



Parkes Telescope Data Access

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

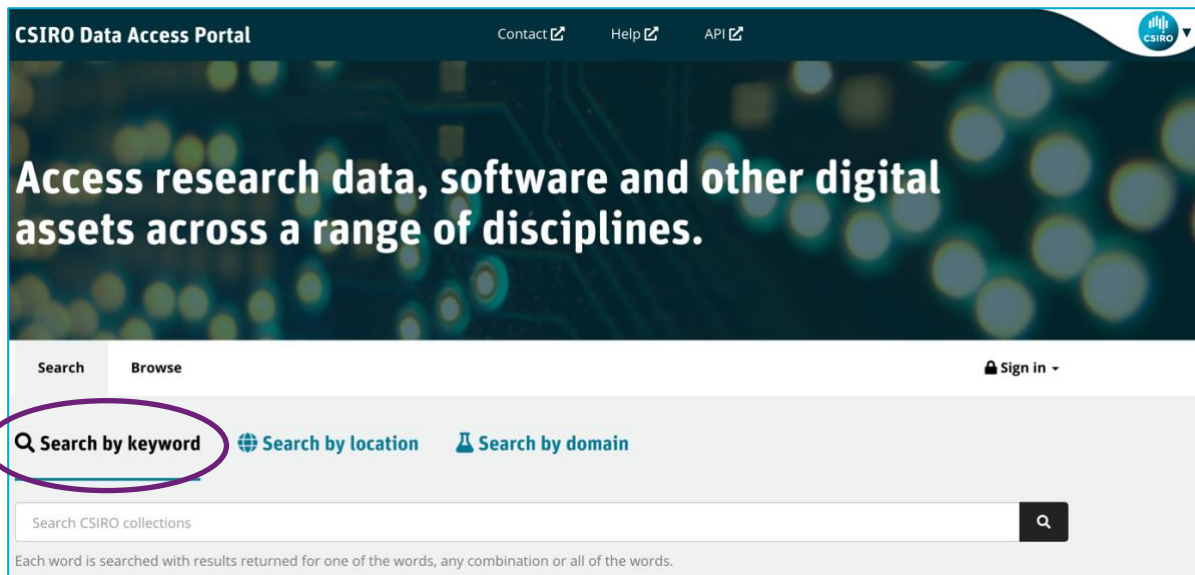
Pulsar data: Accessing data from CSIRO's Data Access Portal (DAP)

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.

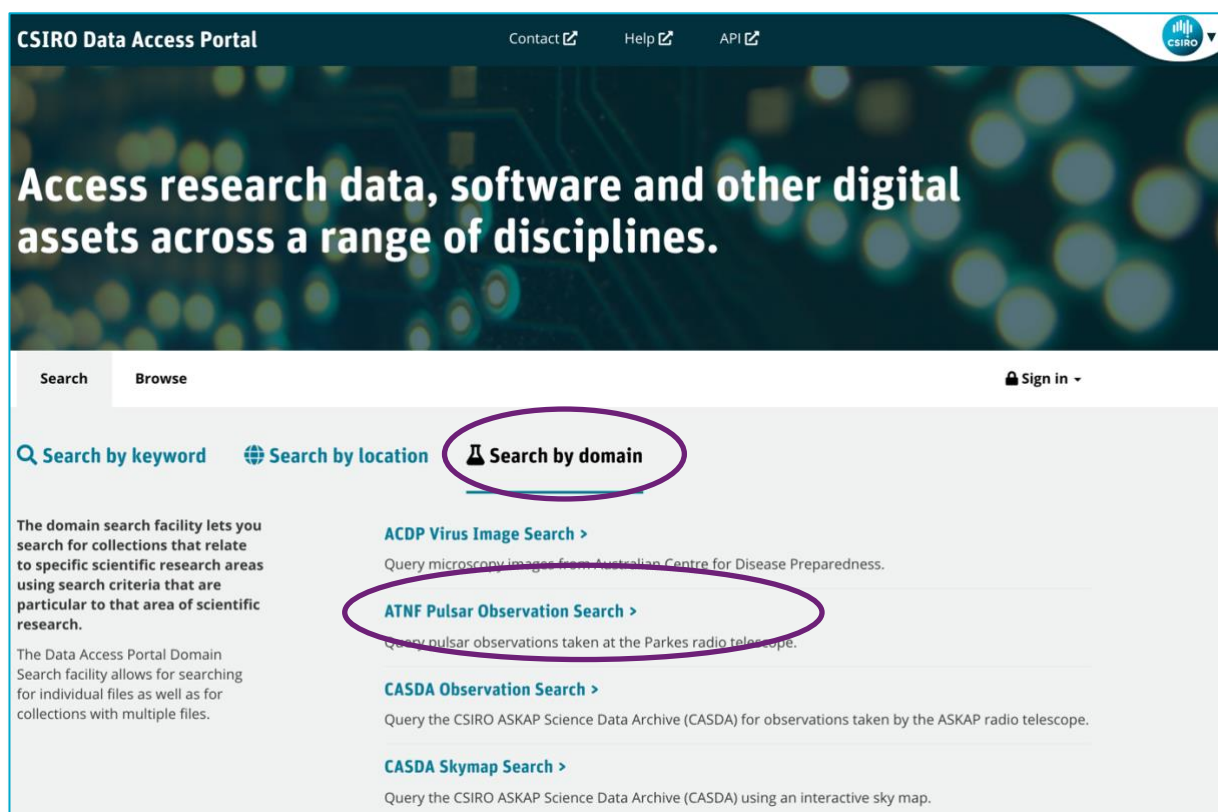
Data can be accessed by 2 main end-points: through a web browser for small requests or via a WebDAV mount point for large volumes. Follow the step-by-step guide below on how to access data using both the browser and WebDAV end-points.

