



# Parkes Telescope Data Access

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This document describes the ways in which pulsar data taken by the Parkes radio telescope can be accessed.

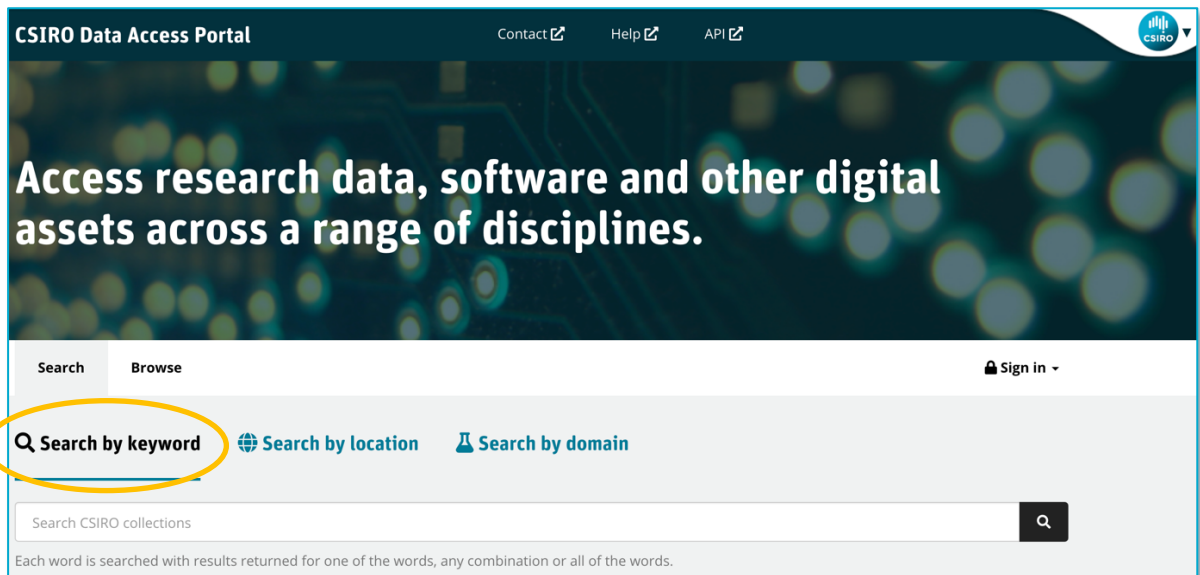
## Pulsar data: Accessing data from CSIRO's Data Access Portal (DAP)

CSIRO's DAP is the most comprehensive archive for Parkes pulsar data available globally, with a volume of ~2 Petabytes and containing observations dating from the early 1990's to today.

