mar. 10 runs completed.

2. PanSTARRS / PTF

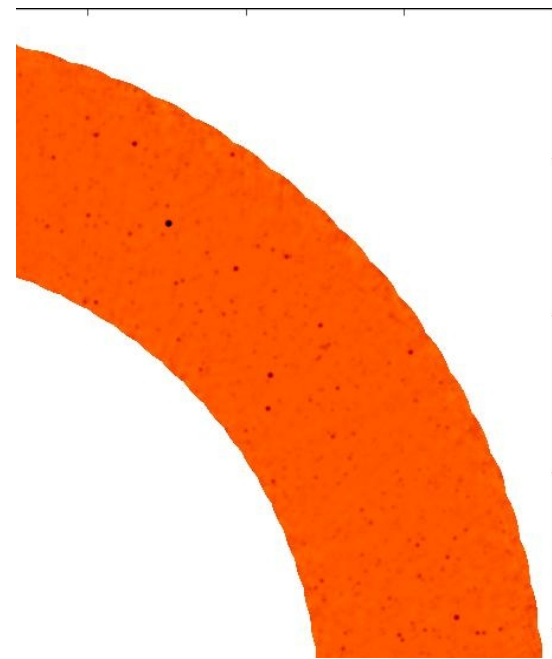
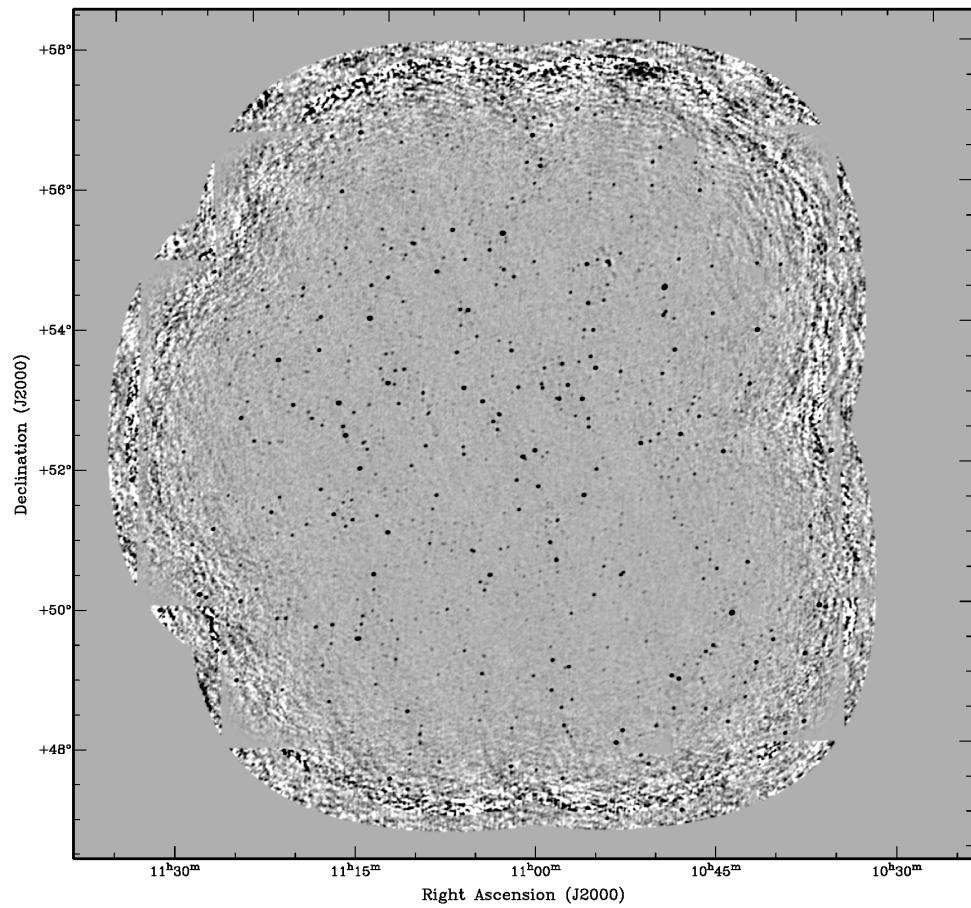
- * Contemporaneous observations of medium-deep fields every other week; 2 hr observations, 52 hours total.
- * **4 HBA runs so far** (0842+4419 + 1047+5805; Mar. 2, 16 and 30 + Apr. 13).



