
NRAO Data Vault Available

Users of NRAO telescopes now have more options to find relevant data in the NRAO archive with the release of the [“Data Vault”](#) interfaces. The new features were selected based on nearly 100 survey responses from the user community collected over the past year, coupled with a desire to provide search services from a Google-like text box. Much like Google, a single search box takes search criteria, and then scans through all aspects of the archive’s metadata to find and rank results in the order of relevance. Seasoned users of the NRAO archive can find familiar search forms and functionality through the links half-way down the page (“Basic VLA & VLBA Data Retrieval Tool”, “Advanced Query Tool” and “Image Archive Tool”).

All new search features are available through the Google-like search box prominently located on the front page. To search the NRAO archive, simply submit terms which characterize what you seek (e.g. observer, source, project ...) into the box. The search tool also accepts cone searches in RA and Dec (currently in decimal degrees) with a radius in the format r:0.25, for example, which will search the area of a quarter of a degree around the specified location.

After pressing enter or clicking the button that says “NRAO Archive Search”, you will be taken to the “Search” tab where your results will appear. This can take less than a second for simple searches such as your name or project code, or 20-30 seconds for more complex searches of two or more terms. From the results page, you can:

- Download all available raw datasets from VLA and GBT, and calibrated datasets available through the image search
- View the proposal cover sheet information for most GBT projects and VLA projects since 2006, which includes details about project team members,
- View available Scheduling Blocks from GBT observations conducted between 2004 and early 2007 that are beyond their proprietary period
- See the optical background in the search region as seen using Google Sky
- Run an image search on the same region to see if there are any calibrated datasets or pipeline processed images available

The search uses a filtering mechanism to let you drill down to the specific data you seek. For example, if you search on your last name, you will find all results observed by you. If you click on a project code, you will go to all the matches for that project code that *also match* your name. If you click further on a year, you will go to all the matches for your name and project identifier which *also match* the specified year. To reset the search form, click on the “Data Vault Home” tab at the top of the screen. When you find a dataset that you want to download, click the green download arrow. Files that are selected for download are placed in a holding area that functions like an online “shopping cart” accessible from the “Download” tab.

Tips and tricks:

- To search VLA projects by legacy ID, you may need to put a leading zero in the number (e.g. use AH0862 instead of AH862)
- To search for pulsars, don’t include a space between “PSR” and the rest of the source name (e.g. use PSRJ2145-07 instead of PSR J2145-07)
- The search does not require complete words to match results. A search of “J2145” for example will match J2145-07, PSRJ2145-07, J2145-0750, J2145+11 and J2145+1115. As another example, a search on “vesta” will find observations of the asteroid as well as observations done by Jim Ulvestad, who has an asteroid embedded in his last name.
- [More help files and tutorials](#) will be available; this collection will grow as new features are available through the Data Vault.

Although the new interfaces have been released, work will continue on updates and new additions to the search

capabilities throughout the summer and fall. Some needs are subtle, while others are substantial (for example, VLBA data is not available from the main search box yet, but is available from the “Basic VLA & VLBA Data Retrieval Tool” linked to the main archive page). Feel free to provide feedback on all issues, small and large, that would help us make the archive more useful to you for your research.

We rely on feedback from the user community to continuously improve not only our search capabilities but also our archive content. In addition to the online survey that can be accessed by clicking “Provide Feedback to the Developers” on the archive home page, support is available from the Data Vault helpdesk which can be contacted through datavault@nrao.edu.

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