The ALMA Science Archive

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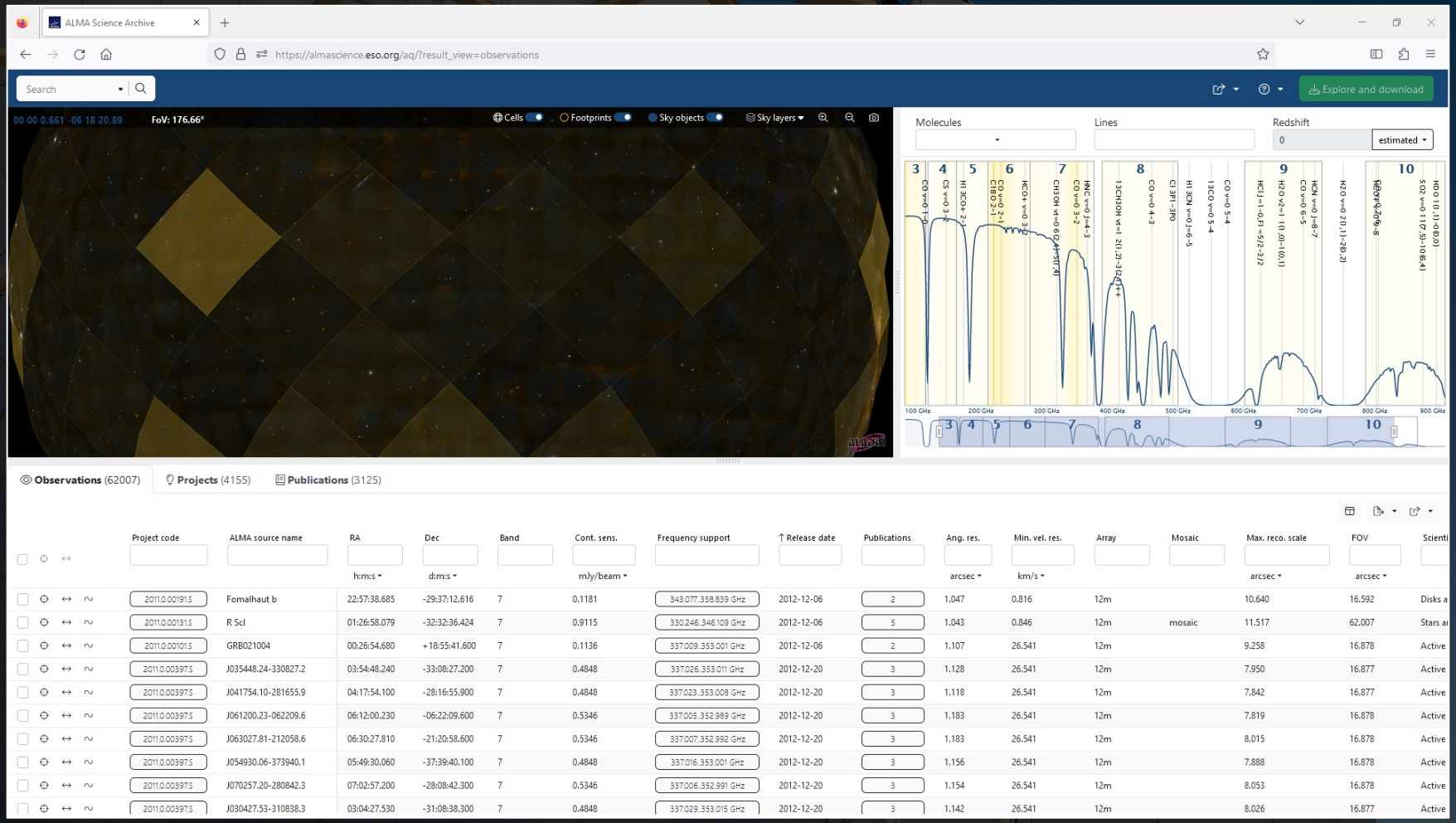
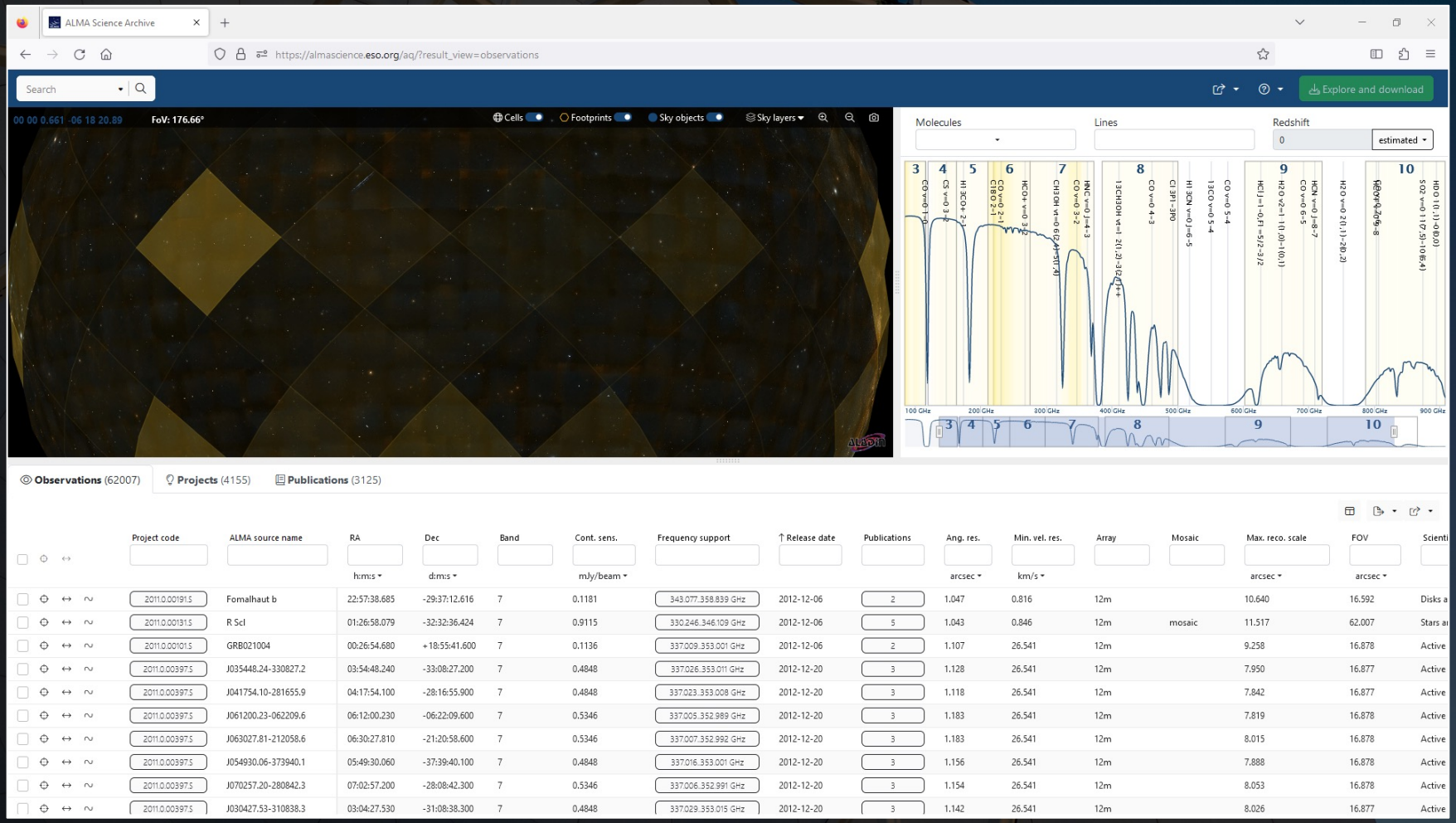
The ALMA Science Archive was updated within the past year. The website is https://almascience.eso.org/aq/ . The default view shows the entire contents of the archive.



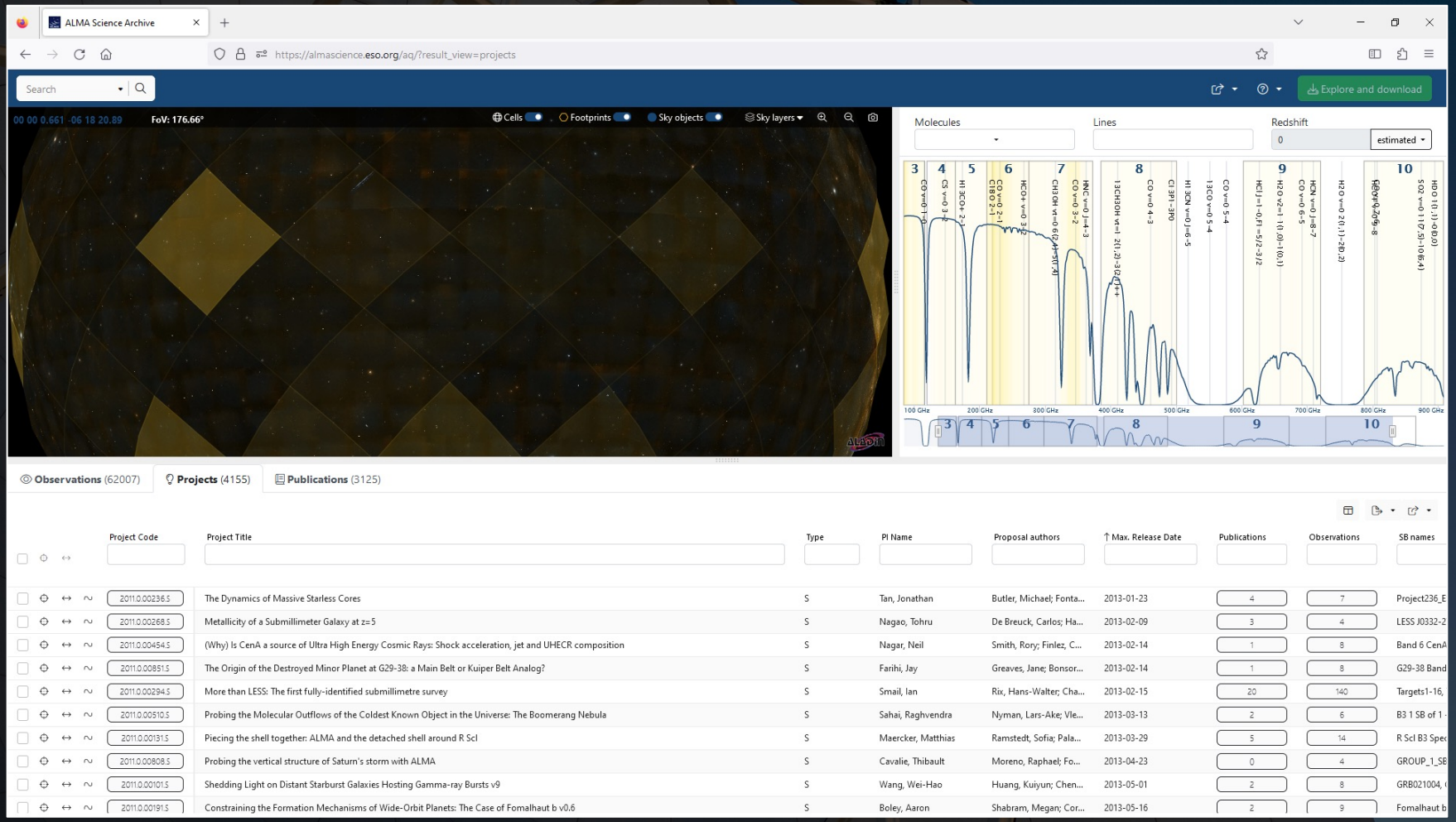
The interface has three sections:

- The sky viewer
- The spectral viewer
- The results table



The results table actually has three tabs:

- Observation
- Project
- Publication



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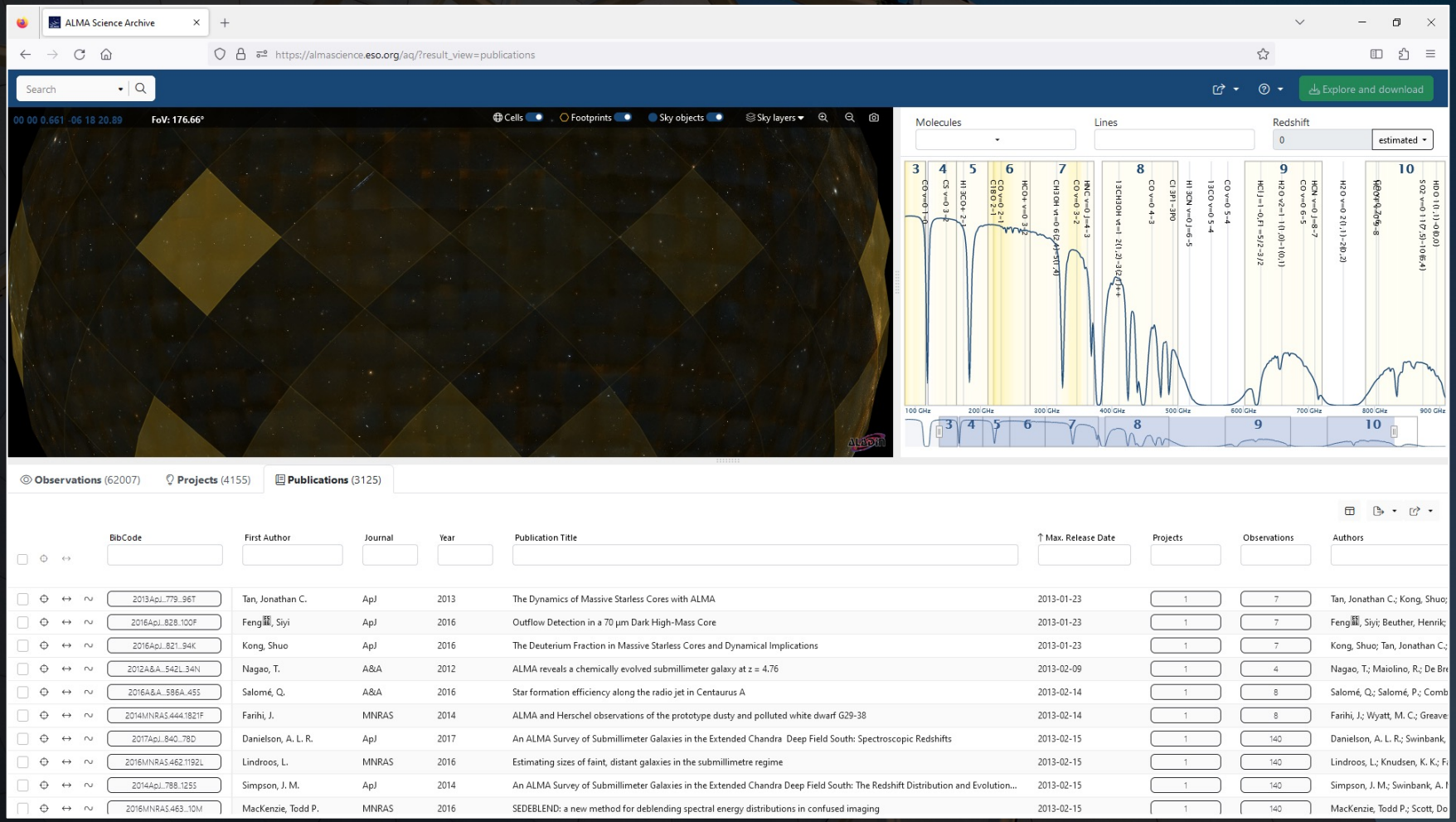
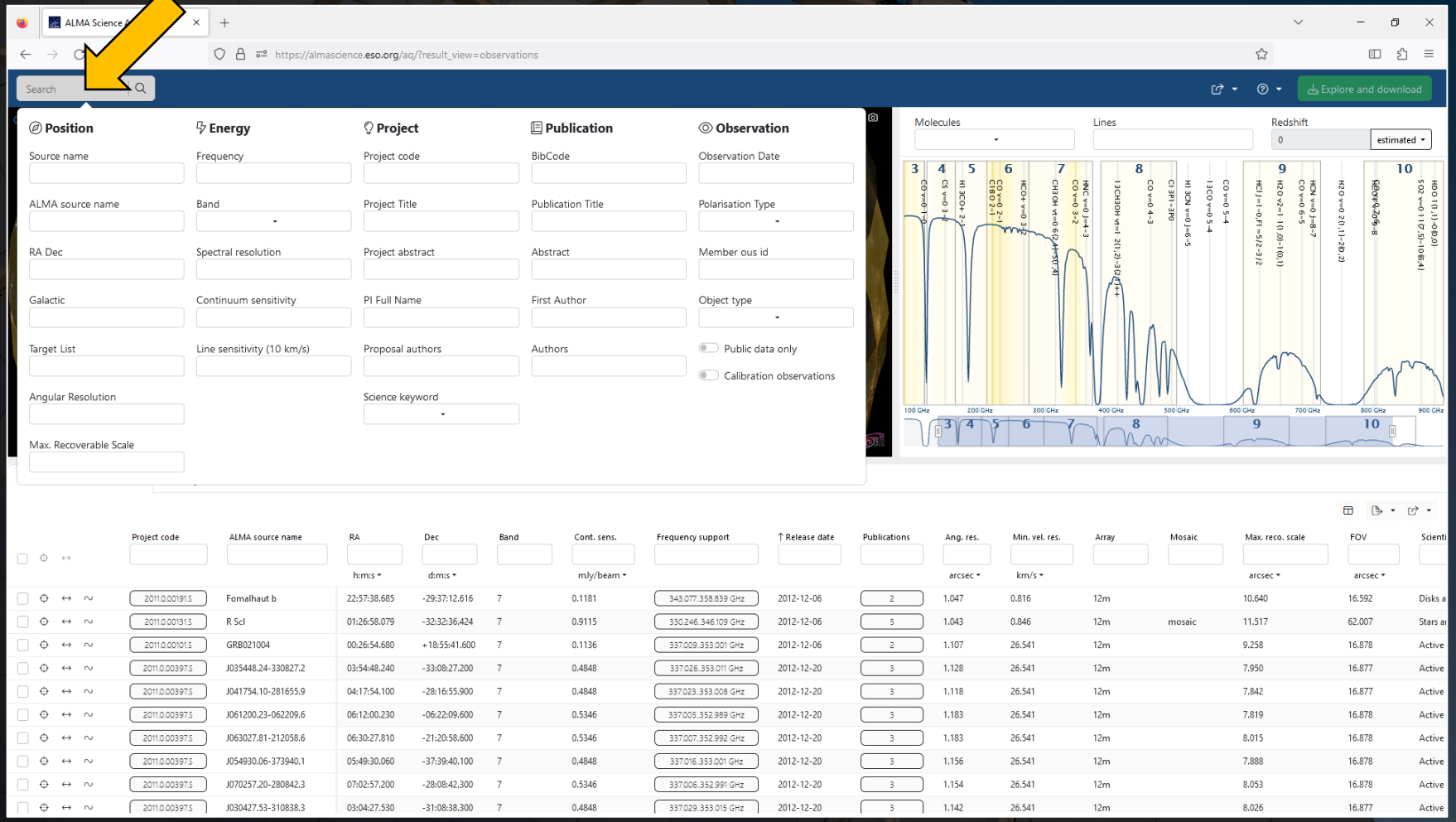
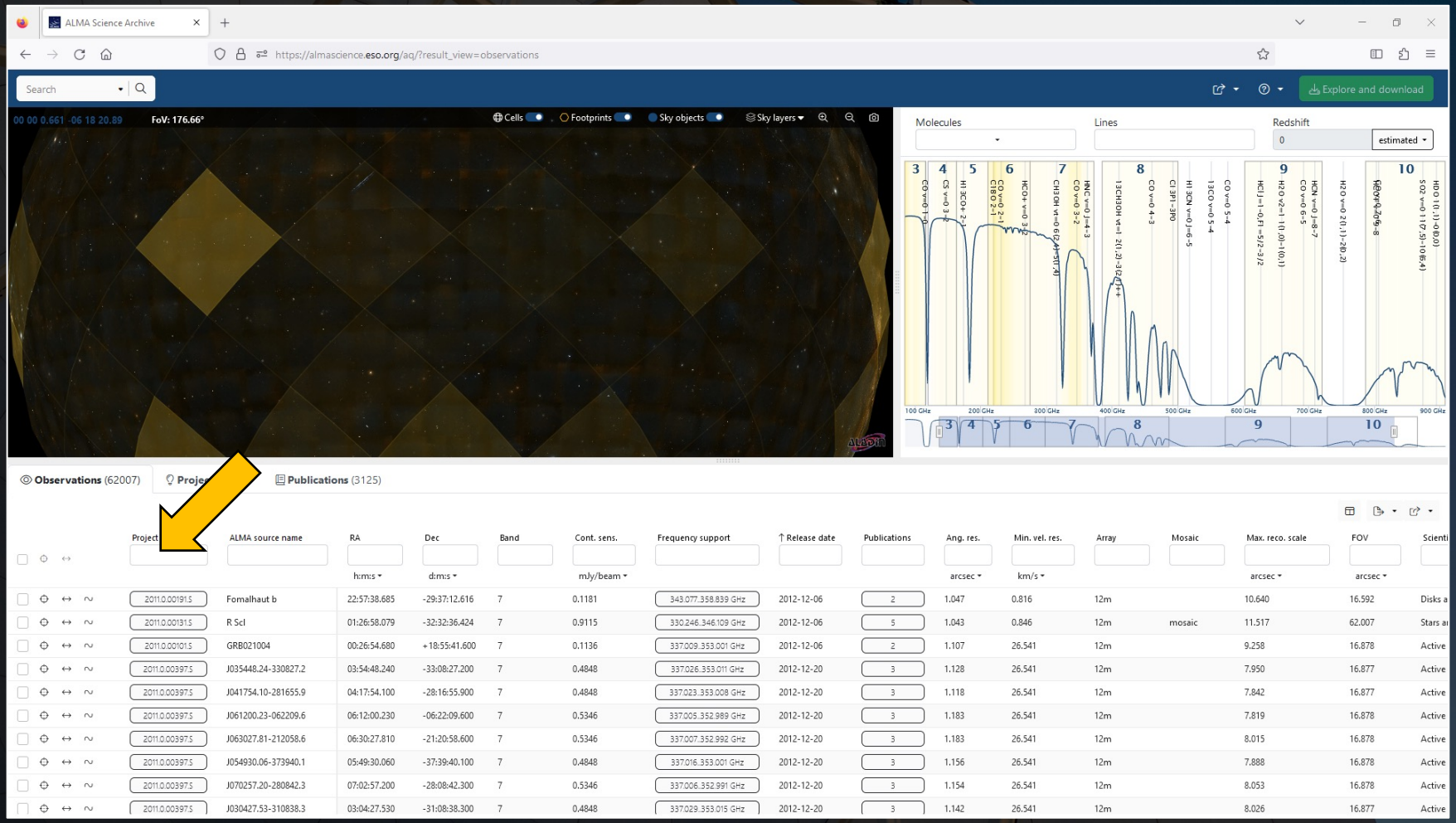


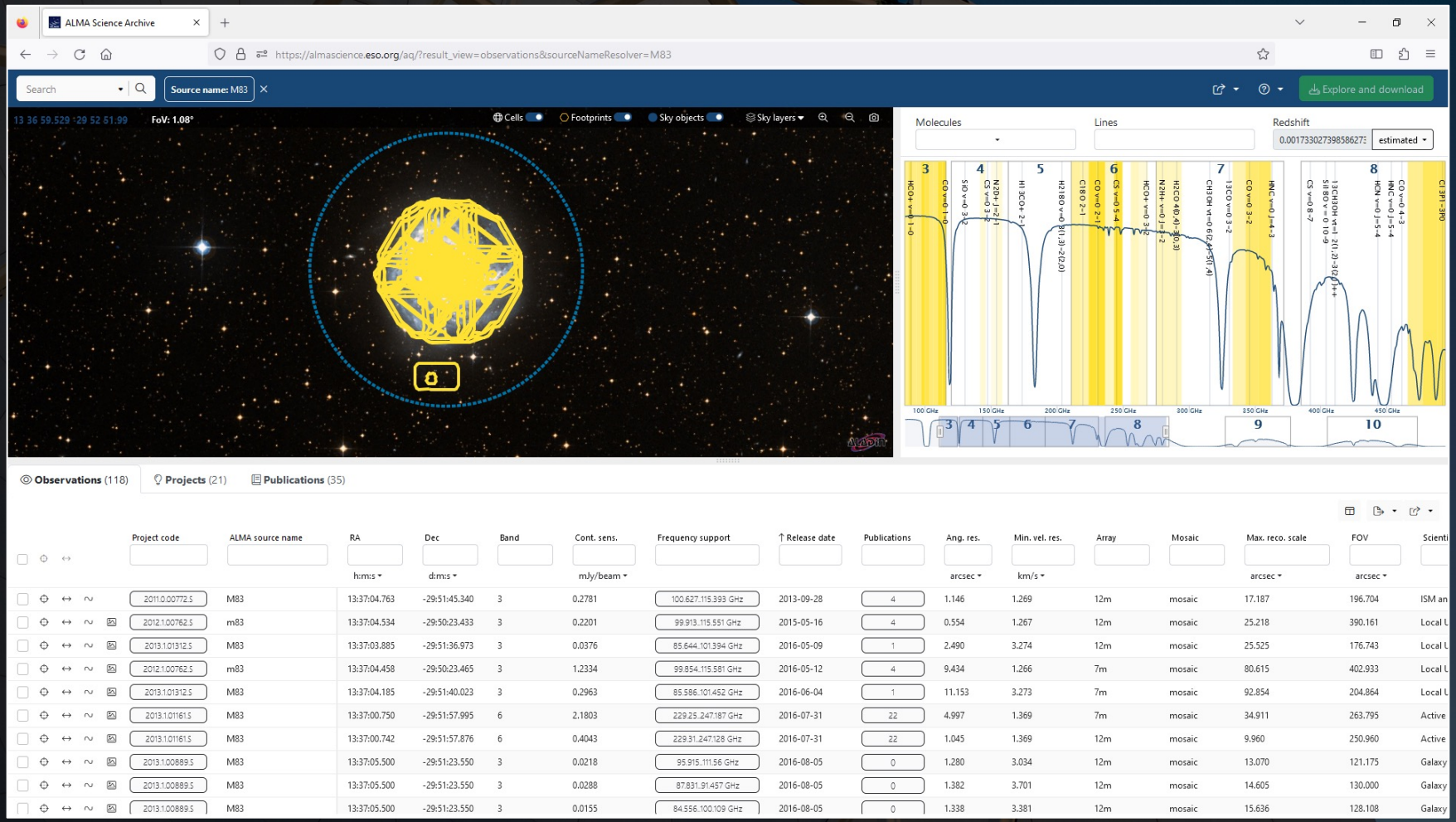
Searches can be done in one of two ways. The best way to start a search, especially for a single object, is to use the search menu that is displayed when hovering over the rectangle with the magnifying glass.



The other method is to type in search criteria in the entry fields above each column in the results table. This can also be done after initially setting up a search using the search menu.



When the number of results in the results table changes, the map and spectrum panels will automatically adjust to show the observed fields and spectra in more detail.



