

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 screenshot displays the ALMA Science Archive interface. At the top, there is a search bar and navigation options. The main content area is split into two panels. The left panel shows a diamond-patterned mosaic of the sky, with a field of view (FoV) of 176.66 degrees. The right panel shows a spectral plot with frequency on the x-axis (100 GHz to 900 GHz) and intensity on the y-axis. The plot is divided into ten numbered regions, each corresponding to a specific molecule or line. The molecules listed are: 3. CO v=0-1(1), 4. CS v=0-1(4-3), 5. HI 30M-2(1), 6. CO v=0-2(1), 7. CH3OH v=0-0(0,0)-1(1,1), 8. 13C18OH v=1-1(1,1)-3(2,2), 9. H2O v=2-1(10,10)-(1,1), and 10. HCO+ v=0-0(1,1)-0(0,0). Below the plot, there is a table of observations.

Observations (62007) | Projects (4155) | Publications (3125)

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scienti
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec	
2011.0.00191.S	Fomalhaut b	22:57:38.685	-29:37:12.616	7	0.1181	343.077-358.839 GHz	2012-12-06	2	1.047	0.816	12m		10.640	16.592	Disks a
2011.0.00131.S	R. Scl	01:26:58.079	-32:32:36.424	7	0.9115	330.246-346.109 GHz	2012-12-06	5	1.043	0.846	12m	mosaic	11.517	62.007	Stars ai
2011.0.00101.S	GRB021004	00:26:54.680	+18:55:41.600	7	0.1136	337.009-353.001 GHz	2012-12-06	2	1.107	26.541	12m		9.258	16.878	Active
2011.0.00397.S	J035448.24-330827.2	03:54:48.240	-33:08:27.200	7	0.4848	337.026-353.011 GHz	2012-12-20	3	1.128	26.541	12m		7.950	16.877	Active
2011.0.00397.S	J041754.10-281655.9	04:17:54.100	-28:16:55.900	7	0.4848	337.023-353.008 GHz	2012-12-20	3	1.118	26.541	12m		7.842	16.877	Active
2011.0.00397.S	J061200.23-062209.6	06:12:00.230	-06:22:09.600	7	0.5346	337.005-352.989 GHz	2012-12-20	3	1.183	26.541	12m		7.819	16.878	Active
2011.0.00397.S	J063027.81-212058.6	06:30:27.810	-21:20:58.600	7	0.5346	337.007-352.992 GHz	2012-12-20	3	1.183	26.541	12m		8.015	16.878	Active
2011.0.00397.S	J054930.06-373940.1	05:49:30.060	-37:39:40.100	7	0.4848	337.016-353.001 GHz	2012-12-20	3	1.156	26.541	12m		7.888	16.878	Active
2011.0.00397.S	J070257.20-280842.3	07:02:57.200	-28:08:42.300	7	0.5346	337.006-352.991 GHz	2012-12-20	3	1.154	26.541	12m		8.053	16.878	Active
2011.0.00397.S	J030427.53-310838.3	03:04:27.530	-31:08:38.300	7	0.4848	337.029-353.015 GHz	2012-12-20	3	1.142	26.541	12m		8.026	16.877	Active

The interface has three sections:

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

The screenshot displays the ALMA Science Archive interface, which is divided into three main sections:

- Sky Viewer:** A large image showing the ALMA antenna array footprint in the sky, with a field of view (FoV) of 176.66 degrees. The interface includes search bars and navigation controls.
- Spectral Viewer:** A plot showing the spectral lines of various molecules. The x-axis represents frequency in GHz (100 to 900), and the y-axis represents flux. The plot is divided into 10 numbered regions, each corresponding to a specific molecule or transition. The molecules listed are:
 - 3: CO v=0-1(1)
 - 4: HI 3C04-2-7
 - 5: CO v=0-2(1)
 - 6: HCO v=0-0(3,2)
 - 7: CH3OH v=0-0(0,0)4-1(1,1)
 - 8: 13CCH3OH v=1-1(1,1)3-2(2,1)
 - 9: H2O v=0-0(2,1)1-2(0,2)
 - 10: HCO v=0-0(1,1)0-0(0,0)
- Results Table:** A table listing observations with columns for Project code, ALMA source name, RA, Dec, Band, Cont. sens., Frequency support, Release date, Publications, Ang. res., Min. vel. res., Array, Mosaic, Max. reco. scale, FOV, and Scientific name. The table contains 10 rows of data.

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific name
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec	
2011.0.00191.S	Fomalhaut b	22:57:38.685	-29:37:12.616	7	0.1181	343.077-358.839 GHz	2012-12-06	2	1.047	0.816	12m		10.640	16.592	Disks a
2011.0.00131.S	R. Scl	01:26:58.079	-32:32:36.424	7	0.9115	330.246-346.109 GHz	2012-12-06	5	1.043	0.846	12m	mosaic	11.517	62.007	Stars a
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The results table actually has three tabs:

- Observation
- Project
- Publication

ALMA Science Archive

Search

00 00 0.661 -06 18 20.89 FoV: 176.66°

Cells Footprints Sky objects Sky layers

Explore and download

Molecules Lines Redshift

0 estimated

Observations (62007) Projects (4155) Publications (3125)

Project Code	Project Title	Type	PI Name	Proposal authors	↑ Max. Release Date	Publications	Observations	SB names
2011.0.00236.5	The Dynamics of Massive Starless Cores	S	Tan, Jonathan	Butler, Michael; Fonta...	2013-01-23	4	7	Project236_E
2011.0.00269.5	Metallicity of a Submillimeter Galaxy at z=5	S	Nagao, Tohru	De Breuck, Carlos; Ha...	2013-02-09	3	4	LESS J0332-2
2011.0.00454.5	(Why) Is CenA a source of Ultra High Energy Cosmic Rays: Shock acceleration, jet and UHECR composition	S	Nagar, Neil	Smith, Rory; Finlez, C...	2013-02-14	1	8	Band 6 CenA
2011.0.00851.5	The Origin of the Destroyed Minor Planet at G29-38: a Main Belt or Kuiper Belt Analog?	S	Faihi, Jay	Greaves, Jane; Bonsor...	2013-02-14	1	8	G29-38 Band
2011.0.00294.5	More than LESS: The first fully-identified submillimetre survey	S	Smail, Ian	Rix, Hans-Walter; Cha...	2013-02-15	20	140	Targets1-16,
2011.0.00510.5	Probing the Molecular Outflows of the Coldest Known Object in the Universe: The Boomerang Nebula	S	Sahai, Raghvendra	Nyman, Lars-Ake; Vle...	2013-03-13	2	6	B3 1 SB of 1
2011.0.00131.5	Piecing the shell together: ALMA and the detached shell around R Scl	S	Maercker, Matthias	Ramstedt, Sofia; Pala...	2013-03-29	5	14	R Scl B3 Spec
2011.0.00808.5	Probing the vertical structure of Saturn's storm with ALMA	S	Cavalié, Thibault	Moreno, Raphaël; Fo...	2013-04-23	0	4	GROUP_1_SE
2011.0.00101.5	Shedding Light on Distant Starburst Galaxies Hosting Gamma-ray Bursts v9	S	Wang, Wei-Hao	Huang, Kuiyuan; Chen...	2013-05-01	2	8	GRB021004, I
2011.0.00191.5	Constraining the Formation Mechanisms of Wide-Orbit Planets: The Case of Fomalhaut b v0.6	S	Boley, Aaron	Shabram, Megan; Cor...	2013-05-16	2	9	Fomalhaut b

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.

Search

Position

Source name
ALMA source name
RA Dec
Galactic
Target List
Angular Resolution
Max. Recoverable Scale

Energy

Frequency
Band
Spectral resolution
Continuum sensitivity
Line sensitivity (10 km/s)

Project

Project code
Project Title
Project abstract
PI Full Name
Proposal authors
Science keyword

Publication

BibCode
Publication Title
Abstract
First Author
Authors

Observation

Observation Date
Polarisation Type
Member ous id
Object type
Public data only
Calibration observations

Molecules
Lines
Redshift
0
estimated

3 4 5 6 7 8 9 10

	Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scienti
			h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec	
<input type="checkbox"/>	2011.0.00191.S	Fomalhaut b	22:57:38.685	-29:37:12.616	7	0.1181	343.077-358.839 GHz	2012-12-06	2	1.047	0.816	12m		10.640	16.592	Disks a
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<input type="checkbox"/>	2011.0.00397.S	J030427.53-310838.3	03:04:27.530	-31:08:38.300	7	0.4848	337.029-353.015 GHz	2012-12-20	3	1.142	26.541	12m		8.026	16.877	Active

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.

The screenshot displays the ALMA Science Archive interface. At the top, there is a search bar and navigation options. Below the search bar, a large image shows a diamond-patterned mosaic of the sky. To the right, a spectral plot shows intensity versus frequency (GHz) from 100 to 900 GHz. The plot is annotated with vertical lines and labels for various molecules and lines, including CO, HCN, HCO, and HNC. A yellow arrow points to the 'Project' column header in the table below.

Project	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scienti
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec	
2011.0.00191.S	Fomalhaut b	22:57:38.685	-29:37:12.616	7	0.1181	343.077-358.839 GHz	2012-12-06	2	1.047	0.816	12m		10.640	16.592	Disks a
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2011.0.00101.S	GRB021004	00:26:54.680	+18:55:41.600	7	0.1136	337.009-353.001 GHz	2012-12-06	2	1.107	26.541	12m		9.258	16.878	Active
2011.0.00397.S	J035448.24-330827.2	03:54:48.240	-33:08:27.200	7	0.4848	337.026-353.011 GHz	2012-12-20	3	1.128	26.541	12m		7.950	16.877	Active
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2011.0.00397.S	J063027.81-212058.6	06:30:27.810	-21:20:58.600	7	0.5346	337.007-352.992 GHz	2012-12-20	3	1.183	26.541	12m		8.015	16.878	Active
2011.0.00397.S	J054930.06-373940.1	05:49:30.060	-37:39:40.100	7	0.4848	337.016-353.001 GHz	2012-12-20	3	1.156	26.541	12m		7.888	16.878	Active
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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.

