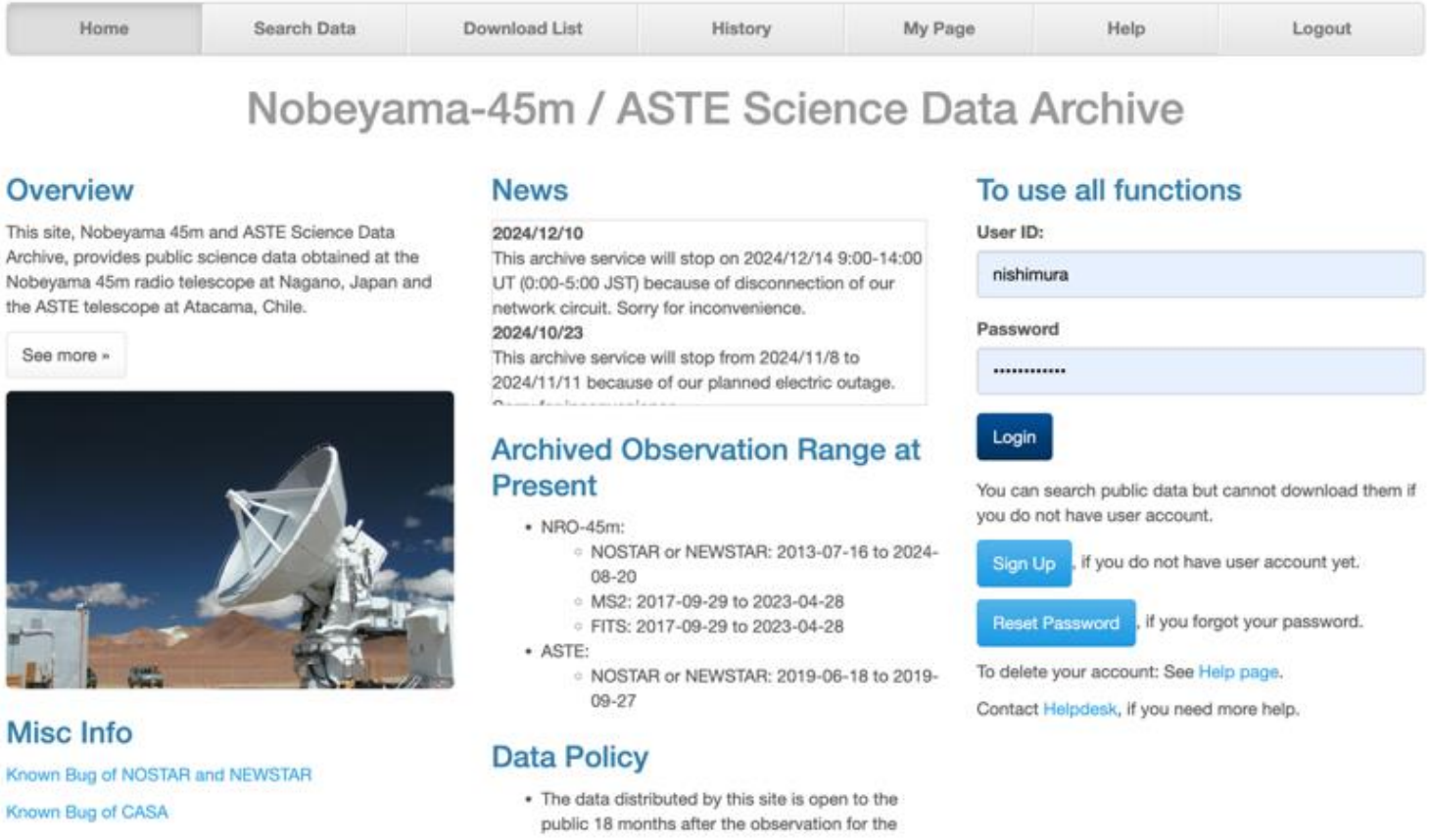
Nobeyama-45m / ASTE Science Data Archive (Radio Science Data Archive; Radio Archive)

https://nobeyama-archive.nao.ac.jp/



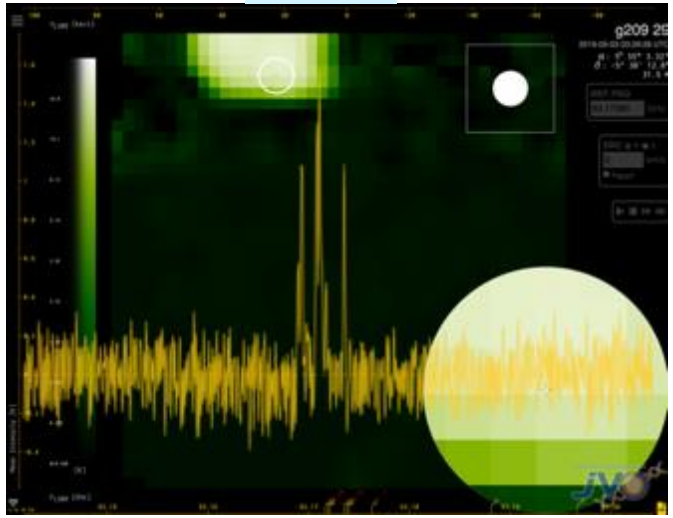
Tetsuhiro MINAMIDANI (ALMA/ASTE)

A. Nishimura (NRO)
G. Kosugi (ALMA/ADC)
A. Yoshino (ALMA)
K. Yamashita (MIZ/ADC)
M. Shizugami (ALMA/ADC)
E. Morita (ALMA/ADC)
E. Ikeda (ALMA)

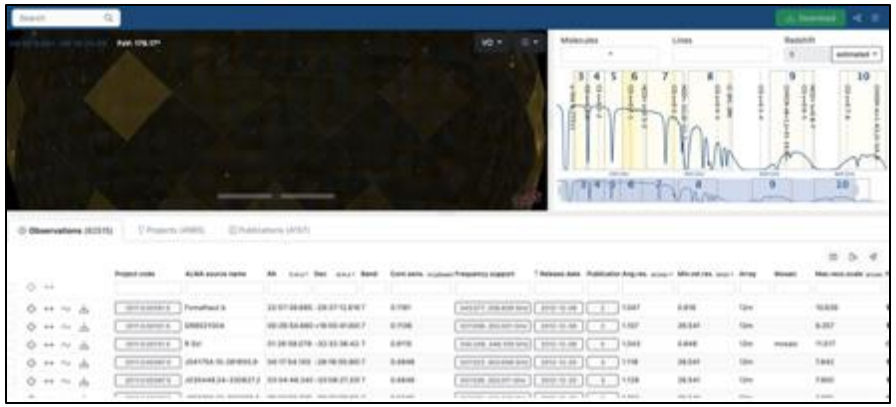
Nobeyama-45m / ASTE Science Data Archive

