

- 1 year after the end of the semester data are taken in, they become publicly available to the world at CADAC.
- Other scientists can now make use of the data.

You'll search, you'll filter,
you'll find the awful truth
Are you ready for...

THE JCMT SCIENCE ARCHIVE!

It's the data!
It's come back to life!
Run for your papers!



Now at a CADAC
near you!

Please Reset your CADC password if required!

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CADC Home



Action required: Your password will expire on March 1, 2022 if it has not been modified since Feb 14, 2022. It can be updated here: <https://www.cadc-ccda.hia-ihp.nrc-cnrc.gc.ca/en/auth/resetPassword.html>

Search

Reset

Click on ? for explanations

Observation Constraints

- Observation ID ?
- P.I. Name ?
- Proposal ID ?
- Proposal Title ?
- Proposal Keywords ?
- Data Release Date ?

Science and Calibration data

▼

Spatial Constraints

- Target ?
- Pixel Scale ?
- ☐ Do Spatial Cutout ?

Temporal Constraints

- Observation Date ?
- Integration Time ?
- Time Span ?

Spectral Constraints

- Spectral Coverage ?
- Spectral Sampling ?
- Resolving Power ?
- Bandpass Width ?
- Rest-frame Energy ?
- ☐ Do Spectral Cutout ?

Additional Constraints

Band ?

- All (14)
- Infrared
- Infrared|Optical
- Infrared|Optical|UV
- Infrared|Optical|UV|EUUV|X-ray
- Millimeter
- Millimeter|Infrared
- Optical
- Optical|UV
- Radio
- UV
- UV|EUUV

Collection ?

- All (32)
- CFHT
- CFHTMEGAPIPE
- CFHTTERAPIX
- CFHTWIRWOLF
- HST
- HSTHLA
- GEMINI
- JCMT
- JCMTLS
- DAO
- DAOPLATES

Instrument ?

- All (220)
- 90prime
- ACIS-I
- ACIS-S
- ACS
- ACS/SBC
- ACS/WFC
- AWEOWEO-ACSIS
- Alopeke
- COS/FUV
- COS/NUV
- CPAPIR

Filter ?

- All (4158)
- 1.800
- 1.900
- 35.000
- 0
- 0.35MB
- 0.35um
- 0.45MB
- 0.45um
- 0.75um
- 0.85um
- 0G530

Cal. Lev. ?

- All (6)
- (4) Analysis Product
- (3) Product
- (2) Calibrated
- (1) Raw Standard
- (0) Raw Instrumental
- Unknown

Data Type ?

- All (9)
- cube
- eventlist
- catalog
- image
- measurements
- Other
- spectrum
- timeseries
- visibility

Obs. Type ?

- All (95)
- ACQUIRE
- ACQUISITION
- ALIGN
- ARC
- ASTAR
- BIAS
- BPM
- CAL
- CALIB
- COMP
- COMPARISON

The JCMT Science archive at CADC

Hosted by CADC, and accessible alongside many other telescope archives.

Calibration data (project=JCMTCAL): Public as soon as it is taken.

Project data: Public 1 year after the end of the semester the data were taken in.

Engineering data: Not routinely ever public, although some is released when appropriate.

Web interface: large number of search options, plus after searching can filter.

TAP interface: programmatically search on any metadata in their database.

Raw DATA

Raw data: uploaded to CADC as it is taken, usually available in less than 24 hours.

Stored in our Starlink NDF files (.sdf file extension)

Raw ‘timeseries’ data: writes out instrument values at each point in time.

Information about telescope position in sky is stored in the JCMTSTATE extension.

If you need to access: use SMURF `jcmstate2cat` tool to turn into a TST file that can be viewed with TOPCAT.