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:



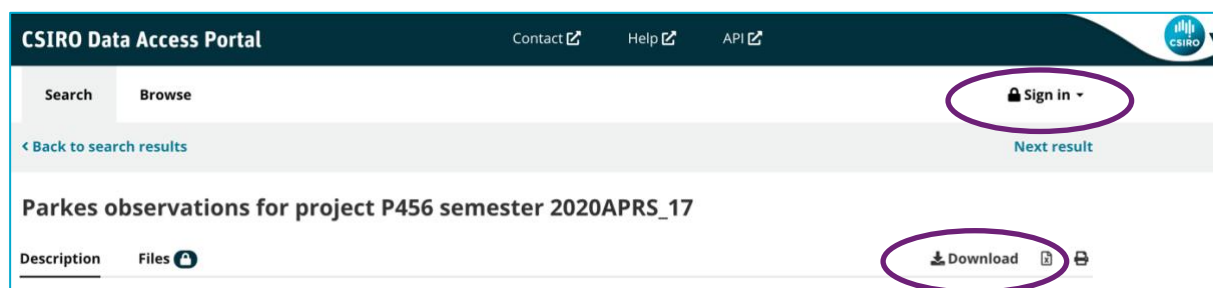
STEP 2: Request access to a collection

- 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' with options: 'within last year (74)', 'within last month (5)', 'within last week (1)', and 'within last day (0)'. The search results are displayed on page 1 of 297 results, with 25 items per page. The first result is 'Parkes observations for project P456 semester 2020APRS_17', which is circled in purple. The result includes the authors: George Hobbs, Dick Manchester, John Sarkissian, Matthew Bales, Ramesh Bhat, Michael Keith, William Cole... and a brief description of the Parkes Pulsar Timing Array (PPTA) project.

The screenshot shows the CSIRO Data Access Portal collection page for 'Parkes observations for project P456 semester 2020APRS_17'. The page has a 'Description' tab selected. The 'About this collection' section lists the authors: George Hobbs, Dick Manchester, John Sarkissian, Matthew Bales, 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, Aditya Parthasarathy. The 'Collection description' section provides a detailed overview of the Parkes Pulsar Timing Array (PPTA) project. The 'Data' section shows the collection was published on 07 Dec 2020, with contact information for CSIRO Enquiries. The 'Licence' section indicates the collection is under Creative Commons Attribution 4.0 International Licence. The 'Permalink' section provides the DOI: https://doi.org/10.25919/5kgz-8971.