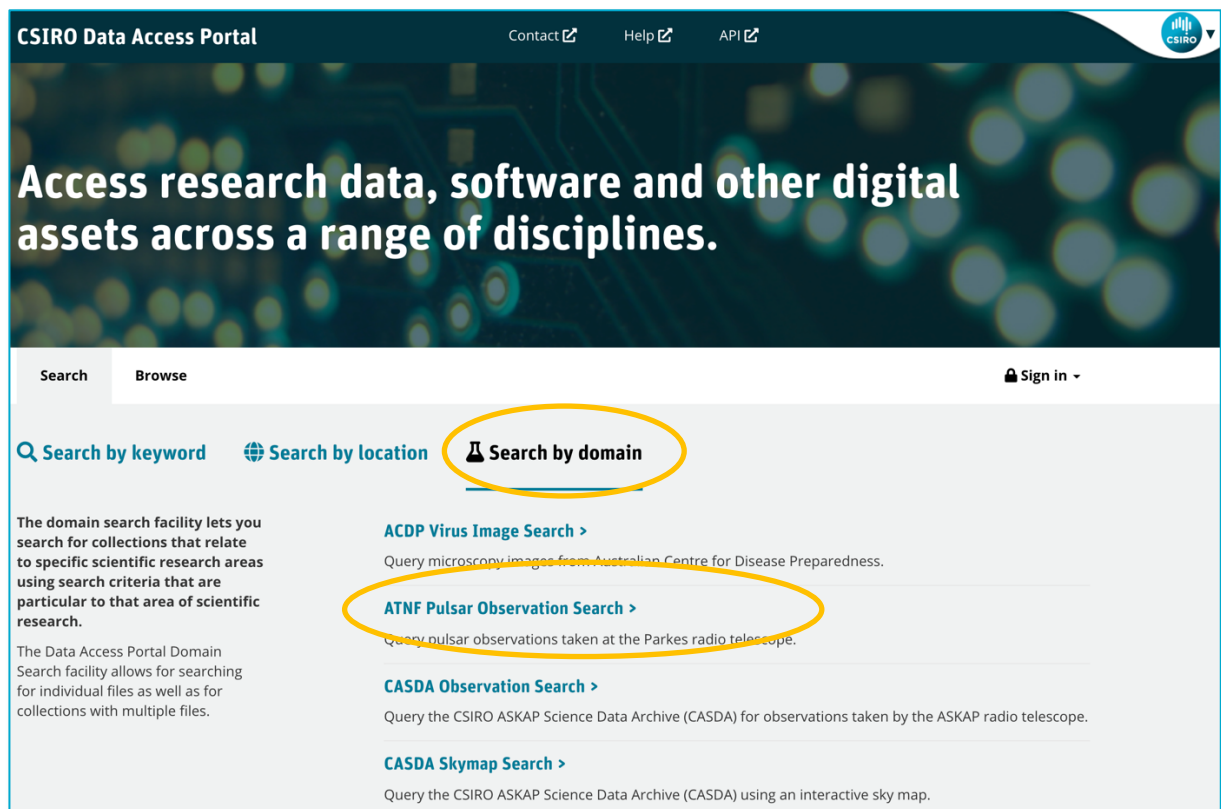
The preferred method for pulsar data access given the large volumes is via a WebDAV end-point. A step-by-step guide on how to access data from a WebDAV end-point is presented here.

### STEP 1: Conduct a search query

- Navigate to <https://data.csiro.au>
- Search for your data either:
  - a) by conducting a keyword search, for example by Project ID:



Or b), by conducting a specific 'ATNF Pulsar Observation Search', for example by source name, position, MJD, backend or filename:



## STEP 2: Request access to a data collection

**Please note: if your data are spread across multiple collections, you currently need to request each collection separately.**

In the following example, the keyword search query for Project ID 'P456' returned a list of 297 collections, and the '2020APRS\_17' collection was selected:

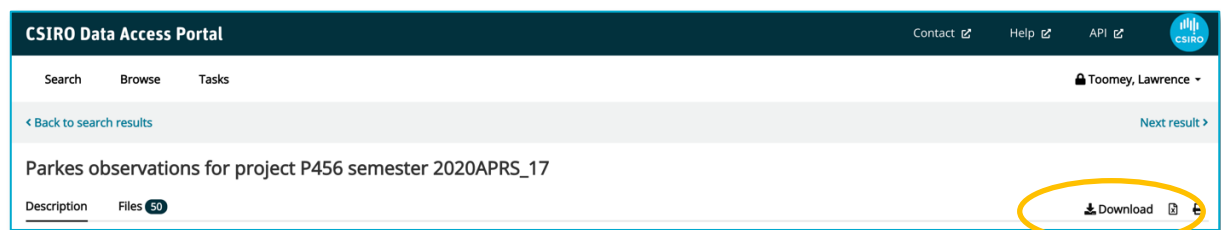
The screenshot shows the CSIRO Data Access Portal search results for the keyword 'P456'. The search bar at the top contains 'P456'. Below the search bar, there are filters for 'Published date' (within last year, month, week, or day) and 'Refine results'. The search results are displayed as a list of collections. The first result, 'Parkes observations for project P456 semester 2020APRS\_17', is highlighted with a yellow circle. This result is a 'Data' collection published on Dec 07, 2020, by George Hobbs, Dick Manchester, John Sarkissian, Matthew Bailes, Ramesh Bhat, Michael Keith, and William Cole. The description of the collection is also visible.