Either grid as part of our ORAC-DR science pipelines, or directly grid into RA-dec (and frequency/velocity) using SMURF `makemap` or `makecube`

Reduced Data

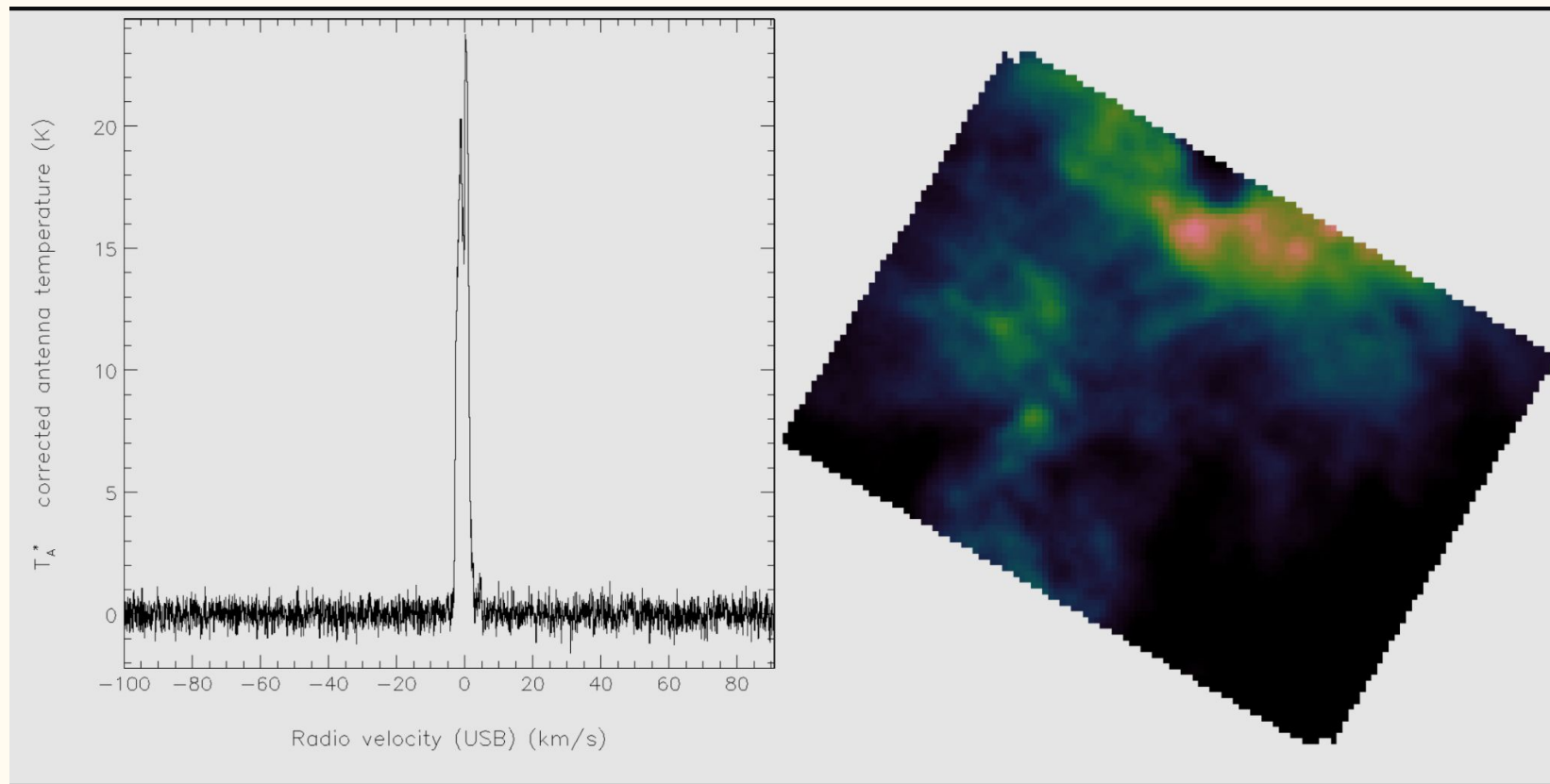
Heterodyne and SCUBA-2 data are run through our science pipeline the day after they are taken.