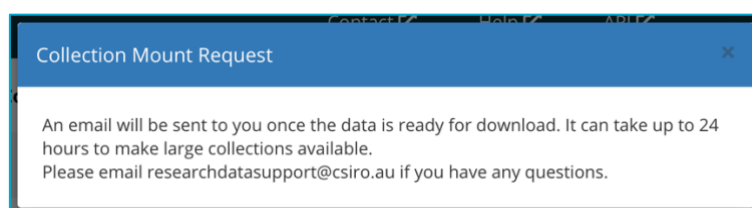
- If the collection is under embargo and you are listed on the OPAL proposal for the Project ID, you will need to log in at this point with your OPAL credentials in order to request the collection:



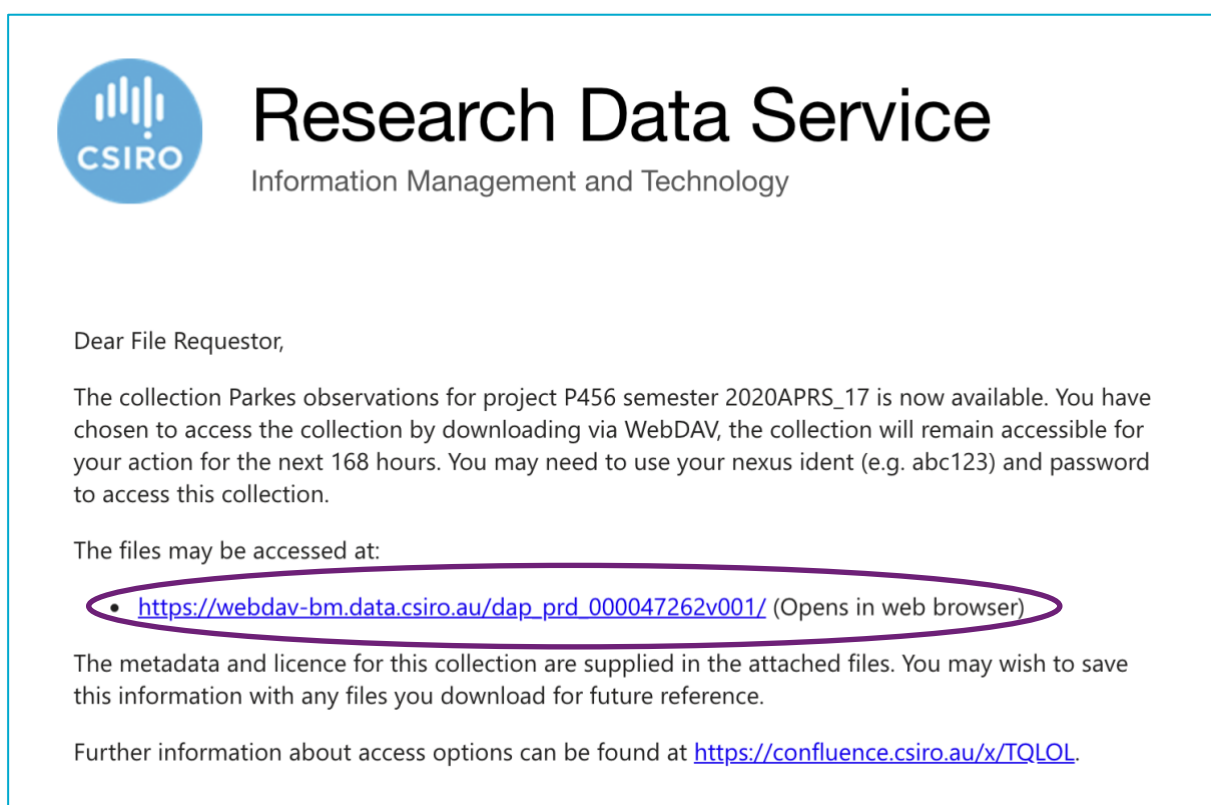
- Click 'Download' and choose from a list of download methods. Select 'Download all files via WebDAV', enter your email address and click 'Request files':

A screenshot of a 'Download' dialog box. It has a title bar 'Download' with a close button. Inside, there's a section 'Select a method' with a dropdown menu showing 'Download all files via WebDAV'. Below that is a 'Location' dropdown menu showing 'Canberra'. Then there's an 'Email' field with a red asterisk and a placeholder 'Email Address'. At the bottom is a blue button labeled 'Request files'.

