

# ***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. On the left, a spectral plot shows intensity versus frequency (GHz) from 0 to 900 GHz. The plot is overlaid with a diamond-shaped pattern, likely representing the ALMA array configuration. On the right, a spectral plot shows intensity versus frequency (GHz) from 0 to 900 GHz. The plot is overlaid with a diamond-shaped pattern, likely representing the ALMA array configuration. The plot shows several absorption lines, with labels for molecules and lines. The labels include: 3 CO v=0-1-0, 4 CS v=0-3-2, 5 CO v=0-3-2, 6 CO v=0-3-2, 7 CH3OH v=0-6(0,4)-5(1,1)-J, 8 HNC v=0-1-4-3, 9 H2O v=0-2(1,0)-1(0,1), 10 HCO v=0-2(1,0)-1(0,1), 11 HCO v=0-2(1,0)-1(0,1), 12 HCO v=0-2(1,0)-1(0,1), 13 HCO v=0-2(1,0)-1(0,1), 14 HCO v=0-2(1,0)-1(0,1), 15 HCO v=0-2(1,0)-1(0,1), 16 HCO v=0-2(1,0)-1(0,1), 17 HCO v=0-2(1,0)-1(0,1), 18 HCO v=0-2(1,0)-1(0,1), 19 HCO v=0-2(1,0)-1(0,1), 20 HCO v=0-2(1,0)-1(0,1).

Below the plots, there are navigation options: Observations (69434), Projects (4559), and Publications (3604). A table of observations is displayed below, with columns for Project code, ALMA source name, RA, Dec, Band, Cont.sens., Frequency support, Release date, Publications, Ang.res., Min.vel.res., and Array.

Project code	ALMA source name	RA	Dec	Band	Cont.sens.	Frequency support	Release date	Publications	Ang.res.	Min.vel.res.	Array
2011.0.00191.5	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
2011.0.00191.5	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
2011.0.00101.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	J064228.93-272801.8	06:42:28.930	-27:28:01.800	7	0.5346	337.008.352.993 GHz	2012-12-20	3	1.165	26.541	12m

# The interface has three sections:

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

The screenshot displays the ALMA Science Archive web interface. The top section features a search bar and navigation controls. The main content is divided into three sections:

- Sky Viewer:** Shows a diamond-shaped mosaic of the sky with a central yellow diamond. The FoV is 176.37°.
- Spectral Viewer:** Displays a spectral plot from 100 GHz to 900 GHz. The plot shows several absorption lines, with 10 lines highlighted and labeled with their corresponding molecules and transitions. The molecules listed are: 3. CS v=0 3-2, 4. HCO v=0 1-0, 5. CO v=0 3-2, 6. HCO v=0 3-2, 7. CH3OH v=0 6(0,4)-5(1,3), 8. HNC v=0 1-4-3, 9. CO v=0 2-1, 10. HCO v=0 2-1. The redshift is estimated to be 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., and Max. reco. scale.

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Max. reco. scale
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	10.640
2011.0.00191.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	11.517
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	9.258
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	7.950
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	7.842
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	8.015
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	7.819
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	8.053
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	7.888
2011.0.00397.S	J064228.93-272801.8	06:42:28.930	-27:28:01.800	7	0.5346	337.008-352.993 GHz	2012-12-20	3	1.165	26.541	8.123

# The results table actually has three tabs:

- Observation
- Project
- Publication

The screenshot displays the ALMA Science Archive interface. On the left, there is a spectral plot showing intensity versus frequency (GHz) from 100 to 900 GHz. The plot features several labeled spectral lines, including HCO, CS, CO, HNC, CH3OH, and HCN. On the right, a table lists the identified lines with their corresponding redshifts and estimated values. Below the plot, there are three tabs: Observations (69434), Projects (4559), and Publications (3604). The 'Projects' tab is active, showing a table of project entries.

Project Code	Project Title	Type	Joint proposals	PI Name	Proposal authors	↑ Max.Release Date	Publications
2011.0.00236.5	The Dynamics of Massive Starless Cores	S		Tan, Jonathan	Butler, Michael; Fonta...	2013-01-23	4
2011.0.00269.5	Metallicity of a Submillimeter Galaxy at z=5	S		Nagao, Tohru	De Breuck, Carlos; Ha...	2013-02-09	3
2011.0.00454.3	(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
2011.0.00851.5	The Origin of the Destroyed Minor Planet at G29-38: a Main Belt or Kuiper Belt Analog?	S		Farihi, Jay	Greaves, Jene; Bonsor...	2013-02-14	1
2011.0.00284.5	More than LESS: The first fully-identified submillimetre survey	S		Smail, Ian	Rix, Hans-Walter; Cha...	2013-02-15	20
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
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
2011.0.00808.5	Probing the vertical structure of Saturn's storm with ALMA	S		Cavalié, Thibault	Moreno, Raphael; Fo...	2013-04-23	0
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
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

# The results table actually has three tabs:

- Observation
- Project
- Publication

ALMA Science Archive

Search

Explore and download

The interface displays a spectral plot on the left and a publication table on the right. The spectral plot shows intensity versus frequency (GHz) with various molecular lines labeled. The publication table lists publications with columns for BibCode, First Author, Journal, Year, Publication Title, Max. Release Date, Projects, Observations, and Authors.

BibCode	First Author	Journal	Year	Publication Title	↑ Max. Release Date	Projects	Observations	Authors
2013ApJ...779...96T	Tan, Jonathan C.	ApJ	2013	The Dynamics of Massive Starless Cores with ALMA	2013-01-23	1	7	Tan, Jonathan C.; Kong, Shuo; Beuther, L.
2016ApJ...828...100F	Feng, Siyi	ApJ	2016	Outflow Detection in a 70 $\mu$ m Dark High-Mass Core	2013-01-23	1	7	Feng, Siyi; Beuther, L.
2016ApJ...821...94K	Kong, Shuo	ApJ	2016	The Deuterium Fraction in Massive Starless Cores and Dynamical Implications	2013-01-23	1	7	Kong, Shuo; Tan, Jonathan C.; Beuther, L.
2012A&A...542L...34N	Nagao, T.	A&A	2012	ALMA reveals a chemically evolved submillimeter galaxy at $z = 4.76$	2013-02-09	1	4	Nagao, T.; Maiolino, R.; Tacconi, L. J.; et al.
2014MNRAS...444...1821F	Farihi, J.	MNRAS	2014	ALMA and Herschel observations of the prototype dusty and polluted white dwarf G29-38	2013-02-14	1	8	Farihi, J.; Wyatt, M. C.; et al.
2016A&A...586A...45S	Salomé, Q.	A&A	2016	Star formation efficiency along the radio jet in Centaurus A	2013-02-14	1	8	Salomé, Q.; Salomé, P.; et al.
2017ApJ...840...78D	Danielson, A. L. R.	ApJ	2017	An ALMA Survey of Submillimeter Galaxies in the Extended Chandra Deep Field South: Spectroscopic Redshifts	2013-02-15	1	140	Danielson, A. L. R.; Swinbank, A. M.; et al.
2016MNRAS...462...1192L	Lindroos, L.	MNRAS	2016	Estimating sizes of faint, distant galaxies in the submillimetre regime	2013-02-15	1	140	Lindroos, L.; Knudsen, J.; et al.
2014ApJ...788...1255S	Simpson, J. M.	ApJ	2014	An ALMA Survey of Submillimeter Galaxies in the Extended Chandra Deep Field South: The Redshift Distribution and Evolution...	2013-02-15	1	140	Simpson, J. M.; Swinbank, A. M.; et al.
2016MNRAS...463...10M	MacKenzie, Todd P.	MNRAS	2016	SEDBLEND: a new method for deblending spectral energy distributions in confused imaging	2013-02-15	1	140	MacKenzie, Todd P.; Swinbank, A. M.; et al.

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 screenshot displays the ALMA Science Center website interface. A yellow arrow points to the search bar at the top left. Below the search bar, there are several filter categories: Position, Energy, Project, Publication, and Observation. Each category has a list of input fields for searching. To the right of these filters is a spectral plot showing intensity versus frequency (GHz) from 100 to 900 GHz. The plot features several labeled peaks, numbered 3 through 10, corresponding to different molecules and isotopes. Below the plot, there is a table of observations with columns for Project code, ALMA source name, RA, Dec, Band, Cont. sens., Frequency support, Release date, Publications, and Max. reco. scale.

**Search Filters:**

- 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.

**Spectral Plot Labels:**

- 3: CO v=0-1 (1-0)
- 4: CS v=0-0 (3-2)
- 5: CO v=0-0 (2-1)
- 6: CO v=0-0 (3-2)
- 7: HCO v=0-0 (1-0)
- 8: HNC v=0-0 (1-0)
- 9: CO v=0-0 (6-5)
- 10: HCO v=0-1 (1-0)

**Observations Table:**

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Max. reco. scale
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	10.640
2011.0.00191.S	R. Scl	01:26:58.079	-32:32:36.424	7	0.9115	330.246-346.109 GHz	2012-12-06	5	11.517
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	9.258
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	7.950
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	7.842
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	8.015
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	7.819
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	8.053
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	7.888
2011.0.00397.S	J064228.93-272801.8	06:42:28.930	-27:28:01.800	7	0.5346	337.008-352.993 GHz	2012-12-20	3	8.123

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 spectral plot shows intensity versus frequency (GHz) from 100 to 900 GHz. The plot features several labeled peaks corresponding to different molecules and lines. A yellow arrow points to the 'Projects' tab in the 'Observations (69434)' section, which contains a table of search results.