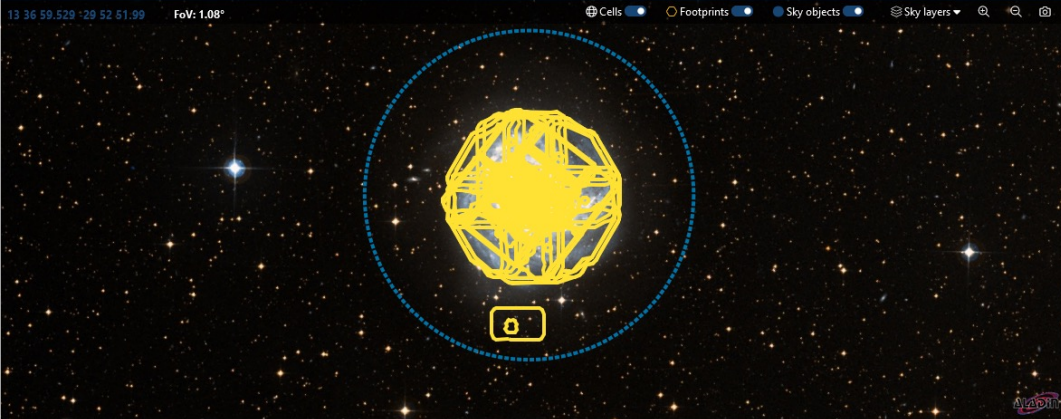
ALMA Science Archive

https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83

Search Source name: M83

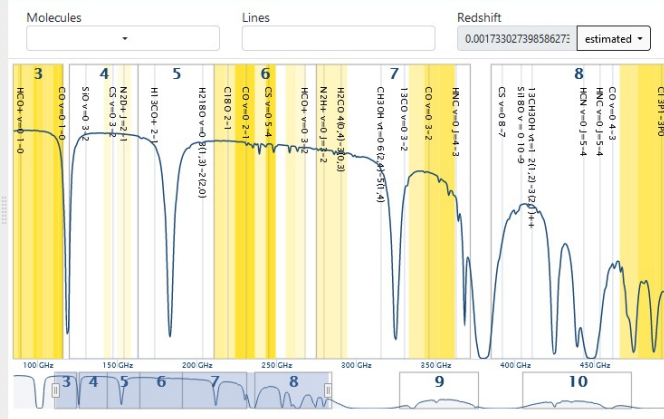
13 36 59.529 -29 52 51.99 FoV: 1.08°

Cells Footprints Sky objects Sky layers



Molecules Lines Redshift

0.001733027398586272 estimated



Observations (118) Projects (21) Publications (35)

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scienti
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec	
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 U
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 U
2012.1.00762.S	m83	13:37:04.458	-29:50:23.465	3	1.2334	99.954-115.581 GHz	2016-05-12	4	9.434	1.266	7m	mosaic	80.615	402.933	Local U
2013.1.01312.S	M83	13:37:04.185	-29:51:40.023	3	0.2963	85.586-101.452 GHz	2016-06-04	1	11.153	3.273	7m	mosaic	92.854	204.864	Local U
2013.1.01161.S	M83	13:37:00.750	-29:51:57.995	6	2.1803	229.25-247.187 GHz	2016-07-31	22	4.997	1.369	7m	mosaic	34.911	263.795	Active
2013.1.01161.S	M83	13:37:00.742	-29:51:57.876	6	0.4043	229.31-247.128 GHz	2016-07-31	22	1.045	1.369	12m	mosaic	9.960	250.960	Active
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0218	85.915-111.56 GHz	2016-08-05	0	1.280	3.034	12m	mosaic	13.070	121.175	Galaxy
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0288	87.831-91.457 GHz	2016-08-05	0	1.382	3.701	12m	mosaic	14.605	130.000	Galaxy
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0155	84.556-100.109 GHz	2016-08-05	0	1.338	3.381	12m	mosaic	15.636	128.108	Galaxy

The map display can be adjusted to display different wavebands. The spectrum can be adjusted to show broader or narrower frequency ranges, to show different spectral lines, and to show those lines at different redshifts.

The screenshot displays the ALMA Science Archive interface. At the top, the browser address bar shows the URL: https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83. The search bar contains 'Source name: M83'. The main view is a sky map of M83 with a yellow wireframe model overlaid. A 'Sky layers' panel is open, showing various waveband options: Gamma-ray, X-ray, Ultraviolet, Optical (selected), Infrared, Submillimetre, and Radio. The 'Optical' layer is set to 'DSS colored' and the 'Infrared' layer is set to 'AllWISE-color'. To the right, a spectral plot shows intensity versus frequency (100-450 GHz) and redshift (0.001733027398586272). The plot highlights several spectral lines with labels: 3 (CO v=0-1-0), 4 (NH₃ J₁₋₁-1-0, CS v=0-3-2, SO v=0-3-2), 5 (HI 3C0+2-2, H₂ 180 v=0-0-1(A), 2(A)), 6 (CO v=0-2-1, CIBO-2-1, CS v=0-5-4), 7 (NH₃ v=0-1-1-2, HCO⁺ v=0-3-2, H₂CO v=0-0-0(A), 1(A)), 8 (CO v=0-4-3, NH₃ v=0-3-4, HCN v=0-3-4, CS v=0-8-7), and 9 (13CO J=0-3-2, HNC v=0-1-4-3, CO v=0-3-2). A zoomed-in view of the 100-150 GHz region is shown at the bottom of the plot.

Below the sky map, there are tabs for 'Observations (118)', 'Projects (21)', and 'Publications (35)'. A table lists the observations for source M83:

Project code	ALMA source name	RA	Dec	band	Cont. sens.	frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scienti
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2013.1.01312.S	M83	13:37:04.185	-29:51:40.023	3	0.2963	85.586-101.452 GHz	2016-06-04	1	11.153	3.273	7m	mosaic	92.854	204.864	Local U
2013.7.00.750	M83	13:37:00.750	-29:51:57.995	6	2.1803	229.25-247.187 GHz	2016-07-31	22	4.997	1.369	7m	mosaic	34.911	263.795	Active
2013.1.01161.S	M83	13:37:00.742	-29:51:57.876	6	0.4043	229.31-247.128 GHz	2016-07-31	22	1.045	1.369	12m	mosaic	9.960	250.960	Active
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0218	85.915-111.56 GHz	2016-08-05	0	1.280	3.034	12m	mosaic	13.070	121.175	Galaxy
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0288	87.831-91.457 GHz	2016-08-05	0	1.382	3.701	12m	mosaic	14.605	130.000	Galaxy
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0155	84.556-100.109 GHz	2016-08-05	0	1.338	3.381	12m	mosaic	15.636	128.108	Galaxy

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.

ALMA Science Archive

https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83

Search Source name: M83

13 36 59.529 -29 52 51.99 FoV: 1.08°

Cells Footprints Sky objects Sky layers

Molecules Lines Redshift

0.001733027398586272 estimated

Observations (118) Projects (21) Publications (35)

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientist
		hh:mm:ss	dd:mm:ss		mJy/beam				arcsec	km/s			arcsec	arcsec	
2011.0.00772.S	M83	13:37:04.7	-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 ap
2012.1.00762.S	m83	13:37:04.458	-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 U
2013.1.01312.S	M83	13:37:04.458	-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 U
2012.1.00762.S	m83	13:37:04.458	-29:50:23.465	3	1.2334	99.854-115.581 GHz	2016-05-12	4	9.434	1.266	7m	mosaic	80.615	402.933	Local U
2013.1.01312.S	M83	13:37:04.185	-29:51:40.023	3	0.2963	85.586-101.452 GHz	2016-06-04	1	11.153	3.273	7m	mosaic	92.854	204.864	Local U
2013.1.01161.S	M83	13:37:00.750	-29:51:57.995	6	2.1803	229.25-247.187 GHz	2016-07-31	22	4.997	1.369	7m	mosaic	34.911	263.795	Active
2013.1.01161.S	M83	13:37:00.742	-29:51:57.876	6	0.4043	229.31-247.128 GHz	2016-07-31	22	1.045	1.369	12m	mosaic	9.960	250.960	Active
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0218	85.915-111.56 GHz	2016-08-05	0	1.280	3.034	12m	mosaic	13.070	121.175	Galaxy
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0288	87.831-91.457 GHz	2016-08-05	0	1.382	3.701	12m	mosaic	14.605	130.000	Galaxy
2013.1.00888.S	M83	13:37:05.500	-29:51:23.550	3	0.0155	84.556-100.109 GHz	2016-08-05	0	1.338	3.381	12m	mosaic	15.636	128.108	Galaxy

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

The screenshot shows the ALMA Science Archive interface. On the left, a star field with a yellow molecular cloud structure is visible. On the right, a spectral plot shows intensity versus frequency (100-450 GHz) with labeled lines for various molecules like CO, HCN, and HNC. Below the plot is a table of observations. A pop-up window is open over the first row of the table, providing details for Project 2013.1.01312.S.