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



- 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 - you will be prompted for your credentials, and the collection will then open in your web browser - this option is fine for retrieving a small number of files onto a laptop:



- For bulk download of large collections via WebDAV, please contact Lawrence.Toomey@csiro.au for details of a script for automating this process – this is the preferred option for data retrieval

ATNF Computer Account Holders

An ATNF/CASS computer account holder can download data to booked disk space on an ATNF machine.

- Log on to host *venice*, then *newton*
- Check for booked disk space with:

```
bookings -u your_ident
```

- To request disk space, please email bookings@atnf.csiro.au with your requirements
- Run the download script with the following arguments if you requested an embargoed collection and are listed on the OPAL proposal for that collection:

```
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 downloading a publicly available collection (out of embargo):

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

Where 'your_email_address' is as stated on the DAP confirmation email.

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

- Log on to host *venice*
- Available archives are:

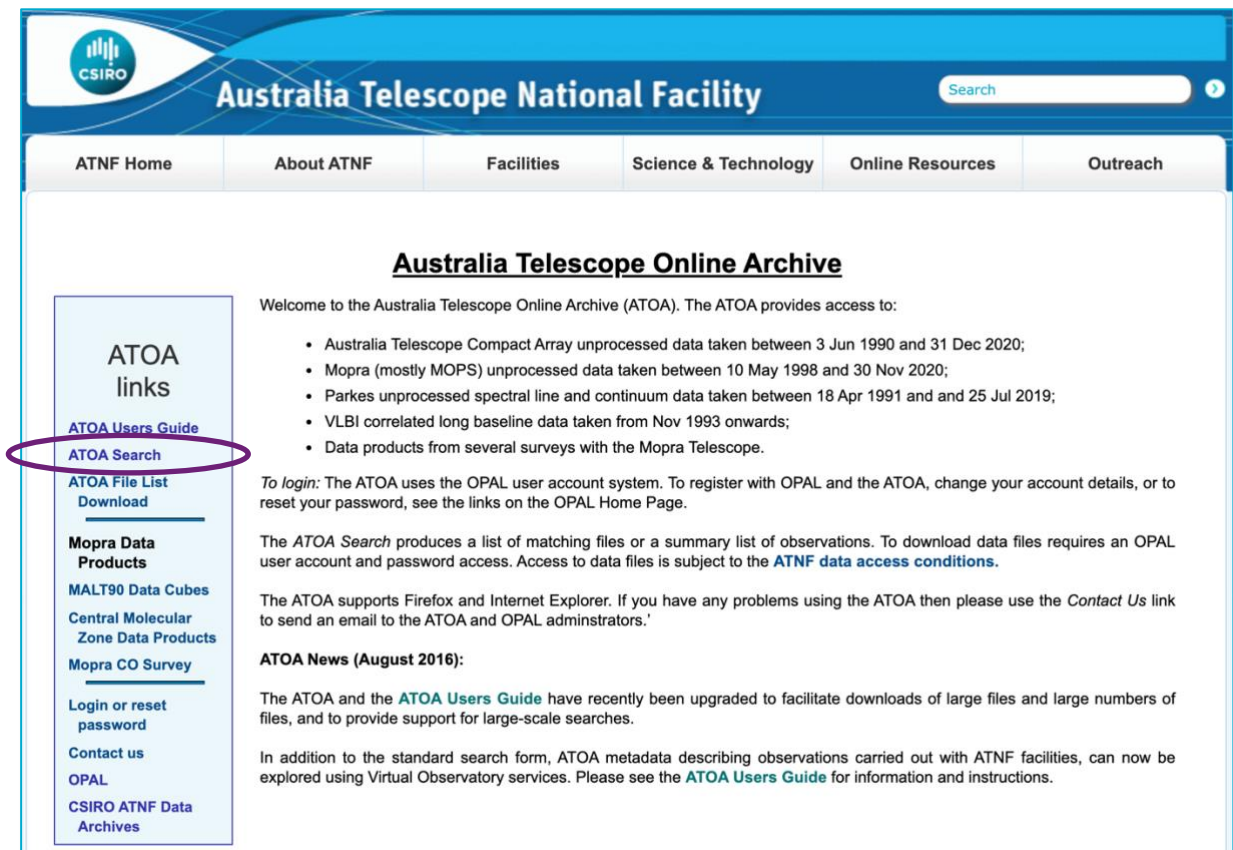
```
$CASPSR*  
$DFB*  
$UWL*
```

- Processing can be conducted directly on the processing host *cetus* or data can be copied to your institution