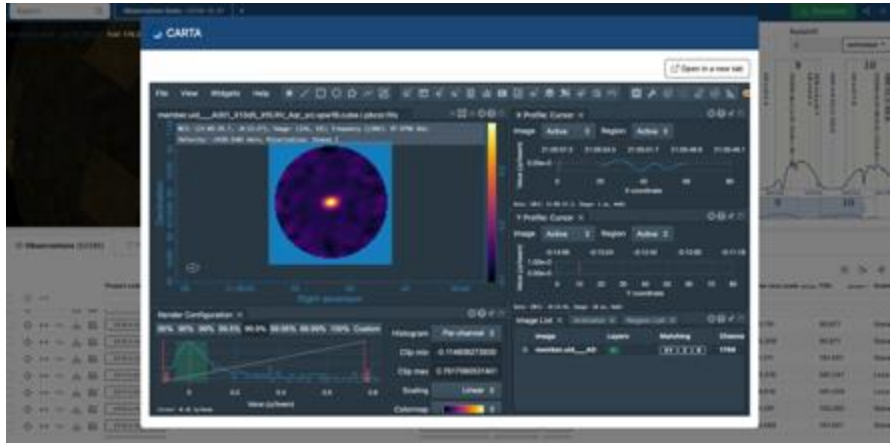
- NRO45, ASTE
- since 2017-08-21

JVO



ALMA Science Archive





How to Find Data

ALMA

→ ALMA Science Archive

https://almascience.nao.ac.jp/

→ JVO - ALMA FITS Archive

https://jvo.nao.ac.jp/portal/alma/archive.do

NRO Legacy Projects

- FUGIN, COMING, Star Formation

→ JVO

https://jvo.nao.ac.jp/portal/nobeyama/

NRO 45m・ASTE

→ Nobeyama-45m/ASTE Science Data Archive

https://nobeyama-archive.nao.ac.jp/

Functions

- Search
- Download Data
  - FITS, MS2, nostar, newstar
- Link to JVO (only FITS data, 2017 - 2023)
- Public after proprietary period

Archived Data

- NRO 45m
  - 2013.7.16 –
- ASTE
  - 2019.6.18 –

Statistics

Data	Size：81.1 TB、# of Data Sets：135,374 (Pipeline Processing Rate: 5.0%) • newstar: 0.2 TB, 47,337 set • nostar: 12.6 TB, 14,224 set • ms2: 12.6 TB, 6,690 set Increasing 10-15 TB/year （This is greater than the amount of new observation data because we are also working on pipeline processing of past data and releasing the processed data）
Downloads (/yr)	1,160 Files、990 GB（Average of 2019-2024)
Location	Virtural Machine on an ADC Rental Server (135 TB) ＋ Data Processing & Test Environment
Operation Expenses and FTE	ADC Rental Server Data Backup on AWS 0.8 FTE? (8 Staffs：ADC, NRO, ALMA)

Data Flow

Nobeyama 45m

NRO DB

Data

NRO DB2

Merge Data
(NOSTAR/NEWSTAR)

