

# Where are my (EVLA) data?



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Atacama Large Millimeter/submillimeter Array  
Expanded Very Large Array  
Robert C. Byrd Green Bank Telescope  
Very Long Baseline Array



# The archive tool

<https://archive.nrao.edu/>



National Radio Astronomy Observatory

[NRAO Home](#) > [Archive Home](#)

Archive login moved to query pages.

#### **NRAO Archive:**

- Archive Description**
- Archive Policy**
- Archive Status**
- Archive Tools**
- Future Goals**

#### **NRAO Supported Catalogs/Surveys:**

- VLA Pipeline Images**
- 2cm Survey**
- 4MASS**
- FIRST**
- GRB Project**
- MOJAVE**
- NVSS**
- SIRTF First Look**

#### **Other Surveys:**

- ADS**
- ICRF-Source List**
- MAST**
- NCSA-ADIL**
- NED**
- NSSDC**

## The NRAO Data Archive System

Welcome to the NRAO Data Archive System. Complete instructions and documentation on the Data Archive System can be found to the left under NRAO Archive.

Log in to your NRAO User Account and your proprietary data in the archive will automatically be unlocked. This is true only for observations that were proposed using the new Proposal Tool. You may log in using the My NRAO Account banner at the top of the Basic and Advanced Search Pages.

### Downloading Your Data.

You may use this tool to select and retrieve archived data from the EVLA, VLA and VLBA. Note that during the proprietary period, downloading will require an access key, obtained from the NRAO Data Analysts' office in Socorro, [analysts](#).

[Basic Data Retrieval Tool](#)

### New Archive Search Tool

This tool provides more advanced query parameters for searching the EVLA, VLA and VLBA archives. Please see Archive Status for details on completeness of the archive contents and send feedback to the NRAO DAS contact.

[Advanced Query Tool](#)

### Image Archive Tool

A collection of images produced by VLA and VLBA observations are available for browsing and downloads. The image collection consists of results from surveys and the VLA Imaging Pipeline Project. There are approximately 180,000 images in the archive.

[Image Archive Tool](#)

### VLBA Observation List

The VLBA maintains a flat file listing of all radio sources that have been observed by the VLBA and some details of the observations. Click here to display the list.

[VLBA Obs. List](#)



# The archive: Basic data retrieval tool

In order to unlock your proprietary data and have access to other archive tools, you must log in to your My.NRAO account.

## NRAO Science Data Archive : Basic Search Tool

EVLA, VLA and VLBA Data Products

Instructions on how to download your data : [click here](#)

[Project \(Proposal\) Code](#)  The NRAO proposal or observing project id.

[Observer :](#)  The observer's name. Case sensitive, partial string searches best.

[Telescope](#)  You may restrict the search to a single telescope.

[Observe Start Date :](#)  Format : yyyy-MMM-dd or yyyy-MMM-dd hh:mm:ss

[Observe Stop Date :](#)  Format : yyyy-MMM-dd or yyyy-MMM-dd hh:mm:ss

### Query Control Parameters :

[Enter Locked Project Access Key :](#)  Unique keywords may be used to unlock proprietary data from individual observing projects. Contact the [NRAO Data Analysts](#) for project access keys.

[Query Returns :](#)  Select 'Download Archive Files' to proceed to the download page, the other options are for browsing.

Submit Query

Clear Form

Please direct feedback and/or questions concerning this page and its associated search engine to [NRAO DAS contact](#).

Version 5.8.6



# The archive tool

- For each observing session, the archive tool allows the observer to view:
  - The logs
  - The scans
  - The SDM-BDF set (listing of the sdm and bdf files)
  - Any data quality issues.

