



15924 - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Cycle: 27, Proposal Category: GO

(JWST Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. Johanna Vos (PI) (Contact)	American Museum of Natural History	jvos@amnh.org
Dr. John Sebastian Pineda (CoI)	University of Colorado at Boulder	sebastian.pineda@lasp.colorado.edu
Dr. Melodie Kao (CoI)	Arizona State University	mkao@asu.edu

VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) LSPM-J0036+1821	WFC3/IR	5	03-Aug-2020 18:03:09.0	yes
51	(1) LSPM-J0036+1821	WFC3/IR	5	03-Aug-2020 18:06:06.0	yes
02	(2) 2MASSI-J1721039+334415	WFC3/IR	5	03-Aug-2020 18:09:11.0	yes
03	(3) 2MASS-J19064801+4011089	WFC3/IR	6	03-Aug-2020 18:13:36.0	yes

21 Total Orbits Used

ABSTRACT

With the James Webb Space Telescope (JWST), spectroscopic studies of atmospheres on directly-imaged exoplanets will be possible for the first time. Such planets include the L3 spectral type super Jupiter Beta Pic b (~1800-2300). To accurately characterize the complex physical processes occurring in exoplanet atmospheres and maximize the impact of these upcoming JWST studies, we will need to distinguish between spectral

Proposal 15924 (STScI Edit Number: 1, Created: Monday, August 3, 2020 at 5:13:41 PM Eastern Standard Time) - Overview

contributions from clouds, aurorae, and magnetic spots in early L spectral type atmospheres. Our proposed pilot case study will allow us to disentangle the signatures of each process in advance of JWST. We will combine spectral modeling with simultaneous HST/WFC3 grism spectroscopy and VLA radio observations of three early L dwarfs to: (1) characterize and distinguish between auroral, cloudy, and magnetic spot spectral variability, and (2) classify an ambiguous case of spectral variability using our new knowledge of the distinct spectroscopic signatures.

OBSERVING DESCRIPTION

This proposal aims to disentangle the effects of cloudy and auroral variability for three, early L spectral type brown dwarfs via simultaneous time-resolved HST/WFC3 G141 spectroscopic and VLA monitoring. To ensure full phase coverage of each object we require 5 orbits of monitoring for 2M0036+18 and 2M1721+33 and 6 orbits for 2M1906+41.

Optimal procedures for WFC3 high-precision spectroscopic observations are well-established, the observing procedures set by previous programs [e.g. GO12314, GO14188]. At the beginning of each orbit a direct image will be obtained to accurately determine the position of the source on the detector, which will enable precise wavelength calibration. To preserve photometric stability, the targets will be observed in staring-mode.

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Mon Aug 03 22:13:42 GMT 2020

Visit	<p>Proposal 15924, 2M0036+18 (01), failed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/IR</p> <p>Special Requirements: (none)</p> <p><i>Comments: This 5-orbit visit should be coordinated with simultaneous VLA observations.</i></p>																	
Diagnostics	<p>(2M0036+18 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p> <p>(2M0036+18 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p> <p>(2M0036+18 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p> <p>(2M0036+18 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p> <p>(2M0036+18 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p>																	
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>LSPM-J0036+1821</td> <td>RA: 00 36 17.0934 (9.0712225d) Dec: +18 21 12.21 (18.35339d) Equinox: J2000</td> <td>Proper Motion RA: 0.06332505636947976 sec of time/yr Proper Motion Dec: 0.12401899999999999 arcsec/yr Epoch of Position: 2015.5</td> <td>V=(?) J=12.466</td> <td>Reference Frame: SIMBAD</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p>Category=EXT-STAR Description=[BROWN DWARF] Extended=NO</p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	LSPM-J0036+1821	RA: 00 36 17.0934 (9.0712225d) Dec: +18 21 12.21 (18.35339d) Equinox: J2000	Proper Motion RA: 0.06332505636947976 sec of time/yr Proper Motion Dec: 0.12401899999999999 arcsec/yr Epoch of Position: 2015.5	V=(?) J=12.466	Reference Frame: SIMBAD
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous													
(1)	LSPM-J0036+1821	RA: 00 36 17.0934 (9.0712225d) Dec: +18 21 12.21 (18.35339d) Equinox: J2000	Proper Motion RA: 0.06332505636947976 sec of time/yr Proper Motion Dec: 0.12401899999999999 arcsec/yr Epoch of Position: 2015.5	V=(?) J=12.466	Reference Frame: SIMBAD													