Nobeyama-
45m/ASTE Science
Data Archive

Merge Data

Reduction Server

MS2 Data

MS2 Data

Pipeline Reduced Data

ASTE

Merged Data

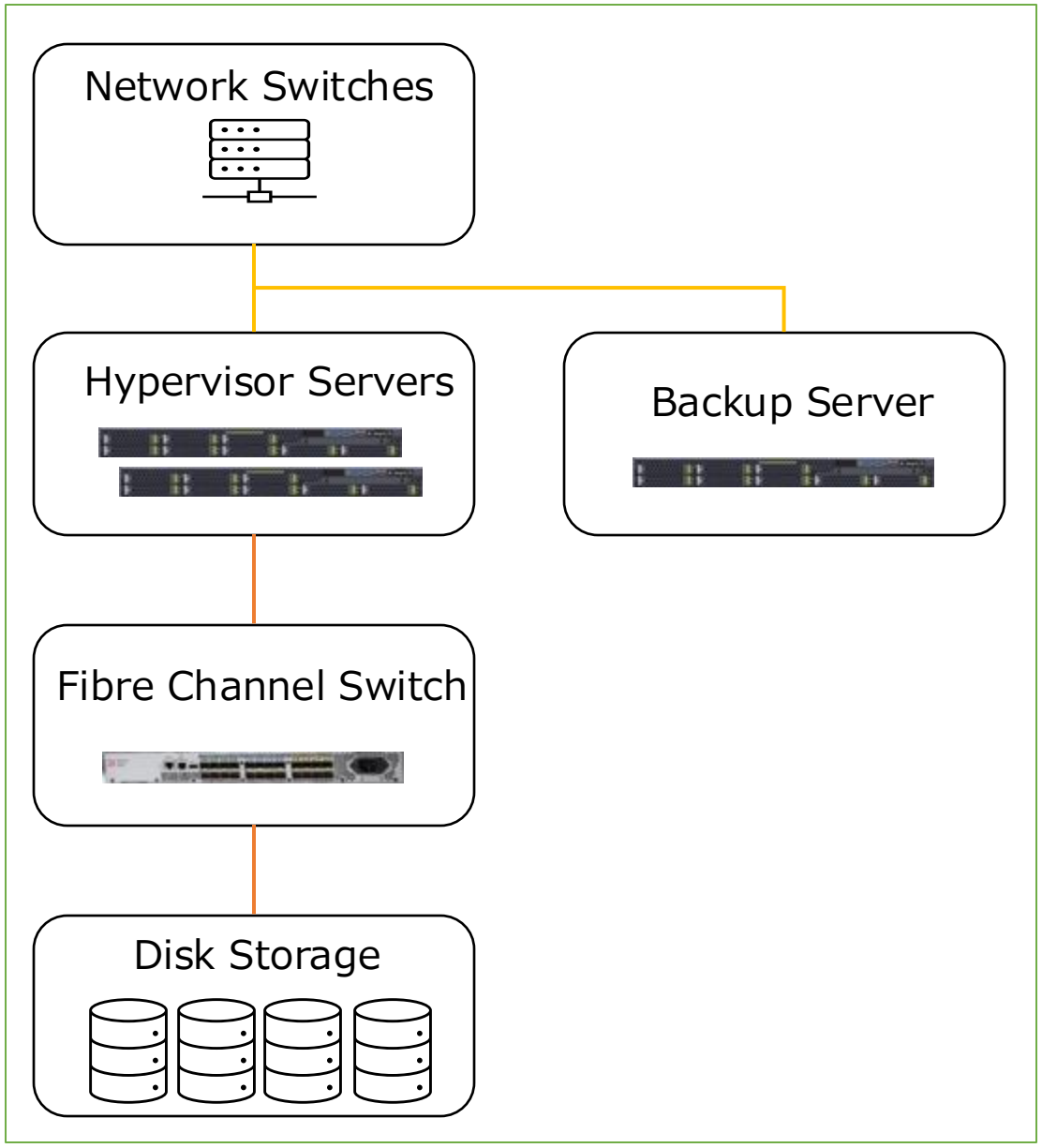
Data

ASTE Storage

Pipeline Reduced Data

backup to
AWS

Common Virtualization Infrastructure in ADC



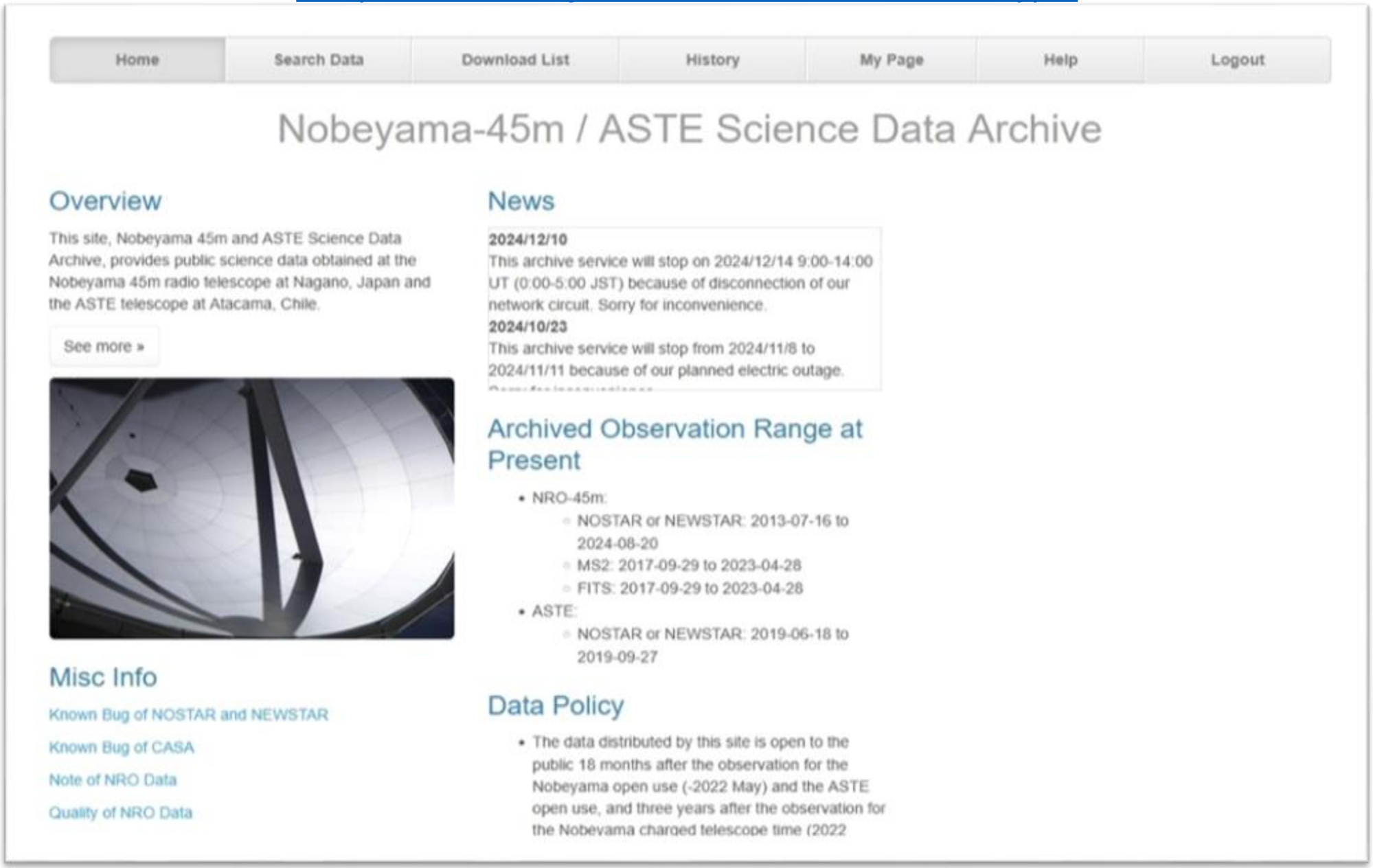
Several archive-related systems and components are consolidated into a Common Virtualization Infrastructure in ADC rental system.

Nobeyama-45m/ASTE Science Data Archive is operated on the Virtualization Infrastructure.