Project code	ALMA source name	RA (h:m:s)	Dec (d:m:s)	Band	Cont. sens. (mJy/beam)	Frequency support	↑ Release date	Publications	Ang. res. (arcsec)	Min. vel. res. (km/s)	Array	Mosaic	Max. reco. scale (arcsec)	FOV (arcsec)	Scienti
2011.0.00772.S	M83	13:37:04.763	-29:51:45.340	3	0.2781	100.627..115.393 GHz	2013-09-28	4	1.146	1.269	12m	mosaic	17.187	196.704	ISM an
2012.1.00762.S	m83	13:37:04.534	-29:50:23.433	3	0.2201	99.913..115.551 GHz	2015-05-16	4	0.554	1.267	12m	mosaic	25.218	390.161	Local L
2013.1.01312.S	M83	13:37:03.885	-29:51:36.973	3	0.0376	85.644..101.394 GHz	2016-05-09	1	2.490	3.274	12m	mosaic	25.525	176.743	Local L
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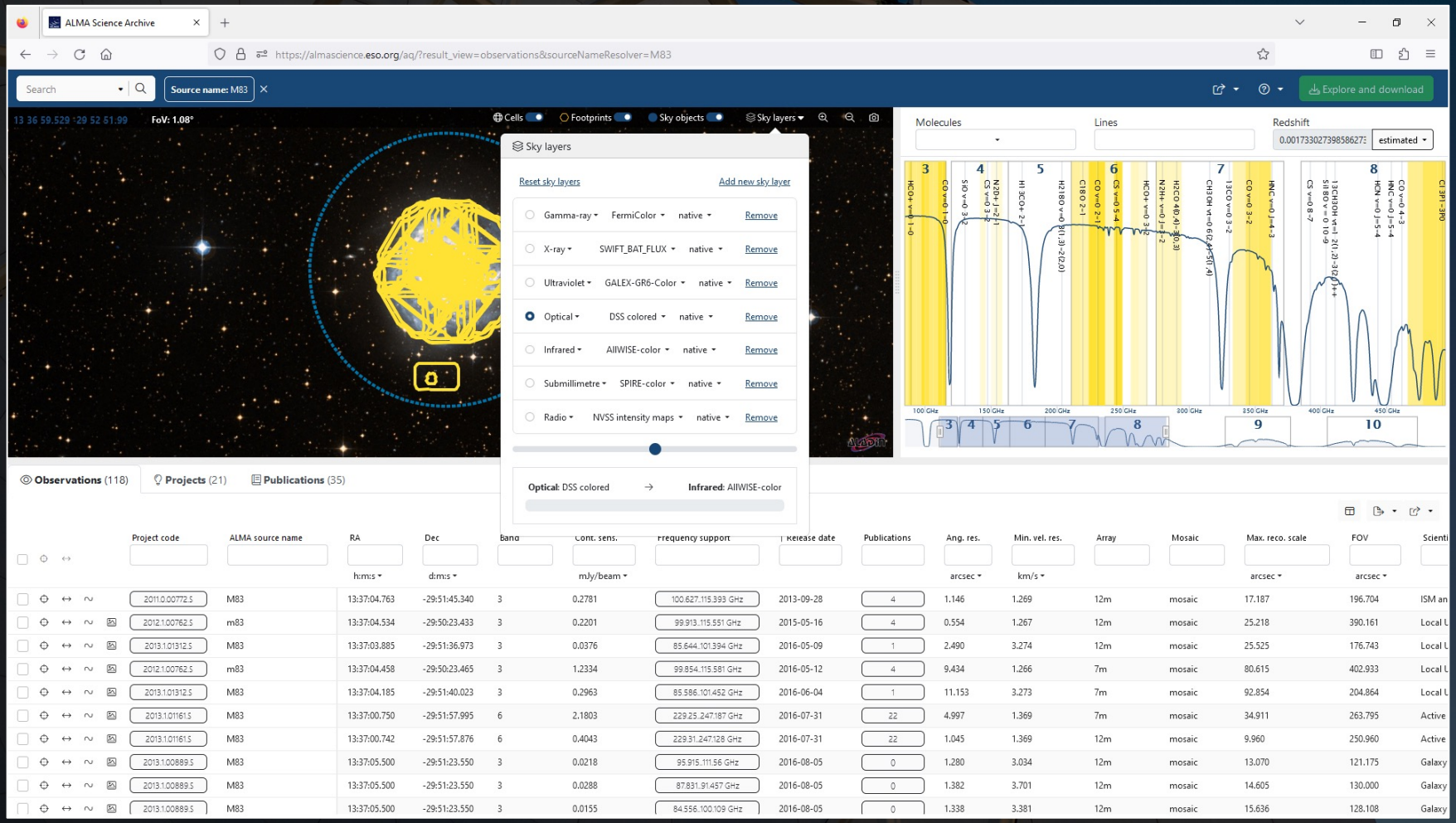

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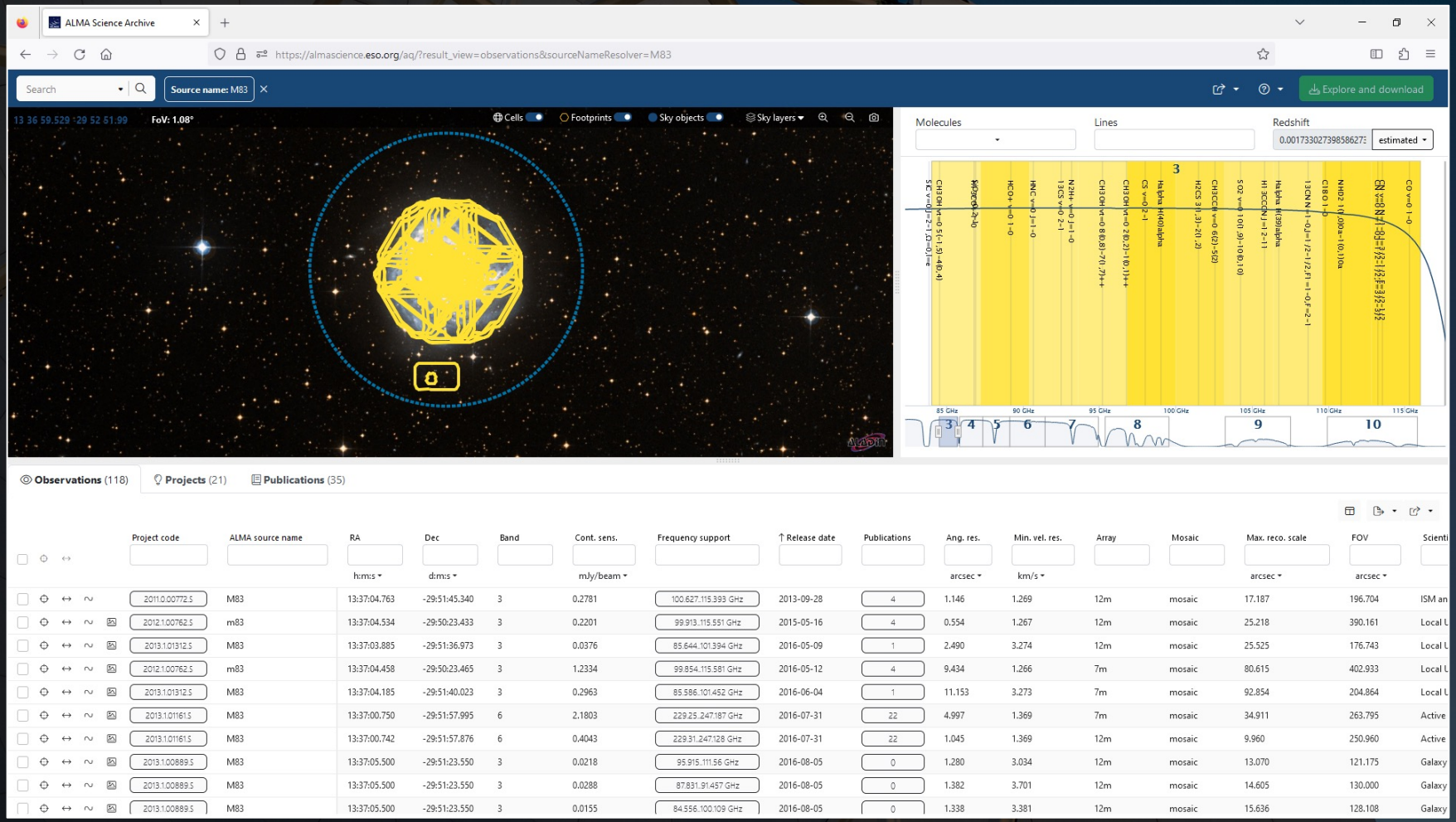

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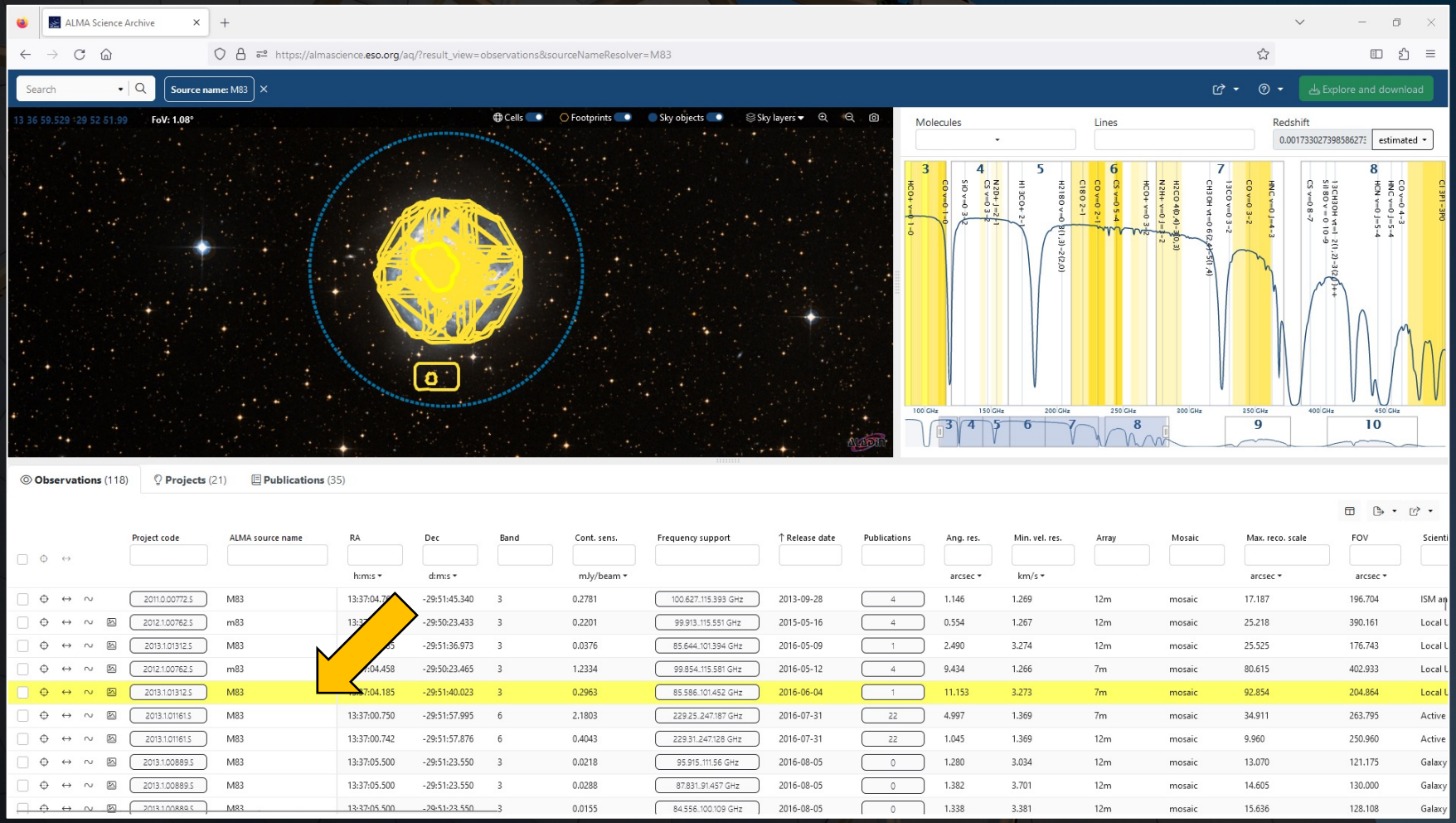
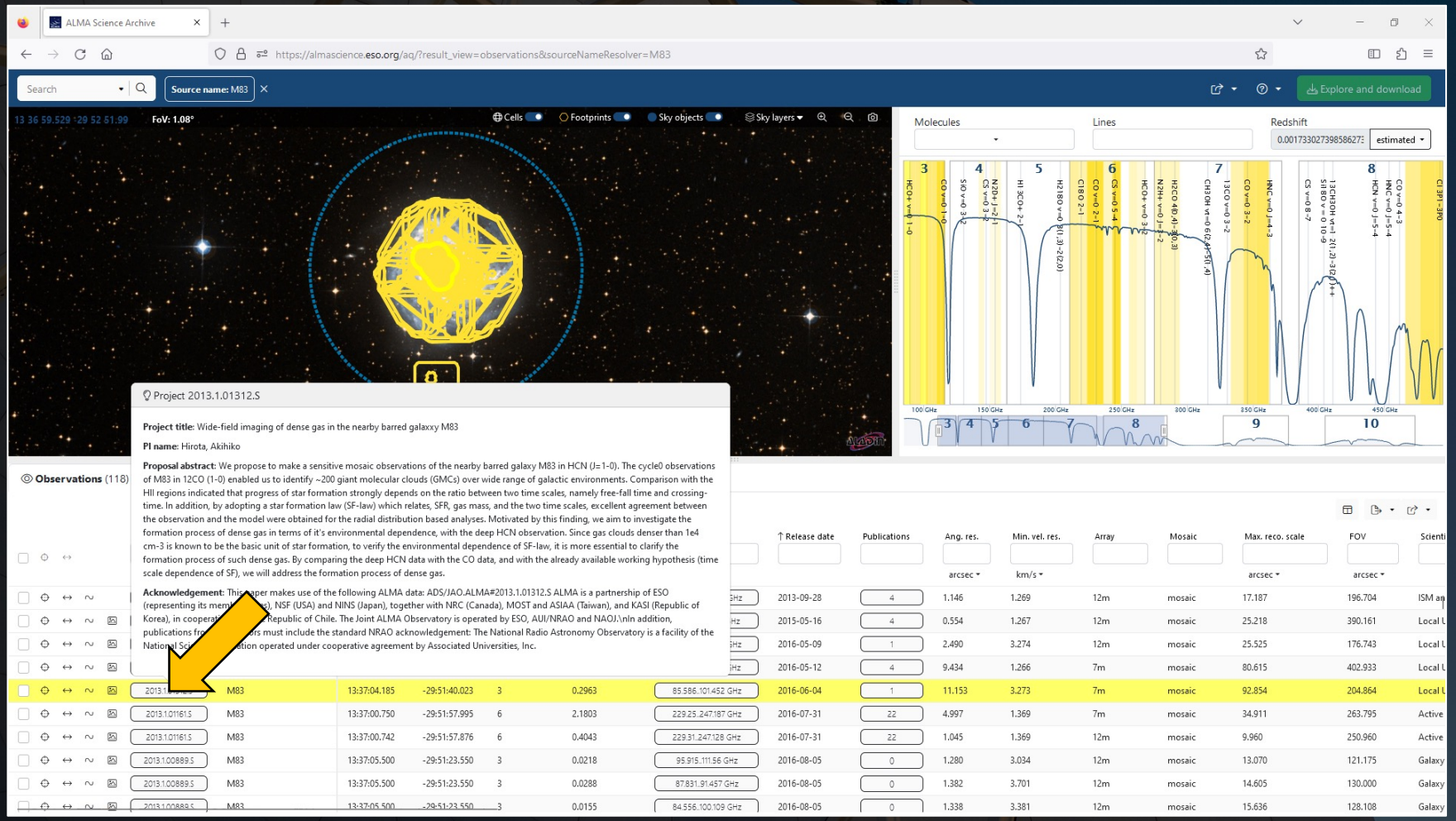
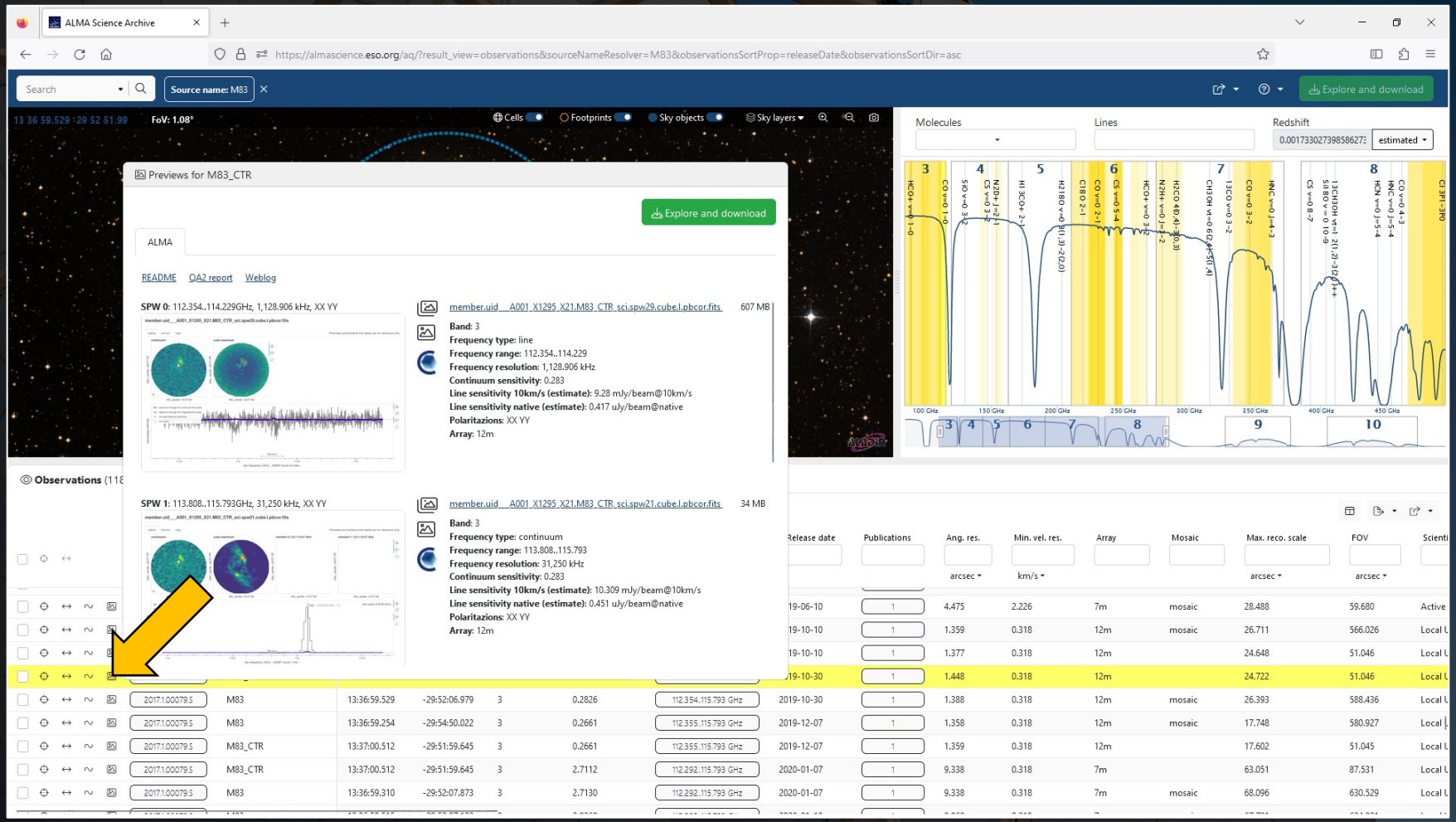
Hovering over an entry in the results table will highlight the row, the field in the map panel, and the frequency ranges in the spectrum panel.