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1) LSPM-J0036+18 21	(1) LSPM-J0036+18	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25		Sequence 1-2 Non-Int in 2M0036+18 (01)	44.969893 Secs (44.97 Secs) [==>]	[1]
<i>Comments: short exposure to determine target position in grism aperture.</i>									

Exposures

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

2	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 1-2 Non-Int in 2M0036+18 (01)	44.969893 Secs X 43 (1933.705 Secs)	[1]
<p>[==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]</p>							[1]

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

3	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 3-4 Non-Int in 2M0036+18 (01)	44.969893 Secs (44.97 Secs) [==>]	[2]
---	-------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

4	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 3-4 Non-Int in 2M0036+18 (01)	44.969893 Secs X 43 (1933.705 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[2]
---	--	----------------------------------	------	----------------------------------	---	--	-----

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

5	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 5-6 Non-Int in 2M0036+18 (01)	44.969893 Secs (44.97 Secs) [==>]	[3]
---	-------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

6	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 5-6 Non-Int in 2M0036+18 (01)	44.969893 Secs X 43 (1933.705 Secs)	[3]
[==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]							

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

7	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 7-8 Non-Int in 2M0036+18 (01)	44.969893 Secs (44.97 Secs) [==>]	[4]
---	-------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

8	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 7-8 Non-Int in 2M0036+18 (01)	44.969893 Secs X 43 (1933.705 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[4]
---	--	----------------------------------	------	----------------------------------	---	--	-----

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

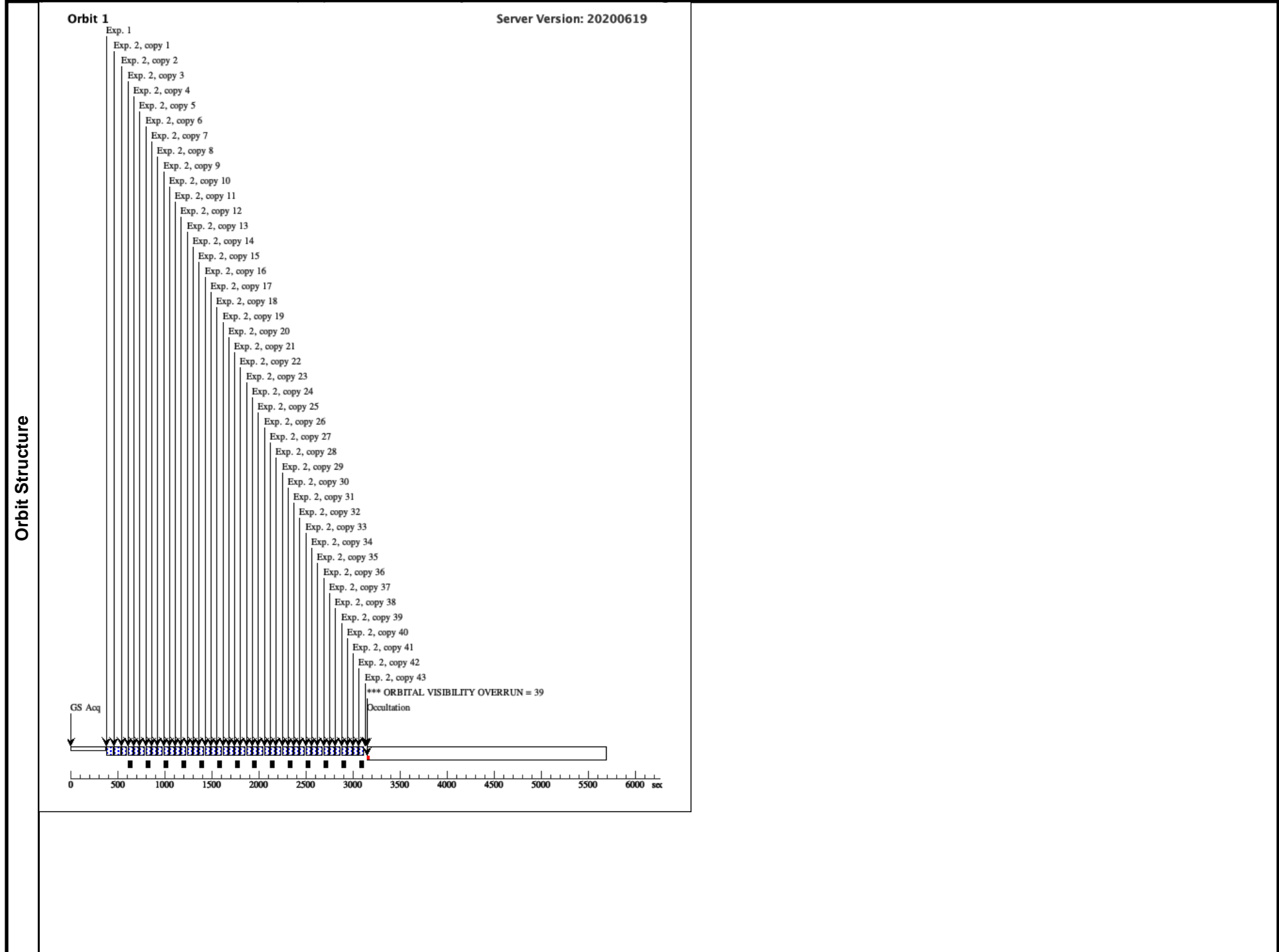
9	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 9-10 Non-I nt in 2M0036+18 (01)	44.969893 Secs (44.97 Secs) [==>]	[5]
---	-------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