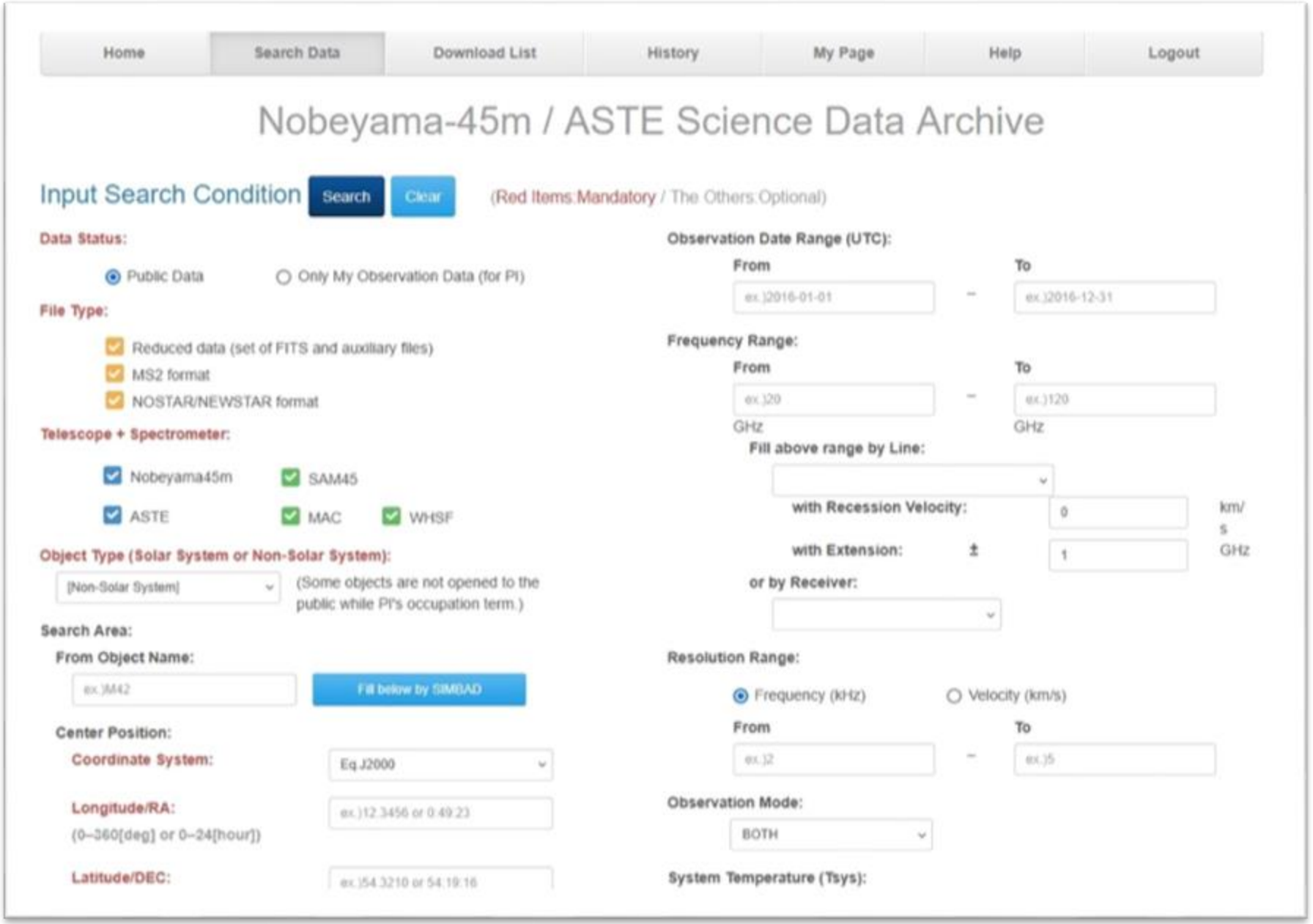
Specification:
Allocated Disk Space: 135 TB

Nobeyama-45m / ASTE Science Data Archive (Top)

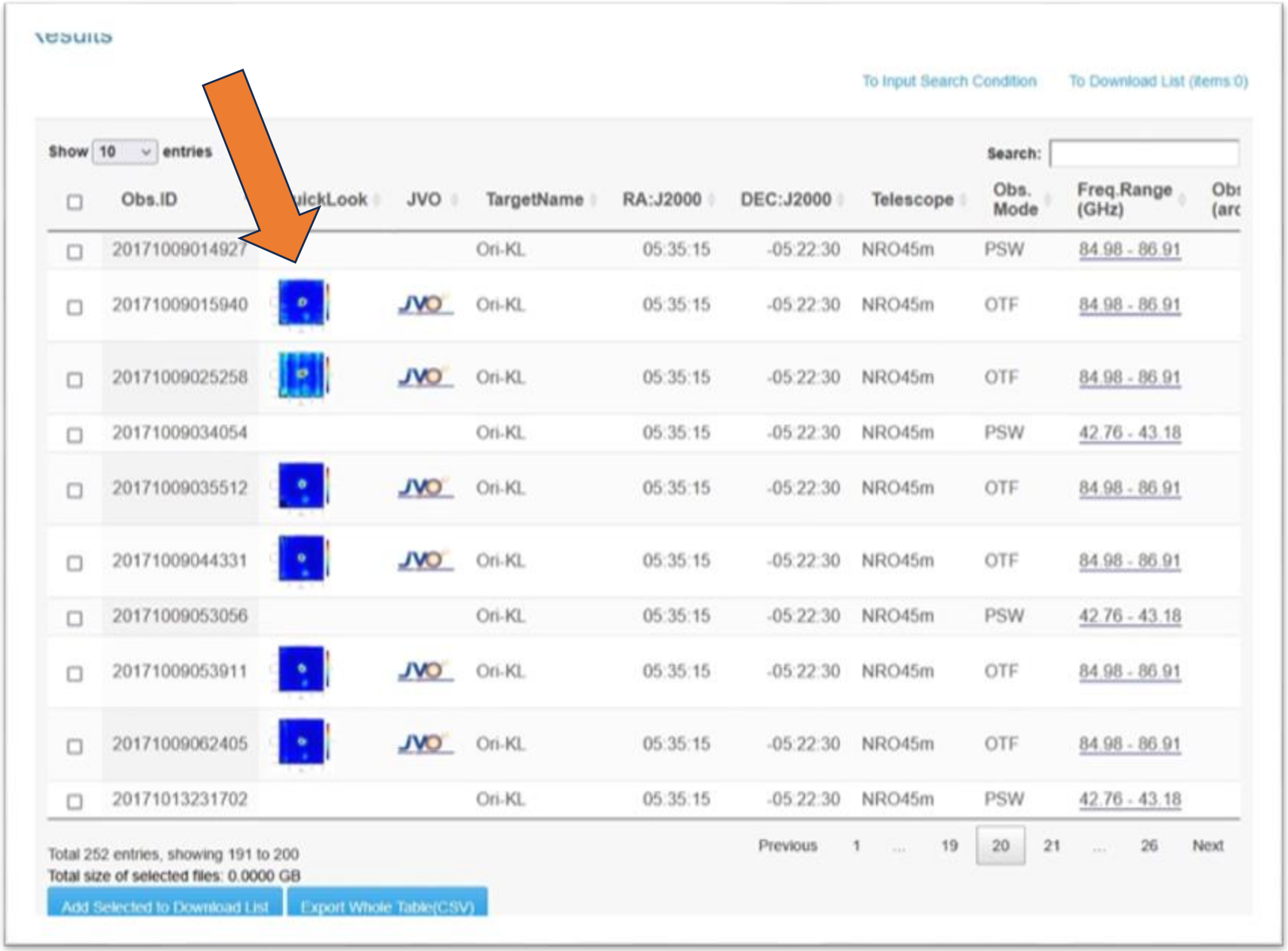
https://nobeyama-archive.nao.ac.jp/



Nobeyama-45m / ASTE Science Data Archive (Search)