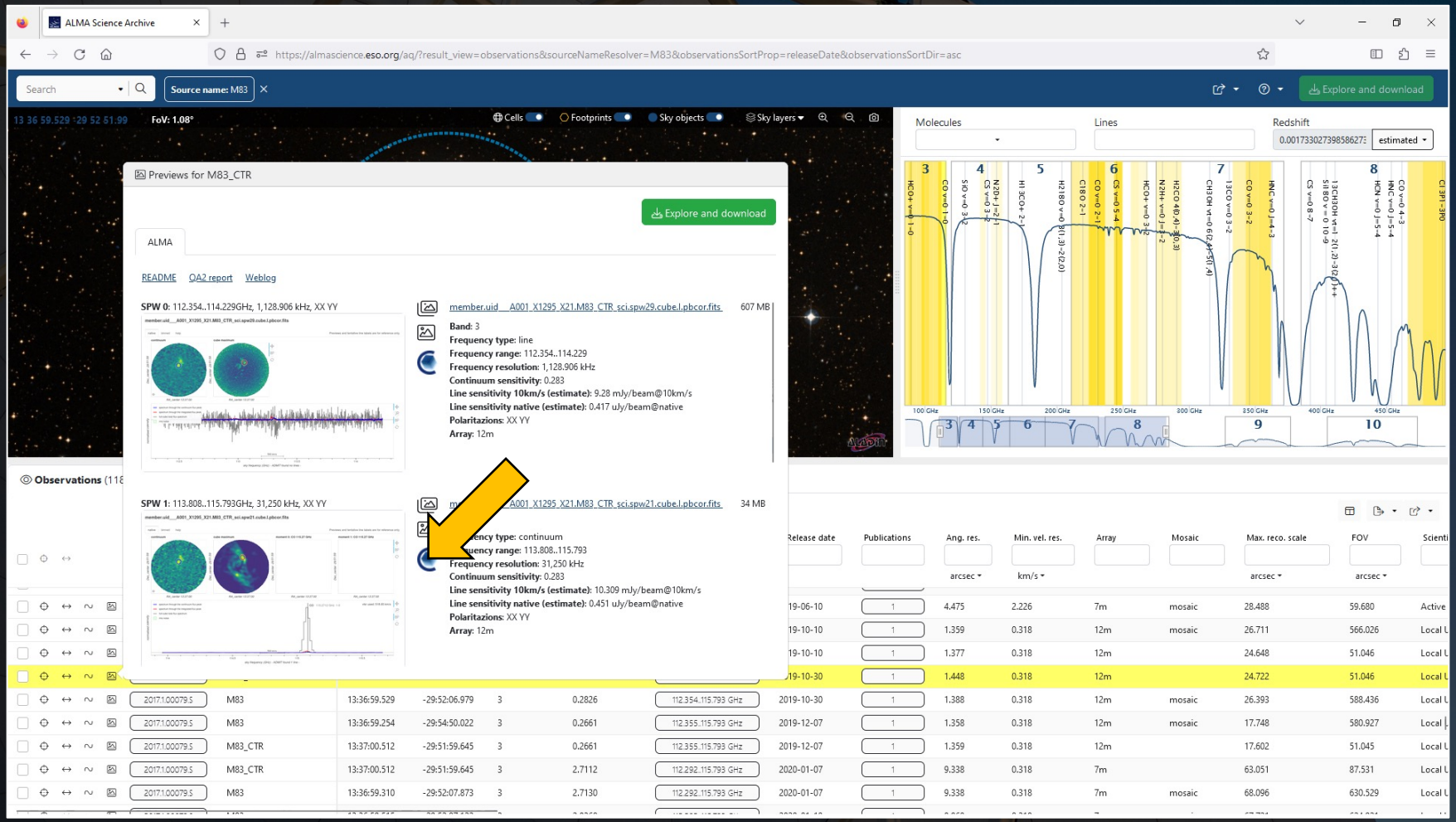
Hovering the cursor over items in boxes will reveal a pop-up window with extra information.



Additionally, hovering over the box with the squares inside it on the left will reveal preview images, links to those images, and links to quality assurance information.



Clicking on the C symbol will launch CARTA, which can be used to inspect the data in more detail and even make measurements.



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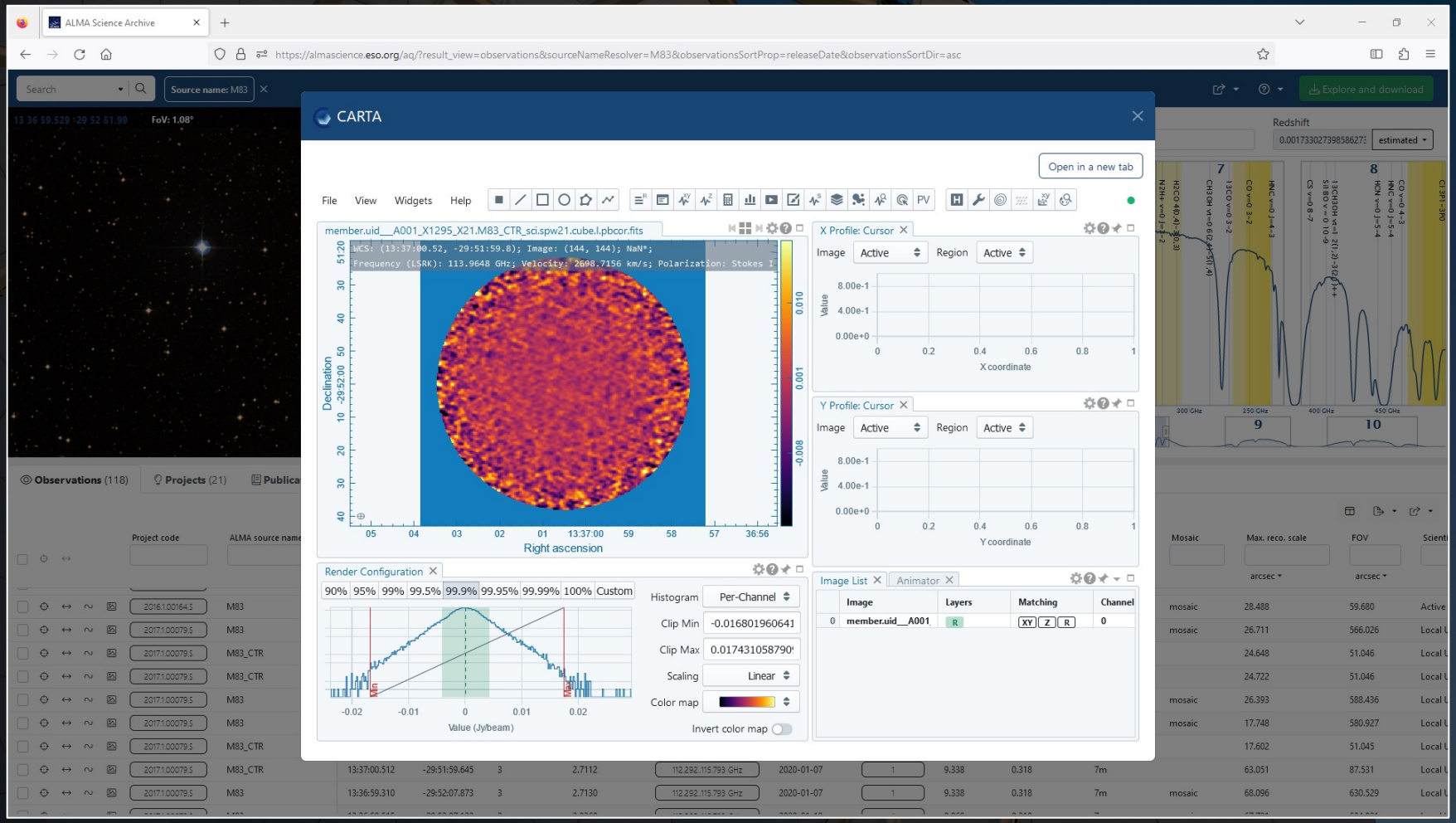
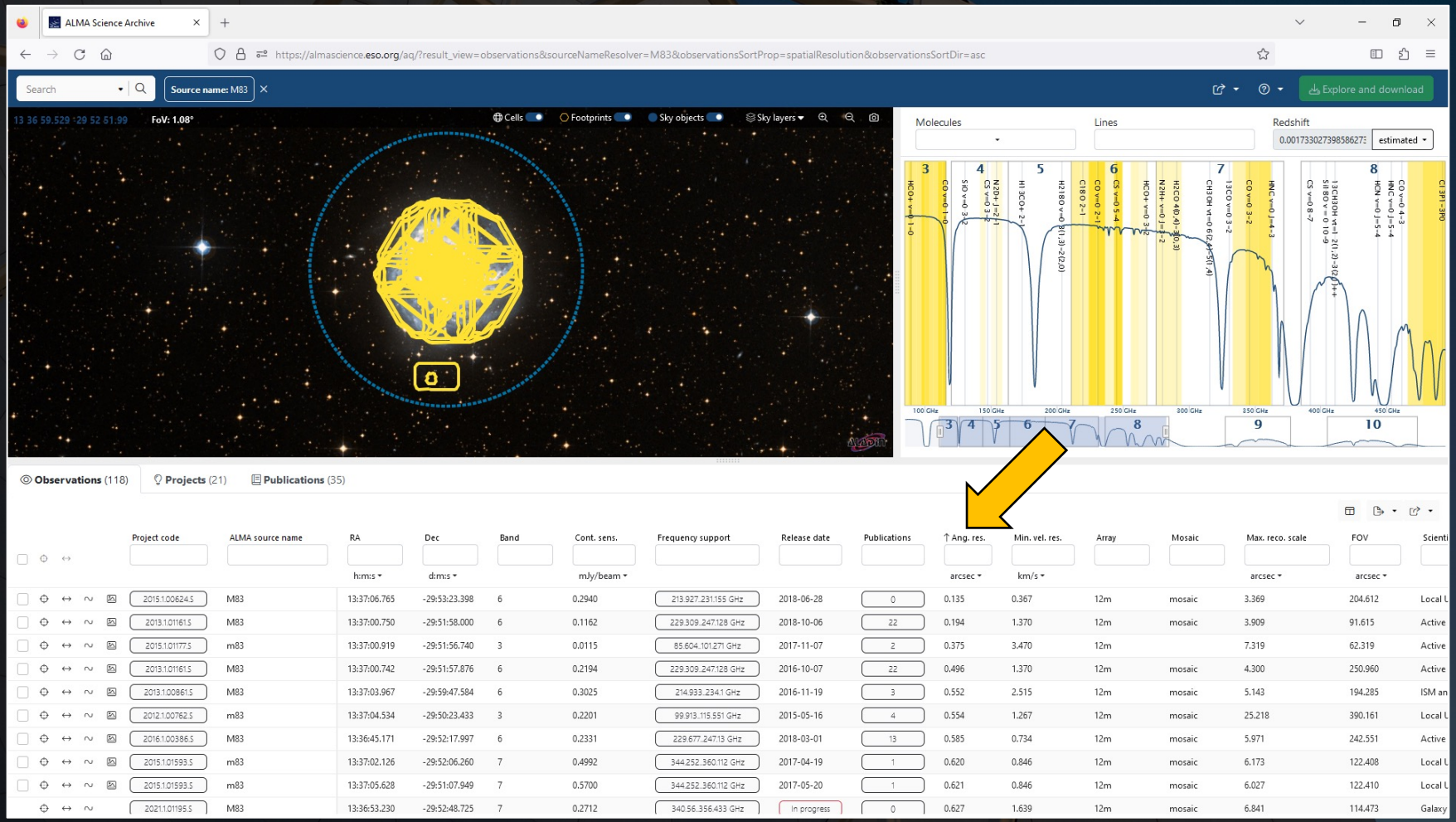


The results from a search can be sorted by any column. The results can also be further filtered.