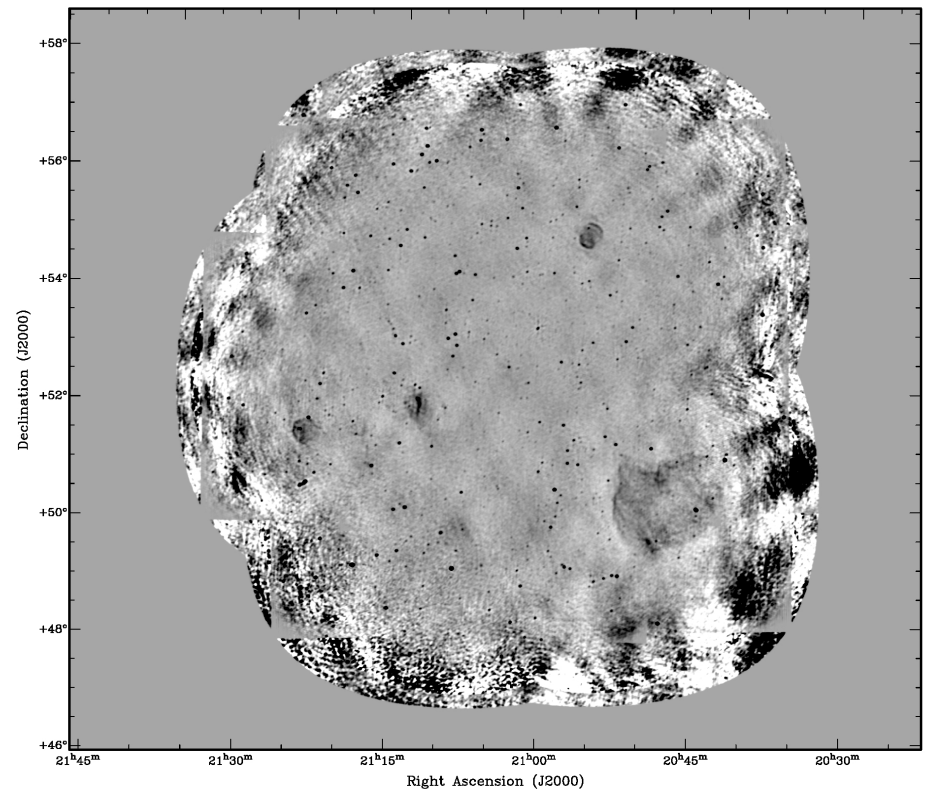
**Feb. 10
data**



*** Lowest rms ~12 mJy/beam; up to factor of a few worse near Galactic Plane**

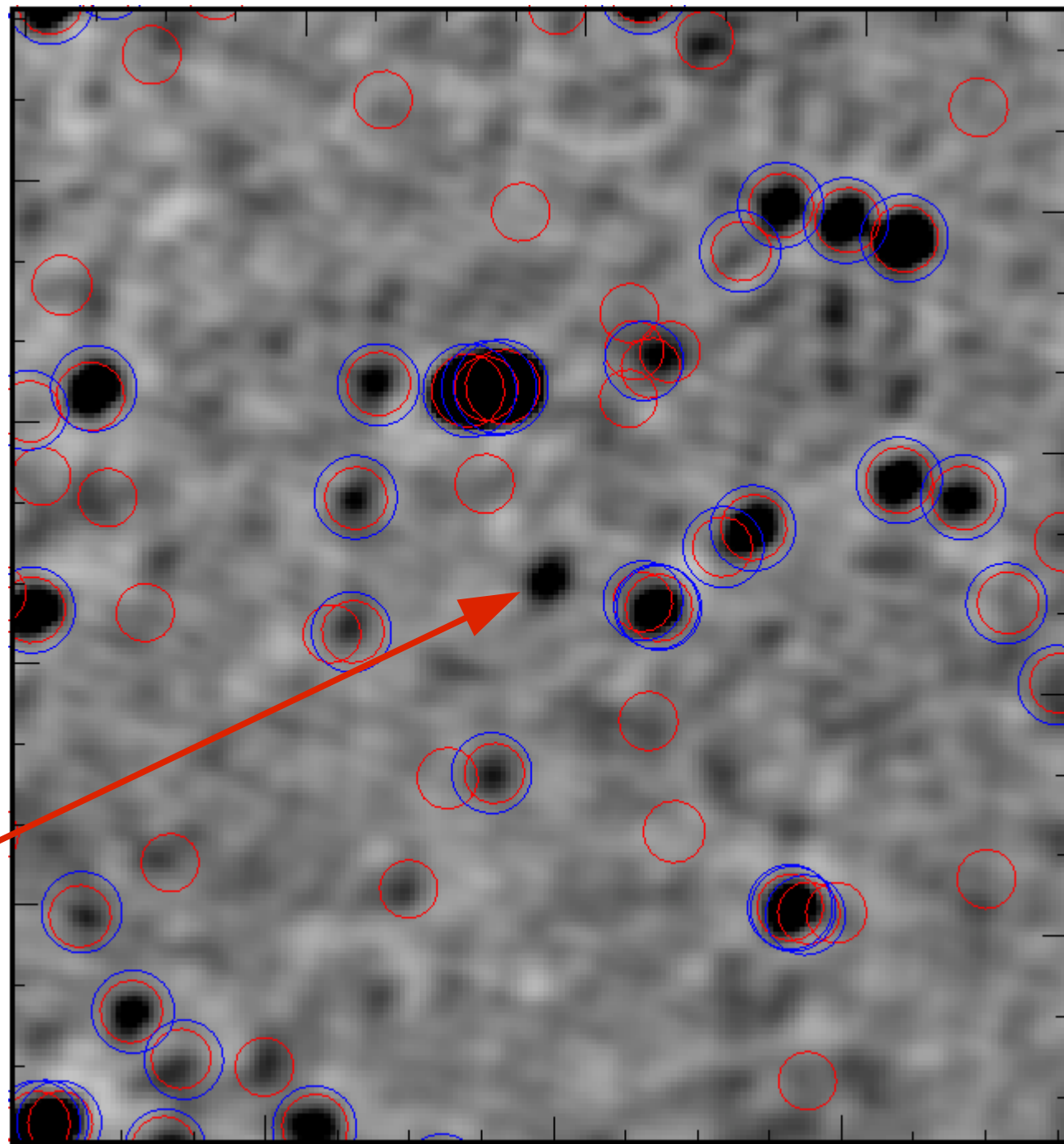


**Feb. 10
data**



*** Lowest rms ~ 12 mJy/beam; up to fact**

96 mJy; 8σ

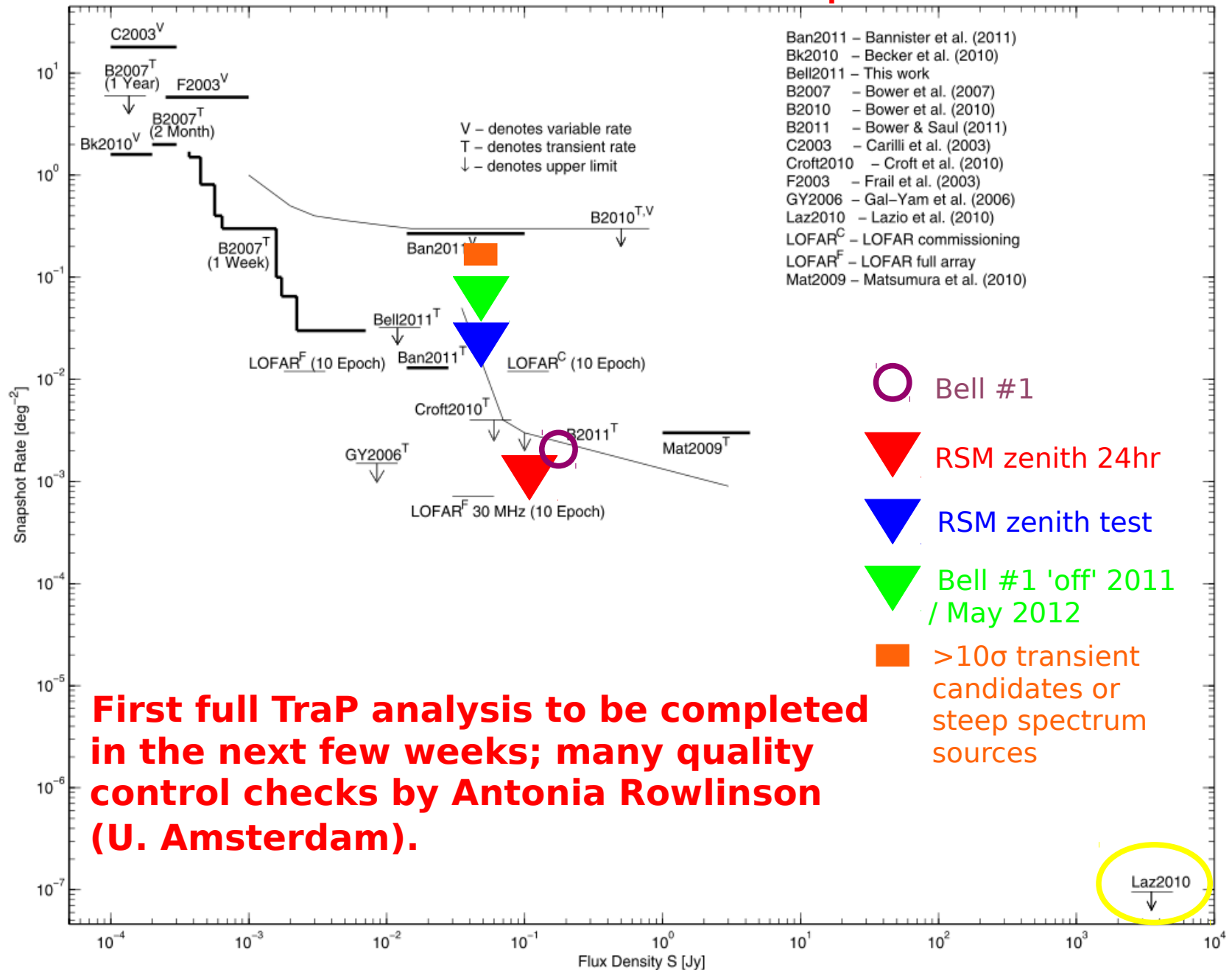