10	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 9-10 Non-Int in 2M0036+18 (01)	44.969893 Secs X 43 (1933.705 Secs)	[5]
[==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]							

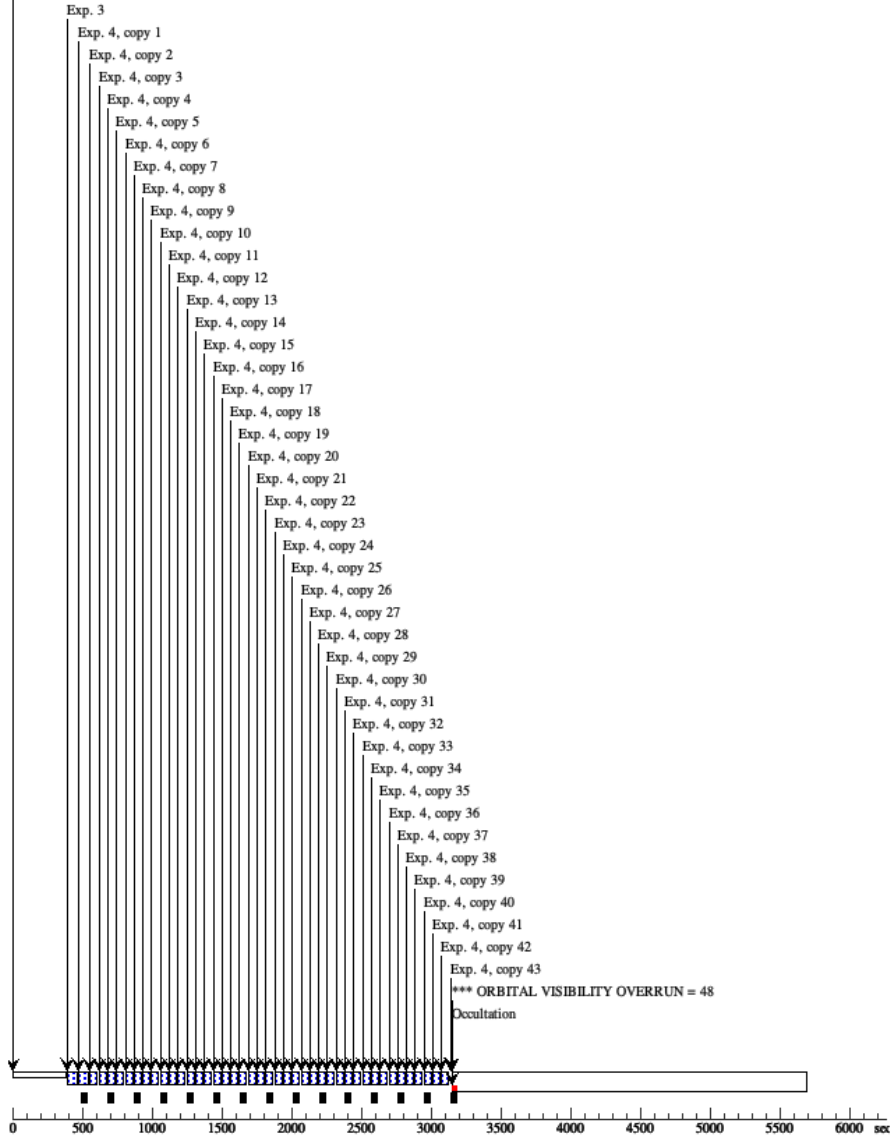
Comments: science exposures for variability monitoring



Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

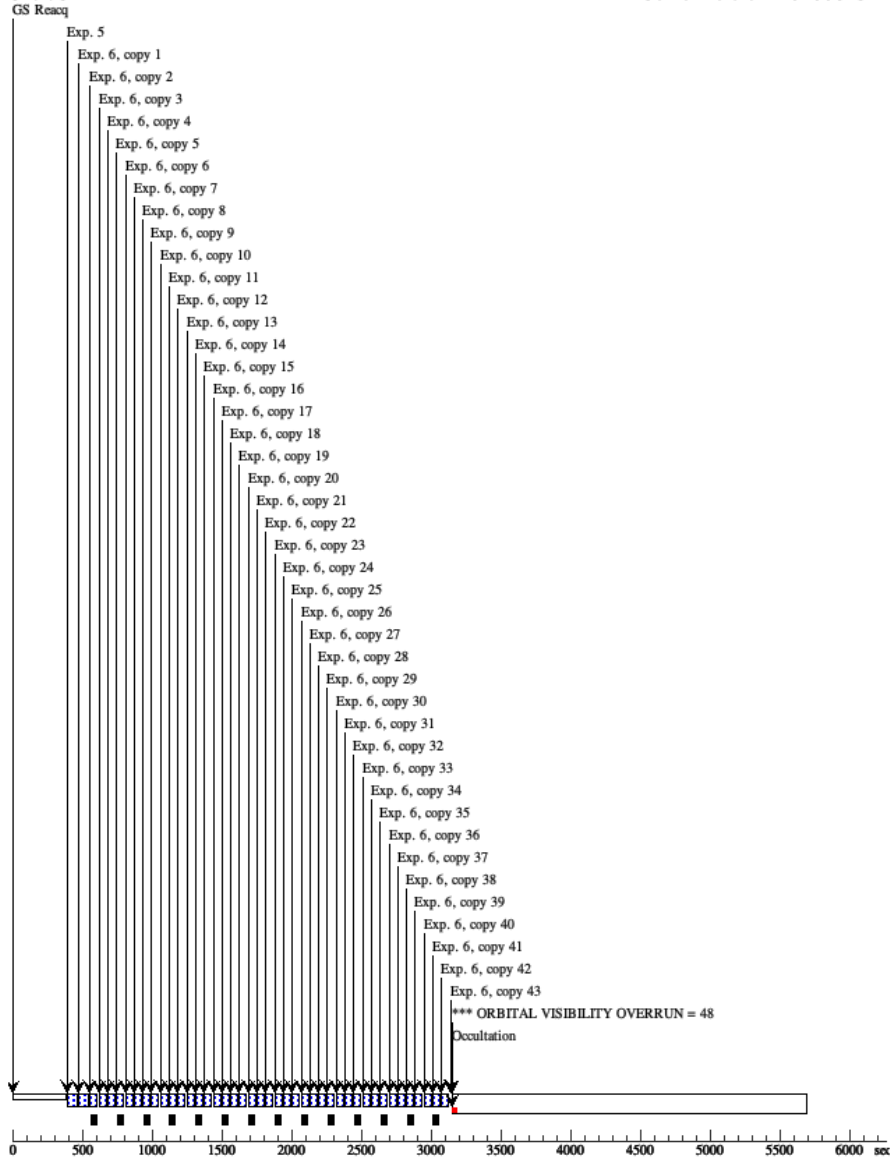
Orbit 2
GS Reacq

Server Version: 20200619