Archive File	Status	Project	Seg	Project Data Starts	Project Data Stops	File Size	Telescope: config:sub"	Bands	Format	Type	DQ	View Scans	Logs etc.
<input type="checkbox"/> 11A-291.sb4911125.eb4924302.55782.00136674769	locked	11A-291	x	11-Aug-09 00:02:01	11-Aug-09 01:01:45	42.46GB	EVLA:A:0	L	<a href="#">SDMset</a>	raw	OK	<a href="#">Scans</a>	<a href="#">Logs</a>
<input type="checkbox"/> 11A-291.sb4911125.eb4944094.55784.99251239583	locked	11A-291	x	11-Aug-11 23:50:07	11-Aug-13 02:14:44	30.29GB	EVLA:A:0	L	<a href="#">SDMset</a>	raw	OK	<a href="#">Scans</a>	<a href="#">Logs</a>
<input type="checkbox"/> 11A-291.sb4910900.eb4947827.55787.6933925	locked	11A-291	x	11-Aug-14 16:39:27	11-Aug-14 18:39:07	78.96GB	EVLA:A:0	L	<a href="#">SDMset</a>	raw	info	<a href="#">Scans</a>	<a href="#">Logs</a>

# Checking the data in the archive tool

## The scan listing:

Project	Scan :sub	Source	Cal Code	Start Time	Stop Time	Sys	TOS (sec)	Intrvl (sec)	Scan Intent	Spect Win	Obs_Freq (MHz)	Bandw (MHz)	Polar	Spect chans	Corr Mode	Tele:config :sub:nants	RA(J2000)	DEC(J2000)	Archive File
11A-291	1:1	J1120+1420		11-Aug-09 00:02:01	11-Aug-09 00:02:54	UTC	53.5	1	OBS	CD_0:SW_0 CD_0:SW_1 CD_0:SW_2 CD_0:SW_3 CD_0:SW_4 CD_0:SW_5 CD_0:SW_6 CD_0:SW_7 CD_0:SW_8 CD_0:SW_9 CD_0:SW_10 CD_0:SW_11 CD_0:SW_12 CD_0:SW_13 CD_0:SW_14 CD_0:SW_15	998.000000 1062.000000 1126.000000 1190.000000 1254.000000 1318.000000 1382.000000 1446.000000 1506.000000 1570.000000 1634.000000 1698.000000 1762.000000 1826.000000 1890.000000 1954.000000	64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000	RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL	128 128 128 128 128 128 128 128 128 128 128 128 128 128 128 128	WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR	EVLA:A:1:27	11h20m27.807s	+14d20'54.99"	11A-291.sb4911125.eb4924302.55782.00136674769 uid____evla_bdf_1312848123251.bdf
11A-291	2:1	J1120+1420		11-Aug-09 00:02:54	11-Aug-09 00:03:54	UTC	59.8	1	CAL	CD_0:SW_0 CD_0:SW_1 CD_0:SW_2 CD_0:SW_3 CD_0:SW_4 CD_0:SW_5 CD_0:SW_6 CD_0:SW_7 CD_0:SW_8 CD_0:SW_9 CD_0:SW_10 CD_0:SW_11 CD_0:SW_12 CD_0:SW_13 CD_0:SW_14 CD_0:SW_15	998.000000 1062.000000 1126.000000 1190.000000 1254.000000 1318.000000 1382.000000 1446.000000 1506.000000 1570.000000 1634.000000 1698.000000 1762.000000 1826.000000 1890.000000 1954.000000	64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000	RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL	128 128 128 128 128 128 128 128 128 128 128 128 128 128 128 128	WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR	EVLA:A:1:27	11h20m27.807s	+14d20'54.99"	11A-291.sb4911125.eb4924302.55782.00136674769 uid____evla_bdf_1312848123257.bdf
11A-291	3:1	J1120+1420		11-Aug-09 00:03:54	11-Aug-09 00:05:24	UTC	89.8	1	CAL	CD_0:SW_0 CD_0:SW_1 CD_0:SW_2 CD_0:SW_3 CD_0:SW_4 CD_0:SW_5 CD_0:SW_6 CD_0:SW_7 CD_0:SW_8 CD_0:SW_9 CD_0:SW_10 CD_0:SW_11 CD_0:SW_12 CD_0:SW_13 CD_0:SW_14 CD_0:SW_15	998.000000 1062.000000 1126.000000 1190.000000 1254.000000 1318.000000 1382.000000 1446.000000 1506.000000 1570.000000 1634.000000 1698.000000 1762.000000 1826.000000 1890.000000 1954.000000	64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000 64.000	RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL RR,LL	128 128 128 128 128 128 128 128 128 128 128 128 128 128 128 128	WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR WIDR	EVLA:A:1:27	11h20m27.807s	+14d20'54.99"	11A-291.sb4911125.eb4924302.55782.00136674769 uid____evla_bdf_1312848174961.bdf