NVSS
WENSS

*** Transient or ultra-steep spectrum source? ($\alpha < -1.6$)**

Log N - Log S

Adapted from Bell et al. 2011



Leftover sub-bands; extra targets

ASTRON

Netherlands Institute for Radio Astronomy

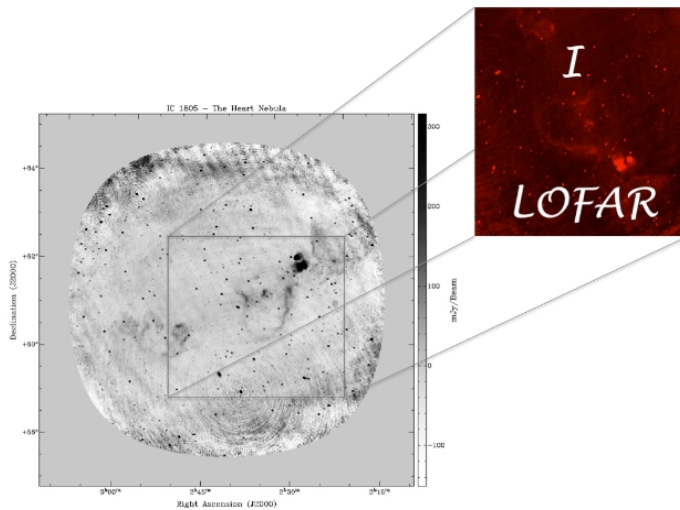