The screenshot shows the details page for the 'Parkes observations for project P456 semester 2020APRS\_17' collection. The page is titled 'Parkes observations for project P456 semester 2020APRS\_17'. It includes a 'Description' tab and a 'Files' tab. The 'Description' tab is active, showing the collection's details. The 'About this collection' section lists the authors: George Hobbs, Dick Manchester, John Sarkissian, Matthew Bailes, Ramesh Bhat, Michael Keith, William Coles, Willem van Straten, Chris Russell, Stefan Osłowski, Matthew Kerr, James Dempsey, Ryan Shannon, Jingbo Wang, Jane Kaczmarek, Xingjiang Zhu, Shi Dai, Daniel John Reardon, Renee Spiewak, Lei Zhang, Songbo Zhang, and Aditya Parthasarathy. The 'Collection description' section provides a detailed overview of the Parkes Pulsar Timing Array (PPTA) project. The 'Data' section shows the collection is published on 07 Dec 2020, with contact information for CSIRO Enquiries. The 'Licence' section indicates the collection is licensed under Creative Commons Attribution 4.0 International Licence. The 'Permalink' section provides a link to the collection: <https://doi.org/10.25919/5kgz-8971>.

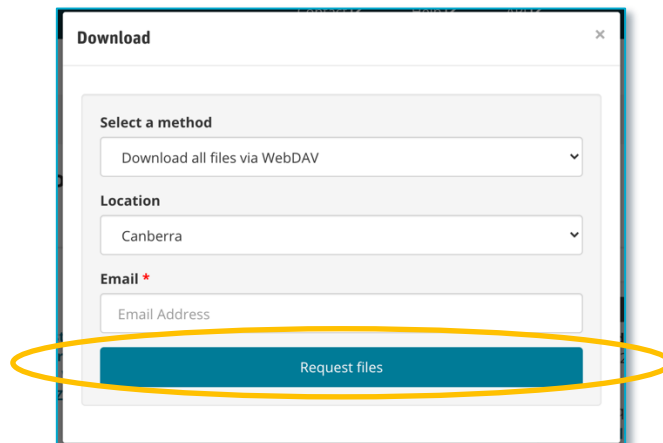
- Log in with your OPAL credentials in order to request the collection:



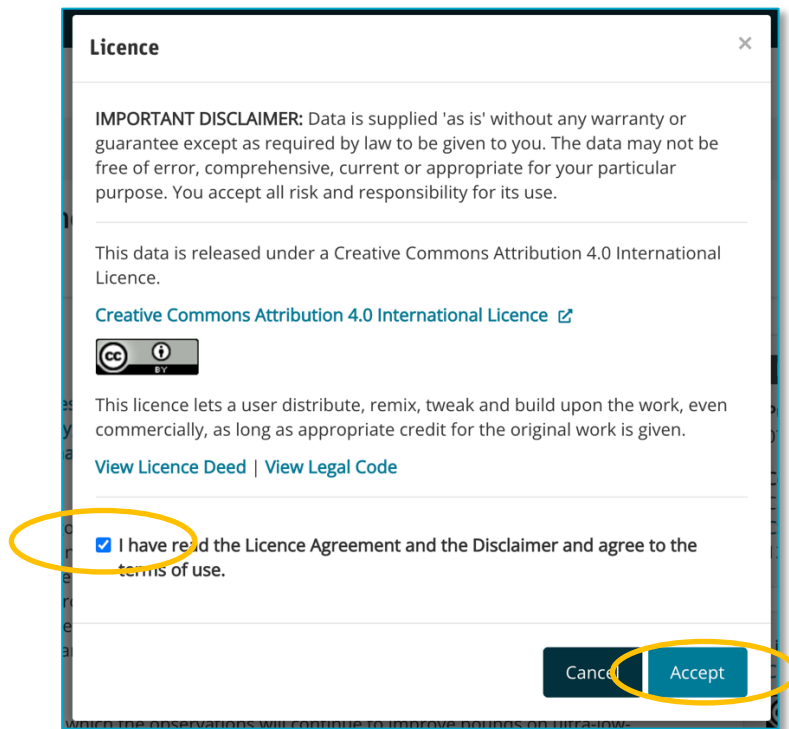
- Click 'Download' and choose from a list of download methods:



- Select 'Download all files via WebDAV', enter your email address and click 'Request files':



- Agree to the licence conditions:


A dialog box titled "Licence" with a close button (X) in the top right corner. The text inside reads: "IMPORTANT DISCLAIMER: Data is supplied 'as is' without any warranty or guarantee except as required by law to be given to you. The data may not be free of error, comprehensive, current or appropriate for your particular purpose. You accept all risk and responsibility for its use." Below this, it says "This data is released under a Creative Commons Attribution 4.0 International Licence." and provides a link "Creative Commons Attribution 4.0 International Licence" with an external link icon. There is a Creative Commons BY logo. The text continues: "This licence lets a user distribute, remix, tweak and build upon the work, even commercially, as long as appropriate credit for the original work is given." and provides links "View Licence Deed" and "View Legal Code". At the bottom, there is a checkbox with a blue checkmark and the text "I have read the Licence Agreement and the Disclaimer and agree to the terms of use." The checkbox and its text are circled in yellow. At the bottom right, there are two buttons: "Cancel" and "Accept", with the "Accept" button also circled in yellow.