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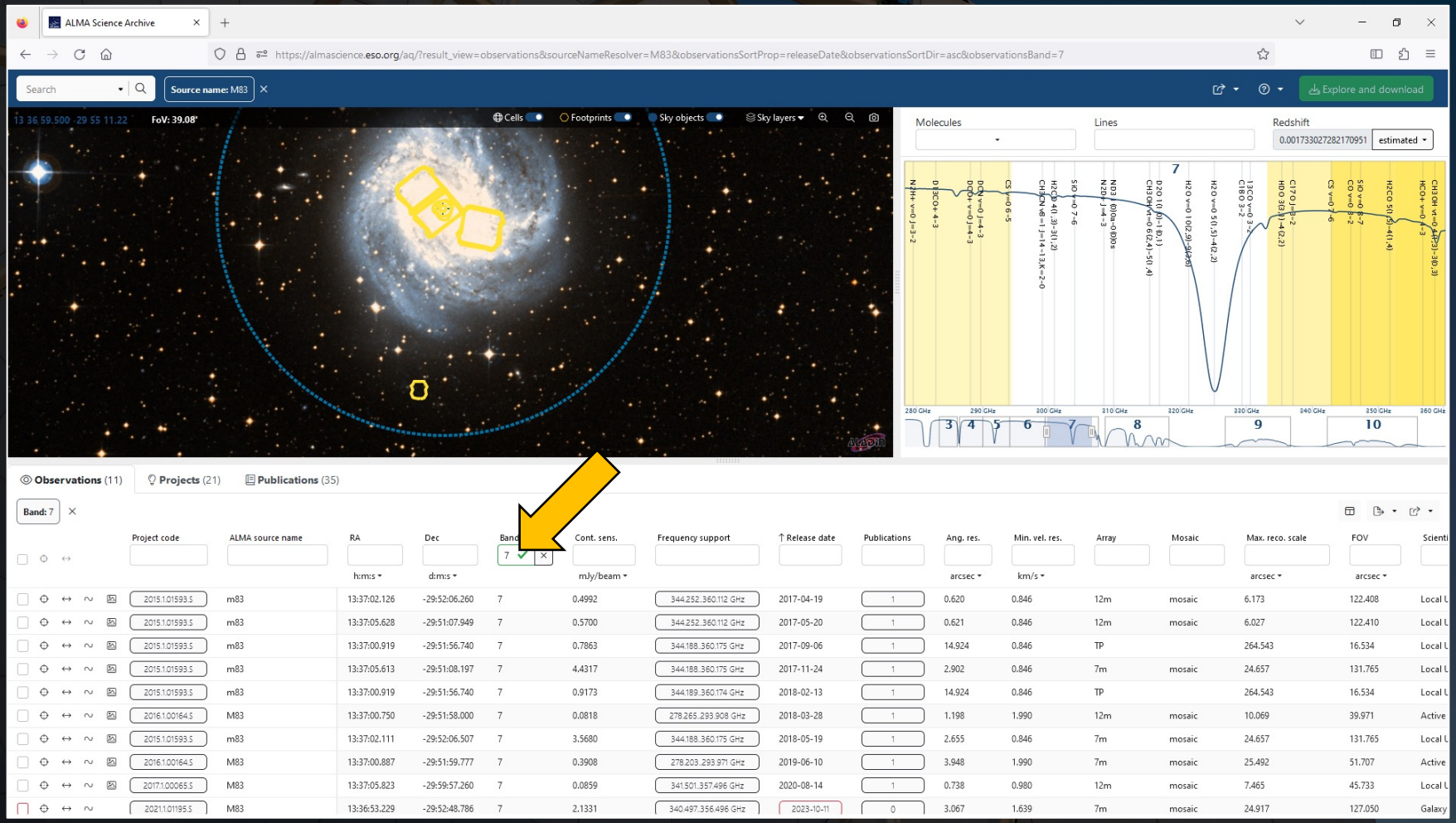
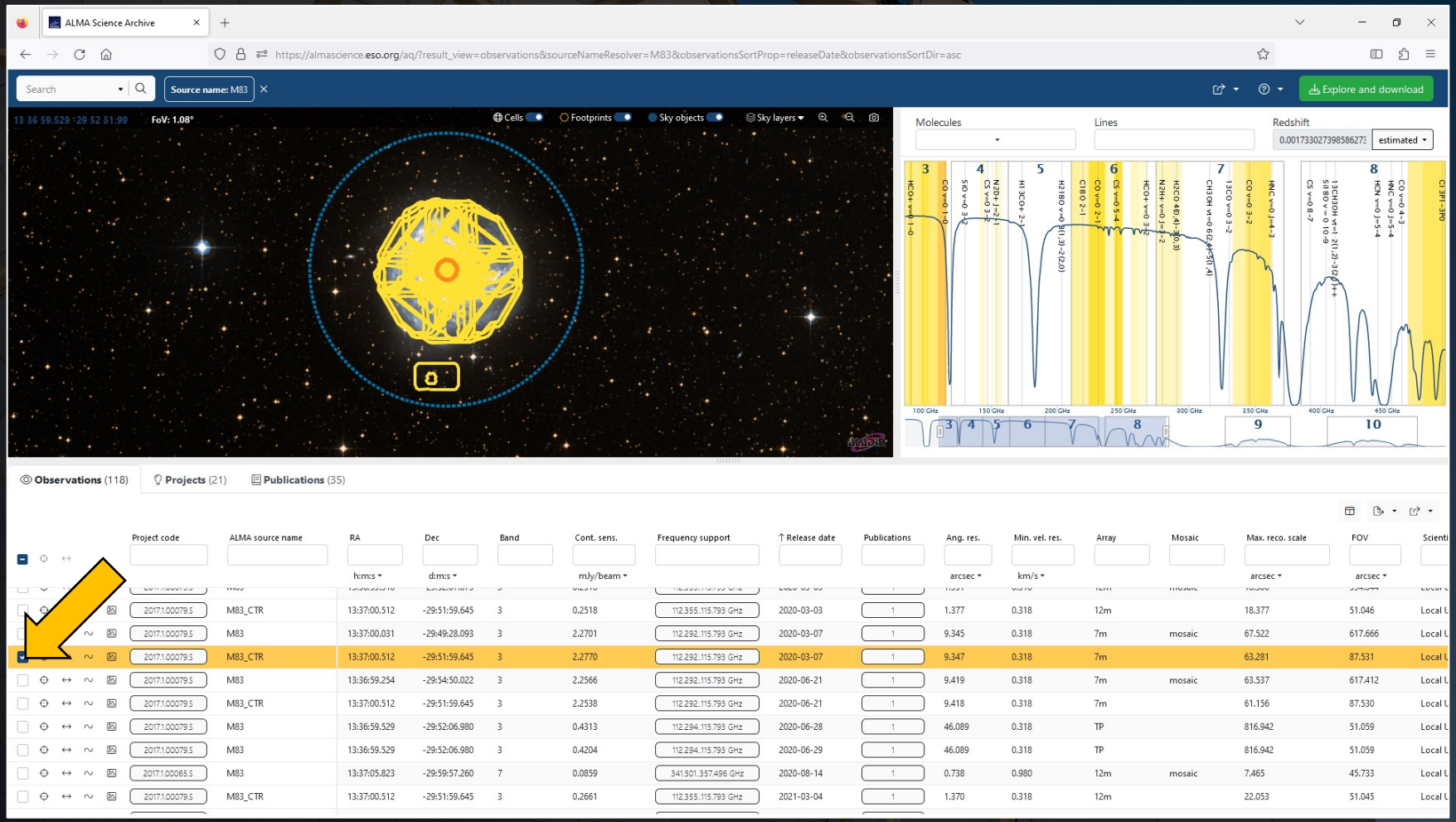
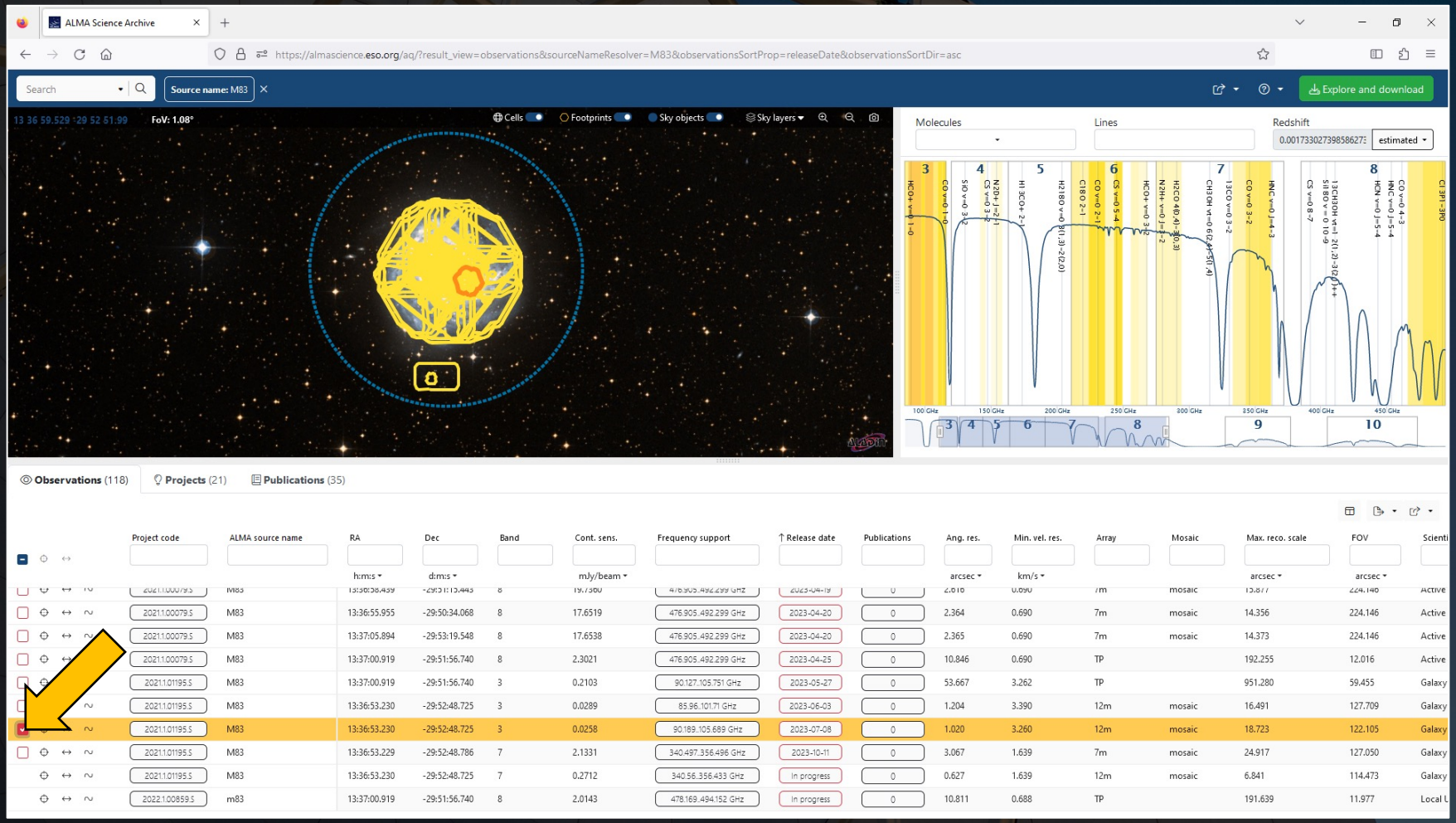