Project	ALMA source name	RA	lms+	Dec	dms+	Band	Cont.sens.	mJy/beam	Frequency support	Release date	Publications	Ang.res.	arcsec	Min.vel.res.	km/s	Array	Mosaic	Max.reco.scale
2011.0.00191.5	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
2011.0.00191.5	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
2011.0.00101.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	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
2011.0.00397.5	J064228.93-272801.8	06:42:28.930		-27:28:01.800		7	0.5346		337.008.352.993 GHz	2012-12-20	3	1.165		26.541		12m		8.123



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. The top navigation bar includes a search bar with 'Source name: M83' and a 'Remove filters' button. The main content area is split into two panels. The left panel shows a spectral plot with a color selection overlay. The right panel shows a detailed spectral plot with labeled molecular lines and a redshift of 0.001733027340378612 (estimated).

**Color Selection Overlay:**

Optical: DSS colored → Infrared: AllWISE-color

- Ultraviolet - GALEX-GR6-Color - native - [trash]
- Optical - DSS colored - native - [trash]**
- Infrared - AllWISE-color - native - [trash]

**Spectral Plot Labels (Molecules and Lines):**

- 3: CO v=0-1-0, HCO+ v=0-1-0
- 4: N2H+ J=2-1, CS v=0-3-2, SiO v=0-3-0
- 5: H2CO 2-2, H2 180 v=0-1(3)-2(2)
- 6: CO v=0-2-1, CS v=0-5-4
- 7: HNC v=0-1-1-3, 13CO v=0-3-2, CH3OH v=0-6(0)-5(0)-1(1)
- 8: CO v=0-4-3, HNC v=0-1-3-4, HCN v=0-1-3-4, 13C18O v=1-2(1)-3(2)-0(1)-1-1, Si18O v=0-10-9, CS v=0-8-7
- 9: HNC v=0-1-1-3
- 10: CO v=0-4-3

**Observations Table:**

Project code	ALMA source name	RA	lms+	Dec	dms+	Band	Cont.sens.	mJy/beam	Frequency support	Release date	Publications	Ang.res.	arcsec	Min.vel.res.	km/s	Array	Mosaic	Max.reco.scale
2011.0.00772.S	M83	13:37:04.763		-29:51:45.340		3	0.2781		100.627.115.393 GHz	2013-09-28	6	1.146		1.269		12m	mosaic	17.187
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	13.493
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
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	8.360		1.266		7m	mosaic	80.615
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
2013.1.01161.S	M83	13:37:00.750		-29:51:57.995		6	2.1803		229.25.247.187 GHz	2016-07-31	42	4.997		1.369		7m	mosaic	34.911
2013.1.01161.S	M83	13:37:00.742		-29:51:57.876		6	0.4043		229.31.247.128 GHz	2016-07-31	42	1.045		1.369		12m	mosaic	9.960
2013.1.00889.S	M83	13:37:05.500		-29:51:23.550		3	0.0218		95.915.111.556 GHz	2016-08-05	0	1.280		3.034		12m	mosaic	13.070
2013.1.00889.S	M83	13:37:05.500		-29:51:23.550		3	0.0288		87.931.91.457 GHz	2016-08-05	0	1.382		3.701		12m	mosaic	14.605
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

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.

ALMA Science Archive

Search  Source name: M83 Remove filters

Explore and download

13 36 59.529 29 52 51.99 FoV: 1.08°

Molecules Lines Redshift

0.001733027340378612: estimated

85 GHz 90 GHz 95 GHz 100 GHz 105 GHz 110 GHz 115 GHz

Observations (124) Projects (24) Publications (60)

	Project code	ALMA source name	RA	lms+	Dec	dims+	Band	Cont.sens.	mJ/beam+	Frequency support	Release date	Publications	Ang.res.	arcsec-	Min.vel.res.	km/s-	Array	Mosaic	Max.reco.scale
<input type="checkbox"/>	<input type="text" value="2011.0.00772.S"/>	M83	13:37:04.763		-29:51:45.340		3	0.2781		100.627.115.393 GHz	2013-09-28	6	1.146		1.269		12m	mosaic	17.187
<input type="checkbox"/>	<input type="text" value="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	13.493
<input type="checkbox"/>	<input type="text" value="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
<input type="checkbox"/>	<input type="text" value="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	8.360		1.266		7m	mosaic	80.615
<input type="checkbox"/>	<input type="text" value="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
<input type="checkbox"/>	<input type="text" value="2013.1.01161.S"/>	M83	13:37:00.750		-29:51:57.995		6	2.1803		229.25.247.187 GHz	2016-07-31	42	4.997		1.369		7m	mosaic	34.911
<input type="checkbox"/>	<input type="text" value="2013.1.01161.S"/>	M83	13:37:00.742		-29:51:57.876		6	0.4043		229.31.247.128 GHz	2016-07-31	42	1.045		1.369		12m	mosaic	9.960
<input type="checkbox"/>	<input type="text" value="2013.1.00889.S"/>	M83	13:37:05.500		-29:51:23.550		3	0.0218		95.915.111.556 GHz	2016-08-05	0	1.280		3.034		12m	mosaic	13.070
<input type="checkbox"/>	<input type="text" value="2013.1.00889.S"/>	M83	13:37:05.500		-29:51:23.550		3	0.0288		87.931.91.457 GHz	2016-08-05	0	1.382		3.701		12m	mosaic	14.605
<input type="checkbox"/>	<input type="text" value="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

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.

The screenshot displays the ALMA Science Archive interface. At the top, there is a search bar with "Source name: M83" and a "Remove filters" button. Below the search bar is a star map showing the location of M83 (NGC 3627) in the constellation Hydra. A yellow circle highlights the field of view (FoV) of the observation, and a yellow arrow points to a specific observation entry in the table below. The spectrum panel on the right shows the frequency range from 100 GHz to 450 GHz, with several spectral lines identified and numbered 3 through 10. The table below lists 14 observations for source M83, with the row corresponding to the observation ID 2013.101312.S highlighted in yellow. This row's data is reflected in the map and spectrum panels.

Project code	ALMA source name	RA	lms+	Dec	dims+	Band	Cont.sens.	mJy/beam+	Frequency support	Release date	Publications	Ang.res.	arcsec-	Min.vel.res.	km/s-	Array	Mosaic	Max.reco.scale
2011.0.00772.S	M83	13:37:04.763	-29:51:45.340	3	0.2781	100.627.115.393 GHz	2013-09-28	6	1.146	1.269	12m	mosaic	17.187					
2012.1.00762.S	m83	13:37:03.885	-29:50:23.433	3	0.2201	99.913.115.551 GHz	2015-05-16	4	0.554	1.267	12m	mosaic	13.493					
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					
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	8.360	1.266	7m	mosaic	80.615					
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					
2013.1.01161.S	M83	13:37:00.750	-29:51:57.995	6	2.1803	229.25.247.187 GHz	2016-07-31	42	4.997	1.369	7m	mosaic	34.911					
2013.1.01161.S	M83	13:37:00.742	-29:51:57.876	6	0.4043	229.31.247.128 GHz	2016-07-31	42	1.045	1.369	12m	mosaic	9.960					
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0218	95.915.111.556 GHz	2016-08-05	0	1.280	3.034	12m	mosaic	13.070					
2013.1.00889.S	M83	13:37:05.500	-29:51:23.550	3	0.0288	87.931.91.457 GHz	2016-08-05	0	1.382	3.701	12m	mosaic	14.605					
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					

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

The screenshot displays the ALMA Science Archive interface. On the left, a star field is shown with a yellow molecular cloud structure overlaid. The main panel features a spectral plot with labeled lines for various molecules and transitions. Below the plot is a table of observations. A yellow arrow points to the first row of the table, which is highlighted in yellow.

**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 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.

Support	Release date	Publications	Ang.res.	arcsec-	Min.vel.res.	km/s-	Array	Mosaic	Max.reco.scale
7.115.393 GHz	2013-09-28	6	1.146		1.269		12m	mosaic	17.187
3.115.551 GHz	2015-05-16	4	0.554		1.267		12m	mosaic	13.493
4.101.394 GHz	2016-05-09	1	2.490		3.274		12m	mosaic	25.525
4.115.581 GHz	2016-05-12	4	8.360		1.266		7m	mosaic	80.615
2013.1.01312.S	2016-06-04	1	11.153		3.273		7m	mosaic	92.854
2013.1.01161.S	2016-07-31	42	4.997		1.369		7m	mosaic	34.911
2013.1.01161.S	2016-07-31	42	1.045		1.369		12m	mosaic	9.960
2013.1.00889.S	2016-08-05	0	1.280		3.034		12m	mosaic	13.070
2013.1.00889.S	2016-08-05	0	1.382		3.701		12m	mosaic	14.605
2013.1.00889.S	2016-08-05	0	1.338		3.381		12m	mosaic	15.636

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. At the top, there is a search bar with "Source name: M83" and a "Remove filters" button. Below the search bar, there are tabs for "Molecules", "Lines", and "Redshift". The "Redshift" tab is selected, showing a value of 0.001733027340378612. A spectral plot shows several absorption lines labeled with numbers 3 through 10, corresponding to different molecules and transitions. A table of publications is visible at the bottom right, with columns for "Release date", "Publications", "Ang.res.", "arcsec", "Min.vel.res.", "km/s", "Array", "Mosaic", and "Max.reco.scale". A yellow arrow points to a specific observation in the table, which is highlighted in yellow.