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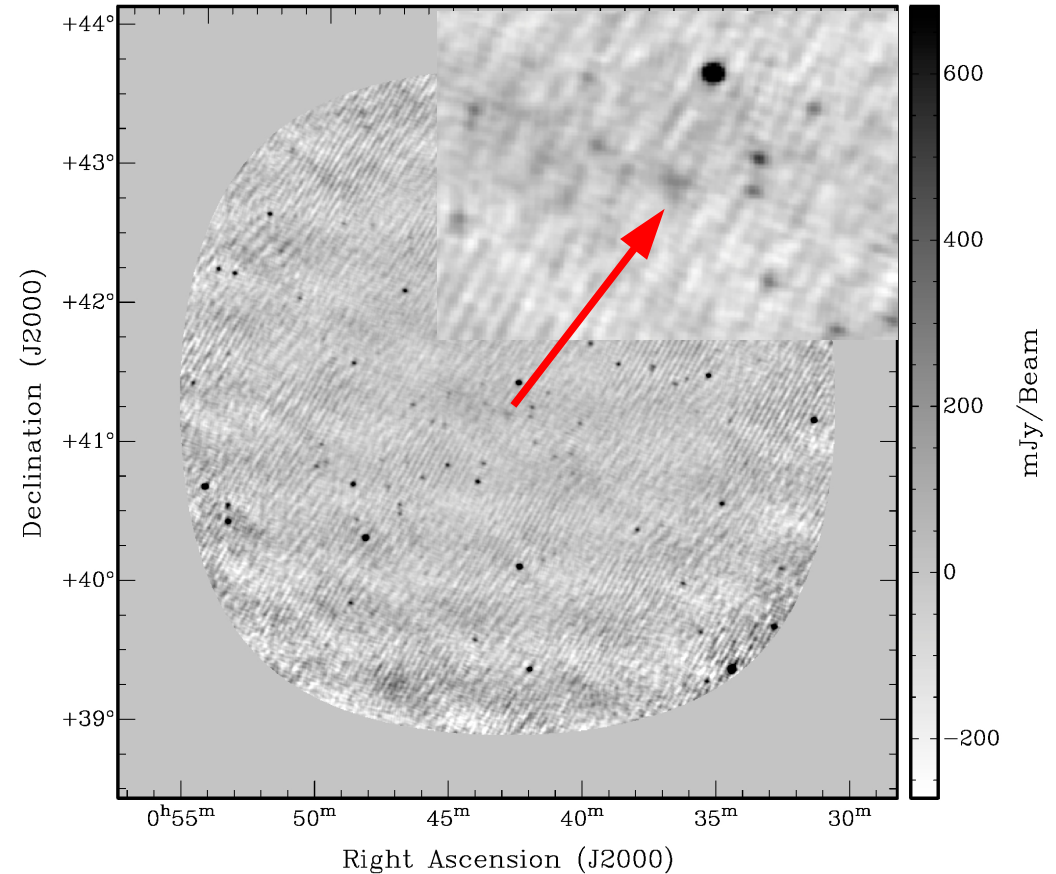
[Click here or on the picture for a full size image.](#)

The Heart Nebula

Submitter: Adam Stewart

Stewart

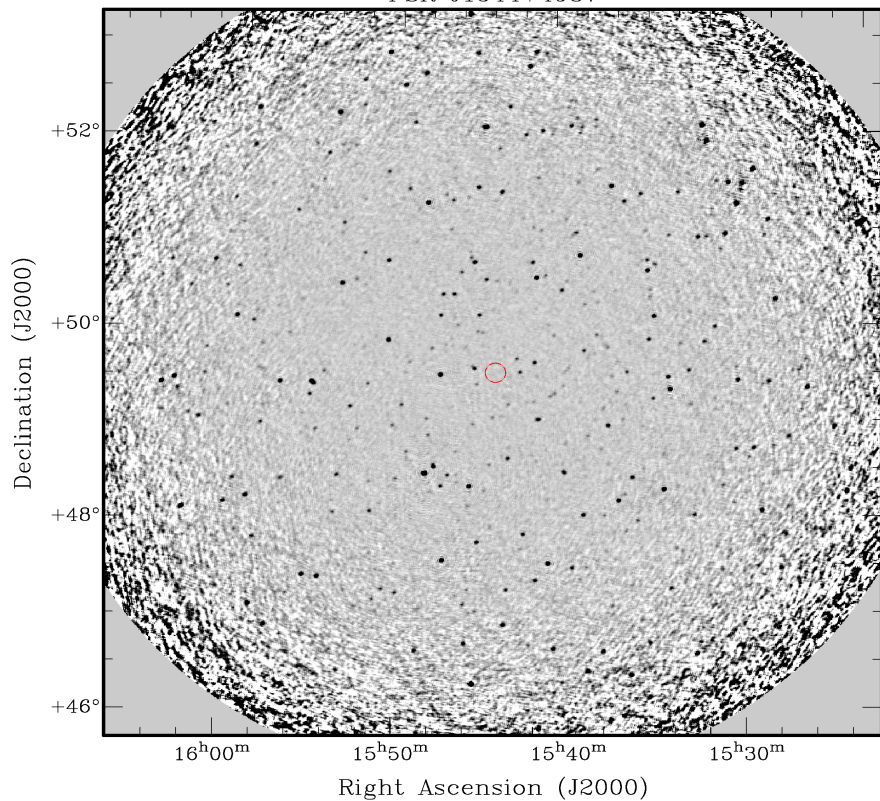
- * **LSI +61 303;**
not detected in 4h test run
($5\sigma \sim 50$ mJy)