Nobeyama-45m / ASTE Science Data Archive (Search Results)



Results

To Input Search Condition To Download List (items 0)

Show 10 entries Search:

Obs.ID	QuickLook	JVO	TargetName	RA:J2000	DEC:J2000	Telescope	Obs. Mode	Freq.Range (GHz)	Obs (arc
20171009014927			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	84.98 - 86.91	
20171009015940		JVO	Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	84.98 - 86.91	
20171009025258		JVO	Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	84.98 - 86.91	
20171009034054			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	42.76 - 43.18	
20171009035512		JVO	Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	84.98 - 86.91	
20171009044331		JVO	Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	84.98 - 86.91	
20171009053056			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	42.76 - 43.18	
20171009053911		JVO	Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	84.98 - 86.91	
20171009062405		JVO	Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	84.98 - 86.91	
20171013231702			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	42.76 - 43.18	

Total 252 entries, showing 191 to 200

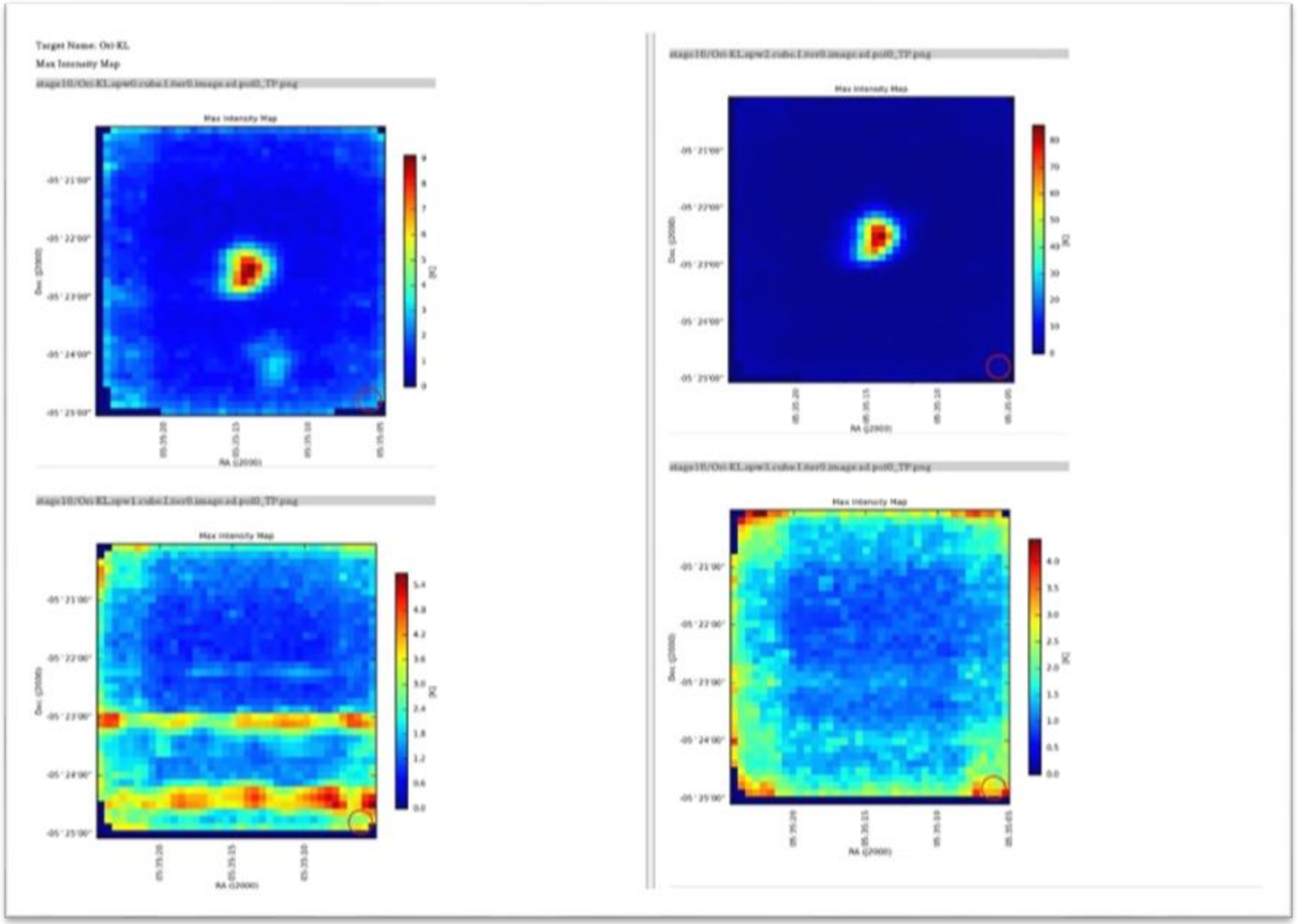
Previous 1 ... 19 20 21 ... 26 Next

Total size of selected files: 0.0000 GB

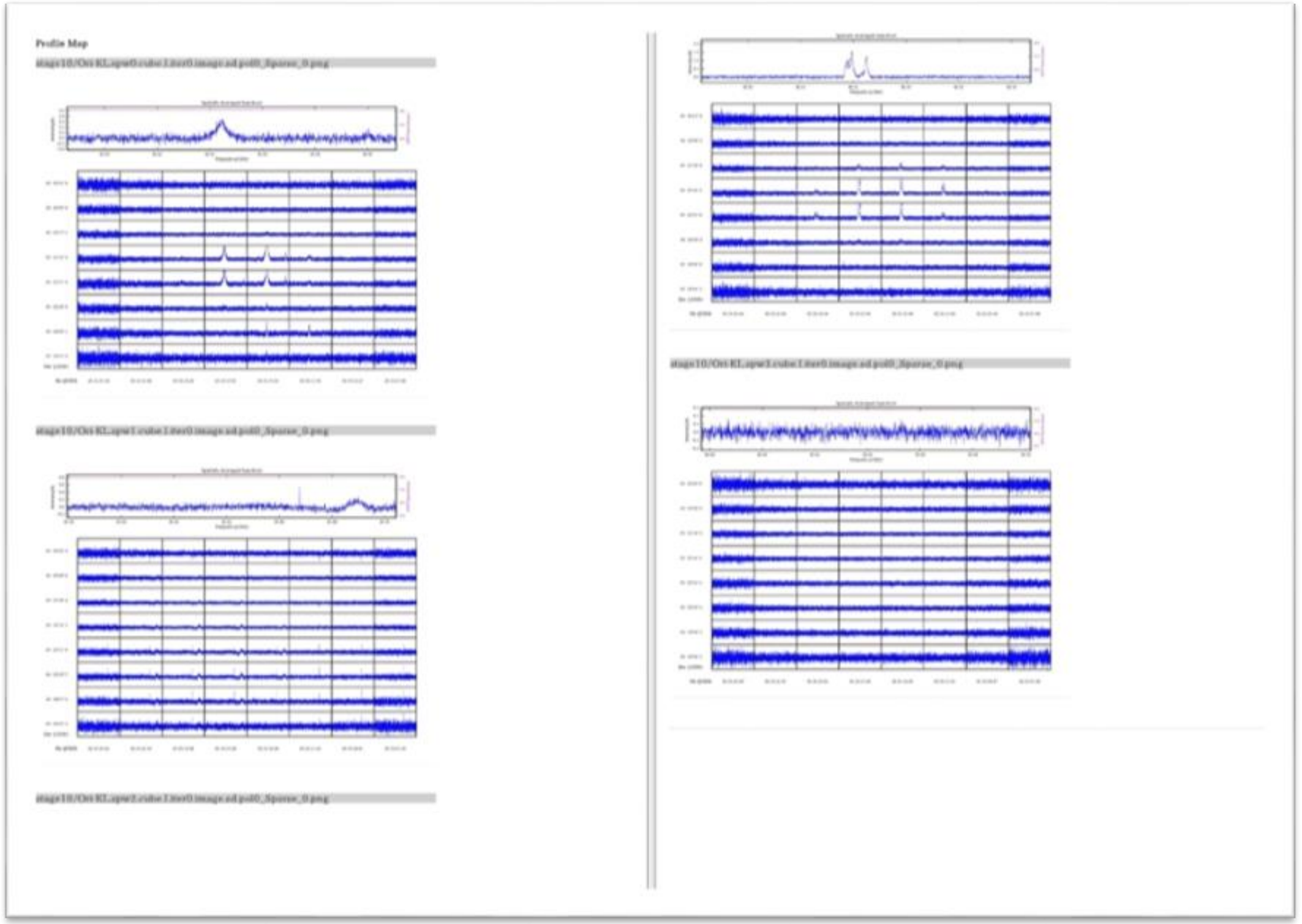
Add Selected to Download List Export Whole Table(CSV)

- MS2 and FITS format data are opened to the public since 2021-04-12.
- QuickLook are made from CASA/Pipeline processing to show quality of FITS data.

Nobeyama-45m / ASTE Science Data Archive (Pipeline Summary 1)



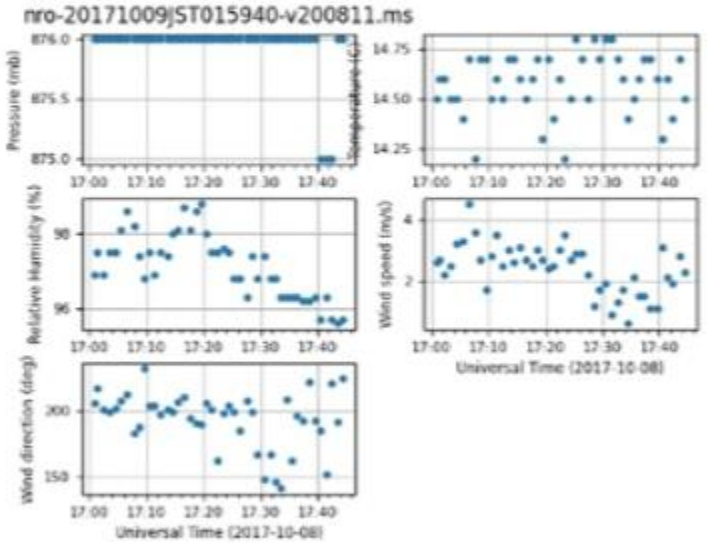
Nobeyama-45m / ASTE Science Data Archive (Pipeline Summary 2)



Nobeyama-45m / ASTE Science Data Archive (Pipeline Summary 3)

Weather Plot

sessiondefault/nro-20171009JST015940-v200811.ms/weather.png



Overview

Observation Overview

Project	csv17/sgw
Principal Investigator	csv17
Observation Start	2017-10-08 17:00:49 UTC
Observation End	2017-10-08 17:44:32 UTC