**Observations (124)**

Observation ID	Source Name	RA (J2000)	Dec (J2000)	Band	Frequency Range (GHz)	Release Date	Publications	Ang.res. (arcsec)	Min.vel.res. (km/s)	Array	Mosaic	Max.reco.scale
20171.00079.5	M83_CTR	13:37:00.512	-29:51:59.645	3	112.292..115.793	2020-01-07	2	9.338	0.318	7m		63.050
20171.00079.5	M83	13:36:59.310	-29:52:07.873	3	112.292..115.793	2020-01-07	2	9.338	0.318	7m	mosaic	68.095
20171.00079.5	M83_CTR	13:37:00.512	-29:51:59.645	3	112.292..115.793	2020-01-10	2	8.965	0.318	7m		65.835
20171.00079.5	M83	13:36:59.515	-29:52:07.122	3	112.292..115.793	2020-01-10	2	8.960	0.318	7m	mosaic	67.720
20171.00079.5	M83_CTR	13:37:00.512	-29:51:59.645	3	112.292..115.793	2020-01-25	2	9.351	0.318	7m		63.296
20171.00079.5	M83	13:36:47.144	-29:52:14.190	3	112.292..115.793	2020-01-25	2	9.336	0.318	7m	mosaic	67.551
20171.00079.5	M83_CTR	13:37:00.512	-29:51:59.645	3	112.292..115.793	2020-02-01	2	8.299	0.318	7m		64.064

**SPW 0: 112.355..114.229GHz, 1,128.906 kHz, XX YY**

member.uid\_A001\_X1295\_X2d.M83\_CTR\_sci.spw29.cube.l.pbcor.fits 533 MB

Band: 3  
 Frequency type: line  
 Frequency range: 112.355..114.229  
 Frequency resolution: 1,128.906 kHz  
 Continuum sensitivity: 0.266  
 Line sensitivity 10km/s (estimate): 8.749 mJy/beam@10km/s  
 Line sensitivity native (estimate): 0.393 uJy/beam@native  
 Polarizations: XX YY  
 Array: 12m

**SPW 1: 113.809..115.793GHz, 31,250 kHz, XX YY**

member.uid\_A001\_X1295\_X2d.M83\_CTR\_sci.spw21.cube.l.pbcor.fits 33 MB

Band: 3  
 Frequency type: continuum  
 Frequency range: 113.809..115.793  
 Frequency resolution: 31,250 kHz  
 Continuum sensitivity: 0.266  
 Line sensitivity 10km/s (estimate): 9.693 mJy/beam@10km/s  
 Line sensitivity native (estimate): 0.424 uJy/beam@native  
 Polarizations: XX YY  
 Array: 12m

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

ALMA Science Archive

Source name: M83

FOV: 1.08"

Previews for M83\_CTR

ALMA

README Q&A report Weblog

SPW 0: 112.355..114.229GHz, 1,128.906 kHz, XX YY

member.uid\_A001\_X1295\_X2d.M83\_CTR\_sci.spw29.cube.lpbcor.fits 533 MB

Band: 3  
 Frequency type: line  
 Frequency range: 112.355..114.229  
 Frequency resolution: 1,128.906 kHz  
 Continuum sensitivity: 0.266  
 Line sensitivity 10km/s (estimate): 8.749 mJy/beam@10km/s  
 Line sensitivity native (estimate): 0.393 uJy/beam@native  
 Polarizations: XX YY  
 Array: 12m

SPW 1: 113.809..115.793GHz, 31,250 kHz, XX YY

member.uid\_A001\_X1295\_X2d.M83\_CTR\_sci.spw21.cube.lpbcor.fits 33 MB

Frequency type: continuum  
 Frequency range: 113.809..115.793  
 Frequency resolution: 31,250 kHz  
 Continuum sensitivity: 0.266  
 Line sensitivity 10km/s (estimate): 9.693 mJy/beam@10km/s  
 Line sensitivity native (estimate): 0.424 uJy/beam@native  
 Polarizations: XX YY  
 Array: 12m

Observations (124)

Release date	Publications	Ang.res.	arcsec	Min.vel.res.	km/s	Array	Mosaic	Max.reco.scale
2019-10-30	2	1,448		0.318		12m		24,722
2019-10-30	2	1,388		0.318		12m	mosaic	26,393
2019-12-07	2	1,358		0.318		12m	mosaic	17,749
2019-12-07	2	1,359		0.318		12m		17,602
2020-01-07	2	9,338		0.318		7m		63,050
2020-01-07	2	9,338		0.318		7m	mosaic	68,095
2020-01-10	2	8,965		0.318		7m		65,835
2020-01-10	2	8,960		0.318		7m	mosaic	67,720
2020-01-25	2	9,351		0.318		7m		63,296
2020-01-25	2	9,336		0.318		7m	mosaic	67,551
2020-02-01	2	8,299		0.318		7m		64,064

Molecules: Lines Redshift

0.001733027340378612: estimated

100 GHz 150 GHz 200 GHz 250 GHz 300 GHz 350 GHz 400 GHz 450 GHz

3 CD v=0 1-0  
 4 NDQ J=2-1  
 5 HI 3C(1-2)  
 6 CS v=0 2-1  
 7 HCO v=0 3-2  
 8 HCO v=0 4-3  
 9 HNC v=0 1-1+2  
 10 CO v=0 4-3

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 shows "Source name: M83". Below the search bar is a visualization of the source M83, showing a yellow molecular cloud structure against a star field. To the right of the visualization is a spectral plot showing intensity versus frequency (GHz) from 100 to 450 GHz. The plot is labeled with various molecular lines, including CO, HCO+, HNC, and SiO. A yellow arrow points from the spectral plot to the table below.

The table below the visualization shows a list of observations, sorted by angular resolution. The columns include Project code, ALMA source name, RA, Dec, Band, Cont. sens., Frequency support, Release date, Publications, Angular resolution, Minimum velocity resolution, Array, and Maximum resolution scale.

Project code	ALMA source name	RA	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	↑ Ang. res.	Min. vel. res.	Array	Max. reco. scale
2022.1.00951.S	NGC_5236	13:37:00.919	-29:51:56.740	6	0.0326	227.369.245.512 GHz	2024-07-12	0	0.043	1.389	12m	0.833
2018.1.00624.S	M83	13:37:06.765	-29:53:23.398	6	0.2940	213.927.231155 GHz	2018-06-28	0	0.135	0.367	12m	3.369
2013.1.01161.S	M83	13:37:00.750	-29:51:58.000	6	0.1162	229.309.247.128 GHz	2018-10-06	42	0.194	1.370	12m	3.909
2022.1.00951.S	NGC_5236	13:37:00.919	-29:51:56.740	6	0.0891	227.37.245.512 GHz	2024-04-17	0	0.248	1.389	12m	3.411
2022.1.00359.S	M83XUV-Field1	13:37:05.182	-29:59:53.765	7	0.0543	342.512.358.451 GHz	2024-03-06	0	0.285	0.490	12m	3.774
2015.1.01177.S	m83	13:37:00.919	-29:51:56.740	3	0.0115	85.604.101.271 GHz	2017-11-07	4	0.375	3.470	12m	7.319
2013.1.01161.S	M83	13:37:00.742	-29:51:57.876	6	0.2194	229.309.247.128 GHz	2016-10-07	42	0.496	1.370	12m	4.300
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	5.143
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	13.493
2016.1.00386.S	M83	13:36:45.171	-29:52:17.997	6	0.2331	229.677.24713 GHz	2018-03-01	21	0.585	0.734	12m	5.971

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

ALMA Science Archive

Search  Source name: M83 Remove filters 1 column filter active

Explore and download

Molecules Lines Redshift 0.001733027398586273: estimated

Observations (12) Projects (24) Publications (60)

Band: 7 Remove tab filters

	Project code	ALMA source name	RA	lms+	Dec	dms+	Band	Cont.sens.	mJy/beam	Frequency support	Release date	Publications	Ang.res.	arcsec	Min.vel.res.	km/s	Array	Mosaic	Max.reco.scale	
<input type="checkbox"/>							7	✓	✗											
<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	
<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	
<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	
<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	
<input type="checkbox"/>	2015.1.01593.S	m83	13:37:00.919		-29:51:56.740		7	0.9173		344.188-360.174 GHz	2018-02-13	1	14.924		0.846		TP		264.543	
<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	2	1.198		1.990		12m	mosaic	10.069	
<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	
<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	2	3.948		1.990		7m	mosaic	25.492	
<input type="checkbox"/>	2017.1.00665.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	
<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	

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.

ALMA Science Archive

https://almascience.eso.org/aq/?result\_view=observations&sourceNameResolver=M83

Search  Source name: M83 Remove filters

Explore and download

13 36 59.529 -29 52 51.99 FoV: 1.08°

Molecules Lines Redshift

0.001733027340378612: estimated

Observations (124) Projects (24) Publications (60)

	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
<input type="checkbox"/>	2016.1.00164.S	M83	13:37:00.914	-29:52:00.137	6	0.3060	243.006-263.003 GHz	2019-06-10	2	4.475	2.226	7m	mosaic	28.487
<input type="checkbox"/>	2017.1.00079.S	M83	13:37:11.914	-29:52:03.089	3	0.2588	112.354-115.793 GHz	2019-10-10	2	1.359	0.318	12m	mosaic	26.711
<input type="checkbox"/>	2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2588	112.354-115.793 GHz	2019-10-10	2	1.377	0.318	12m		24.647
<input checked="" type="checkbox"/>	2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2826	112.354-115.793 GHz	2019-10-30	2	1.448	0.318	12m		24.722
<input type="checkbox"/>	2017.1.00079.S	M83	13:36:59.529	-29:52:06.979	3	0.2826	112.354-115.793 GHz	2019-10-30	2	1.388	0.318	12m	mosaic	26.393
<input type="checkbox"/>	2017.1.00079.S	M83	13:36:59.254	-29:54:50.022	3	0.2661	112.355-115.793 GHz	2019-12-07	2	1.358	0.318	12m	mosaic	17.749
<input type="checkbox"/>	2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2661	112.355-115.793 GHz	2019-12-07	2	1.359	0.318	12m		17.602
<input type="checkbox"/>	2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.7112	112.292-115.793 GHz	2020-01-07	2	9.338	0.318	7m		63.050
<input type="checkbox"/>	2017.1.00079.S	M83	13:36:59.310	-29:52:07.873	3	2.7130	112.292-115.793 GHz	2020-01-07	2	9.338	0.318	7m	mosaic	68.095
<input type="checkbox"/>	2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.8286	112.292-115.793 GHz	2020-01-10	2	8.965	0.318	7m		65.835