**Licence** [X]

**IMPORTANT DISCLAIMER:** Data is supplied 'as is' without any warranty or guarantee except as required by law to be given to you. The data may not be free of error, comprehensive, current or appropriate for your particular purpose. You accept all risk and responsibility for its use.

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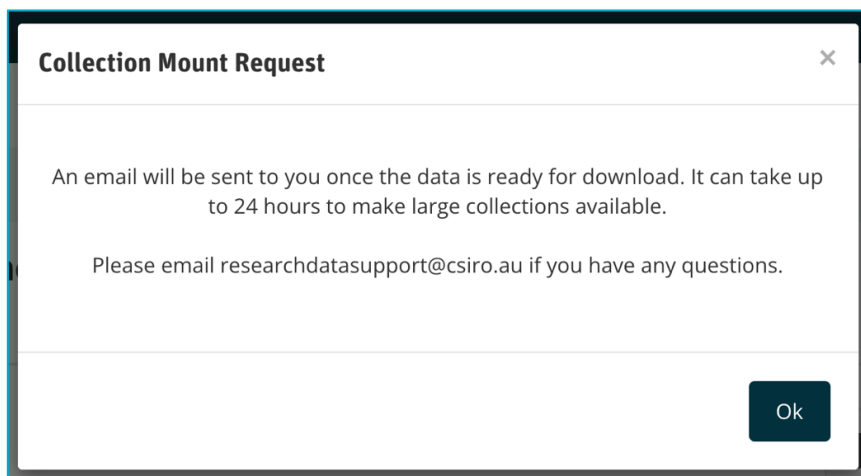
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[Cancel](#) [Accept](#)

On receipt of the request you will see this pop-up dialogue:

A dialog box titled "Collection Mount Request" with a close button (X) in the top right corner. The text inside reads: "An email will be sent to you once the data is ready for download. It can take up to 24 hours to make large collections available." Below this, it says "Please email researchdatasupport@csiro.au if you have any questions." At the bottom right, there is an "Ok" button.

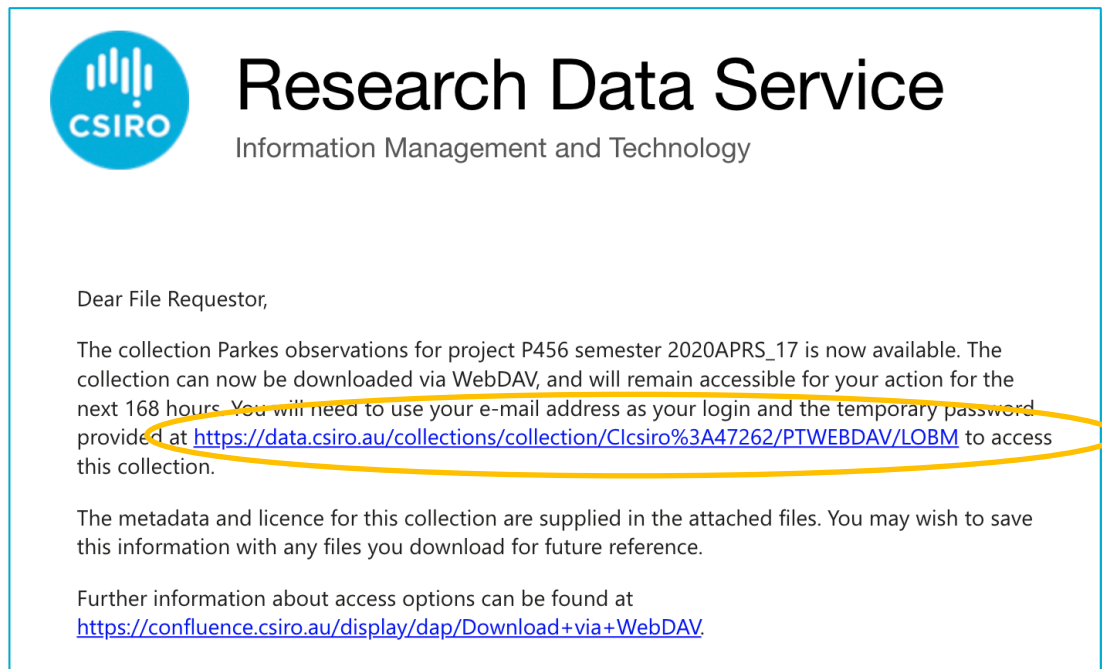
**Collection Mount Request** [X]