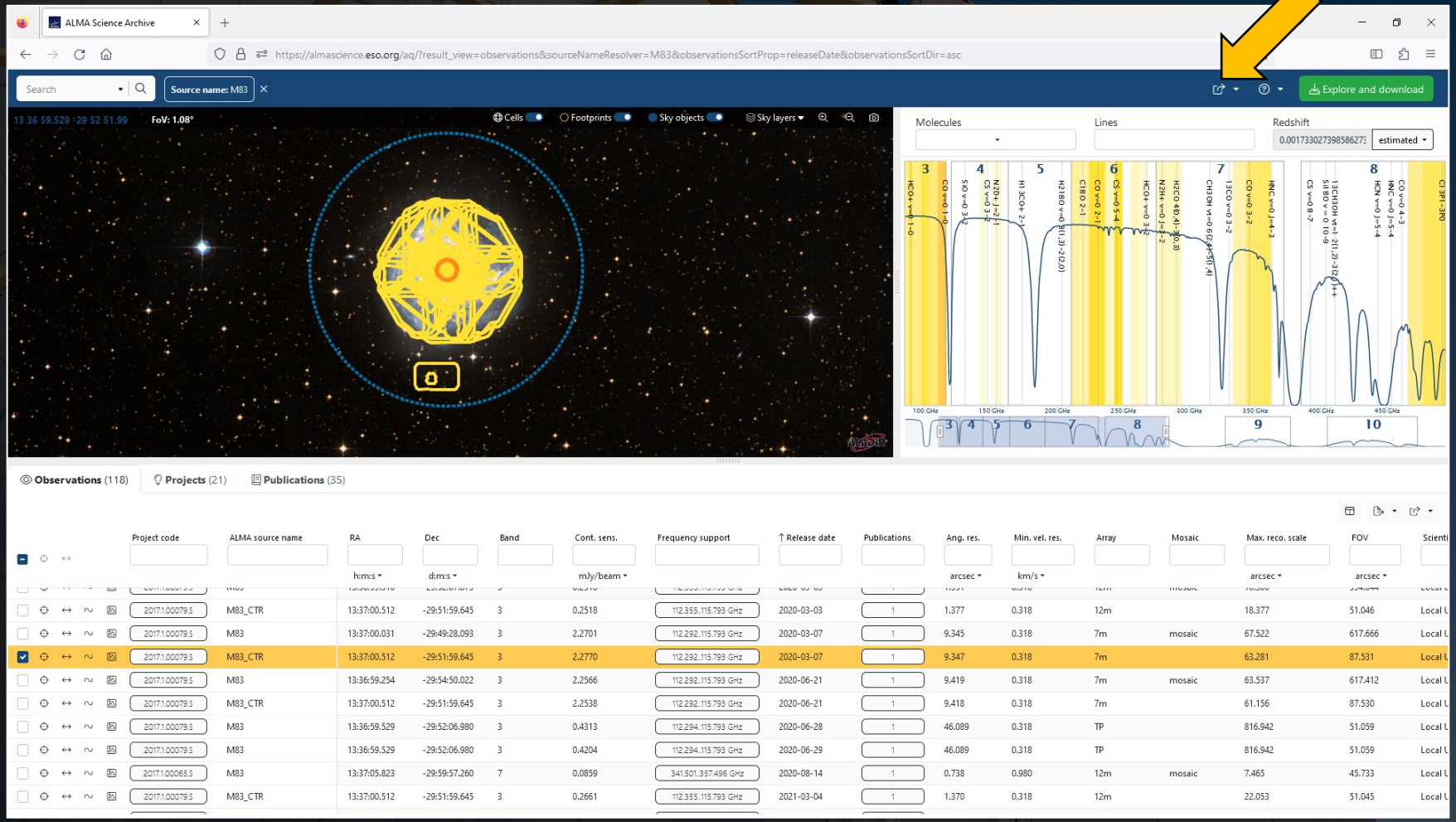
Clicking on the checkbox next to an observation will select the data for download. The row will change to orange as will the field in the map panel and the frequency range in the spectral plot.



Proprietary data can be selected but cannot be downloaded. The checkbox will appear red when these data are selected. Other data (such as for programs where the observations are not yet complete or where the data are in QA3) cannot be selected.



The interface has several other options as well. These include copying the link to the search results, selecting the columns that are displayed and saving the search results.



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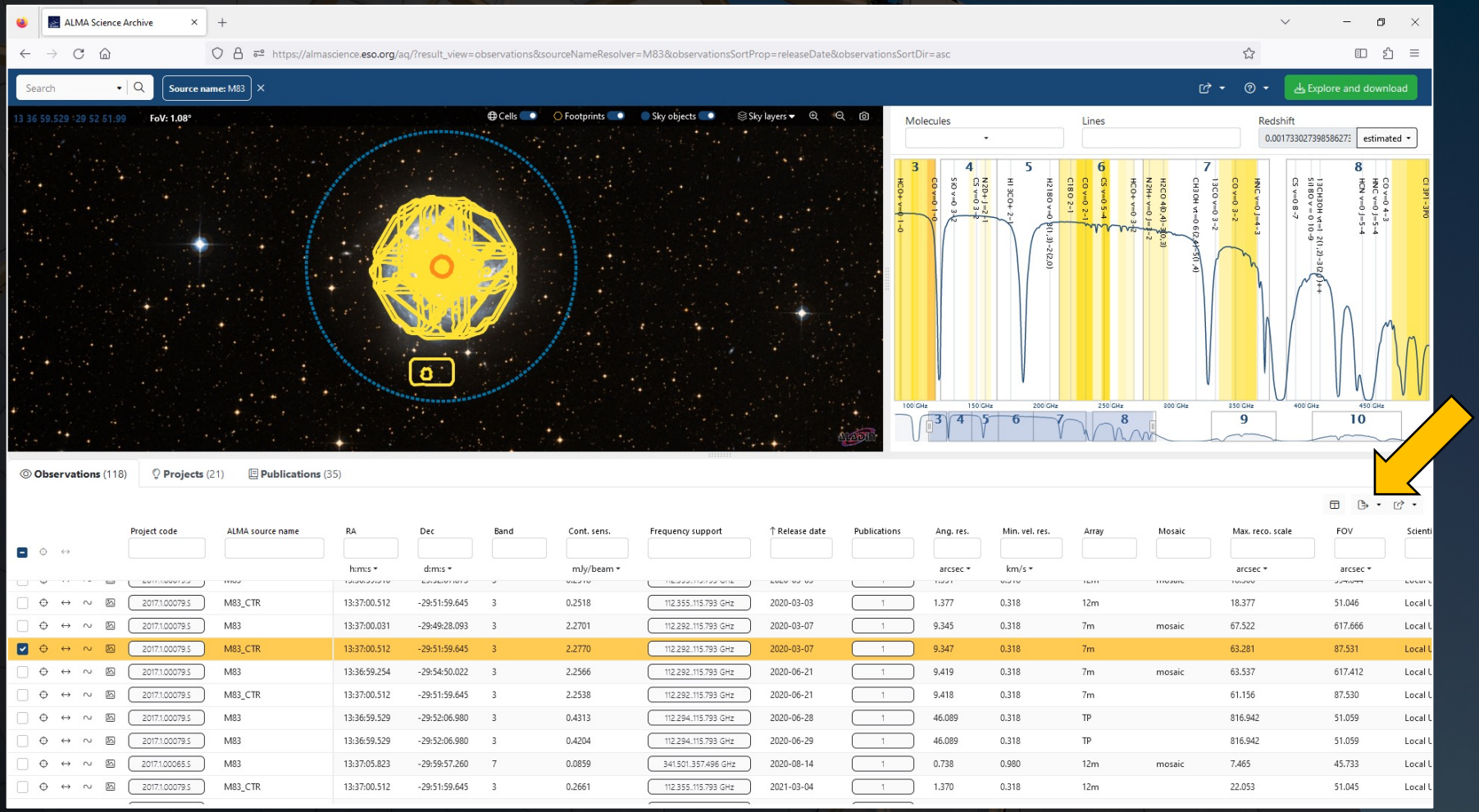
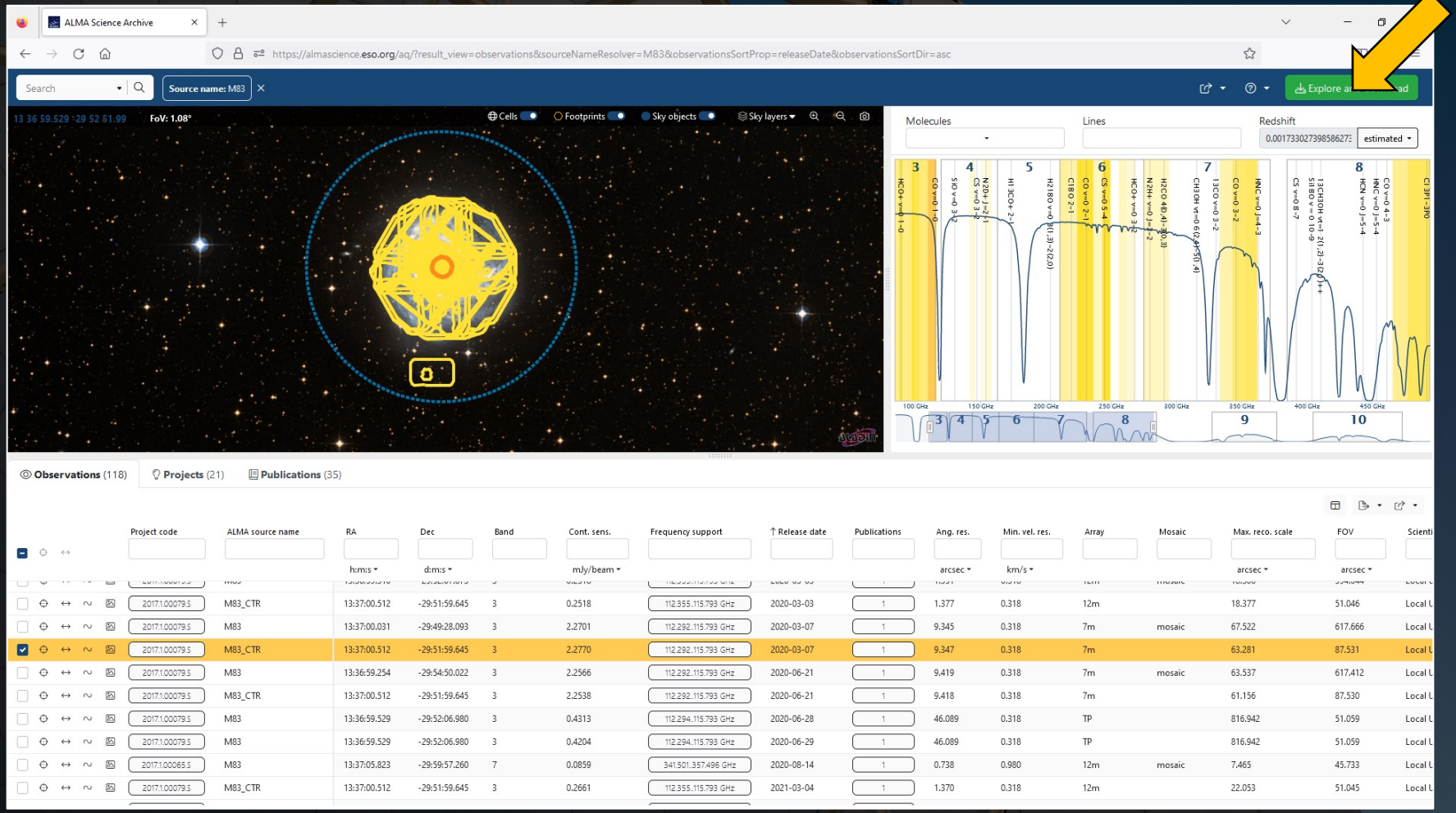
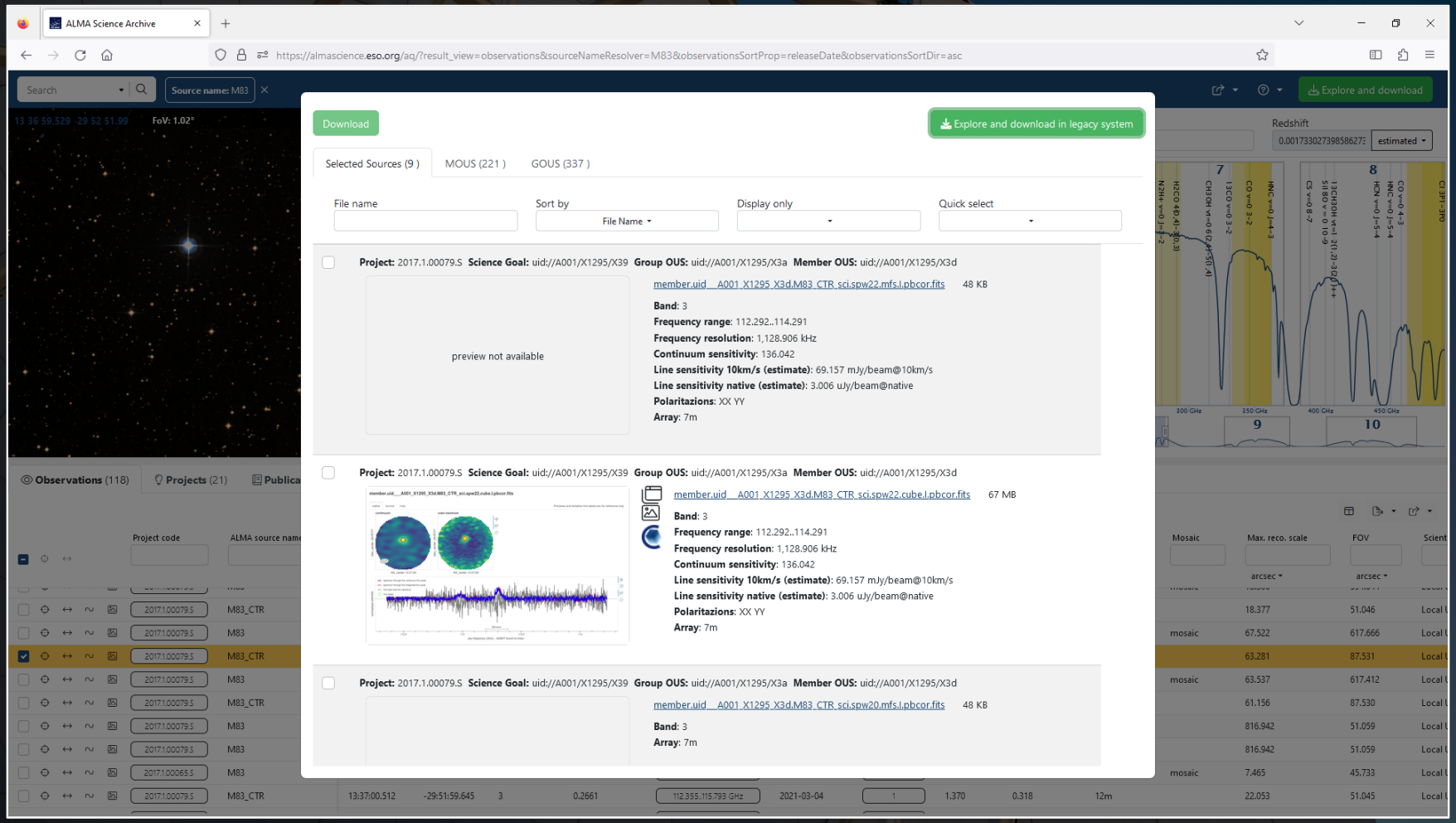


Selected data can be downloaded by clicking on the green “Explore and download” box at the top right. This will open a new display within the browser window listing the files associated with the selected dataset.