Pietka, Glennie

- * **M31**
- * **Feb. 10 run**
- * **6 snapshots; 66 min**
- * **baselines < 6 km**
- * **rms ~ 40 mJy/beam**
- * **peak ~ 250 mJy/beam**

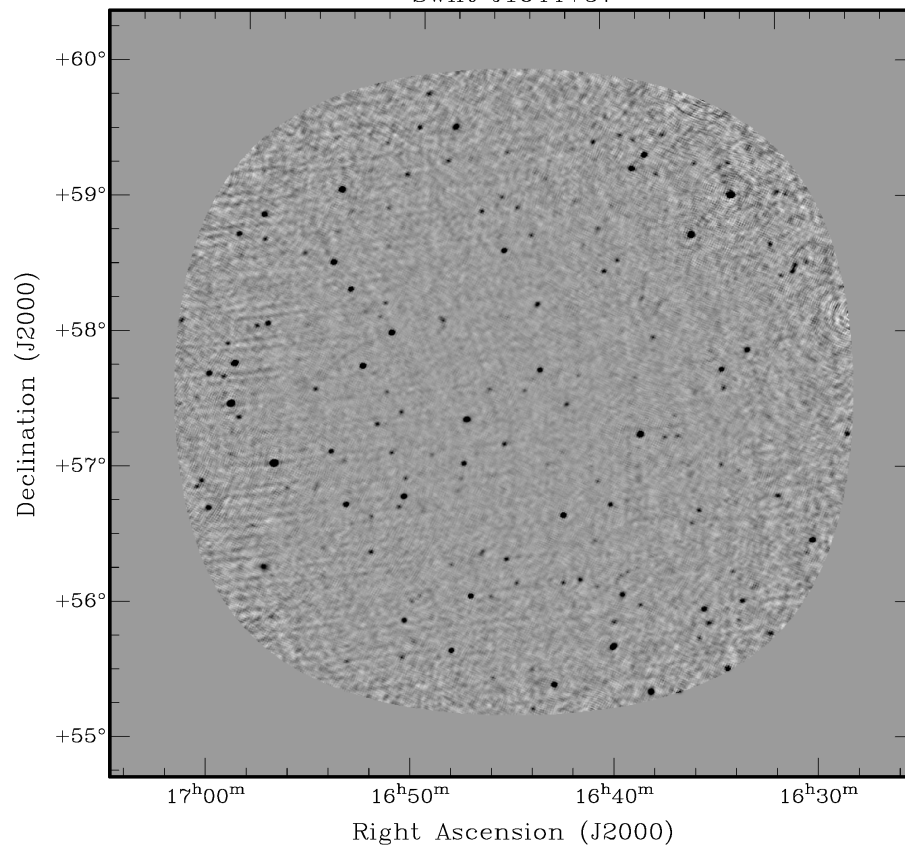
PSR J1544+4937



Hassall, Stewart