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 Remove filters

Explore and download

Molecules Lines Redshift 0.001733027340378612: estimated

100 GHz 150 GHz 200 GHz 250 GHz 300 GHz 350 GHz 400 GHz 450 GHz

Observations (124) Projects (24) Publications (60)

	Project code	ALMA source name	RA	lms -	Dec	dims -	Band	Cont.sens.	mJy/beam -	Frequency support	Release date	Publications	Ang.res.	arcsec -	Min.vel.res.	km/s -	Array	Mosaic	Max.reco.scale
<input 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
<input type="checkbox"/>	2021.1.01195.5	M83	13:36:53.229		-29:52:48.786	7	2.1331			340.497.356.486 GHz	2023-10-11	0	3.067		1.639		7m	mosaic	24.917
<input checked="" type="checkbox"/>	2022.1.00359.5	M83XUV-Field1	13:37:05.182		-29:59:53.765	7	0.0543			342.512.358.451 GHz	2024-03-06	0	0.285		0.490		12m	mosaic	3.774
<input type="checkbox"/>	2022.1.00991.5	NGC_5236	13:37:00.919		-29:51:56.740	6	0.0891			227.37.245.512 GHz	2024-04-17	0	0.248		1.389		12m		3.411
<input type="checkbox"/>	2022.1.01713.5	M83_ARM	13:37:07.881		-29:51:17.173	6	0.1823			251.095.268.103 GHz	2024-06-15	0	4.102		2.184		7m		26.060
<input type="checkbox"/>	2022.1.00859.5	m83	13:37:00.919		-29:51:56.740	8	2.1997			478.169.494.153 GHz	2024-06-27	0	10.811		0.688		TP		191.639
<input type="checkbox"/>	2022.1.00991.5	NGC_5236	13:37:00.919		-29:51:56.740	6	0.0326			227.369.245.512 GHz	2024-07-12	0	0.043		1.389		12m		0.833
<input type="checkbox"/>	2021.1.01195.5	M83	13:36:53.230		-29:52:48.725	7	0.2712			340.56.356.433 GHz	2024-09-22	0	0.627		1.639		12m	mosaic	6.841
<input type="checkbox"/>	2022.1.00859.5	m83	13:37:07.500		-29:51:30.000	8	7.9168			478.169.494.153 GHz	2024-11-03	0	1.419		0.688		7m	mosaic	15.809
<input type="checkbox"/>	2022.1.01713.5	M83_CTR	13:37:00.990		-29:51:57.080	6	0.3450			251.094.268.102 GHz	In progress	0	4.374		2.184		7m	mosaic	33.450



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. The top left shows the browser address bar with the URL [https://almascience.eso.org/aq/?result\\_view=observations&sourceNameResolver=M83](https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83). The search bar contains "Source name: M83" and "Remove filters". The main view is split into two panels. The left panel shows a star field with a yellow ALMA antenna layout overlaid, centered on a star. The right panel shows a spectral plot with several absorption lines labeled with chemical species and quantum numbers, such as CO v=0-1-0, HCN v=0-0-0, and HCO+ v=0-0-0. A redshift of 0.001733027340378612 is displayed. Below the spectral plot is a table of observations. A yellow arrow points to the table.

Project code	ALMA source name	RA	lms-	Dec	dms-	Band	Cont.sens.	mJy/beam-	Frequency support	Release date	Publications	Ang.res.	arcsec-	Min.vel.res.	km/s-	Array	Mosaic	Max.reco.scale
2016.1.00164.S	M83	13:37:00.914		-29:52:00.137		6	0.3060		243.006.263.003 GHz	2019-06-10	2	4.475		2.226		7m	mosaic	28.487
2017.1.00079.S	M83	13:37:11.914		-29:52:03.089		3	0.2588		112.354.115.793 GHz	2019-10-10	2	1.359		0.318		12m	mosaic	26.711
2017.1.00079.S	M83_CTR	13:37:00.512		-29:51:59.645		3	0.2588		112.354.115.793 GHz	2019-10-10	2	1.377		0.318		12m		24.647
2017.1.00079.S	M83_CTR	13:37:00.512		-29:51:59.645		3	0.2826		112.354.115.793 GHz	2019-10-30	2	1.448		0.318		12m		24.722
2017.1.00079.S	M83	13:36:59.529		-29:52:06.979		3	0.2826		112.354.115.793 GHz	2019-10-30	2	1.388		0.318		12m	mosaic	26.393
2017.1.00079.S	M83	13:36:59.254		-29:54:50.022		3	0.2661		112.355.115.793 GHz	2019-12-07	2	1.358		0.318		12m	mosaic	17.749
2017.1.00079.S	M83_CTR	13:37:00.512		-29:51:59.645		3	0.2661		112.355.115.793 GHz	2019-12-07	2	1.359		0.318		12m		17.602
2017.1.00079.S	M83_CTR	13:37:00.512		-29:51:59.645		3	2.7112		112.292.115.793 GHz	2020-01-07	2	9.338		0.318		7m		63.050
2017.1.00079.S	M83	13:36:59.310		-29:52:07.873		3	2.7130		112.292.115.793 GHz	2020-01-07	2	9.338		0.318		7m	mosaic	68.095
2017.1.00079.S	M83_CTR	13:37:00.512		-29:51:59.645		3	2.8286		112.292.115.793 GHz	2020-01-10	2	8.965		0.318		7m		65.835

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. On the left, a radio telescope array is shown against a starry background. The main panel features a spectral plot with labeled lines and a table of observations below it. A yellow arrow points to the 'Explore and download' button in the top right corner.

**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
2016.1.00164.S	M83	13:37:00.914	-29:52:00.137	6	0.3060	243.006-263.003 GHz	2019-06-10	2	4.475	2.226	7m	mosaic	28.487
2017.1.00079.S	M83	13:37:11.914	-29:52:03.089	3	0.2588	112.354-115.793 GHz	2019-10-10	2	1.359	0.318	12m	mosaic	26.711
2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2588	112.354-115.793 GHz	2019-10-10	2	1.377	0.318	12m		24.647
2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2826	112.354-115.793 GHz	2019-10-30	2	1.448	0.318	12m		24.722
2017.1.00079.S	M83	13:36:59.529	-29:52:06.979	3	0.2826	112.354-115.793 GHz	2019-10-30	2	1.388	0.318	12m	mosaic	26.393
2017.1.00079.S	M83	13:36:59.254	-29:54:50.022	3	0.2661	112.355-115.793 GHz	2019-12-07	2	1.358	0.318	12m	mosaic	17.749
2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	0.2661	112.355-115.793 GHz	2019-12-07	2	1.359	0.318	12m		17.602
2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.7112	112.292-115.793 GHz	2020-01-07	2	9.338	0.318	7m		63.050
2017.1.00079.S	M83	13:36:59.310	-29:52:07.873	3	2.7130	112.292-115.793 GHz	2020-01-07	2	9.338	0.318	7m	mosaic	68.095
2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.8286	112.292-115.793 GHz	2020-01-10	2	8.965	0.318	7m		65.835

# The Request Handler will display all of the files associated with the selected Scheduling Blocks.

ALMA Science Archive

https://almascience.eso.org/aq/?result\_view=observations&sourceNameResolver=M83

Search Source name: M83 Remove filters

Download 4 GB Open legacy Request Handler Login

Project (1)

Group ObsUniSet (1)

Member ObsUniSet (1)

Source (1)

Collection (1)

Array (1)

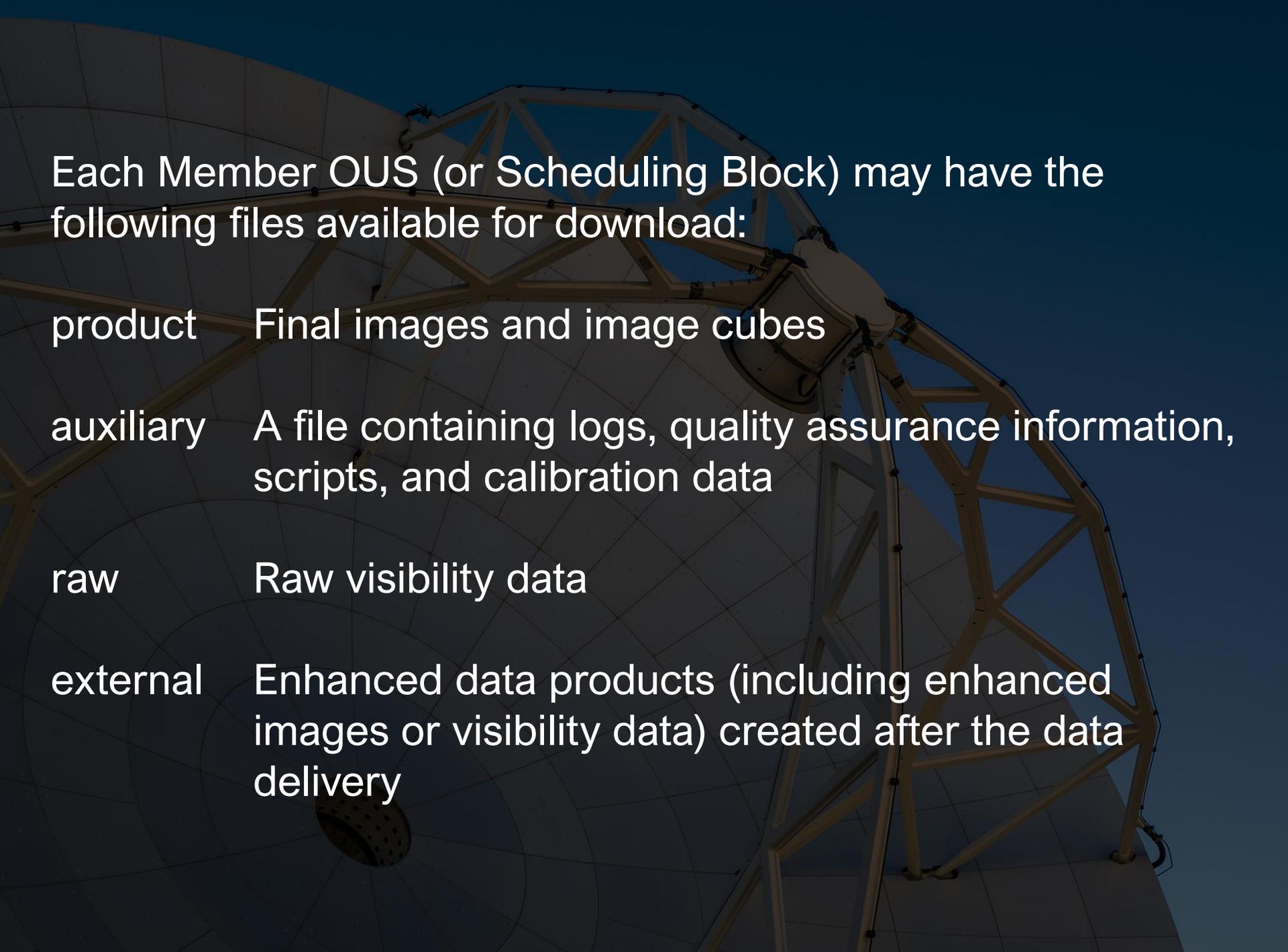
File type (8)