Pipeline Summary

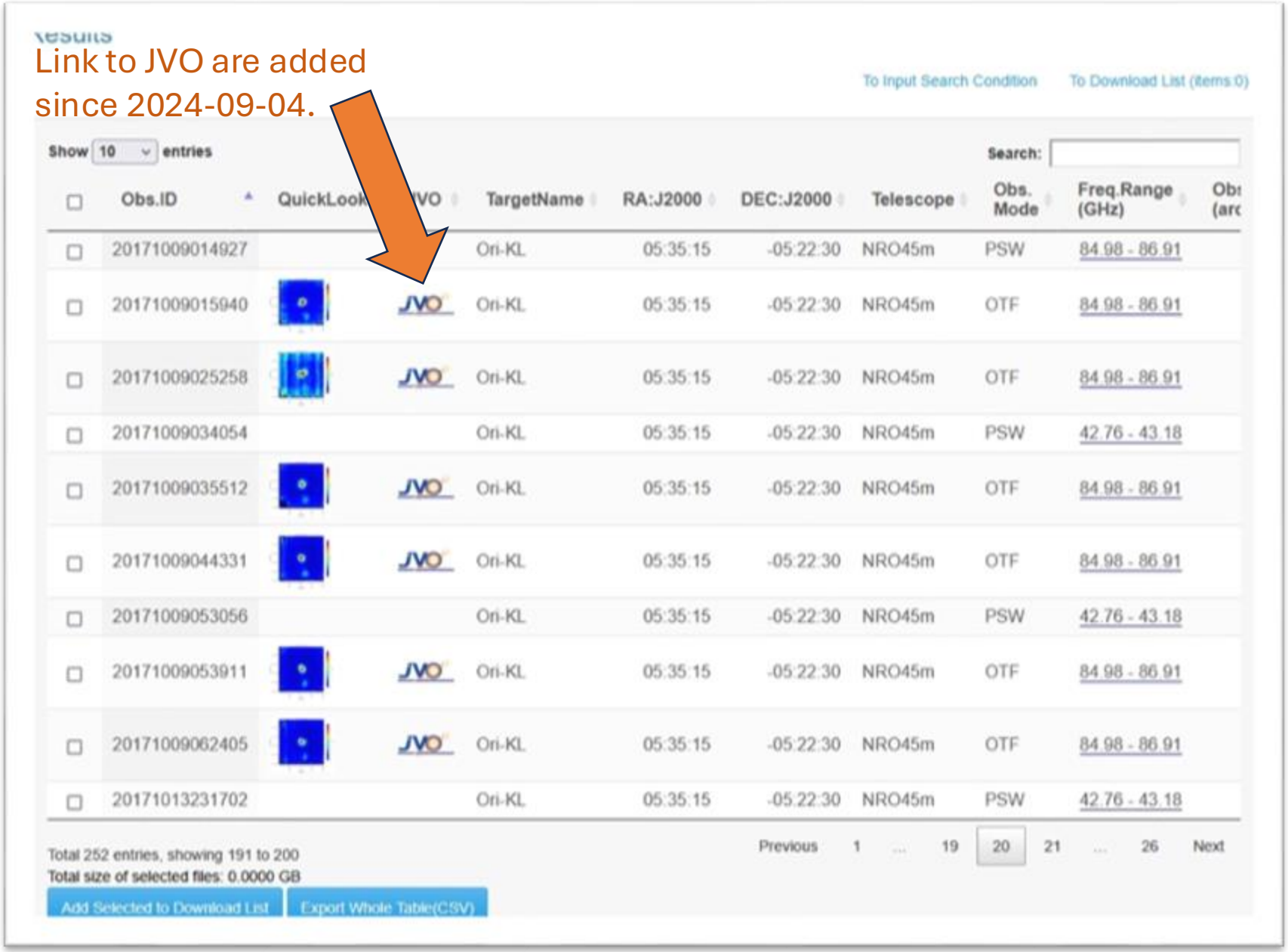
Pipeline Version	2020.1.0.36
CASA Version	6.1.1.10 (environment)
Pipeline Start	2021-07-09 10:43:10 UTC
Execution Duration	1:14:56

Observation Summary

Measurement Set	Receivers	Num Antennas	Time (UTC) Start	Time (UTC) End	On Target	Baseline Length Min	Max	RMS	Size	Merge2 Version
Scheduling Block ID: N/A										
Session: default										
nro-20171009JST015940-v200811.ms (s2-1.html?sidebar=sidebar_nro_20171009JST015940_v200811_ms)	Unknown	4	2017-10-08 17:00:49	2017-10-08 17:44:32	0.67:50	0.0 m	0.0 m	0.0 m	1.2 GB	2020/08/11.00.11.19

Nobeyama-45m / ASTE Science Data Archive (Search Results)

Link to JVO are added since 2024-09-04.