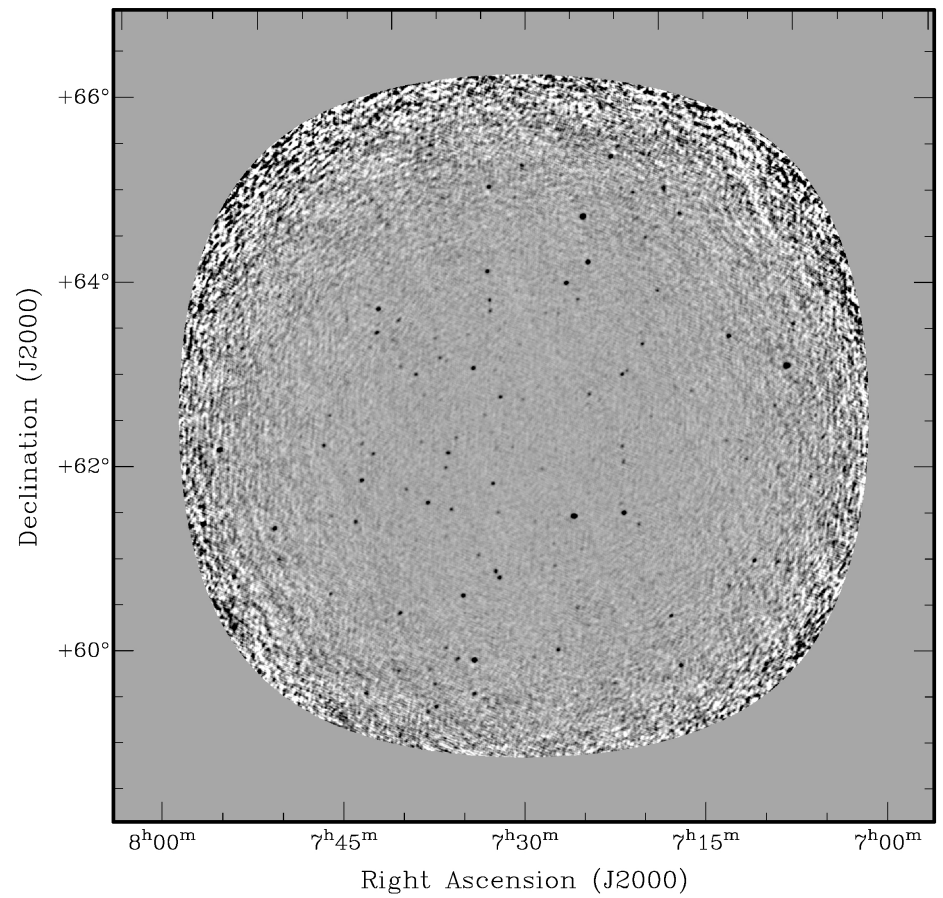
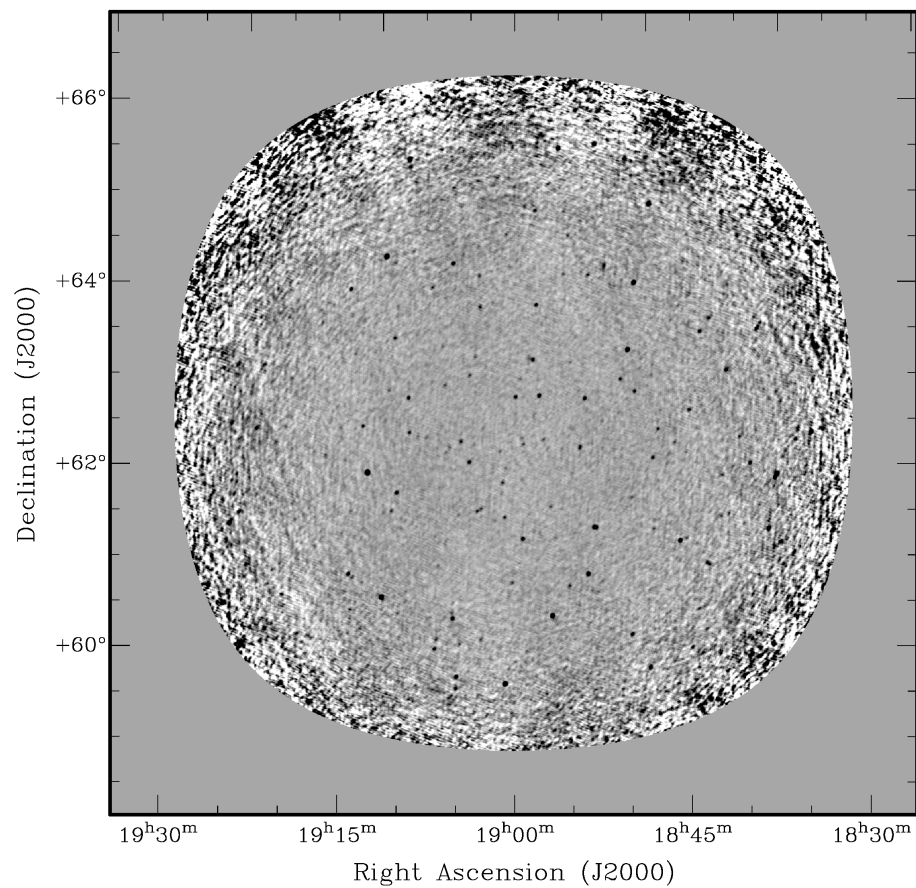
- * **PSR J1544+4937**
- * **Feb. 10 run**
- * **8 snapshots; 88 min**
- * **baselines < 12 km**
- * **rms ~ 13 mJy/beam**
- * **no detection**