This interface is due to be replaced soon. It is affected by bugs, and it is also difficult to use. The “Explore and download in legacy system” link leads to the original download pages, which are easier to use.



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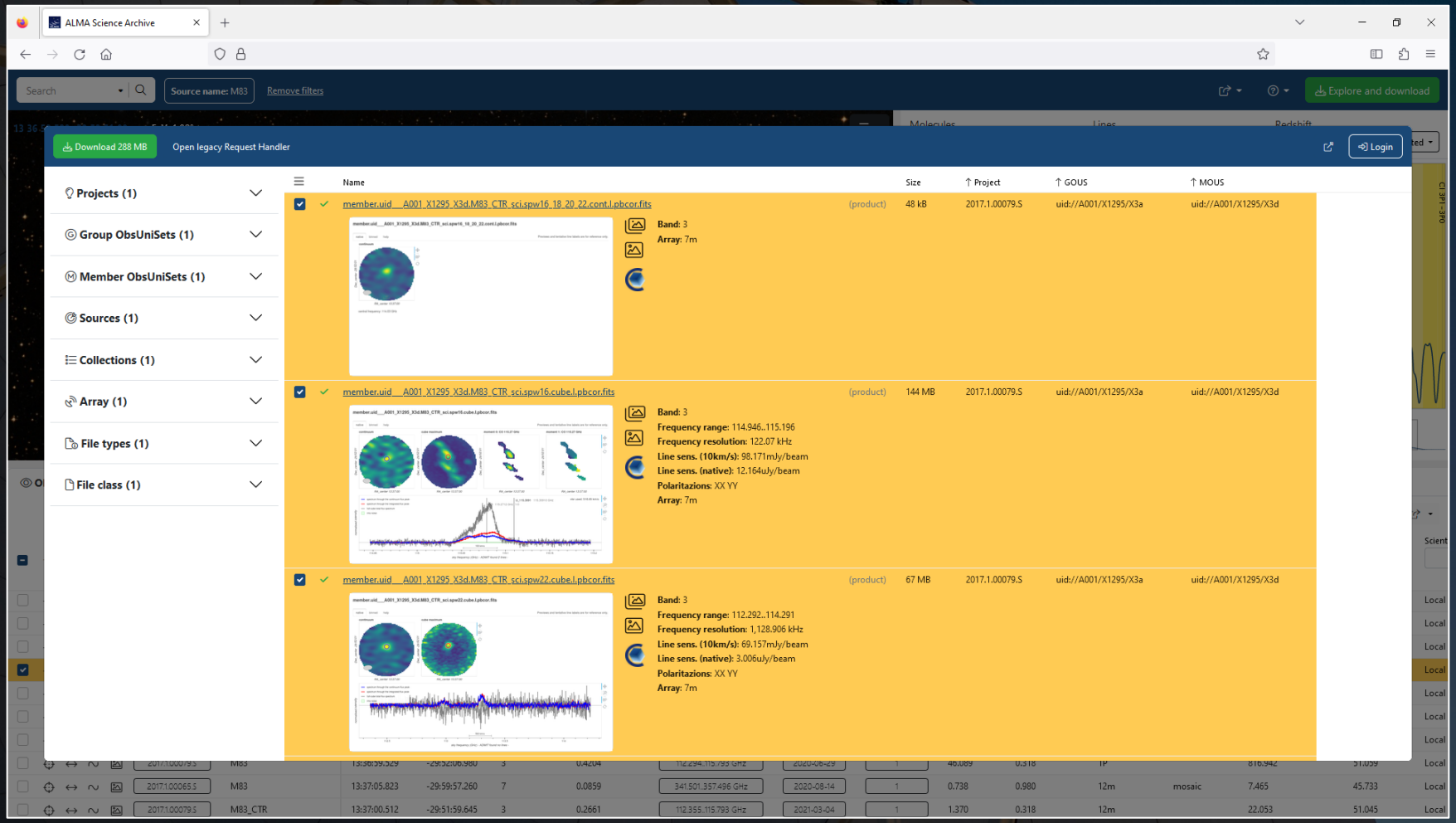

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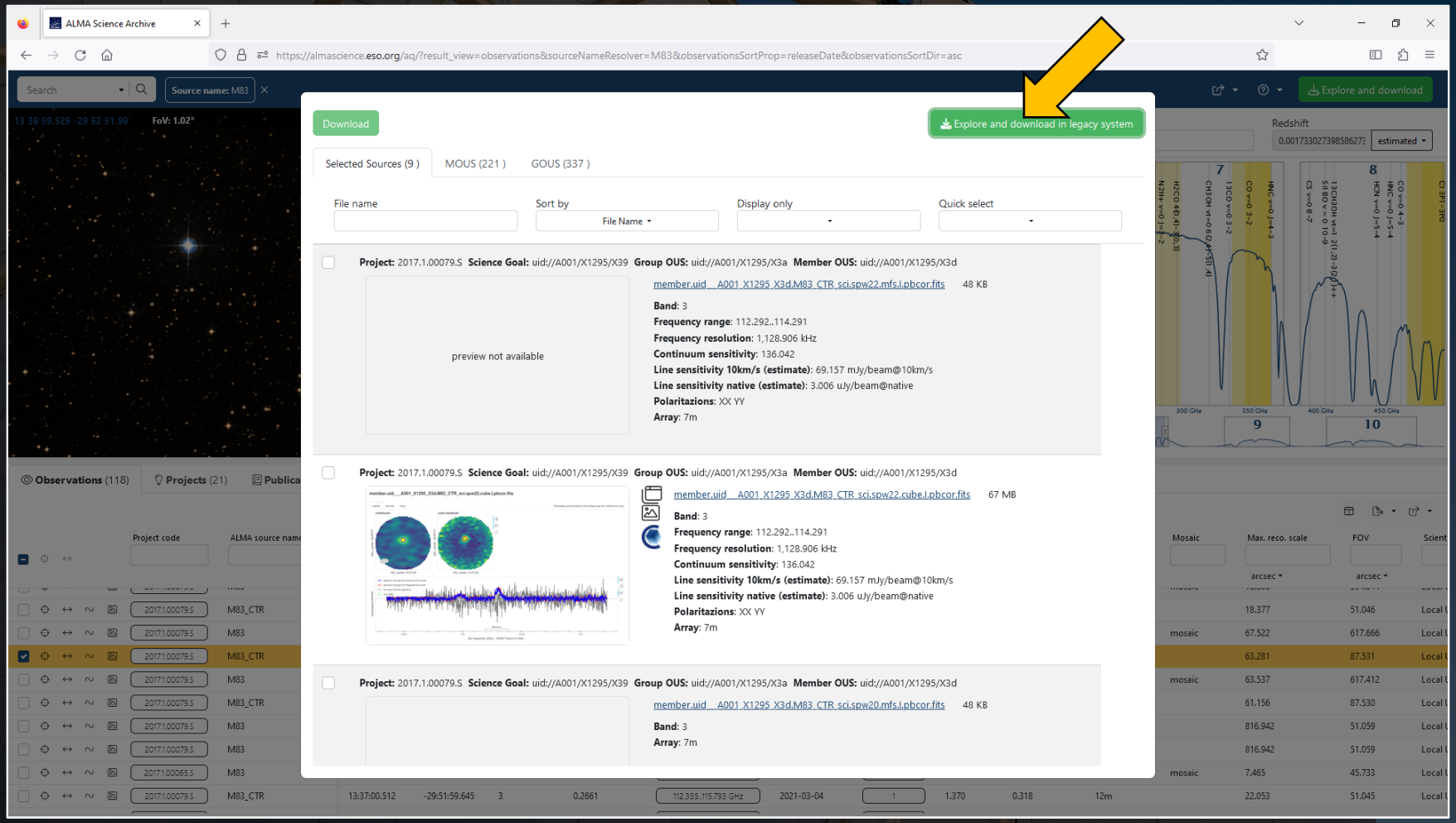
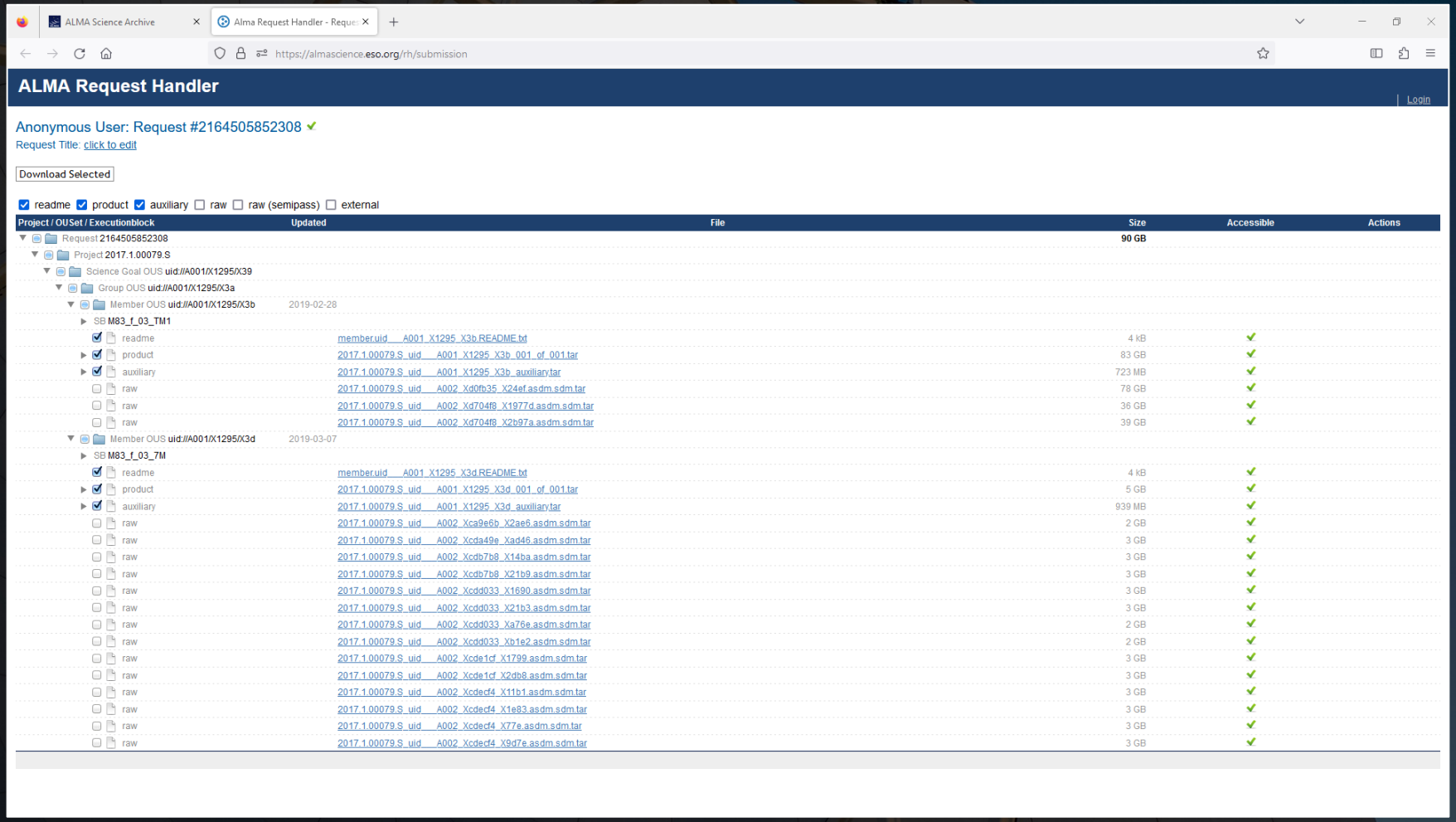


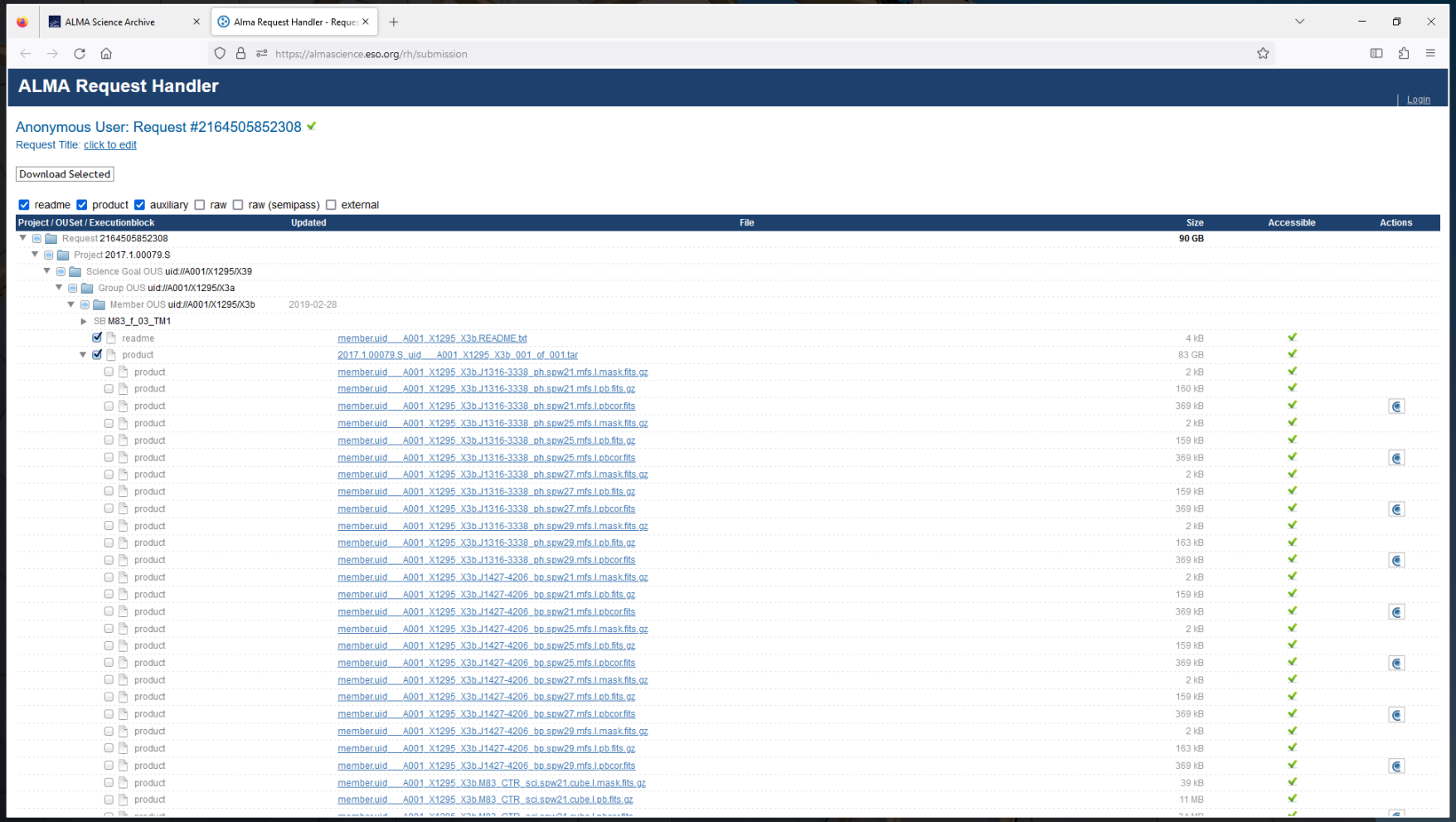
This page, which opens in a new tab, displays the data associated with the entries selected in the search interface. Data are sorted by Science Goal, Group OUS, and Member OUS. (A Member OUS is a unit of data containing one Scheduling Block.)