# Loading The Data: The archive tool

## EVLA - WIDAR datasets

- Data formats:
  - SDM-BDF
  - **CASA MS**
  - **AIPS FITS**

Choose download data format

CASA MS  
 AIPS FITS

:  SDM-BDF dataset (all files)  
 SDM tables only (no visibilities)

Create tar file:  Create MS or SDM tar file

Apply telescope flags:  Apply flags generated during observing

Choose online averaging for  
CASA MS or AIPS FITS:  Spectral Averaging (chans)  
 Time Averaging (secs)

Select scans for MS or AIPS  
FITS:

Auxiliary SDM Tables:  Include verbatim SDM tables in MS

# Loading The Data: The archive tool

## EVLA - WIDAR datasets

Choose download data format

CASA MS  
 AIPS FITS  
:  SDM-BDF dataset (all files)  
 SDM tables only (no visibilities)

Create tar file :  Create MS or SDM tar file

Apply telescope flags :  Apply flags generated during observing

Choose online averaging for  
CASA MS or AIPS FITS :  Spectral Averaging (chans)  
 Time Averaging (secs)

Select scans for MS or AIPS  
FITS :

Auxiliary SDM Tables :  Include verbatim SDM tables in MS

- If the apply flags option is not checked, the flags are written to a FLAG\_CMD MS table. They can later be applied by using the CASA task *flagcmd*.
- If checked, the flags are applied on the data.

- We recommend the application of the online flags. They can be un-applied in CASA if need be.
- For UVFITS, the flags need to be applied, as there will not be a FG table in the resulting file.



# Loading The Data: The archive tool

## EVLA - WIDAR datasets

Choose download data format

CASA MS  
 AIPS FITS  
 SDM-BDF dataset (all files)  
 SDM tables only (no visibilities)

Create tar file :  Create MS or SDM tar file

Apply telescope flags :  Apply flags generated during observing

Choose online averaging for  
CASA MS or AIPS FITS :

x1	Spectral Averaging (chans)
0s	Time Averaging (secs)

Select scans for MS or AIPS  
FITS :

ALL

Auxiliary SDM Tables :  Include verbatim SDM tables in MS

- The tool allows the observer to average the data in time and/or in frequency.
- It also allows the selection of scans.



# Loading The Data: The archive tool

## EVLA - WIDAR datasets

If applying online averaging:

1. Make sure to apply the flags.
2. Averaging in frequency is discouraged as delays can cause coherence loss. We recommend reviewing the data before frequency averaging.
3. Averaging in time should take into account the type of science you would like to do. See the EVLA Observational Status Summary for amplitude loss due to time averaging.

Choose download data format

CASA MS  
 AIPS FITS

:  SDM-BDF dataset (all files)  
 SDM tables only (no visibilities)

Create tar file :  Create MS or SDM tar file

Apply telescope flags :  Apply flags generated during observing

Choose online averaging for  
CASA MS or AIPS FITS :  Spectral Averaging (chans)  
 Time Averaging (secs)

Select scans for MS or AIPS  
FITS :

Auxiliary SDM Tables :  Include verbatim SDM tables in MS

# Loading The Data: The archive tool

EVLA - WIDAR datasets

Choose download data format

CASA MS  
 AIPS FITS  
 SDM-BDF dataset (all files)  
 SDM tables only (no visibilities)

Create tar file :  Create MS or SDM tar file

Apply telescope flags :  Apply flags generated during observing

Choose online averaging for  
CASA MS or AIPS FITS :  Spectral Averaging (chans)  
 Time Averaging (secs)

Select scans for MS or AIPS  
FITS :

Auxiliary SDM Tables :  Include verbatim SDM tables in MS

- A MS is a directory. For downloading through the internet, make sure to ask for a tar file.

# Loading The Data: The archive tool

## *Requesting the data on a hard disk*

- NRAO offers a data shipping service using hard disks:
  - when the size of the data is large, or
  - when the user does not have fast enough internet connection.
- This disk-ordering process is done through the archive tool.
- The data will be saved on 1.8 TB disks and shipped to the observer.
- Disk shipment information and policies are posted at
  - <https://archive.nrao.edu/archive/hdshipInfo.html>
  - <https://science.nrao.edu/facilities/evla/data-shipment>