Swift J1644+57



Broderick, Stewart

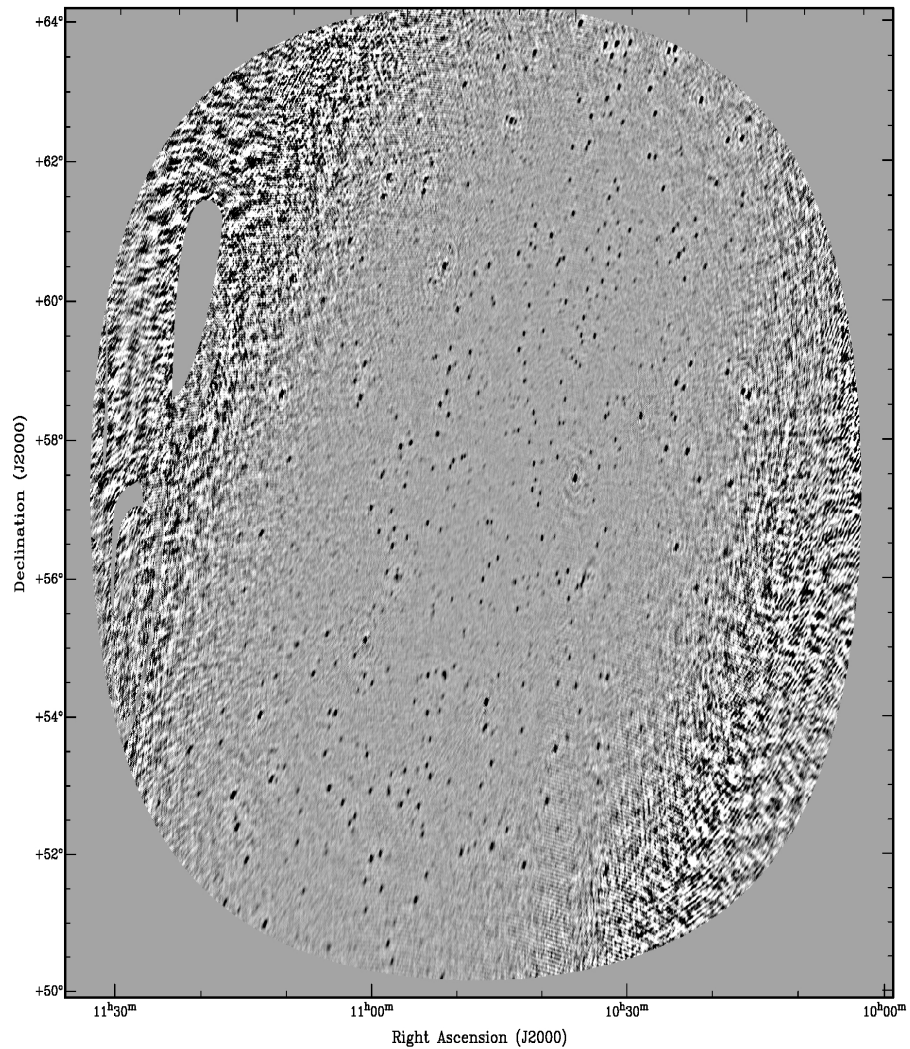
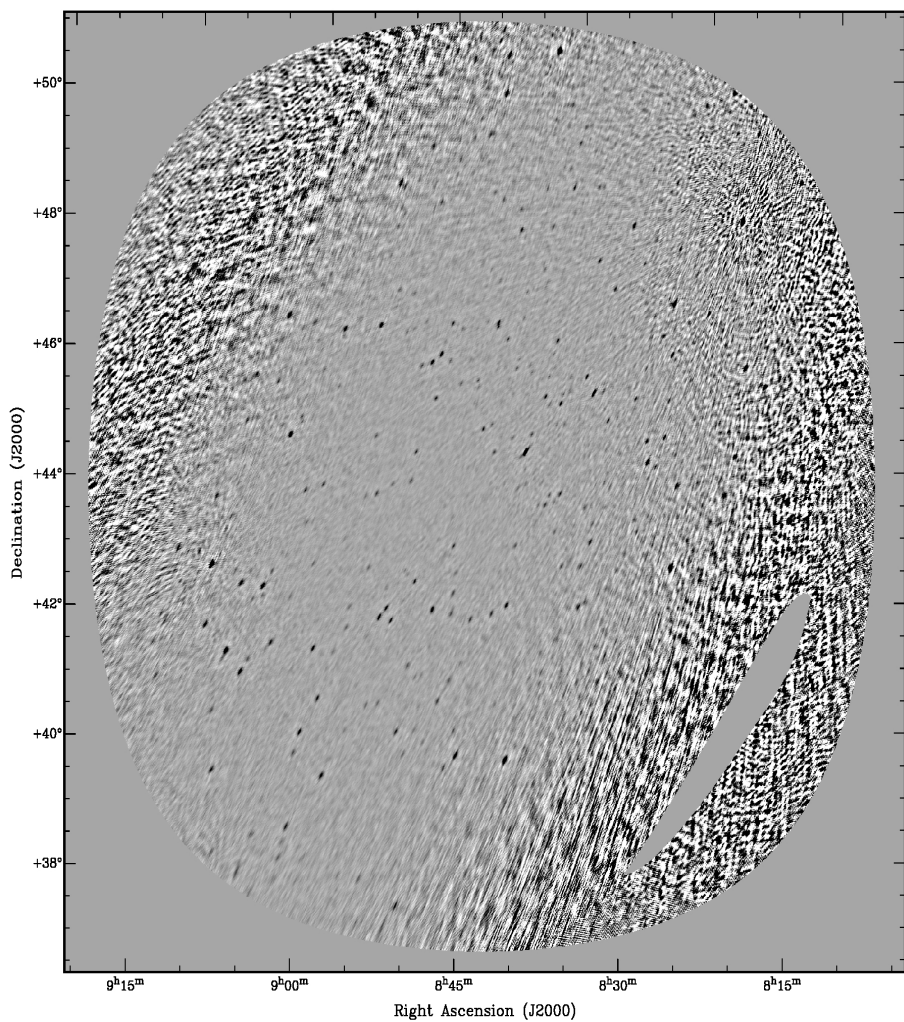
- * **Swift J1644+57**
- * **Feb. 10 + Mar. 10 runs**
- * **12 snapshots; 132 min**
- * **baselines < 10 km**
- * **rms ~ 8 mJy/beam**
- * **no detection**