These automatically reduced products are then immediately uploaded to the archive and available to download (with permissions)

Includes preview images of the data.

Aim is to produce science quality/near science quality results.

Reduced Data



CANFAR

CADC is part of CANFAR

CANFAR also provides data storage (VOspace) and virtual machine processing (OpenStack)

<https://www.canfar.net/en/>

https://www.canfar.net/en/docs/quick_start/

JCMT users can use this either to distribute data (VOspace) or can request processing resources. These include SCUBA-2/POL-2 capable machines.

JCMT 850um Legacy Release

Originally pushed to archive in 2016

Re-reduction of public 850um SCUBA-2 data onto a standardised HEALPix all sky grid using a single recipe and configuration file.

Coadding of all science data that make manual QA (i.e. looked reasonable)

Automatic detection and catalog creation for detected emission.

Just finished our update: 10 years of JCMT 850um SCUBA-2 data. Individual reduced observations are already in the archive, coadds and catalogs almost ready to be updated.

Paper draft about to be submitted.

Data included in this release:

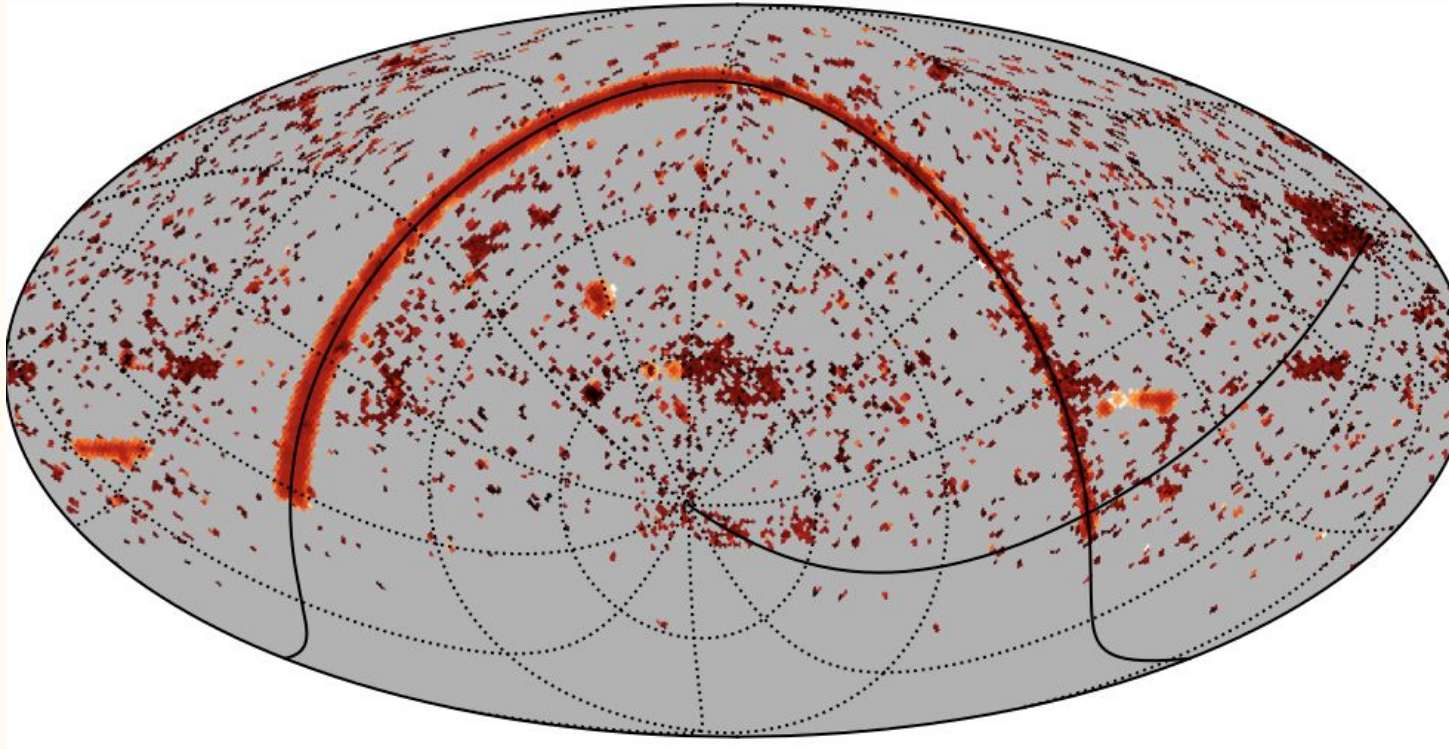
Reduced all calibration, science and pointing 850um observations from Feb 2nd 2011 to Aug 1st 2020