File class (11)

Name	Size	Project	GOUS	MOUS
member.uid_A001_X1295_X21.M83_CTR_sci.spw29.cube.lpb.fits.gz (product)	206 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.qa2_report.pdf (auxiliary, qa)	70 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X1a9.qa0_report.html (auxiliary, qa)	105 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X1a9.ms.flagversions.tgz (auxiliary, calibration)	2 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.calimage.product_rename.bt (auxiliary, script)	19 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X22a.ms.flagversions.tgz (auxiliary, calibration)	2 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.M83_CTR_sci.spw29.mfs.lpb.fits.gz (product)	111 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.session_1.aux.caltables.tgz (auxiliary, calibration)	62 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcbf591_X1a50.qa0_report.pdf (auxiliary, qa)	567 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.M83_CTR_sci.spw29.mfs.lpbcor.fits (product)	335 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

Band: 3  
 Frequency range: 112.354..114.229  
 Frequency resolution: 1.128.906 kHz  
 Line sens. (10km/s): 9.28mJy/beam  
 Line sens. (native): 0.417uJy/beam  
 Polarizations: XX YY  
 Array: 12m

2017.1.00079.S	M83	13:36:59.310	-29:52:07.873	3	2.7130	112.292.115.793 GHz	2020-01-07	2	9.338	0.318	7m	mosaic	68.095
2017.1.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.8286	112.292.115.793 GHz	2020-01-10	2	8.965	0.318	7m		65.835



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

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

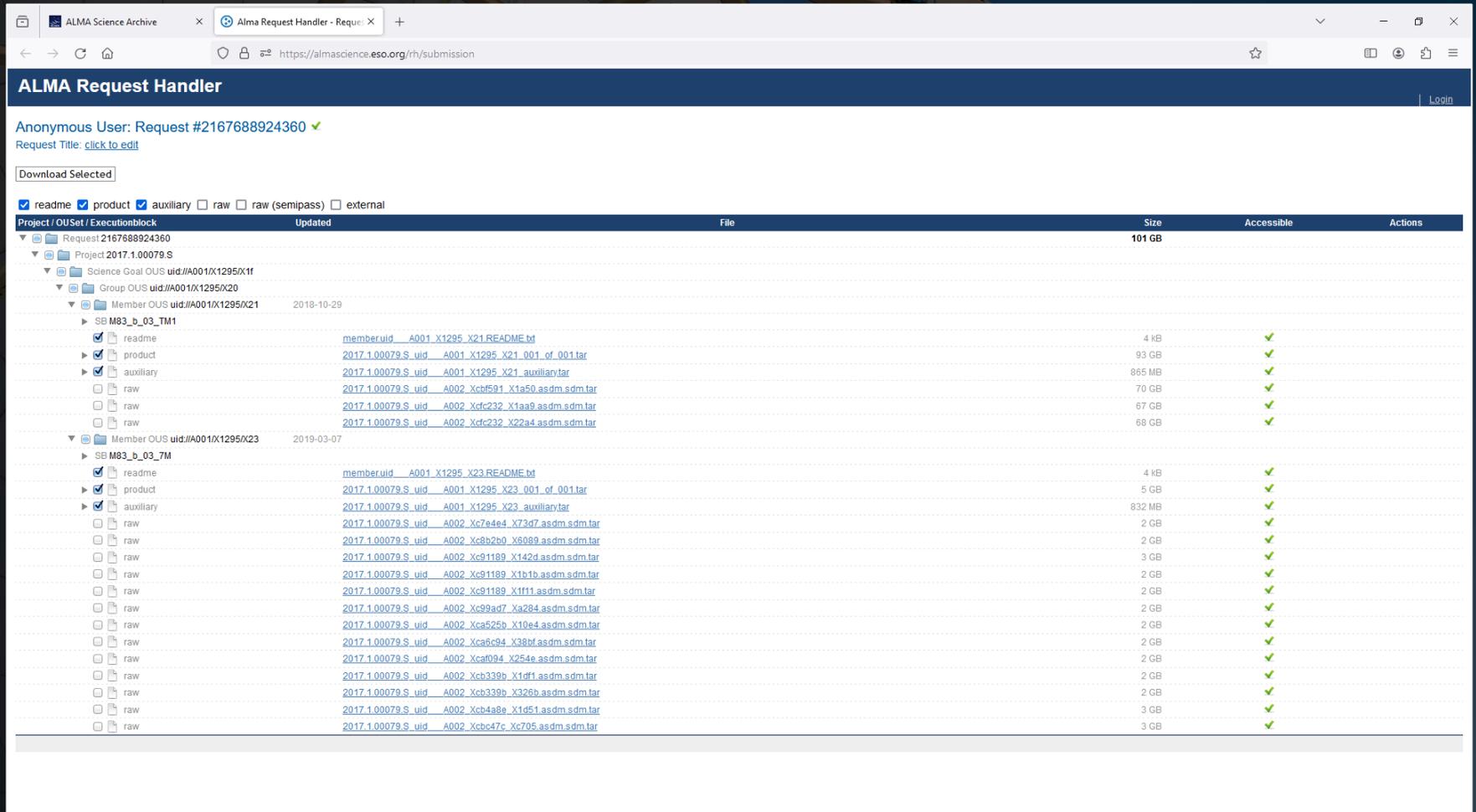
The legacy version of this page is accessible through a link at the top, but it works poorly for projects with multiple Scheduling Blocks.

The screenshot shows the ALMA Science Archive interface. At the top, there is a search bar with 'Source name: M83' and a 'Download 4 GB' button. A yellow arrow points to the 'Open legacy' button. Below the search bar is a table of files with columns for Name, Size, Project, GOUS, and MOUS. The table lists various files including member.uid\_A001\_X1295\_X21.M83\_CTR\_sci.spw29.cube.lpb.fits.gz, member.uid\_A001\_X1295\_X21.qa2\_report.pdf, uid\_A002\_Xcfc232\_X1a9.qa0\_report.html, uid\_A002\_Xcfc232\_X1a9.ms.flagversions.tgz, member.uid\_A001\_X1295\_X21.calimage.product\_rename.bt, uid\_A002\_Xcfc232\_X22a.ms.flagversions.tgz, member.uid\_A001\_X1295\_X21.M83\_CTR\_sci.spw29.mfs.lpb.fits.gz, member.uid\_A001\_X1295\_X21.session\_1.auxcaltables.tgz, uid\_A002\_Xcbf591\_X1a50.qa0\_report.pdf, and member.uid\_A001\_X1295\_X21.M83\_CTR\_sci.spw21\_25\_27\_29.cont.lpbcor.fits. Below the table, there are two panels showing spectral line plots and technical details for the selected files. The first panel shows a spectral line plot with a peak at approximately 112.354 GHz and technical details: Band: 3, Frequency range: 112.354..114.229, Frequency resolution: 1.128.906 kHz, Line sens. (10km/s): 9.28mJy/beam, Line sens. (native): 0.417uJy/beam, Polarizations: XX YY, Array: 12m. The second panel shows a similar spectral line plot and technical details: Band: 3, Array: 12m. At the bottom of the interface, there is a table with columns for observation ID, source name, start time, stop time, integration time, frequency, date, number of scans, flux density, and mosaic status.

Name	Size	Project	GOUS	MOUS
member.uid_A001_X1295_X21.M83_CTR_sci.spw29.cube.lpb.fits.gz	(product) 206 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.qa2_report.pdf	(auxiliary, qa) 70 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X1a9.qa0_report.html	(auxiliary, qa) 105 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X1a9.ms.flagversions.tgz	(auxiliary, calibration) 2 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.calimage.product_rename.bt	(auxiliary, script) 19 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X22a.ms.flagversions.tgz	(auxiliary, calibration) 2 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.M83_CTR_sci.spw29.mfs.lpb.fits.gz	(product) 111 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.session_1.auxcaltables.tgz	(auxiliary, calibration) 62 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcbf591_X1a50.qa0_report.pdf	(auxiliary, qa) 567 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.M83_CTR_sci.spw21_25_27_29.cont.lpbcor.fits	(product) 335 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

20171.00079.S	M83	13:36:59.310	-29:52:07.873	3	2.7130	112.292.115.793 GHz	2020-01-07	2	9.338	0.318	7m	mosaic	68.095
20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.8286	112.292.115.793 GHz	2020-01-10	2	8.965	0.318	7m		65.835

The legacy version of this page is accessible through a link at the top, but it works poorly for projects with multiple Scheduling Blocks.