Stewart, Broderick

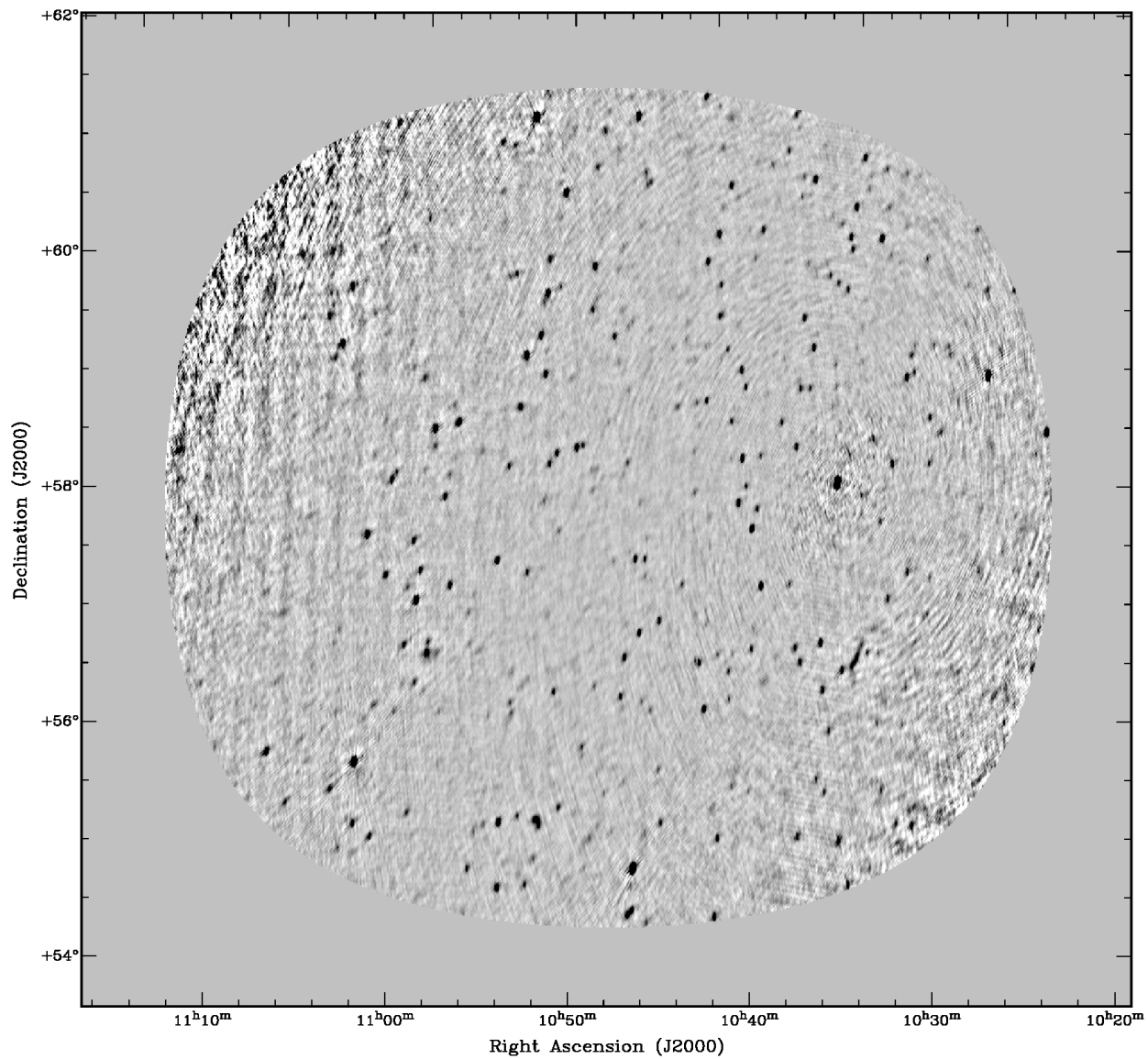
- * **Two 'northern' fields**
- * **Feb. 10 run**
- * **2 snapshots; 22 min**
- * **baselines < 6 km**
- * **rms ~ 30 mJy/beam**

PanSTARRS data



- * **J0842+4419, J1047+5805**
- * **Mar. 2 run**
- * **baselines < 6 km, 40/120 sub-bands**
- * **rms ~ 22, 14 mJy/beam**
- * **no transients (yet)**

Broderick, Stewart, Carbone, van der Horst



* **J1047+5805**

* **Mar. 2 run**

* **baselines < 6 km, 100/120 sub-bands**

* **rms ~11 mJy/beam**

Broderick, Stewart, Carbone, van der Horst