Excluded pointing observations and observations that did not meet a by-eye QA check.

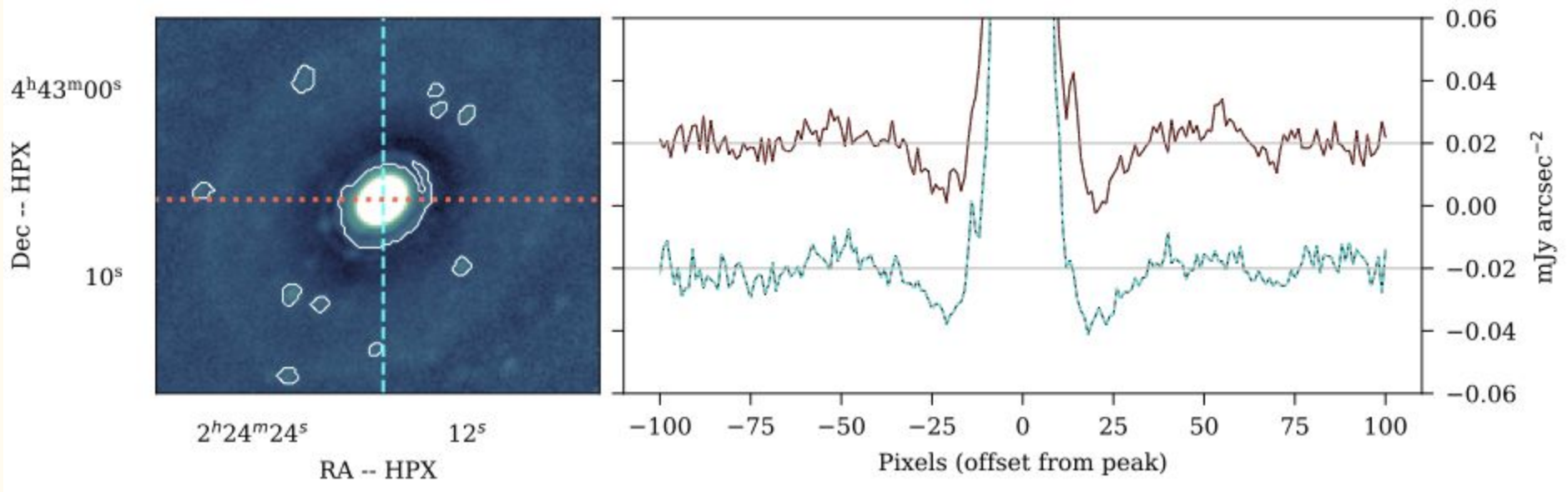
Table 1. Types of observation included in this release.

Type	Individual			Coadds		
	Num. obs.	Time (h)	Tiles	Num. obs.	Time (h)	Tiles
All	45968	12804.0	6858	27851	11722.1	6802
Sci.	28238	11851.5	6821	27851	11722.1	6802
Pointing	17730	952.5	384	0	0.0	0
Calib.	5735	349.7	22	5608	341.2	22
JLS	6142	3641.5	2156	6028	3580.1	2142
LAP	10678	5909.7	3205	10538	5837.8	3192
PI	11825	5592.1	4410	11705	5543.0	4402