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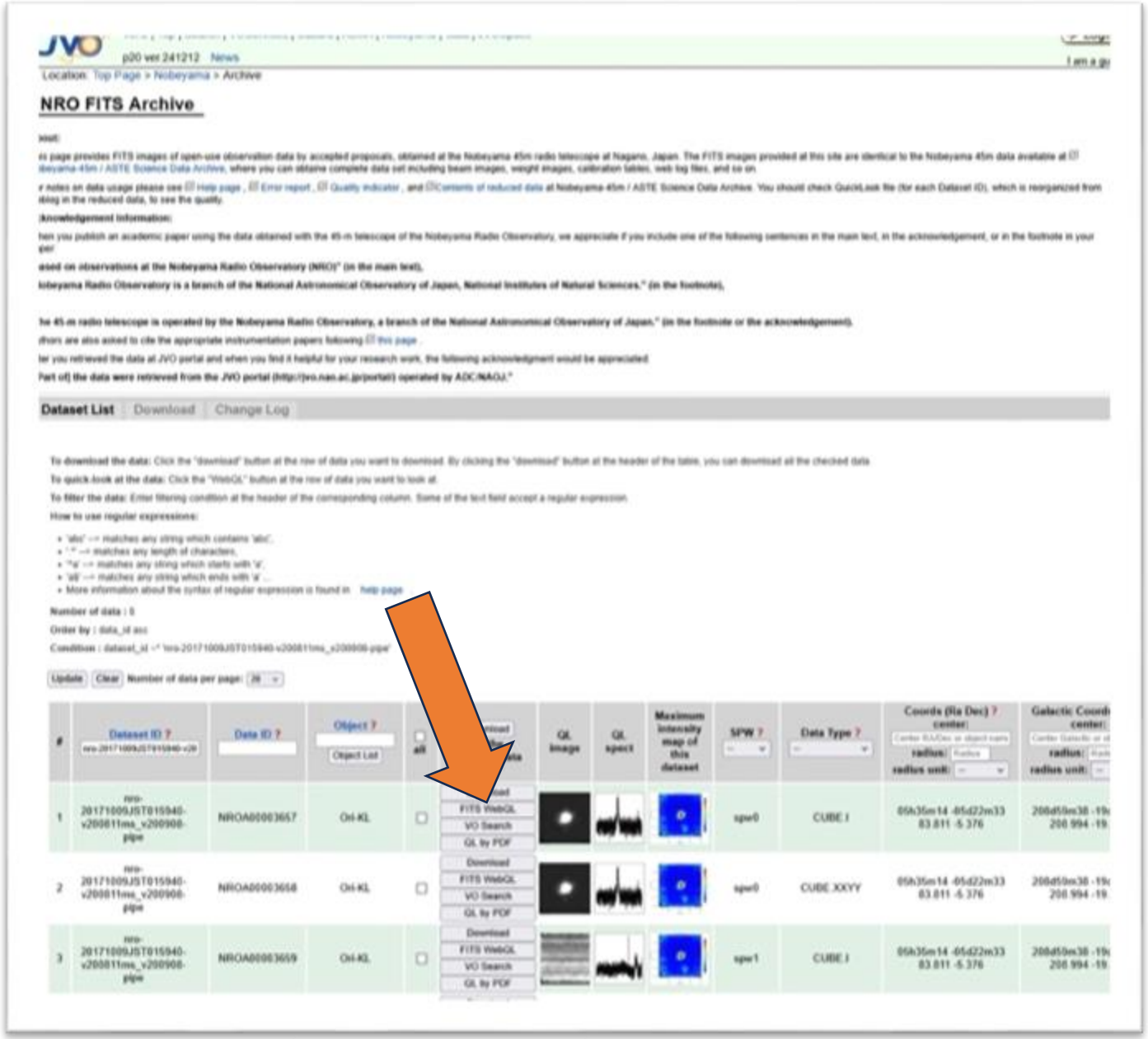
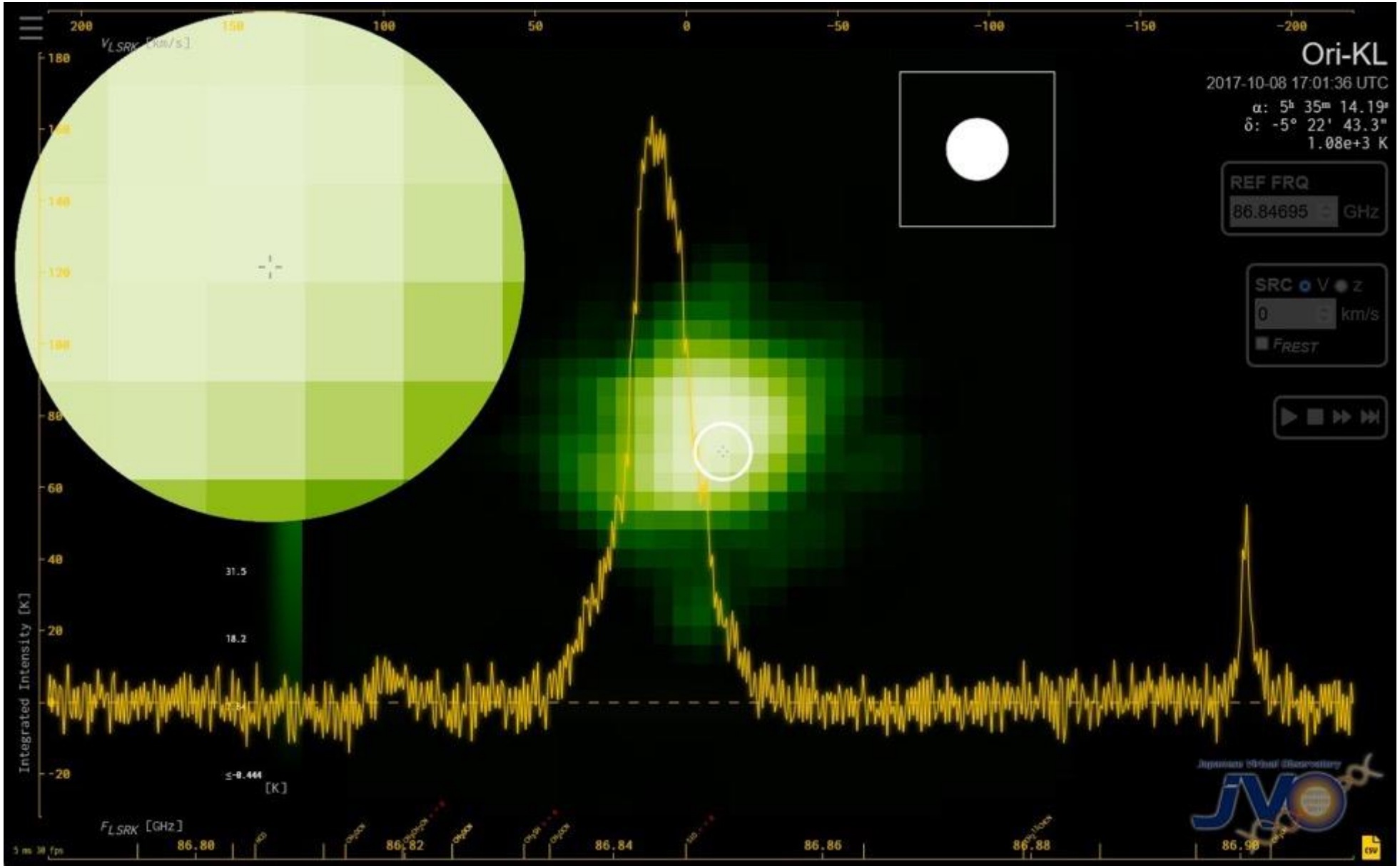
JVO


p20 ver 241212 News
Location: Top Page > Nobeyama > Archive
NRO FITS Archive
Dataset List
Download
Change Log
FITS WebGL
VO Search
QL by PDF

JVO (FITS WebQL)



FY2025 Activities

- Registration of data newly observed by the Nobeyama 45-m Telescope (regular activity)
- Download function for Nobeyama 45-m Telescope observation log (from 2013 to present) is being implementing. (coming soon)

- Updating for supporting ASTE New Spectrometer (XFFTS) & MS2 Format (on-going)
  - Heterodyne spectroscopic data from 2023 onwards

- Update of Helpdesk (in preparation)

Summary & Prospects

Messages to Users

- Please use and publish papers.
- Please feel free to contact us with any requests.

Contact Points

- Questions, requests, etc.
  - → Nobeyama45 Discord
  - → E-mail to / Direct contact to A. Nishimura, T. Minamidani, and/or G. Kosugi

Future Prospects

- Toward the ”REAL” Radio Archive?, which includes VERA? Other radio telescopes operated by universities??
- Seamless data search among other archives??
- Your inputs are essential.

History / Major Updates

- 2017-08-21
  - Opened as "Nobeyama Science Data Archive"
- 2019-07-26
  - Expanded into "Nobeyama-45m/ASTE Science Data Archive"
- 2021-04-12
  - Started releasing MS2 data and pipeline-processed calibrated products (FITS cube) for Nobeyama 45m.
- 2024-09-04
  - Added links to JVO site for reduced data (processed and calibrated FITS cubes) in the search result table.

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Q&As

- Data Reduction of Downloaded ASTE MS2 Data
  - The Pipeline for Nobeyama may not be used without modifications at this moment, because data structure is different from that of Nobeyama 45-m.
  - Pipeline for ASTE is not available yet, but some support for reduction can be provided from the ASTE Team.
  - Contribution from/collaboration with users is appreciated very much.

- Available archived ASTE Data
  - Since 2019-06-19.
  - The old data before 2019-06-19 are not available on the Archive.