An email will be sent to you once the data is ready for download. It can take up to 24 hours to make large collections available.

Please email [researchdatasupport@csiro.au](mailto:researchdatasupport@csiro.au) if you have any questions.

[Ok](#)

- You will receive a confirmation email similar to the one below once the collection becomes available:

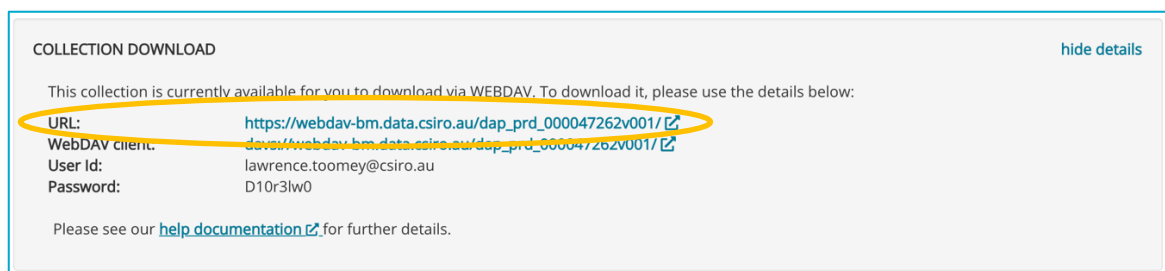


### STEP 3: Download your data

- Click on the link in the confirmation email above and you should be taken to a page where you can receive your credentials, for example



- If you wish to download one or two files, click on the URL and enter your credentials:



- For bulk download of large collections via WebDAV, please contact [Lawrence.Toomey@csiro.au](mailto:Lawrence.Toomey@csiro.au) for the *get-dap-collection.sh* script – this is the preferred option for data retrieval as explained in ‘ATNF Computer Account Holders’ below.

## ATNF Computer Account Holders

An ATNF computer account holder can download data using the *get-dap-collection.sh* script to booked disk space on an ATNF machine.

- Log on to host *venice*, then a processing machine (e.g. *cetus*)
- Check for booked disk space with:

```
bookings -u your_ident
```

- To request disk space, please email [bookings@atnf.csiro.au](mailto:bookings@atnf.csiro.au) with your requirements
- If you wish to use your NEXUS credentials, configure your `~/.netrc` file, adding the following lines where `<pass>` is your NEXUS password:

```
machine webdav-cl.data.csiro.au login <your_ident> password <pass>
machine webdav-bm.data.csiro.au login <your_ident> password <pass>
```

- Set the permissions correctly on the `~/.netrc` file:

```
chmod 600 ~/.netrc
```

- Run the download script with the following arguments if you requested a collection with your NEXUS credentials:

```
get-dap-collection.sh --url https://webdav-cl.data.csiro.au/dap_prd_NNNNNNNNNvNNN --user your_ident --destdir /path/to/your_data_destination
```

Alternatively, run the following command if you requested a collection with your OPAL credentials, where ‘`your_email_address`’ is as stated on the DAP confirmation email:

```
get-dap-collection.sh --url https://webdav-cl.data.csiro.au/dap_prd_NNNNNNNNNvNNN --user your_email_address --destdir /path/to/your_data_destination
```

You will be prompted for the password provided in the DAP confirmation email.

An ATNF computer account holder can also access a selection of data available from the ATNF pulsar data archive.

- Available archives are:

\$CASPSR\*

\$DFB\*

\$UWL\*

- Processing can be conducted directly on ATNF machines, or data can be copied to your institution

## Need help with data access?

Please contact [Lawrence.Toomey@csiro.au](mailto:Lawrence.Toomey@csiro.au) for further information.