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 #2167688924360" with a green checkmark. A "Request Title: [click to edit](#)" link 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 listing files and folders. The table has columns for "Project / OUSet / Executionblock", "Updated", "File", "Size", "Accessible", and "Actions". The total size of the selected files is 101 GB. The table lists two scheduling blocks: "SB M83\_b\_03\_TM1" (updated 2018-10-29) and "SB M83\_b\_03\_7M" (updated 2019-03-07). Each block contains a "readme" file (4 kB) and a "product" file (93 GB for TM1, 5 GB for 7M). The "auxiliary" files are 865 MB for TM1 and 832 MB for 7M. The "raw" files are listed in multiple rows for each block, with sizes ranging from 2 GB to 70 GB. All files are marked as "Accessible" with a green checkmark.

Project / OUSet / Executionblock	Updated	File	Size	Accessible	Actions
Request 2167688924360					
Project 2017.1.00079.S					
Science Goal OUS uid://A001X1295X1f					
Group OUS uid://A001X1295X20					
Member OUS uid://A001X1295X21 2018-10-29					
SB M83_b_03_TM1					
<input checked="" type="checkbox"/> readme		<a href="#">memberuid_A001_X1295_X21_README.txt</a>	4 kB	✓	
<input checked="" type="checkbox"/> product		<a href="#">2017.1.00079.S_uid_A001_X1295_X21_001_of_001.tar</a>	93 GB	✓	
<input checked="" type="checkbox"/> auxiliary		<a href="#">2017.1.00079.S_uid_A001_X1295_X21_auxiliary.tar</a>	865 MB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xcbf591_X1a50.asdm.sdm.tar</a>	70 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xcfc232_X1aa9.asdm.sdm.tar</a>	67 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xcfc232_X22a4.asdm.sdm.tar</a>	68 GB	✓	
Member OUS uid://A001X1295X23 2019-03-07					
SB M83_b_03_7M					
<input checked="" type="checkbox"/> readme		<a href="#">memberuid_A001_X1295_X23_README.txt</a>	4 kB	✓	
<input checked="" type="checkbox"/> product		<a href="#">2017.1.00079.S_uid_A001_X1295_X23_001_of_001.tar</a>	5 GB	✓	
<input checked="" type="checkbox"/> auxiliary		<a href="#">2017.1.00079.S_uid_A001_X1295_X23_auxiliary.tar</a>	832 MB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xc7e4e4_X73d7.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xc8b2b0_X6089.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xc91189_X142d.asdm.sdm.tar</a>	3 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xc91189_X1b1b.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xc91189_X1f11.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xc99ad7_Xa284.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xca525b_X10e4.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xca8c94_X38bf.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xcaf094_X254e.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xcb339b_X1df1.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xcb339b_X326b.asdm.sdm.tar</a>	2 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xcb4a8e_X1d51.asdm.sdm.tar</a>	3 GB	✓	
<input type="checkbox"/> raw		<a href="#">2017.1.00079.S_uid_A002_Xcb47c_X705.asdm.sdm.tar</a>	3 GB	✓	

Clicking on one of the C symbols next to an image will display the image in CARTA.

The screenshot shows the ALMA Science Archive web interface. The browser address bar displays [https://almascience.eso.org/aq/?result\\_view=observations&sourceNameResolver=M83](https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83). The page features a search bar with "Source name: M83" and a "Remove filters" button. A navigation sidebar on the left lists categories: Project (1), Group ObsUniSet (1), Member ObsUniSet (1), Source (1), Collection (1), Array (1), File type (8), and File class (11). The main content area is a table of files with columns for Name, Size, Project, GOUS, and MOUS. A yellow arrow points to a blue 'C' icon next to a data visualization for the file `member.uid_A001_X1295_X21.M83_CTR_sci.spw29.mfs.lpbcor.fits`. The visualization shows a spectral line plot with the following parameters: **Band range:** 112.354..114.229 GHz, **Frequency resolution:** 1.128.906 kHz, **Line sens. (10km/s):** 9.28mJy/beam, **Line sens. (native):** 0.417uJy/beam, **Polarizations:** XX YY, and **Array:** 12m. Below the table, a metadata table provides details for two observations:

Observation ID	Source	RA (J2000)	Dec (J2000)	Integration	Flux	Band	Frequency	Resolution	Integration	Flux	Bandwidth	Resolution	Integration	Flux	
20171.00079.S	M83	13:36:59.310	-29:52:07.873	3	2.7130	Band: 3	112.292.115.793 GHz	0.318	2020-01-07	2	9.338	0.318	7m	mosaic	68.095
20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.8286	Band: 3	112.292.115.793 GHz	0.318	2020-01-10	2	8.965	0.318	7m	mosaic	65.835

Clicking on one of the C symbols next to an image will display the image in CARTA.

The screenshot shows the ALMA Science Archive web interface. A modal window titled "CARTA" is open, displaying a radio continuum image of a source. The image is a circular field with a color scale from -0.002 to 0.002 Jy/beam. The WCS is (13:37:00.52, -29:51:59.8). The image is titled "member.uid\_\_A001\_X1295\_X21.M83\_CTR\_sci.spw29.mfs.lpbcor.fits".

The CARTA window includes a menu (File, View, Widgets, Help) and a toolbar. Below the image, there are two profile cursors (X and Y) and an image list. The X Profile shows a value of 1.00e+0 at X coordinate 0. The Y Profile shows a value of 1.00e+0 at Y coordinate 0. The Image List shows the image "member.uid\_\_A001" with layers "R" and "XY R" and channel 0.

The background interface shows a search bar with "Source name: M83" and a list of project, group, member, source, collection, array, file type, and file class. The bottom of the screen shows a table of observations:

Image	Layers	Matching	Channel
0 member.uid__A001	R	XY R	0

At the bottom of the page, there is a table of observations with columns for image name, source name, coordinates, frequency, date, and other parameters.

The search results can be filtered using the drop-down menus on the left. This is useful for selecting subsets of these files for different purposes.

ALMA Science Archive

Source name: M83 Remove filters

Download 4 GB Open legacy Request Handler Login

Project (1)	Name	Size	Project	GOUS	MOUS
Group ObsUniSet (1)	member.uid_A001_X1295_X21.M83_CTR_sci.spw29.cube.lpb.fits.gz	(product) 206 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
Member ObsUniSet (1)	member.uid_A001_X1295_X21.qa2_report.pdf	(auxiliary, qa) 70 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
Source (1)	uid_A002_Xcfc232_X1a9.qa0_report.html	(auxiliary, qa) 105 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
Collection (1)	uid_A002_Xcfc232_X1a9.ms.flagversions.tgz	(auxiliary, calibration) 2 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
Array (1)	member.uid_A001_X1295_X21.calimage.product_rename.bt	(auxiliary, script) 19 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
File type (8)	uid_A002_Xcfc232_X22a4.ms.flagversions.tgz	(auxiliary, calibration) 2 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
File class (11)	member.uid_A001_X1295_X21.M83_CTR_sci.spw29.mfs.lpbcor.fits	(product) 111 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
	member.uid_A001_X1295_X21.session_1.auxcaltables.tgz	(auxiliary, calibration) 62 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
	uid_A002_Xcbf591_X1a50.qa0_report.pdf	(auxiliary, qa) 567 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
	member.uid_A001_X1295_X21.M83_CTR_sci.spw29.mfs.lpbcor.fits	(product) 335 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

Band: 3  
Frequency range: 112.354-114.229  
Frequency resolution: 1.128.906 kHz  
Line sens. (10km/s): 9.28mJy/beam  
Line sens. (native): 0.417uJy/beam  
Polarizations: XX YY  
Array: 12m

To select just the images, go to "File type" and select only "images/x-fits".

The screenshot shows the ALMA Science Archive web interface. The browser address bar displays `https://almascience.eso.org/aq/?result_view=observations&sourceNameResolver=M83`. The search bar contains "Source name: M83". A sidebar on the left contains a "File type (8)" section with a search input and several checkboxes. A yellow arrow points to the "image/x-fits only" checkbox, which is selected. Other file types listed include application/x-gzip (27), text/plain (9), application/pdf (7), and application/tar (5). The main content area shows a table of files with columns for Name, Size, Project, GOUS, and MOUS. Three files are visible, all of type "image/x-fits". Each file entry includes a thumbnail image of a radio galaxy and technical details such as Band: 3, Frequency range: 112.354-114.229, and Array: 12m.

Name	Size	Project	GOUS	MOUS
member.uid_A001_X1295_X21.M83_CTR_sci.spw29.mfs.lpbcor.fits	(product) 335 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.M83_CTR_sci.spw21_25_27_29.cont.lpbcor.fits	(product) 335 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.M83_CTR_sci.spw25.mfs.lpbcor.fits	(product) 335 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

To select just the Quality Assurance filts, go to "File class" and select only "qa0", "qa2", and "weblog". (All of the tar files associated with the project will also be displayed, but these can be ignored.)

The screenshot shows the ALMA Science Archive interface for project M83. The 'File class' filter is expanded, and the following file classes are selected: qa0, qa2, and weblog. Yellow arrows point to these selected items in the left sidebar. The main table displays a list of files with columns for Name, Size, Project, GOUS, and MOUS.