Project 2013.1.01312.S

Project title: Wide-field imaging of dense gas in the nearby barred galaxy M83

PI name: Hirota, Akihiko

Proposal abstract: We propose to make a sensitive mosaic observations of the nearby barred galaxy M83 in HCN (J=1-0). The cycle0 observations of M83 in 12CO (1-0) enabled us to identify ~200 giant molecular clouds (GMCs) over wide range of galactic environments. Comparison with the HI regions indicated that progress of star formation strongly depends on the ratio between two time scales, namely free-fall time and crossing-time. In addition, by adopting a star formation law (SF-law) which relates, SFR, gas mass, and the two time scales, excellent agreement between the observation and the model were obtained for the radial distribution based analyses. Motivated by this finding, we aim to investigate the formation process of dense gas in terms of its environmental dependence, with the deep HCN observation. Since gas clouds denser than $1e4 \text{ cm}^{-3}$ is known to be the basic unit of star formation, to verify the environmental dependence of SF-law, it is more essential to clarify the formation process of such dense gas. By comparing the deep HCN data with the CO data, and with the already available working hypothesis (time scale dependence of SF), we will address the formation process of dense gas.

Acknowledgement: This paper makes use of the following ALMA data: ADS/JAO.ALMA#2013.1.01312.S ALMA is a partnership of ESO (representing its member states), NSF (USA) and NINS (Japan), together with NRC (Canada), MOST and ASIAA (Taiwan), and KASI (Republic of Korea), in cooperation with the Republic of Chile. The Joint ALMA Observatory is operated by ESO, AUI/NRAO and NAOJ. In addition, publications from this project must include the standard NRAO acknowledgement: The National Radio Astronomy Observatory is a facility of the National Science Foundation operated under cooperative agreement by Associated Universities, Inc.

Release date	Publications	Ang. res. (arcsec)	Min. vel. res. (km/s)	Array	Mosaic	Max. reco. scale (arcsec)	FOV (arcsec)	Scienti
2013-09-28	4	1.146	1.269	12m	mosaic	17.187	196.704	ISM ap
2015-05-16	4	0.554	1.267	12m	mosaic	25.218	390.161	Local U
2016-05-09	1	2.490	3.274	12m	mosaic	25.525	176.743	Local U
2016-05-12	4	9.434	1.266	7m	mosaic	80.615	402.933	Local U
2016-06-04	1	11.153	3.273	7m	mosaic	92.854	204.864	Local U
2016-07-31	22	4.997	1.369	7m	mosaic	34.911	263.795	Active
2016-07-31	22	1.045	1.369	12m	mosaic	9.960	250.960	Active
2016-08-05	0	1.280	3.034	12m	mosaic	13.070	121.175	Galaxy
2016-08-05	0	1.382	3.701	12m	mosaic	14.605	130.000	Galaxy
2016-08-05	0	1.338	3.381	12m	mosaic	15.636	128.108	Galaxy

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.

The screenshot displays the ALMA Science Archive interface. The top navigation bar includes a search bar with 'Source name: M83' and an 'Explore and download' button. The main content area is divided into several sections:

- Observation Details:** A central panel shows details for observation SPW 0: 112.354..114.229GHz, 1,128.906 kHz, XX YY. It includes a 'Previews for M83_CTR' window with a 'Explore and download' button. The details list:
 - member.uid: A001_X1295_X21.M83_CTR_sci.spw29.cube.lpbcor.fits (607 MB)
 - Band: 3
 - Frequency type: line
 - Frequency range: 112.354..114.229
 - Frequency resolution: 1,128.906 kHz
 - Continuum sensitivity: 0.283
 - Line sensitivity 10km/s (estimate): 9.28 mJy/beam@10km/s
 - Line sensitivity native (estimate): 0.417 uJy/beam@native
 - Polarizations: XX YY
 - Array: 12m
- Spectral Plot:** A plot on the right shows the spectral lines for M83. The x-axis represents frequency from 100 GHz to 450 GHz. Ten lines are highlighted with vertical bars and numbered 1 through 10. The lines are labeled with their corresponding molecules and transitions:
 - 1: CO v=0 J=1-0
 - 2: CO v=0 J=2-1
 - 3: CO v=0 J=3-2
 - 4: NH₂ J=1-1
 - 5: NH₂ J=2-1
 - 6: CS v=0 J=3-2
 - 7: HCO v=0 J=1-0
 - 8: HCO v=0 J=2-1
 - 9: HCO v=0 J=3-2
 - 10: HCO v=0 J=4-3
- Observations Table:** A table at the bottom lists various observations. A yellow arrow points to the row for observation 2017-10-30, which is highlighted in yellow. The table columns include:

Release date	Publications	Ang. res. (arcsec)	Min. vel. res. (km/s)	Array	Mosaic	Max. reco. scale (arcsec)	FOV (arcsec)	Scientist
19-06-10	1	4.475	2.226	7m	mosaic	28.488	59.680	Active
19-10-10	1	1.359	0.318	12m	mosaic	26.711	566.026	Local U
19-10-10	1	1.377	0.318	12m	mosaic	24.648	51.046	Local U
19-10-30	1	1.448	0.318	12m	mosaic	24.722	51.046	Local U
2019-10-30	1	1.388	0.318	12m	mosaic	26.393	588.436	Local U
2019-12-07	1	1.358	0.318	12m	mosaic	17.748	580.927	Local U
2019-12-07	1	1.359	0.318	12m	mosaic	17.602	51.045	Local U
2020-01-07	1	9.338	0.318	7m	mosaic	63.051	87.531	Local U
2020-01-07	1	9.338	0.318	7m	mosaic	68.096	630.529	Local U

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

The screenshot displays the ALMA Science Archive interface. The browser address bar shows the URL: https://almascience.eso.org/aq/7/result_view=observations&sourceNameResolver=M83&observationsSortProp=releaseDate&observationsSortDir=asc. The search bar contains "Source name: M83".

The main content area is divided into several sections:

- Observations (116):** A list of observations is shown, with the following details for the selected observation (2017-10-30):
 - Member ID: `member.uid_A001_X1295_X21.M83_CTR_sci.spw21.cube.l.pcor.fits` (34 MB)
 - Band: 3
 - Frequency type: line
 - Frequency range: 112.354..114.229
 - Frequency resolution: 1,128.906 kHz
 - Continuum sensitivity: 0.283
 - Line sensitivity 10km/s (estimate): 9.28 mJy/beam@10km/s
 - Line sensitivity native (estimate): 0.417 uJy/beam@native
 - Polarizations: XX YY
 - Array: 12m
- Previews for M83_CTR:** Two preview cards are visible. The first card (SPW 0) shows a spectral plot and a continuum plot. The second card (SPW 1) shows a spectral plot and a continuum plot. A yellow arrow points to the "C" icon in the second card's header.
- Spectral Plot:** A plot showing the spectral lines of M83. The x-axis is frequency in GHz (100 to 450). The y-axis is flux density. Several lines are labeled with their corresponding molecules and transitions, including CO, NH₃, H₂CO, and HCN. The plot is divided into 10 channels.
- Table:** A table of observations is shown at the bottom, with columns for Release date, Publications, Ang. res., Min. vel. res., Array, Mosaic, Max. reco. scale, FOV, and Scientific status. The row for the selected observation (2017-10-30) is highlighted in yellow.

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

The screenshot displays the ALMA Science Archive website with the CARTA (Common Astronomy Research Tool for ALMA) interface open. The browser address bar shows the URL: https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83&observationsSortProp=releaseDate&observationsSortDir=asc. The search bar contains "Source name: M83".

The main interface features a dark background with a star field and a central circular spectral image. The image is labeled with "member.uid_A001_X1295_X21.M83_CTR_sd.spw21.cube.l.pbcor.fits" and includes WCS information: "WCS: (13:37:00.52, -29:51:59.8); Image: (144, 144); NaN"; and "Frequency (LSRK): 113.9648 GHz; Velocity: 2698.7156 km/s; Polarization: Stokes I". The axes are labeled "Right ascension" and "Declination".

Below the main image is a "Render Configuration" panel showing a histogram of the data. The histogram is labeled "Value (Jybeam)" and has a range from -0.02 to 0.02. The configuration includes a "Histogram" dropdown set to "Per-Channel", "Clip Min" of -0.016801960641, "Clip Max" of 0.017431058790, "Scaling" set to "Linear", and "Color map" set to a rainbow color map. There is also an "Invert color map" checkbox.

To the right of the main image are two "X Profile: Cursor" and "Y Profile: Cursor" panels. Each panel has a graph showing "Value" on the y-axis (ranging from 0.00e+0 to 8.00e-1) and "X coordinate" or "Y coordinate" on the x-axis (ranging from 0 to 1). Both panels have "Image" and "Region" dropdowns set to "Active".

At the bottom of the interface is a table of observations. The table has columns for "Project code", "ALMA source name", "Right ascension", "Declination", "Frequency", "Release date", "Number of antennas", "Bandwidth", "Resolution", and "Mosaic".

Project code	ALMA source name	Right ascension	Declination	Frequency	Release date	Number of antennas	Bandwidth	Resolution	Mosaic	
2016.1.00164.S	M83	13:37:00.512	-29:51:59.645	3	2.7112	112.292.115.793 GHz	2020-01-07	1	9.338 0.318 7m	
2017.1.00079.S	M83	13:36:59.310	-29:52:07.873	3	2.7130	112.292.115.793 GHz	2020-01-07	1	9.338 0.318 7m	

On the right side of the interface, there is a "Redshift" section with a value of 0.001733027398586272 and a dropdown menu set to "estimated". Below this is a spectral plot showing several absorption lines labeled with chemical species and their rest-frame velocities: "NH3 v=0-1 J=2-2", "CH3OH v=0-0 F2A-F3(0,4)", "13CO v=0-0 J=3-2", "CO v=0-0 J=3-2", "HCN v=0-1 J=4-3", "HCN v=0-1 J=3-4", "N2H+ v=0-1 J=3-4", "CS v=0-0 J=7-7", and "13C18O v=0-1 J=2-2". The plot shows a spectrum with several peaks and troughs.