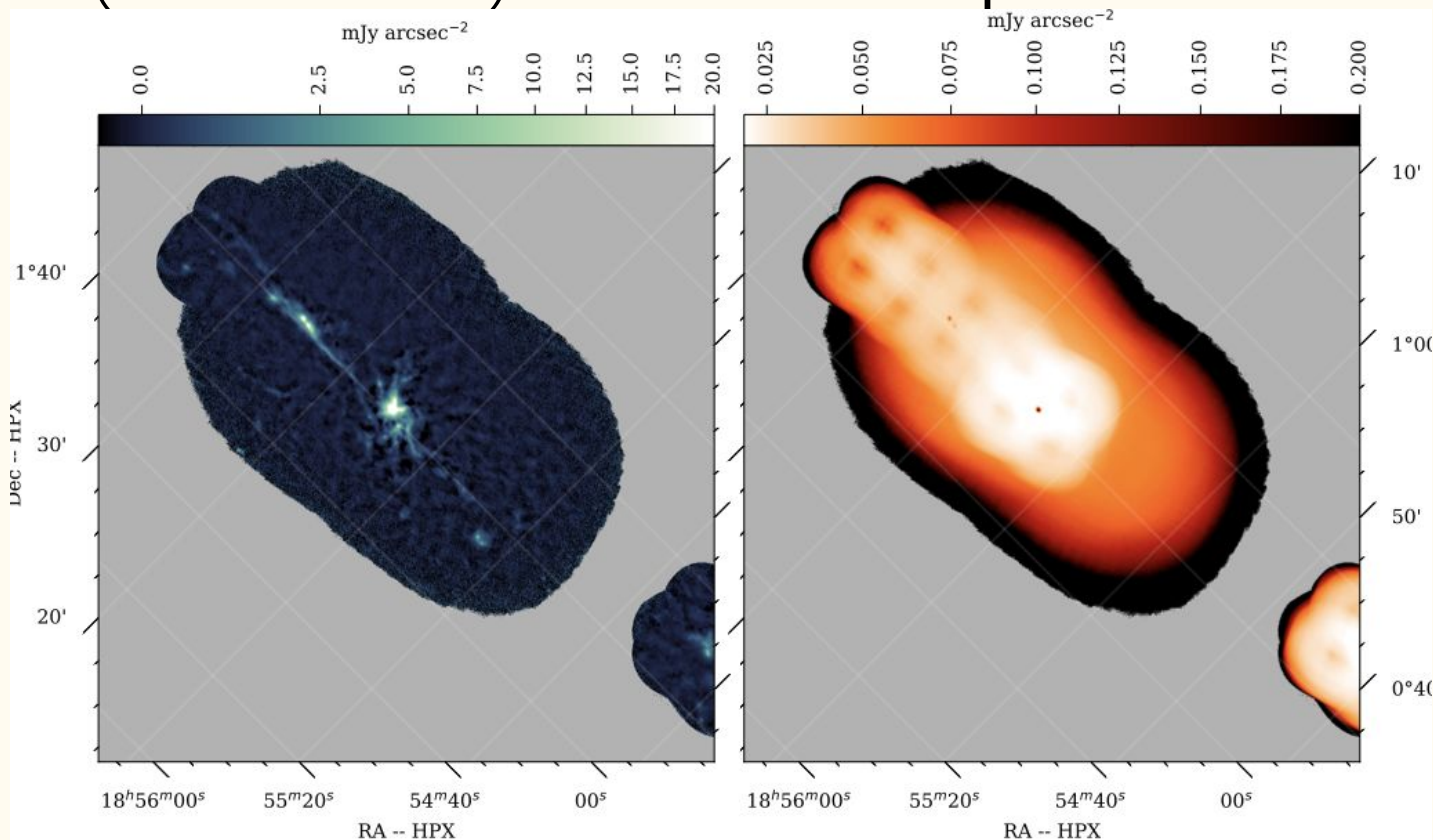
Location and relative noise of all Coadds:

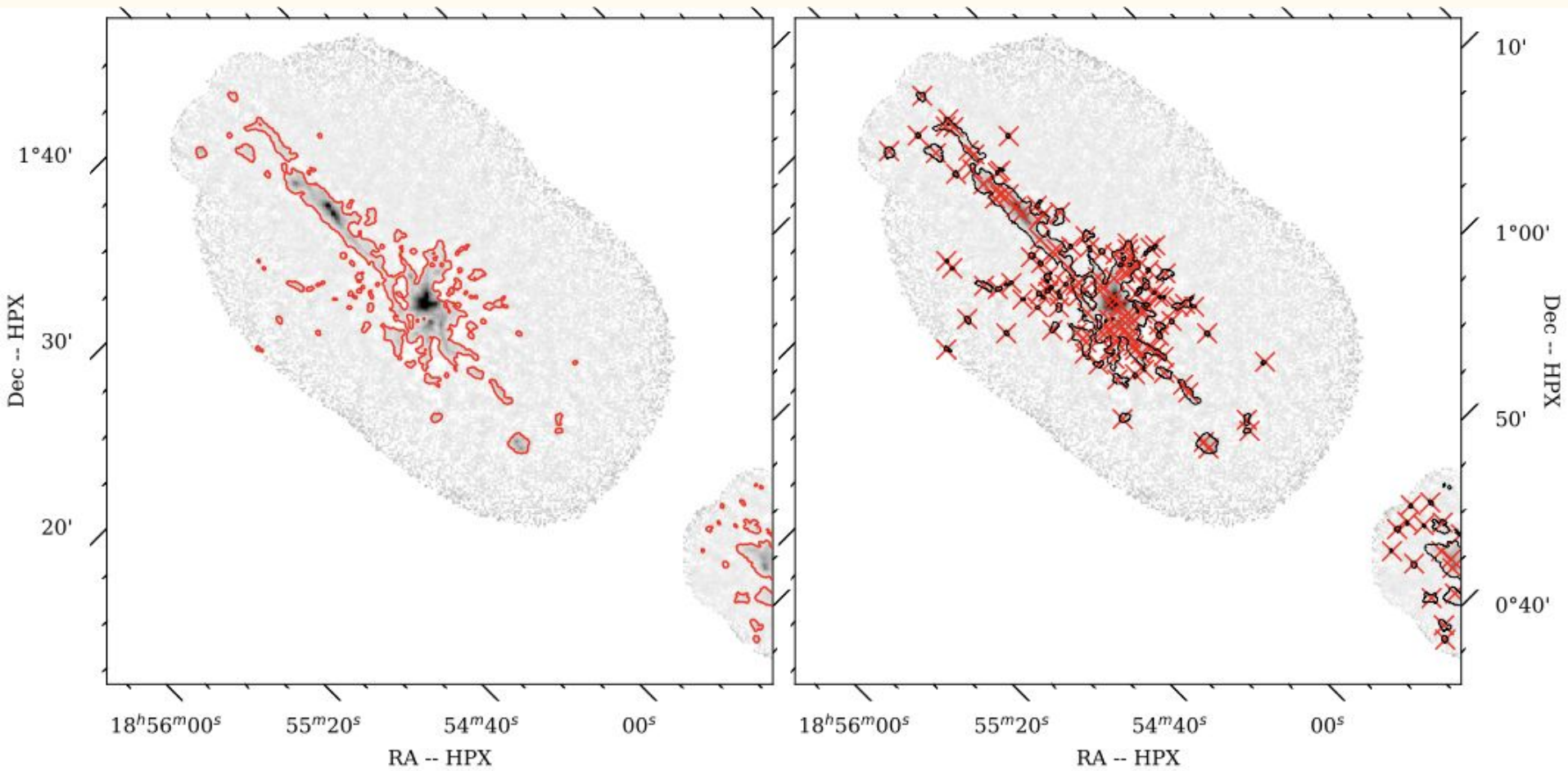


CRL618: zoom in on faint background sources



G34.3 (Tile30318) Emission map and Noise map





The deepest map: Tile 27258