Name	Size	Project	GOUS	MOUS
member.uid_A001_X1295_X21.qa2_report.pdf	70 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X1a9.qa0_report.html	105 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcbf591_X1a50.qa0_report.pdf	567 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcbf591_X1a50.qa0_report.html	98 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.hifa_calimage.weblog.tgz	595 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.uid_A002_Xcbf591_X1a50.qa0_report.pdf	479 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X22a4.qa0_report.pdf	712 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
2017.1.00079.S.uid_A002_Xcfc232_X1a9.asdm.sdm.tar	63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
2017.1.00079.S.uid_A001_X1295_X21_001_of_001.tar	87 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.uid_A002_Xcfc232_X1a9.qa0_report.pdf	464 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.uid_A002_Xcfc232_X22a4.qa0_report.pdf	516 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
member.uid_A001_X1295_X21.qa2_report.html	107 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X1a9.qa0_report.pdf	617 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
2017.1.00079.S.uid_A002_Xcfc232_X22a4.asdm.sdm.tar	63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
2017.1.00079.S.uid_A001_X1295_X21_auxiliary.tar	825 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
uid_A002_Xcfc232_X22a4.qa0_report.html	112 kB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
2017.1.00079.S.uid_A002_Xcbf591_X1a50.asdm.sdm.tar	65 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

To select just the files needed to recreate the calibrated visibility data (for creating new images), go to "File type" and select only "application/tar". After that select all of the files with "(raw)" or "(auxiliary)" after their names.

The screenshot shows the ALMA Science Archive web interface. A sidebar on the left contains a 'File type (8)' section with a search box and several checkboxes. A yellow arrow points to the 'application/tar only' checkbox, which is checked. Below this section are other file types like 'text/html', 'text/x-python', and 'text/xml'. The main area displays a table of files with columns for Name, Size, Project, GOUS, and MOUS. The table lists several files, including raw and auxiliary tar files, which are highlighted in yellow. A 'Download 192 GB' button is visible at the top left of the table area.

Name	Size	Project	GOUS	MOUS
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcfc232_X1a9.asdm.sdm.tar</a>	(raw) 63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input type="checkbox"/> <a href="#">2017.1.00079.S_uid_A001_X1295_X21_001_of_001.tar</a>	(product) 87 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcfc232_X22a4.asdm.sdm.tar</a>	(raw) 63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A001_X1295_X21_auxiliary.tar</a>	(auxiliary) 825 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcbf591_X1a50.asdm.sdm.tar</a>	(raw) 65 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

To select just the files needed to recreate the calibrated visibility data (for creating new images), go to "File type" and select only "application/tar". After that select all of the files with "(raw)" or "(auxiliary)" after their names.

The screenshot shows the ALMA Science Archive web interface. The browser address bar displays [https://almascience.eso.org/faq/result\\_view=observations&sourceNameResolver=M83](https://almascience.eso.org/faq/result_view=observations&sourceNameResolver=M83). The search bar contains "Source name: M83". A blue banner at the top indicates "Download 192 GB" and "Open legacy Request Handler".

The left sidebar shows a navigation menu with the following sections:

- Project (1)
- Group ObsUniSet (1)
- Member ObsUniSet (1)
- Source
- Collection (1)
- Array
- File type (8)
  - search for file type
  - application/x-gzip (27)
  - image/x-fits (3)
  - text/plain (7)
  - application/pdf (5) **← Yellow arrow pointing here**
  - application/tar only (5)
  - text/html (4)
  - text/x-python (3)
  - text/xml (2)
  - [show less](#)
- File class

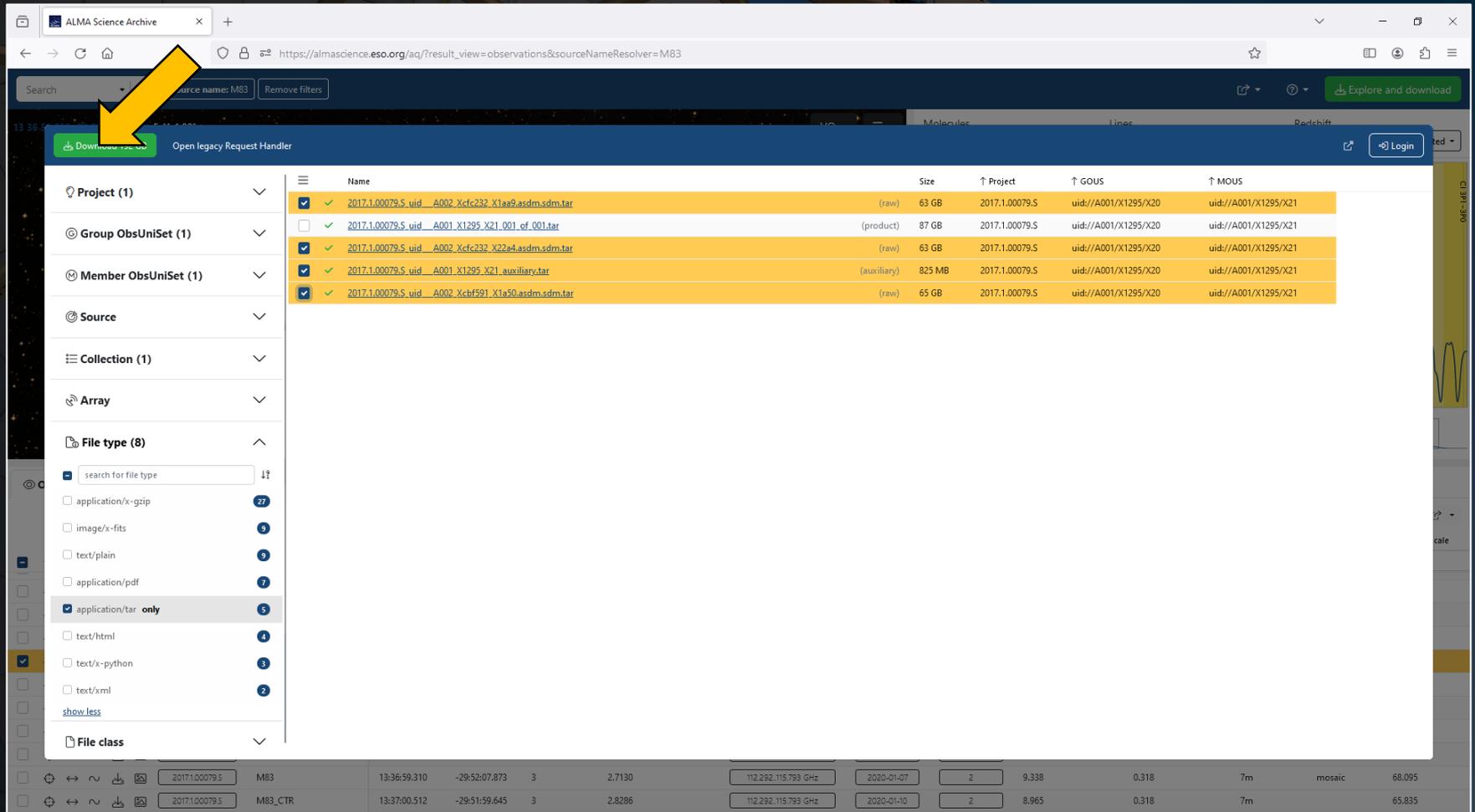
The main table displays a list of files with the following columns: Name, Size, Project, GOUS, and MOUS. The selected files are highlighted in yellow:

Name	Size	Project	GOUS	MOUS
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcfc232_X1a9.asdm.sdm.tar</a>	(raw) 63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input type="checkbox"/> <a href="#">2017.1.00079.S_uid_A001_X1295_X21_001_of_001.tar</a>	(product) 87 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcfc232_X22a4.asdm.sdm.tar</a>	(raw) 63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A001_X1295_X21_auxiliary.tar</a>	(auxiliary) 825 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcbf591_X1a50.asdm.sdm.tar</a>	(raw) 65 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

The bottom of the interface shows a table of observation parameters:

Observation ID	Source	Start Time	End Time	Integration	Frequency	Bandwidth	Channels	Flux	Resolution	Integration	Resolution		
20171.00079.S	M83	13:36:59.310	-29:52:07.873	3	2.7130	112.292.115.793 GHz	2020-01-07	2	9.338	0.318	7m	mosaic	68.095
20171.00079.S	M83_CTR	13:37:00.512	-29:51:59.645	3	2.8286	112.292.115.793 GHz	2020-01-10	2	8.965	0.318	7m		65.835

After selecting the data for download, the download process can be started by clicking on the Download button in the upper left corner of the Request Handler. This will generate a download script. It is also possible to select the individual files for download by directly clicking on the filenames.



The screenshot displays the ALMA Science Archive interface. A yellow arrow points to the 'Download' button in the upper left corner of the Request Handler overlay. The overlay shows a list of files with columns for Name, Size, Project, GOUS, and MOUS. The 'File type' filter is set to 'application/tar only'.