At the bottom right, there is a table with columns for "Mosaic", "Max. reco. scale", "FOV", and "Scientist".

Mosaic	Max. reco. scale	FOV	Scientist
arcsec	arcsec		
mosaic	28.488	59.680	Active
mosaic	26.711	566.026	Local L
mosaic	24.648	51.046	Local L
mosaic	24.722	51.046	Local L
mosaic	26.393	588.436	Local L
mosaic	17.748	580.927	Local L
mosaic	17.602	51.045	Local L
mosaic	63.051	87.531	Local L
mosaic	68.096	630.529	Local L

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

The screenshot displays the ALMA Science Archive interface. At the top, the search bar contains "Source name: M83". Below the search bar, there is a sky map showing the footprint of the observations in yellow. To the right of the sky map is a spectral plot showing the intensity of the signal across a range of frequencies from 100 GHz to 450 GHz. The plot is labeled with various molecules and their transitions, such as CO, NH₃, H₂CO, and HCN. A yellow arrow points from the spectral plot to the table below.

The table below the spectral plot shows the results of the search, sorted by angular resolution. The columns are: Project code, ALMA source name, RA, Dec, Band, Cont. sens., Frequency support, Release date, Publications, Ang. res., Min. vel. res., Array, Mosaic, Max. reco. scale, FOV, and Scientist. The table contains 11 rows of data.

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientist
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec	
2015.1.00624.S	M83	13:37:06.765	-29:53:23.398	6	0.2940	213.927-231.155 GHz	2018-06-28	0	0.135	0.367	12m	mosaic	3.369	204.612	Local U
2013.1.01161.S	M83	13:37:00.750	-29:51:58.000	6	0.1162	229.309-247.128 GHz	2018-10-06	22	0.194	1.370	12m	mosaic	3.909	91.615	Active
2015.1.01177.S	m83	13:37:00.919	-29:51:56.740	3	0.0115	85.604-101.271 GHz	2017-11-07	2	0.375	3.470	12m		7.319	62.319	Active
2013.1.01161.S	M83	13:37:00.742	-29:51:57.876	6	0.2194	229.309-247.128 GHz	2016-10-07	22	0.496	1.370	12m	mosaic	4.300	250.960	Active
2013.1.00861.S	M83	13:37:03.967	-29:59:47.584	6	0.3025	214.933-234.1 GHz	2016-11-19	3	0.552	2.515	12m	mosaic	5.143	194.285	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 U
2016.1.00386.S	M83	13:36:45.171	-29:52:17.997	6	0.2331	229.677-247.13 GHz	2018-03-01	13	0.585	0.734	12m	mosaic	5.971	242.551	Active
2015.1.01593.S	m83	13:37:02.126	-29:52:06.260	7	0.4992	344.252-360.112 GHz	2017-04-19	1	0.620	0.846	12m	mosaic	6.173	122.408	Local U
2015.1.01593.S	m83	13:37:05.628	-29:51:07.949	7	0.5700	344.252-360.112 GHz	2017-05-20	1	0.621	0.846	12m	mosaic	6.027	122.410	Local U
2021.1.01195.S	M83	13:36:53.230	-29:52:48.725	7	0.2712	340.56-356.433 GHz	In progress	0	0.627	1.639	12m	mosaic	6.841	114.473	Galaxy

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

The screenshot displays the ALMA Science Archive interface. At the top, the search bar contains 'Source name: M83'. Below the search bar is a sky map of the galaxy M83 with yellow boxes indicating observation footprints. To the right of the sky map is a spectral plot showing the intensity of the 7th band across a frequency range from 280 GHz to 360 GHz. The plot includes labels for various molecules and lines, such as NH_3 , D_2CO , H_2O , C_2H , C_2H_2 , N_2O , H_2CO , C_2H_3 , C_2H_4 , C_2H_5 , C_2H_6 , C_2H_7 , C_2H_8 , C_2H_9 , C_2H_{10} , C_2H_{11} , C_2H_{12} , C_2H_{13} , C_2H_{14} , C_2H_{15} , C_2H_{16} , C_2H_{17} , C_2H_{18} , C_2H_{19} , C_2H_{20} , C_2H_{21} , C_2H_{22} , C_2H_{23} , C_2H_{24} , C_2H_{25} , C_2H_{26} , C_2H_{27} , C_2H_{28} , C_2H_{29} , C_2H_{30} , C_2H_{31} , C_2H_{32} , C_2H_{33} , C_2H_{34} , C_2H_{35} , C_2H_{36} , C_2H_{37} , C_2H_{38} , C_2H_{39} , C_2H_{40} , C_2H_{41} , C_2H_{42} , C_2H_{43} , C_2H_{44} , C_2H_{45} , C_2H_{46} , C_2H_{47} , C_2H_{48} , C_2H_{49} , C_2H_{50} , C_2H_{51} , C_2H_{52} , C_2H_{53} , C_2H_{54} , C_2H_{55} , C_2H_{56} , C_2H_{57} , C_2H_{58} , C_2H_{59} , C_2H_{60} , C_2H_{61} , C_2H_{62} , C_2H_{63} , C_2H_{64} , C_2H_{65} , C_2H_{66} , C_2H_{67} , C_2H_{68} , C_2H_{69} , C_2H_{70} , C_2H_{71} , C_2H_{72} , C_2H_{73} , C_2H_{74} , C_2H_{75} , C_2H_{76} , C_2H_{77} , C_2H_{78} , C_2H_{79} , C_2H_{80} , C_2H_{81} , C_2H_{82} , C_2H_{83} , C_2H_{84} , C_2H_{85} , C_2H_{86} , C_2H_{87} , C_2H_{88} , C_2H_{89} , C_2H_{90} , C_2H_{91} , C_2H_{92} , C_2H_{93} , C_2H_{94} , C_2H_{95} , C_2H_{96} , C_2H_{97} , C_2H_{98} , C_2H_{99} , C_2H_{100} . Below the spectral plot is a table of observations sorted by release date. A yellow arrow points to the 'Band' column in the table.

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scienti	
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec		
<input type="checkbox"/>	2015.1.01593.S	m83	13:37:02.126	-29:52:06.260	7	0.4992	344.252-360.112 GHz	2017-04-19	1	0.620	0.846	12m	mosaic	6.173	122.408	Local U
<input type="checkbox"/>	2015.1.01593.S	m83	13:37:05.628	-29:51:07.949	7	0.5700	344.252-360.112 GHz	2017-05-20	1	0.621	0.846	12m	mosaic	6.027	122.410	Local U
<input type="checkbox"/>	2015.1.01593.S	m83	13:37:00.919	-29:51:56.740	7	0.7863	344.188-360.175 GHz	2017-09-06	1	14.924	0.846	TP		264.543	16.534	Local U
<input type="checkbox"/>	2015.1.01593.S	m83	13:37:05.613	-29:51:08.197	7	4.4317	344.188-360.175 GHz	2017-11-24	1	2.902	0.846	7m	mosaic	24.657	131.765	Local U
<input type="checkbox"/>	2015.1.01593.S	m83	13:37:00.919	-29:51:56.740	7	0.9173	344.189-360.174 GHz	2018-02-13	1	14.924	0.846	TP		264.543	16.534	Local U
<input type="checkbox"/>	2016.1.00164.S	M83	13:37:00.750	-29:51:58.000	7	0.0818	278.265-293.908 GHz	2018-03-28	1	1.198	1.990	12m	mosaic	10.069	39.971	Active
<input type="checkbox"/>	2015.1.01593.S	m83	13:37:02.111	-29:52:06.507	7	3.5680	344.188-360.175 GHz	2018-05-19	1	2.655	0.846	7m	mosaic	24.657	131.765	Local U
<input type="checkbox"/>	2016.1.00164.S	M83	13:37:00.887	-29:51:59.777	7	0.3908	278.203-293.971 GHz	2019-06-10	1	3.948	1.990	7m	mosaic	25.492	51.707	Active
<input type="checkbox"/>	2017.0.00665.S	M83	13:37:05.823	-29:59:57.260	7	0.0859	341.501-357.496 GHz	2020-08-14	1	0.738	0.980	12m	mosaic	7.465	45.733	Local U
<input type="checkbox"/>	2021.1.01195.S	M83	13:36:53.229	-29:52:48.786	7	2.1331	340.497-356.496 GHz	2023-10-11	0	3.067	1.639	7m	mosaic	24.917	127.050	Galaxy

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.

The screenshot displays the ALMA Science Archive interface. At the top, the browser address bar shows the URL: https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83&observationsSortProp=releaseDate&observationsSortDir=asc. The search bar contains "Source name: M83".

The interface is divided into three main panels:

- Map Panel:** Shows a star field with a yellow outline of the ALMA array and a blue dashed circle representing the field of view (FoV: 1.08°). A yellow box highlights a specific observation location on the map.
- Spectral Plot Panel:** Displays a frequency spectrum from 100 GHz to 450 GHz. The plot shows several absorption lines, with 10 lines highlighted in yellow and numbered 3 through 10. The lines are labeled with their corresponding molecules and transitions, such as CO v=0-1-0, NH₂-1-1, HI 3C0+2-2, C18O 2-1, CS v=0-5-4, HCO+ v=0-3-2, H₂CO 4(0,4)-3(0,3), H₂CO v=0-1-1, H₂CO v=0-3-2, HNC v=0-1-1, HNC v=0-3-4, CS v=0-8-7, and 13CO(0-0) 3(0,3)-2(0,2) v=1-1.
- Observations Table:** A table listing 118 observations. The table has columns for Project code, ALMA source name, RA, Dec, Band, Cont. sens., Frequency support, Release date, Publications, Ang. res., Min. vel. res., Array, Mosaic, Max. reco. scale, FOV, and Scientist. The row for observation 20171.00079.S M83_CTR is highlighted in orange, and a yellow arrow points to its checkbox.