Spectral line data

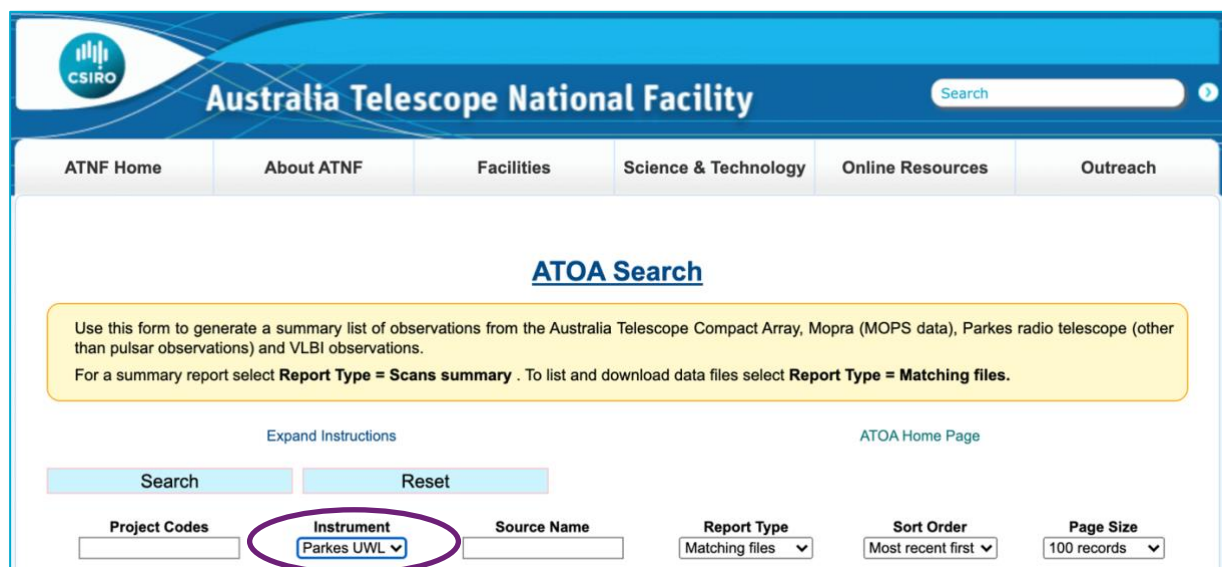
Parkes spectral line data are archived in the Australia Telescope Online Archive (ATOA).

- Navigate to <https://atoa.atnf.csiro.au/> and click on 'ATOA Search':



The screenshot shows the ATNF website with the 'ATOA links' section highlighted. The 'ATOA Search' link is circled in red. The 'ATOA links' section includes links to the ATOA Users Guide, ATOA Search, ATOA File List, and Download. Other links include Mopra Data Products, MALT90 Data Cubes, Central Molecular Zone Data Products, Mopra CO Survey, Login or reset password, Contact us, OPAL, and CSIRO ATNF Data Archives.

- For UWL data, select 'Parkes UWL' from the drop-down 'Instrument' list:



The screenshot shows the ATOA Search form. The 'Instrument' dropdown menu is highlighted with a red circle and set to 'Parkes UWL'. The form includes fields for Project Codes, Source Name, Report Type (set to 'Matching files'), Sort Order (set to 'Most recent first'), and Page Size (set to '100 records'). A yellow box provides instructions: 'Use this form to generate a summary list of observations from the Australia Telescope Compact Array, Mopra (MOPS data), Parkes radio telescope (other than pulsar observations) and VLBI observations. For a summary report select Report Type = Scans summary. To list and download data files select Report Type = Matching files.'

Need help with data access?

Please contact Lawrence.Toomey@csiro.au for further information.