Name	Size	Project	GOUS	MOUS
<input checked="" type="checkbox"/> 2017.1.00079.S_uid_A002_Xcfc232_X1a9.asdm.sdm.tar	(raw) 63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input type="checkbox"/> 2017.1.00079.S_uid_A001_X1295_X21_001_of_001.tar	(product) 87 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> 2017.1.00079.S_uid_A002_Xcfc232_X22a4.asdm.sdm.tar	(raw) 63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> 2017.1.00079.S_uid_A001_X1295_X21_auxiliary.tar	(auxiliary) 825 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> 2017.1.00079.S_uid_A002_Xcbf591_X1a50.asdm.sdm.tar	(raw) 65 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

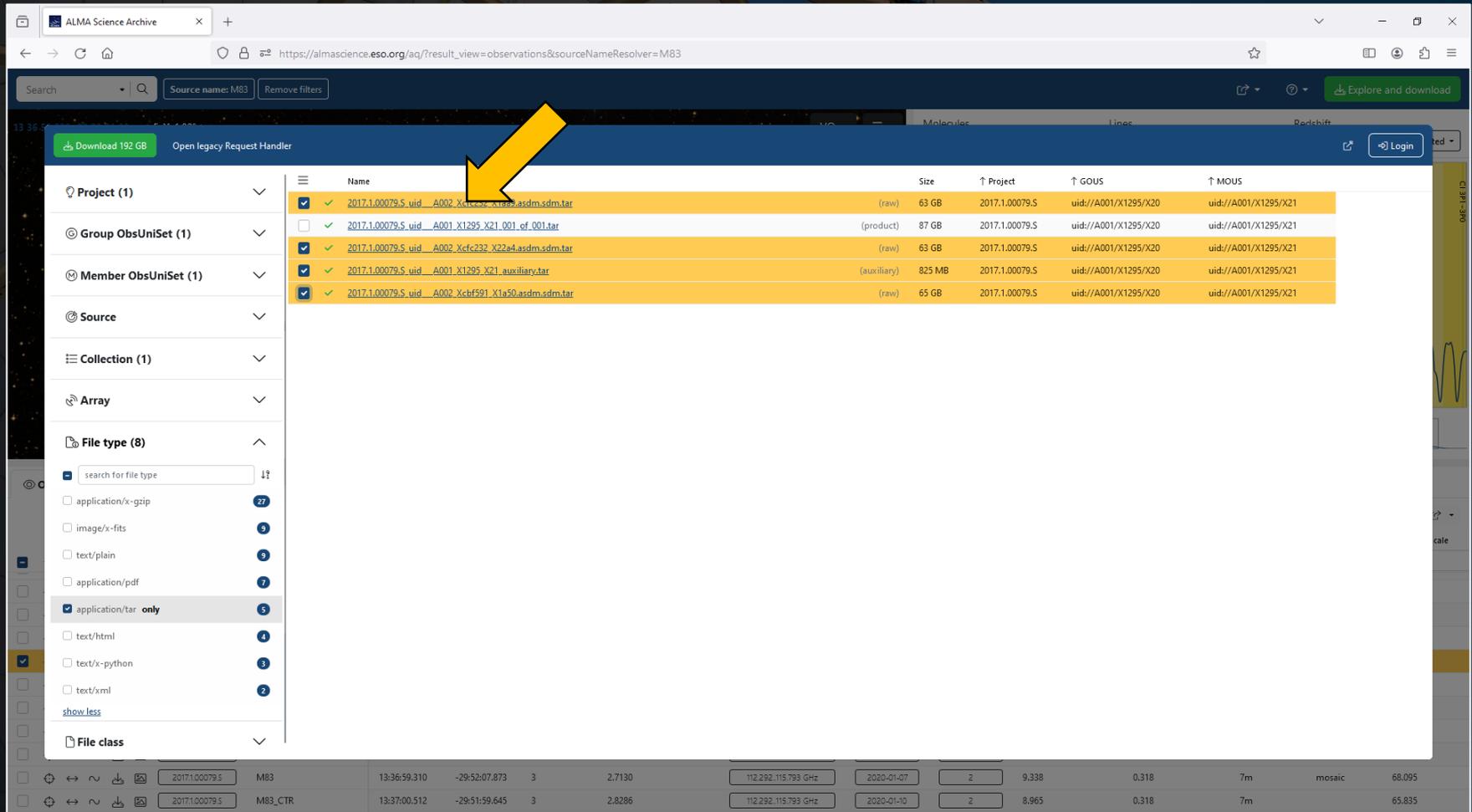
File type (8):

- application/x-gzip (27)
- image/x-fits (9)
- text/plain (9)
- application/pdf (7)
- application/tar only (5)
- text/html (4)
- text/x-python (3)
- text/xml (2)

File class:

File class	Count
application/tar only	5
text/html	4
text/x-python	3
text/xml	2

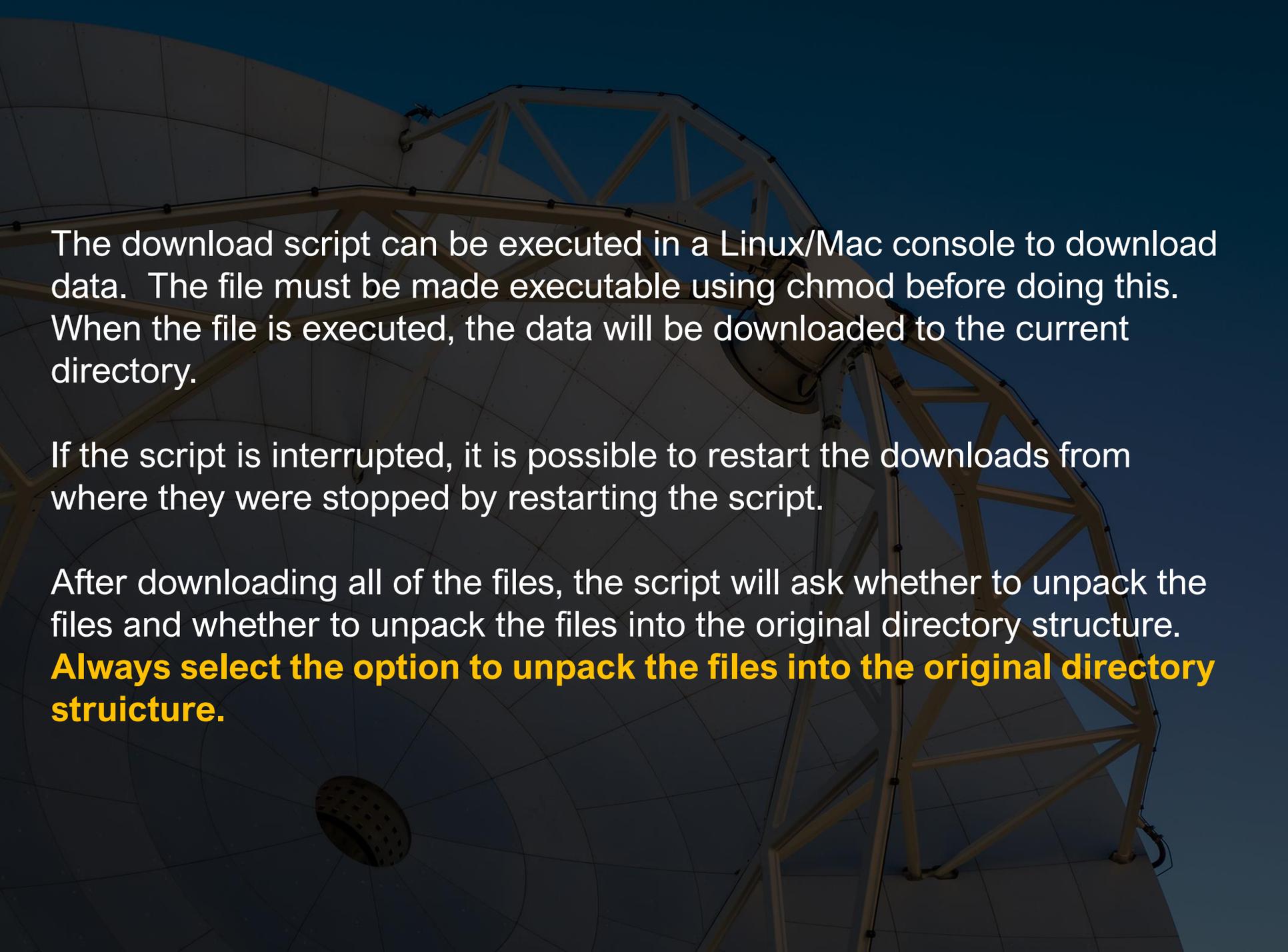
After selecting the data for download, the download process can be started by clicking on the Download button in the upper left corner of the Request Handler. This will generate a download script. It is also possible to select the individual files for download by directly clicking on the filenames.



The screenshot displays the ALMA Science Archive web interface. At the top, a search bar shows "Source name: M83" and a "Download 192 GB" button. A sidebar on the left contains filters for Project, Group ObsUniSet, Member ObsUniSet, Source, Collection, Array, File type (8), and File class. The "File type" filter is expanded, showing options like "application/x-gzip", "image/x-fits", "text/plain", "application/pdf", "application/tar only", "text/html", "text/x-python", and "text/xml". The main table lists files with columns for Name, Size, Project, GOUS, and MOUS. A yellow arrow points to the first row of the table, which is highlighted in yellow. The table data is as follows:

Name	Size	Project	GOUS	MOUS
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcfc232_X22a4.asdm.sdm.tar</a>	(raw) 63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input type="checkbox"/> <a href="#">2017.1.00079.S_uid_A001_X1295_X21_001_of_001.tar</a>	(product) 87 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcfc232_X22a4.asdm.sdm.tar</a>	(raw) 63 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A001_X1295_X21_auxiliary.tar</a>	(auxiliary) 825 MB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21
<input checked="" type="checkbox"/> <a href="#">2017.1.00079.S_uid_A002_Xcfc232_X22a4.asdm.sdm.tar</a>	(raw) 65 GB	2017.1.00079.S	uid://A001/X1295/X20	uid://A001/X1295/X21

At the bottom of the interface, a table shows observation details for M83 and M83\_CTR, including coordinates, frequency, and data volume.

The background of the slide is a photograph of a large satellite dish antenna. The dish is a complex structure of metal beams and panels, with a large, perforated circular component visible in the lower-left quadrant. The sky is a deep, clear blue. The text is overlaid on this image in white and yellow colors.

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.

After downloading all of the files, the script will ask whether to unpack the files and whether to unpack the files into the original directory structure.

**Always select the option to unpack the files into the original directory structure.**