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientist	
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec		
<input type="checkbox"/>	<input type="checkbox"/>	20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2518	112.355-115.793 GHz	2020-03-03	1	1.377	0.318	12m	18.377	51.046	Local U
<input type="checkbox"/>	<input type="checkbox"/>	20171.00079.S	M83	13:37:00.031	-29:49:28.093	3	2.2701	112.292-115.793 GHz	2020-03-07	1	9.345	0.318	7m	67.522	617.666	Local U
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.2770	112.292-115.793 GHz	2020-03-07	1	9.347	0.318	7m	63.281	87.531	Local U
<input type="checkbox"/>	<input type="checkbox"/>	20171.00079.S	M83	13:36:59.254	-29:54:50.022	3	2.2566	112.292-115.793 GHz	2020-06-21	1	9.419	0.318	7m	63.537	617.412	Local U
<input type="checkbox"/>	<input type="checkbox"/>	20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.2538	112.292-115.793 GHz	2020-06-21	1	9.418	0.318	7m	61.156	87.530	Local U
<input type="checkbox"/>	<input type="checkbox"/>	20171.00079.S	M83	13:36:59.529	-29:52:06.980	3	0.4313	112.294-115.793 GHz	2020-06-28	1	46.089	0.318	TP	816.942	51.059	Local U
<input type="checkbox"/>	<input type="checkbox"/>	20171.00079.S	M83	13:36:59.529	-29:52:06.980	3	0.4204	112.294-115.793 GHz	2020-06-29	1	46.089	0.318	TP	816.942	51.059	Local U
<input type="checkbox"/>	<input type="checkbox"/>	20171.00065.S	M83	13:37:05.823	-29:59:57.260	7	0.0859	341.501-357.496 GHz	2020-08-14	1	0.738	0.980	12m	7.465	45.733	Local U
<input type="checkbox"/>	<input type="checkbox"/>	20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2661	112.355-115.793 GHz	2021-03-04	1	1.370	0.318	12m	22.053	51.045	Local U

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.

ALMA Science Archive

Search Source name: M83

13 36 59.529 -29 52 51.99 FoV: 1.08°

Molecules Lines Redshift

0.001733027398586272 estimated

Observations (118) Projects (21) Publications (35)

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scienti	
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec		
<input type="checkbox"/>	2021.1.00079.5	M83	13:36:59.439	-29:52:13.443	8	191.360	476.905-492.299 GHz	2023-04-19	0	2.010	0.690	7m	mosaic	13.261	224.146	Active
<input type="checkbox"/>	2021.1.00079.5	M83	13:36:55.955	-29:50:34.068	8	17.6519	476.905-492.299 GHz	2023-04-20	0	2.364	0.690	7m	mosaic	14.356	224.146	Active
<input type="checkbox"/>	2021.1.00079.5	M83	13:37:05.894	-29:53:19.548	8	17.6538	476.905-492.299 GHz	2023-04-20	0	2.365	0.690	7m	mosaic	14.373	224.146	Active
<input type="checkbox"/>	2021.1.00079.5	M83	13:37:00.919	-29:51:56.740	8	2.3021	476.905-492.299 GHz	2023-04-25	0	10.846	0.690	TP		192.255	12.016	Active
<input type="checkbox"/>	2021.1.01195.5	M83	13:37:00.919	-29:51:56.740	3	0.2103	90.127-105.751 GHz	2023-05-27	0	53.667	3.262	TP		951.280	59.455	Galaxy
<input type="checkbox"/>	2021.1.01195.5	M83	13:36:53.230	-29:52:48.725	3	0.0289	85.96-101.71 GHz	2023-06-03	0	1.204	3.390	12m	mosaic	16.491	127.709	Galaxy
<input checked="" type="checkbox"/>	2021.1.01195.5	M83	13:36:53.230	-29:52:48.725	3	0.0258	90.189-105.689 GHz	2023-07-08	0	1.020	3.260	12m	mosaic	18.723	122.105	Galaxy
<input type="checkbox"/>	2021.1.01195.5	M83	13:36:53.229	-29:52:48.786	7	2.1331	340.497-356.496 GHz	2023-10-11	0	3.067	1.639	7m	mosaic	24.917	127.050	Galaxy
<input type="checkbox"/>	2021.1.01195.5	M83	13:36:53.230	-29:52:48.725	7	0.2712	340.56-356.433 GHz	In progress	0	0.627	1.639	12m	mosaic	6.841	114.473	Galaxy
<input type="checkbox"/>	2022.1.00859.5	m83	13:37:00.919	-29:51:56.740	8	2.0143	476.169-494.152 GHz	In progress	0	10.811	0.688	TP		191.639	11.977	Local L

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.

The screenshot displays the ALMA Science Archive interface. At the top, the browser address bar shows the URL: https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83&observationsSortProp=releaseDate&observationsSortDir=asc. A yellow arrow points to the top right corner of the interface, where there are icons for sharing, a search icon, and a green button labeled "Explore and download".

The main content area is split into two panels. The left panel shows a sky map with a yellow beam footprint centered on the source M83. The right panel shows a spectral plot with labeled molecular lines. The lines are numbered 1 through 10, corresponding to the following molecules and transitions:

- 1: CO v=0-1-0
- 2: CO v=0-3-2
- 3: CO v=0-1-0
- 4: NH₂-1-1
- 5: HI 3C0+2-2
- 6: CS v=0-2-1
- 7: H₂CO v=0-1-0
- 8: H₂CO v=0-3-2
- 9: H₂CO v=0-1-0
- 10: H₂CO v=0-3-2

Below the sky map and spectral plot, there are tabs for "Observations (118)", "Projects (21)", and "Publications (35)". The "Observations" tab is active, showing a table of observations.

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scienti	
		h:m:s	d:m:s		mJy/beam	MHz-GHz			arcsec	km/s			arcsec	arcsec		
<input type="checkbox"/>	20171.00079.5	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2518	112.355-115.793 GHz	2020-03-03	1	1.377	0.318	12m		18.377	51.046	Local U
<input type="checkbox"/>	20171.00079.5	M83	13:37:00.031	-29:49:28.093	3	2.2701	112.292-115.793 GHz	2020-03-07	1	9.345	0.318	7m	mosaic	67.522	617.666	Local U
<input checked="" type="checkbox"/>	20171.00079.5	M83_CTR	13:37:00.512	-29:51:59.645	3	2.2770	112.292-115.793 GHz	2020-03-07	1	9.347	0.318	7m		63.281	87.531	Local U
<input type="checkbox"/>	20171.00079.5	M83	13:36:59.254	-29:54:50.022	3	2.2566	112.292-115.793 GHz	2020-06-21	1	9.419	0.318	7m	mosaic	63.537	617.412	Local U
<input type="checkbox"/>	20171.00079.5	M83_CTR	13:37:00.512	-29:51:59.645	3	2.2538	112.292-115.793 GHz	2020-06-21	1	9.418	0.318	7m		61.156	87.530	Local U
<input type="checkbox"/>	20171.00079.5	M83	13:36:59.529	-29:52:06.980	3	0.4313	112.294-115.793 GHz	2020-06-28	1	46.089	0.318	TP		816.942	51.059	Local U
<input type="checkbox"/>	20171.00079.5	M83	13:36:59.529	-29:52:06.980	3	0.4204	112.294-115.793 GHz	2020-06-29	1	46.089	0.318	TP		816.942	51.059	Local U
<input type="checkbox"/>	20171.00065.5	M83	13:37:05.823	-29:59:57.260	7	0.0859	341.501-357.496 GHz	2020-08-14	1	0.738	0.980	12m	mosaic	7.465	45.733	Local U
<input type="checkbox"/>	20171.00079.5	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2661	112.355-115.793 GHz	2021-03-04	1	1.370	0.318	12m		22.053	51.045	Local U

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.

The screenshot displays the ALMA Science Archive interface. At the top, a search bar contains 'Source name: M83'. A green button labeled 'Explore and download' is highlighted with a yellow arrow. Below the search bar, a spectral plot shows intensity versus frequency (100 GHz to 450 GHz) with various molecular lines labeled. Below the plot, a table lists observations with columns for Project code, ALMA source name, RA, Dec, Band, Cont. sens., Frequency support, Release date, Publications, Ang. res., Min. vel. res., Array, Mosaic, Max. reco. scale, FOV, and Scientist. The row for Project code 20171.00079.S, ALMA source name M83_CTR, RA 13:37:00.512, Dec -29:51:59.645, Band 3, Cont. sens. 2.2770, Frequency support 112.292-115.793 GHz, Release date 2020-03-07, Publications 1, Ang. res. 9.347, Min. vel. res. 0.318, Array 7m, Mosaic, Max. reco. scale 63.281, FOV 87.531, and Scientist Local U is highlighted in yellow.