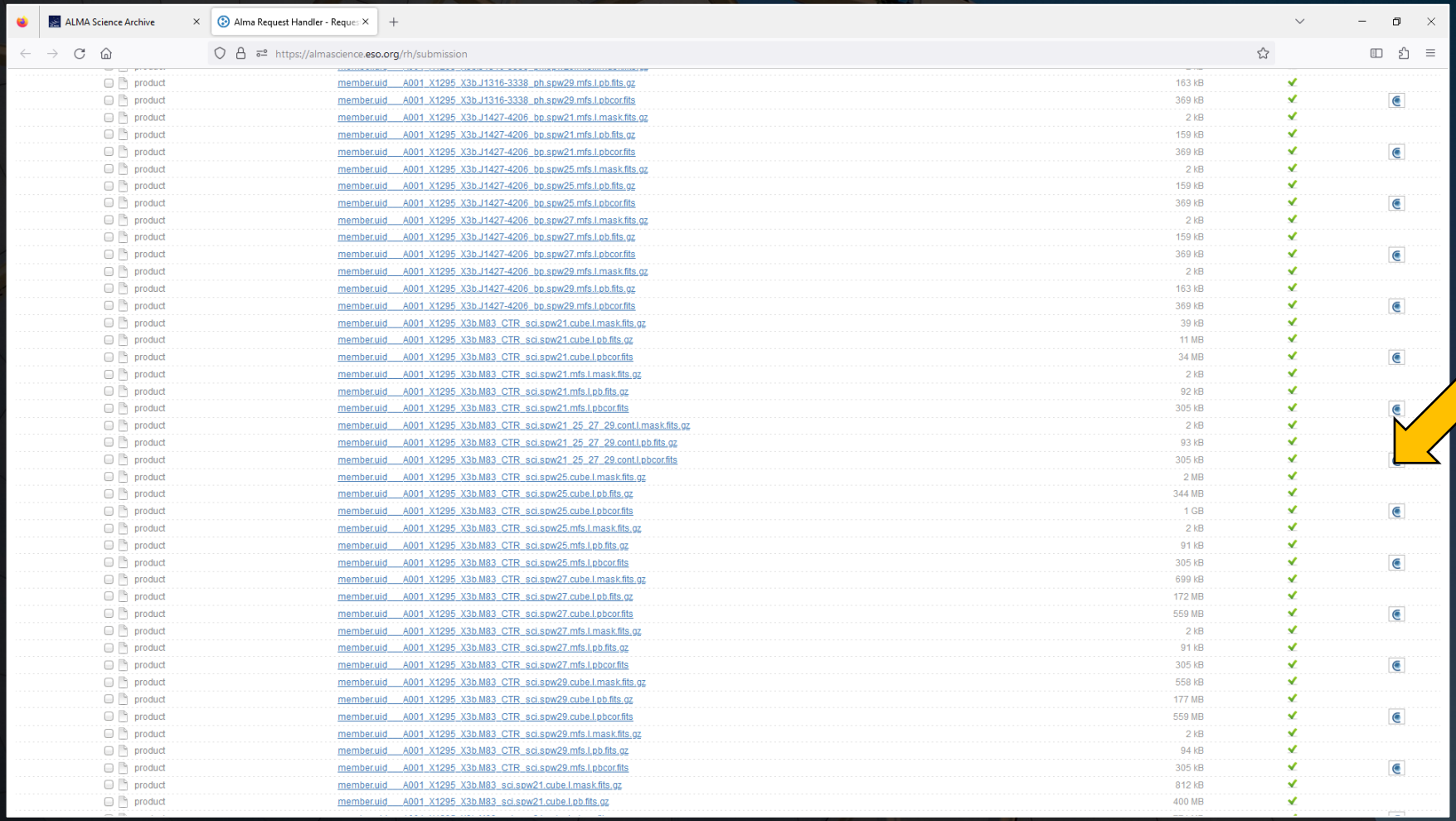
Each Member OUS (or SB) may have the following files available for download:

readme	A text file with very basic information
product	Final images and image cubes
auxiliary	A file containing logs, quality assurance information, scripts, and calibration data
raw	Raw visibility data
external	Enhanced data products (including enhanced images or visibility data) created after the data delivery

Clicking on the triangles pointing to the right will produce an expanded list that will show the contents of the individual tar files. (These lists can be collapsed again by clicking on the downwards-pointing arrows.)



It is also possible to preview individual images in the product tar file by clicking on the symbol with the C on the far right of the page. This will open a new page displaying the image using the CARTA interface.



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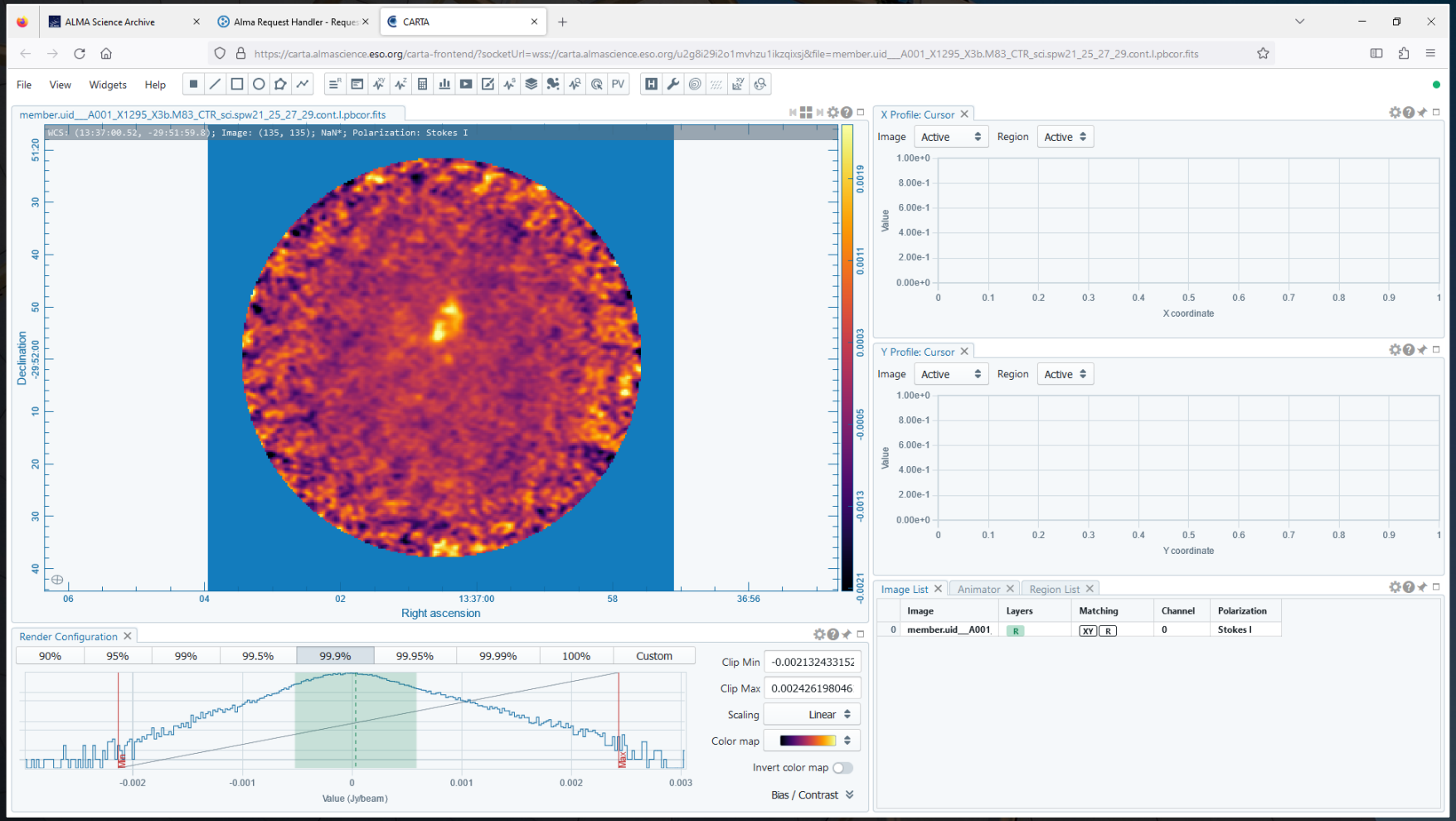
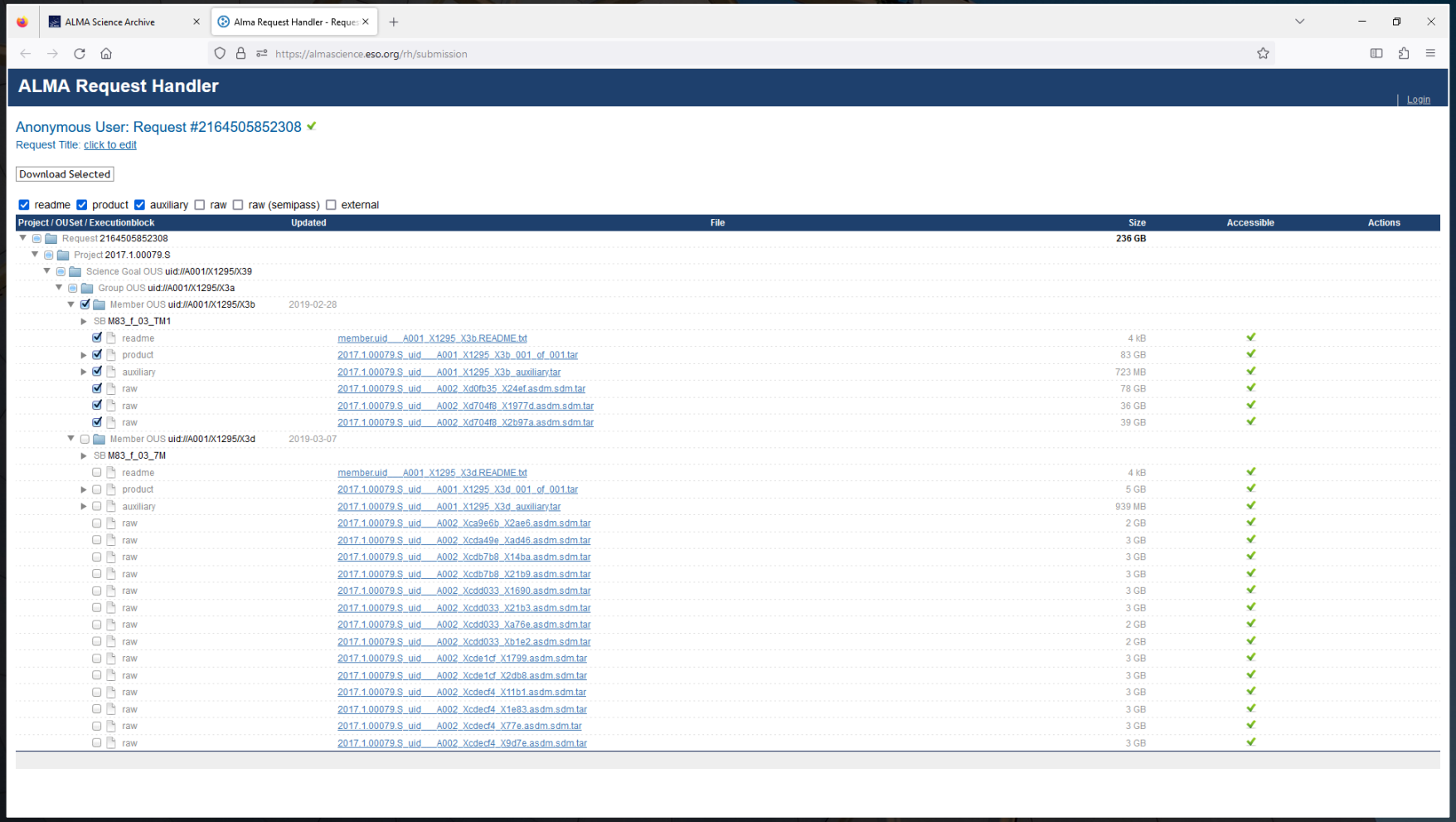


Each file can be individually selected for download, or subsets of data can be selected for download. Proprietary data cannot be downloaded without logging in and without being delegate access to the data.



When data download is started, two options are available.

- The download script can be executed in a Linux/Mac console to download data. The file must be made executable using chmod before doing this. When the file is executed, the data will be downloaded to the current directory.

  If the script is interrupted, it is possible to restart the downloads from where they were stopped by restarting the script.

- The other download option is the file list. The file list is just a set of links directly to the data.

  The individual results in the ALMA request handler page include links that can also be clicked on to download the data.