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientist	
		hms	dms		mJy/beam	GHz			arcsec	km/s			arcsec	arcsec		
<input type="checkbox"/>	20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2518	112.355-115.793 GHz	2020-03-03	1	1.377	0.318	12m		18.377	51.046	Local U
<input type="checkbox"/>	20171.00079.S	M83	13:37:00.031	-29:49:28.093	3	2.2701	112.292-115.793 GHz	2020-03-07	1	9.345	0.318	7m	mosaic	67.522	617.666	Local U
<input checked="" type="checkbox"/>	20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.2770	112.292-115.793 GHz	2020-03-07	1	9.347	0.318	7m		63.281	87.531	Local U
<input type="checkbox"/>	20171.00079.S	M83	13:36:59.254	-29:54:50.022	3	2.2566	112.292-115.793 GHz	2020-06-21	1	9.419	0.318	7m	mosaic	63.537	617.412	Local U
<input type="checkbox"/>	20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.2538	112.292-115.793 GHz	2020-06-21	1	9.418	0.318	7m		61.156	87.530	Local U
<input type="checkbox"/>	20171.00079.S	M83	13:36:59.529	-29:52:06.980	3	0.4313	112.294-115.793 GHz	2020-06-28	1	46.089	0.318	TP		816.942	51.059	Local U
<input type="checkbox"/>	20171.00079.S	M83	13:36:59.529	-29:52:06.980	3	0.4204	112.294-115.793 GHz	2020-06-29	1	46.089	0.318	TP		816.942	51.059	Local U
<input type="checkbox"/>	20171.00065.S	M83	13:37:05.823	-29:59:57.260	7	0.0859	341.501-357.496 GHz	2020-08-14	1	0.738	0.980	12m	mosaic	7.465	45.733	Local U
<input type="checkbox"/>	20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2661	112.355-115.793 GHz	2021-03-04	1	1.370	0.318	12m		22.053	51.045	Local U

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.

The screenshot displays the ALMA Science Archive web interface. The browser address bar shows the URL: https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83&observationsSortProp=releaseDate&observationsSortDir=asc. The search results are filtered for source name 'M83'. A modal window titled 'Download' is open, showing a list of selected sources. The modal includes a 'Download' button and a link to 'Explore and download in legacy system'. The list of sources includes:

- Project:** 2017.1.00079.S **Science Goal:** uid://A001/X1295/X39 **Group OUS:** uid://A001/X1295/X3a **Member OUS:** uid://A001/X1295/X3d
member.uid_A001_X1295_X3d.M83_CTR_sci.spw22.mfs.lpbcor.fits 48 KB
Band: 3
Frequency range: 112.292..114.291
Frequency resolution: 1,128.906 kHz
Continuum sensitivity: 136.042
Line sensitivity 10km/s (estimate): 69.157 mJy/beam@10km/s
Line sensitivity native (estimate): 3.006 uJy/beam@native
Polarizations: XX YY
Array: 7m
- Project:** 2017.1.00079.S **Science Goal:** uid://A001/X1295/X39 **Group OUS:** uid://A001/X1295/X3a **Member OUS:** uid://A001/X1295/X3d
member.uid_A001_X1295_X3d.M83_CTR_sci.spw22.cube.lpbcor.fits 67 MB
Band: 3
Frequency range: 112.292..114.291
Frequency resolution: 1,128.906 kHz
Continuum sensitivity: 136.042
Line sensitivity 10km/s (estimate): 69.157 mJy/beam@10km/s
Line sensitivity native (estimate): 3.006 uJy/beam@native
Polarizations: XX YY
Array: 7m
- Project:** 2017.1.00079.S **Science Goal:** uid://A001/X1295/X39 **Group OUS:** uid://A001/X1295/X3a **Member OUS:** uid://A001/X1295/X3d
member.uid_A001_X1295_X3d.M83_CTR_sci.spw20.mfs.lpbcor.fits 48 KB
Band: 3
Array: 7m

The background shows a search results table with columns for Project code, ALMA source name, and a list of observations. The table includes entries for project 2017.1.00079.S and source M83_CTR. A spectral plot is visible on the right side of the interface, showing redshift and various spectral lines.

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.

The screenshot displays the ALMA Science Archive web interface. At the top, there is a search bar and a navigation menu. The main content area shows a list of data products, each with a thumbnail image and associated metadata. The interface is cluttered with various buttons and links, including a prominent "Download 288 MB" button and a "Login" button. The data products listed include:

- member.uid_A001_X1295_X3d.M83_CTR_sci.spw16_18_20_22.cont.l.pbcor.fits** (product) - 48 kB - 2017.1.00079.S - uid://A001/X1295/X3a - uid://A001/X1295/X3d
- member.uid_A001_X1295_X3d.M83_CTR_sci.spw16.cube.l.pbcor.fits** (product) - 144 MB - 2017.1.00079.S - uid://A001/X1295/X3a - uid://A001/X1295/X3d
- member.uid_A001_X1295_X3d.M83_CTR_sci.spw22.cube.l.pbcor.fits** (product) - 67 MB - 2017.1.00079.S - uid://A001/X1295/X3a - uid://A001/X1295/X3d

The metadata for the second product includes:

- Band: 3
- Frequency range: 114.946..115.196
- Frequency resolution: 122.07 kHz
- Line sens. (10km/s): 98.17mJy/beam
- Line sens. (native): 12.164uJy/beam
- Polarizations: XX YY
- Array: 7m

The metadata for the third product includes:

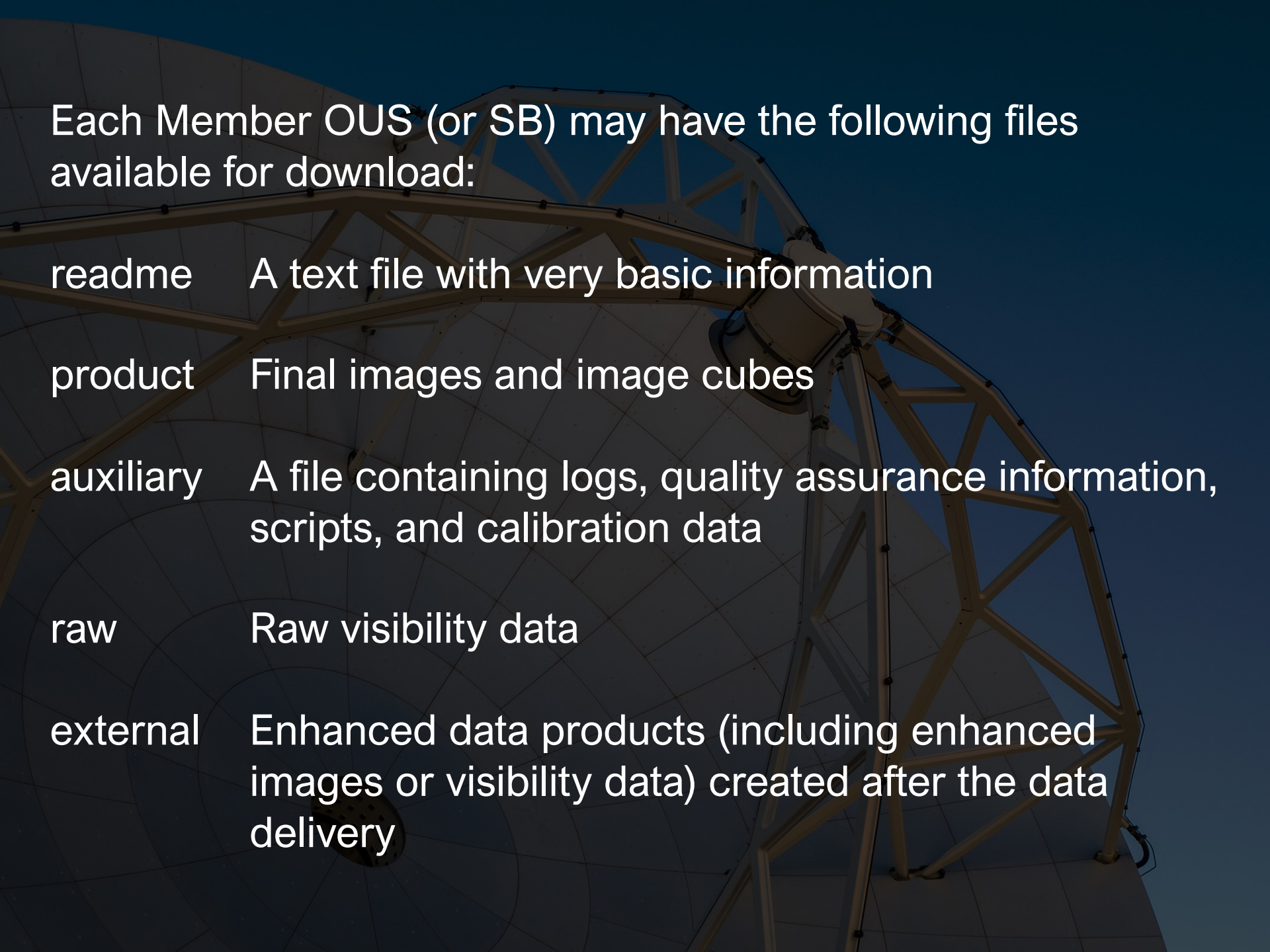
- Band: 3
- Frequency range: 112.292..114.291
- Frequency resolution: 1,128.906 kHz
- Line sens. (10km/s): 69.157mJy/beam
- Line sens. (native): 3.006uJy/beam
- Polarizations: XX YY
- Array: 7m

The interface also features a sidebar with navigation options such as "Projects (1)", "Group ObsUniSets (1)", "Member ObsUniSets (1)", "Sources (1)", "Collections (1)", "Array (1)", "File types (1)", and "File class (1)".

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.)

The screenshot shows the ALMA Request Handler web interface. At the top, the browser address bar displays the URL <https://almascience.eso.org/rh/submission>. The page header includes the title "ALMA Request Handler" and a "Login" link. Below the header, the user is identified as "Anonymous User: Request #2164505852308" with a green checkmark. A link "Request Title: [click to edit](#)" is provided. A "Download Selected" button is visible. Below this, there are checkboxes for file types: readme, product, auxiliary, raw, raw (semipass), and external. The main content is a table with columns: "Project / OUSet / Executionblock", "Updated", "File", "Size", "Accessible", and "Actions". The table shows a hierarchical view of the request data, starting with "Request 2164505852308" (90 GB total size). It is expanded to show "Project 2017.1.00079.S", which includes "Science Goal OUS uid://A001X1295X39", "Group OUS uid://A001X1295X3a", and two "Member OUS" entries. The first Member OUS (uid://A001X1295X3b, updated 2019-02-28) contains a "SB M83_f_03_TM1" with files: "readme" (4 kB), "product" (83 GB), "auxiliary" (723 MB), and three "raw" files (78 GB, 36 GB, 39 GB). The second Member OUS (uid://A001X1295X3d, updated 2019-03-07) contains a "SB M83_f_03_TM" with files: "readme" (4 kB), "product" (5 GB), "auxiliary" (939 MB), and 18 "raw" files of various sizes (2 GB to 3 GB). Each file row has a green checkmark in the "Accessible" column and a link in the "Actions" column.

Project / OUSet / Executionblock	Updated	File	Size	Accessible	Actions
Request 2164505852308			90 GB		
Project 2017.1.00079.S					
Science Goal OUS uid://A001X1295X39					
Group OUS uid://A001X1295X3a					
Member OUS uid://A001X1295X3b	2019-02-28				
SB M83_f_03_TM1					
readme		member.uid_A001_X1295_X3b_README.txt	4 kB	✓	
product		2017.1.00079.S_uid_A001_X1295_X3b_001_of_001.tar	83 GB	✓	
auxiliary		2017.1.00079.S_uid_A001_X1295_X3b_auxiliary.tar	723 MB	✓	
raw		2017.1.00079.S_uid_A002_Xd0fb35_X24ef.asdm.sdm.tar	78 GB	✓	
raw		2017.1.00079.S_uid_A002_Xg704f8_X1977d.asdm.sdm.tar	36 GB	✓	
raw		2017.1.00079.S_uid_A002_Xd704f8_X2b97a.asdm.sdm.tar	39 GB	✓	
Member OUS uid://A001X1295X3d	2019-03-07				
SB M83_f_03_TM					
readme		member.uid_A001_X1295_X3d_README.txt	4 kB	✓	
product		2017.1.00079.S_uid_A001_X1295_X3d_001_of_001.tar	5 GB	✓	
auxiliary		2017.1.00079.S_uid_A001_X1295_X3d_auxiliary.tar	939 MB	✓	
raw		2017.1.00079.S_uid_A002_Xca9e6b_X2ae8.asdm.sdm.tar	2 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcda49e_Xad46.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdb7b8_X14ba.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdb7b8_X21b9.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdd033_X1690.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdd033_X21b3.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdd033_Xa76e.asdm.sdm.tar	2 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdd033_Xb1e2.asdm.sdm.tar	2 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcde1cf_X1799.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcde1cf_X2db8.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdec4_X11b1.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdec4_X1e83.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdec4_X77e.asdm.sdm.tar	3 GB	✓	
raw		2017.1.00079.S_uid_A002_Xcdec4_X9d7e.asdm.sdm.tar	3 GB	✓	



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

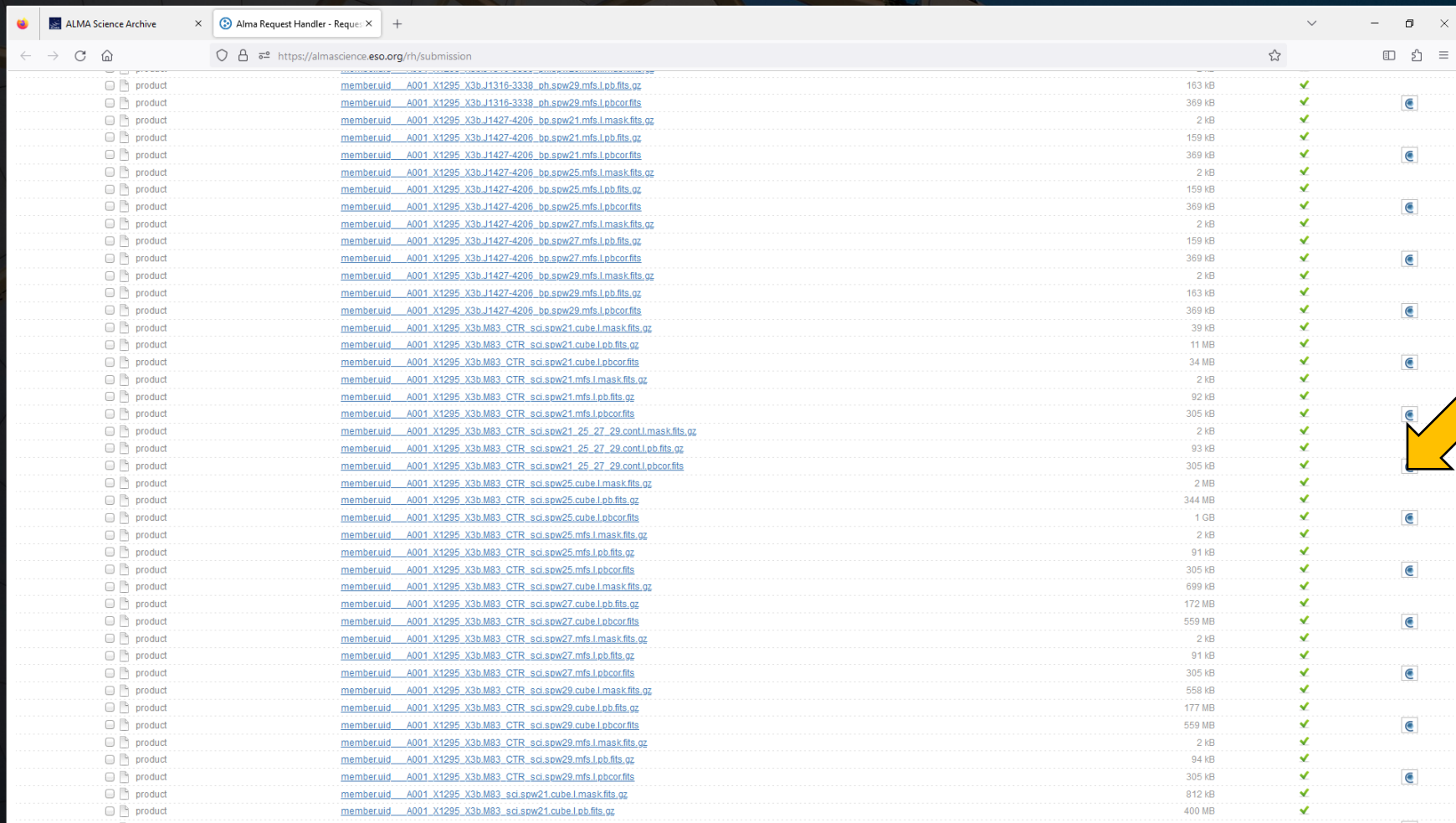
Clicking on the triangles pointing to the right will produce an expanded list that will show the contents of the individual tar files. (These lists can be collapsed again by clicking on the downwards-pointing arrows.)

The screenshot shows the ALMA Request Handler web interface. At the top, the browser address bar displays <https://almascience.eso.org/rh/submission>. The page title is "ALMA Request Handler" and the user is identified as "Anonymous User: Request #2164505852308". Below the user information, there are checkboxes for "Download Selected" and various file types: readme, product, auxiliary, raw, raw (semipass), and external.

The main content area is a table with the following columns: Project / OUSet / Executionblock, Updated, File, Size, Accessible, and Actions. The table shows a hierarchical view of the request structure, starting with "Request 2164505852308" and "Project 2017.1.00079.S". The file list is expanded to show individual tar files, each with a file name, size, and a green checkmark in the "Accessible" column. The "Actions" column contains a right-pointing triangle icon for each file, which, according to the text, can be clicked to expand the file's contents.

Project / OUSet / Executionblock	Updated	File	Size	Accessible	Actions
Request 2164505852308			90 GB		
Project 2017.1.00079.S					
Science Goal OUS uid://A001X1295X39					
Group OUS uid://A001X1295X3a					
Member OUS uid://A001X1295X3b	2019-02-28				
SB M83_L03_TM1					
<input checked="" type="checkbox"/> readme		memberuid_A001_X1295_X3b_README.txt	4 kB	✓	
<input checked="" type="checkbox"/> product		2017.1.00079.S_uid_A001_X1295_X3b_001_of_001.tar	83 GB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow21.mfs.lpb.fits.gz	2 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow21.mfs.lpb.fits.gz	160 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow21.mfs.lpbcorfits	369 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow25.mfs.lpbcorfits.gz	2 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow25.mfs.lpbcorfits.gz	159 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow25.mfs.lpbcorfits	369 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow27.mfs.lpbcorfits.gz	2 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow27.mfs.lpbcorfits	159 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow27.mfs.lpbcorfits	369 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow29.mfs.lpbcorfits.gz	2 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow29.mfs.lpbcorfits	163 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1316-3338_ph.sow29.mfs.lpbcorfits	369 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow21.mfs.lpbcorfits	2 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow21.mfs.lpbcorfits	159 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow21.mfs.lpbcorfits	369 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow25.mfs.lpbcorfits.gz	2 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow25.mfs.lpbcorfits	159 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow25.mfs.lpbcorfits	369 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow27.mfs.lpbcorfits	2 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow27.mfs.lpbcorfits	159 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow27.mfs.lpbcorfits	369 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow29.mfs.lpbcorfits	2 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow29.mfs.lpbcorfits	163 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_J1427-4206_be.sow29.mfs.lpbcorfits	369 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_M83_CTR_sci.sow21.cube.lpbcorfits	39 kB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_M83_CTR_sci.sow21.cube.lpbcorfits	11 MB	✓	
<input type="checkbox"/> product		memberuid_A001_X1295_X3b_M83_CTR_sci.sow21.cube.lpbcorfits	34 kB	✓	

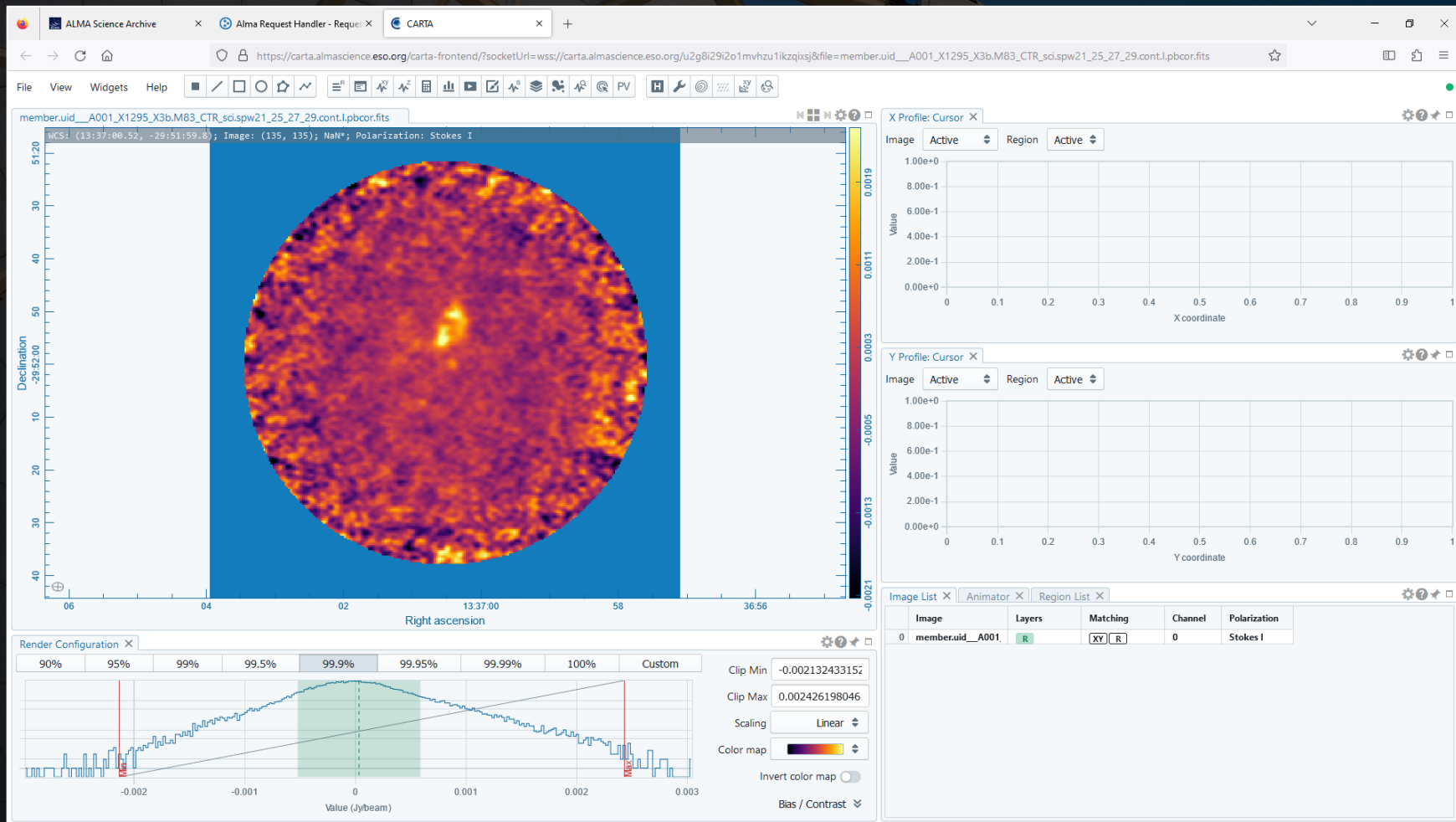
It is also possible to preview individual images in the product tar file by clicking on the symbol with the C on the far right of the page. This will open a new page displaying the image using the CARTA interface.



The screenshot shows a web browser window displaying the ALMA Science Archive submission page. The URL is <https://almascience.eso.org/rh/submission>. The page contains a table of submission records. Each record includes a file name, size, status, and a 'C' icon. A yellow arrow points to the 'C' icon of the record with file name `memberuid_A001_X1295_X3b_M83_CTR_sci.spw21_25_27_29.cont1.mask.fits.gz`.

File Name	Size	Status	Icon
<code>product memberuid_A001_X1295_X3b_J1316-3338_obs.spw29.mfs.lpb.fits.gz</code>	163 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1316-3338_obs.spw29.mfs.lpbcorfits</code>	369 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw21.mfs.lmask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw21.mfs.lpb.fits.gz</code>	159 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw21.mfs.lpbcorfits</code>	369 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw25.mfs.lmask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw25.mfs.lpb.fits.gz</code>	159 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw25.mfs.lpbcorfits</code>	369 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw27.mfs.lmask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw27.mfs.lpb.fits.gz</code>	159 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw27.mfs.lpbcorfits</code>	369 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw29.mfs.lmask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw29.mfs.lpb.fits.gz</code>	163 kB	✓	
<code>product memberuid_A001_X1295_X3b_J1427-4206_obs.spw29.mfs.lpbcorfits</code>	369 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21.cube.lmask.fits.gz</code>	39 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21.cube.lpb.fits.gz</code>	11 MB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21.cube.lpbcorfits</code>	34 MB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21.mfs.lmask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21.mfs.lpb.fits.gz</code>	92 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21.mfs.lpbcorfits</code>	305 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21_25_27_29.cont1.mask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21_25_27_29.cont1.lpb.fits.gz</code>	93 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw21_25_27_29.cont1.lpbcorfits</code>	305 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw25.cube.lmask.fits.gz</code>	2 MB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw25.cube.lpb.fits.gz</code>	344 MB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw25.cube.lpbcorfits</code>	1 GB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw25.mfs.lmask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw25.mfs.lpb.fits.gz</code>	91 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw25.mfs.lpbcorfits</code>	305 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw27.cube.lmask.fits.gz</code>	699 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw27.cube.lpb.fits.gz</code>	172 MB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw27.cube.lpbcorfits</code>	559 MB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw27.mfs.lmask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw27.mfs.lpb.fits.gz</code>	91 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw27.mfs.lpbcorfits</code>	305 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw29.cube.lmask.fits.gz</code>	558 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw29.cube.lpb.fits.gz</code>	177 MB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw29.cube.lpbcorfits</code>	559 MB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw29.mfs.lmask.fits.gz</code>	2 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw29.mfs.lpb.fits.gz</code>	94 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_CTR_sci.spw29.mfs.lpbcorfits</code>	305 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_sci.spw21.cube.lmask.fits.gz</code>	812 kB	✓	
<code>product memberuid_A001_X1295_X3b_M83_sci.spw21.cube.lpb.fits.gz</code>	400 MB	✓	

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.



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.

The screenshot shows the ALMA Request Handler web interface. At the top, the browser address bar shows the URL <https://almascience.eso.org/rh/submission>. The page title is "ALMA Request Handler" and the user is identified as "Anonymous User: Request #2164505852308".

Below the user information, there is a "Download Selected" button. A set of checkboxes allows filtering the file list by type: readme, product, auxiliary, raw, raw (semipass), and external.

The main content is a table with the following columns: Project / OUSet / Executionblock, Updated, File, Size, Accessible, and Actions. The table lists files for two different execution blocks under the request #2164505852308.

Project / OUSet / Executionblock	Updated	File	Size	Accessible	Actions
Request 2164505852308			236 GB		
Project 2017.1.00079.S					
Science Goal OUS uid://A001X1295X39					
Group OUS uid://A001X1295X3a					
Member OUS uid://A001X1295X3b	2019-02-28				
SB M83_f_03_TM1					
<input checked="" type="checkbox"/> readme		member.uid_A001_X1295_X3b_README.txt	4 kB	✓	
<input checked="" type="checkbox"/> product		2017.1.00079.S_uid_A001_X1295_X3b_001_of_001.tar	83 GB	✓	
<input checked="" type="checkbox"/> auxiliary		2017.1.00079.S_uid_A001_X1295_X3b_auxiliary.tar	723 MB	✓	
<input checked="" type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xd0fb35_X24ef.asdm.sdm.tar	78 GB	✓	
<input checked="" type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xd704f8_X1977d.asdm.sdm.tar	36 GB	✓	
<input checked="" type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xd704f8_X2b97a.asdm.sdm.tar	39 GB	✓	
Member OUS uid://A001X1295X3d	2019-03-07				
SB M83_f_03_TM					
<input type="checkbox"/> readme		member.uid_A001_X1295_X3d_README.txt	4 kB	✓	
<input type="checkbox"/> product		2017.1.00079.S_uid_A001_X1295_X3d_001_of_001.tar	5 GB	✓	
<input type="checkbox"/> auxiliary		2017.1.00079.S_uid_A001_X1295_X3d_auxiliary.tar	939 MB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xca9e6b_X2ae5.asdm.sdm.tar	2 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcda49e_Xad46.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdb7b8_X14ba.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdb7b8_X21b9.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdd033_X1690.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdd033_X21b3.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdd033_Xa76e.asdm.sdm.tar	2 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdd033_Xb1e2.asdm.sdm.tar	2 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcde1cf_X1799.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcde1cf_X2db8.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdecf4_X11b1.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdecf4_X1e83.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdecf4_X77e.asdm.sdm.tar	3 GB	✓	
<input type="checkbox"/> raw		2017.1.00079.S_uid_A002_Xcdecf4_X9d7e.asdm.sdm.tar	3 GB	✓	



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.