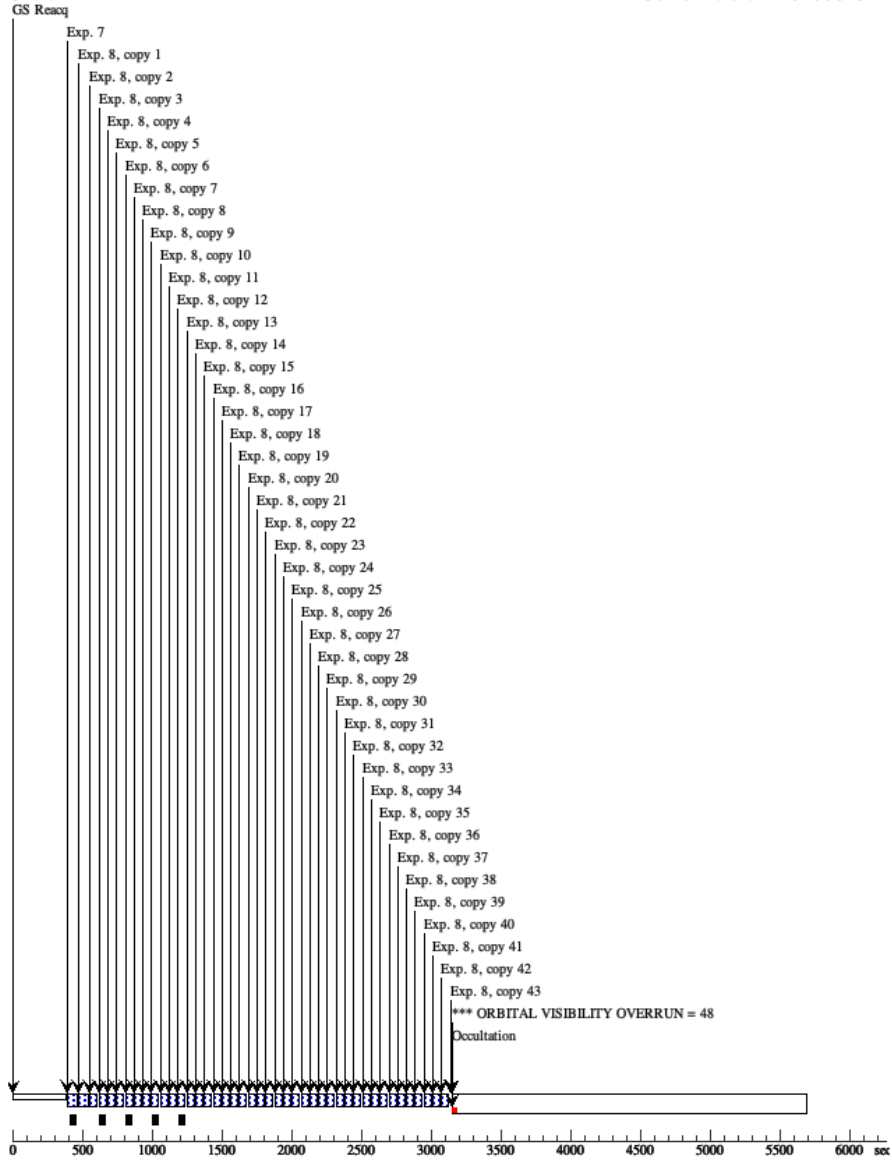
Orbit 3

Server Version: 20200619

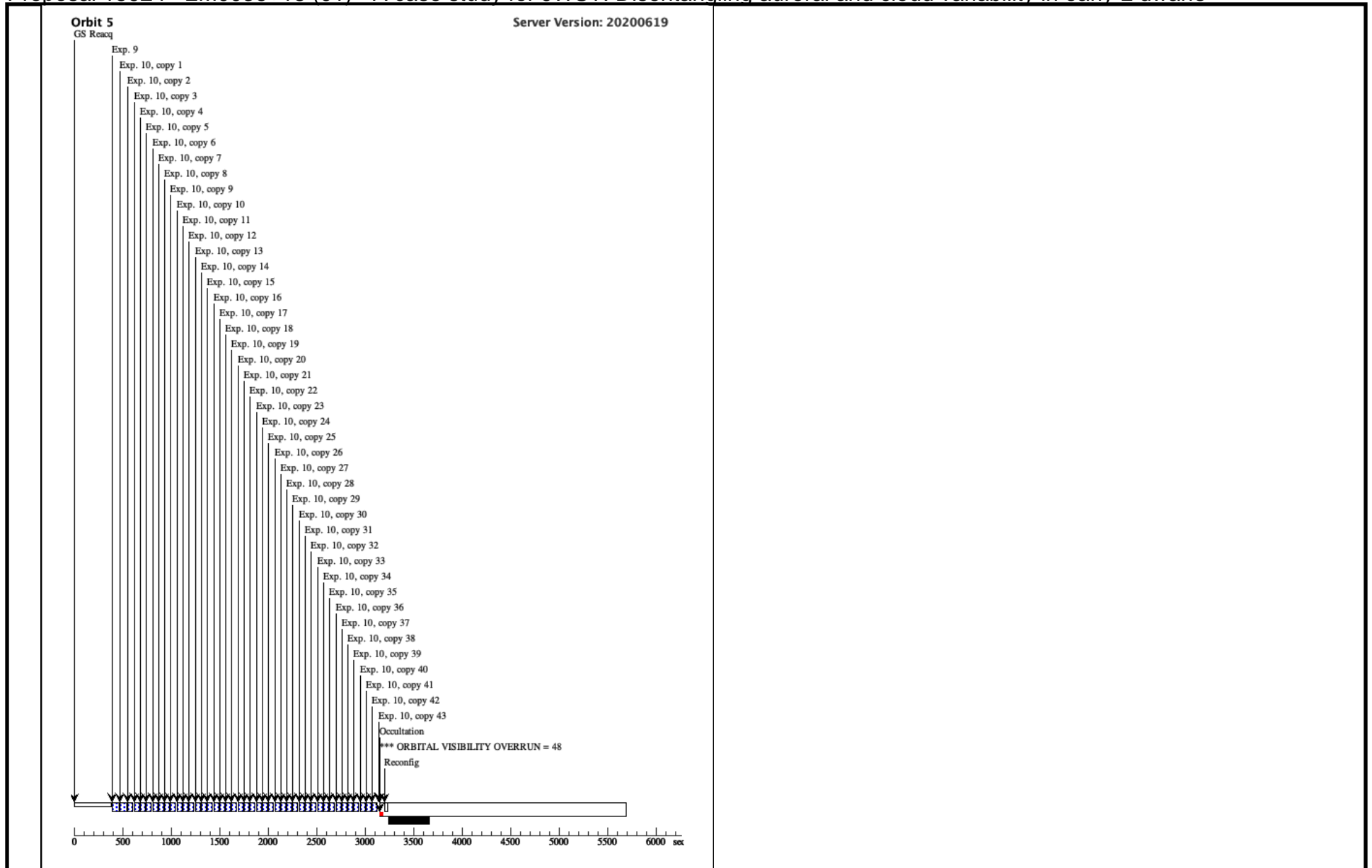


Orbit 4

Server Version: 20200619



Proposal 15924 - 2M0036+18 (01) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs



Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Mon Aug 03 22:13:43 GMT 2020

Visit	<p>Proposal 15924, 2M0036+18 (51)</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/IR</p> <p>Special Requirements: (none)</p> <p><i>Comments: This 5-orbit visit should be coordinated with simultaneous VLA observations.</i></p>																	
Diagnostics	<p>(2M0036+18 (51)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p> <p>(2M0036+18 (51)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p> <p>(2M0036+18 (51)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p> <p>(2M0036+18 (51)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p> <p>(2M0036+18 (51)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</p>																	
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>LSPM-J0036+1821</td> <td>RA: 00 36 17.0934 (9.0712225d) Dec: +18 21 12.21 (18.35339d) Equinox: J2000</td> <td>Proper Motion RA: 0.06332505636947976 sec of time/yr Proper Motion Dec: 0.12401899999999999 arcsec/yr Epoch of Position: 2015.5</td> <td>V=(?) J=12.466</td> <td>Reference Frame: SIMBAD</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p>Category=EXT-STAR Description=[BROWN DWARF] Extended=NO</p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	LSPM-J0036+1821	RA: 00 36 17.0934 (9.0712225d) Dec: +18 21 12.21 (18.35339d) Equinox: J2000	Proper Motion RA: 0.06332505636947976 sec of time/yr Proper Motion Dec: 0.12401899999999999 arcsec/yr Epoch of Position: 2015.5	V=(?) J=12.466	Reference Frame: SIMBAD
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous													
(1)	LSPM-J0036+1821	RA: 00 36 17.0934 (9.0712225d) Dec: +18 21 12.21 (18.35339d) Equinox: J2000	Proper Motion RA: 0.06332505636947976 sec of time/yr Proper Motion Dec: 0.12401899999999999 arcsec/yr Epoch of Position: 2015.5	V=(?) J=12.466	Reference Frame: SIMBAD													

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 1-2 Non-Int in 2M0036+18 (51)	44.969893 Secs (44.97 Secs)	[==>]	[1]	
<i>Comments: short exposure to determine target position in grism aperture.</i>									

Exposures

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

2	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 1-2 Non-Int in 2M0036+18 (51)	44.969893 Secs X 43 (1933.705 Secs)	[1]
<p>[==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]</p>							

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

3	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 3-4 Non-Int in 2M0036+18 (51)	44.969893 Secs (44.97 Secs) [==>]	[2]
---	-------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

4	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 3-4 Non-Int in 2M0036+18 (51)	44.969893 Secs X 43 (1933.705 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[2]
---	--	----------------------------------	------	----------------------------------	---	--	-----

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

5	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 5-6 Non-Int in 2M0036+18 (51)	44.969893 Secs (44.97 Secs) [==>]	[3]
---	-------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

6	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 5-6 Non-Int in 2M0036+18 (51)	44.969893 Secs X 43 (1933.705 Secs)	[3]
<p>[==>(Copy 1)]</p> <p>[==>(Copy 2)]</p> <p>[==>(Copy 3)]</p> <p>[==>(Copy 4)]</p> <p>[==>(Copy 5)]</p> <p>[==>(Copy 6)]</p> <p>[==>(Copy 7)]</p> <p>[==>(Copy 8)]</p> <p>[==>(Copy 9)]</p> <p>[==>(Copy 10)]</p> <p>[==>(Copy 11)]</p> <p>[==>(Copy 12)]</p> <p>[==>(Copy 13)]</p> <p>[==>(Copy 14)]</p> <p>[==>(Copy 15)]</p> <p>[==>(Copy 16)]</p> <p>[==>(Copy 17)]</p> <p>[==>(Copy 18)]</p> <p>[==>(Copy 19)]</p> <p>[==>(Copy 20)]</p> <p>[==>(Copy 21)]</p> <p>[==>(Copy 22)]</p> <p>[==>(Copy 23)]</p> <p>[==>(Copy 24)]</p> <p>[==>(Copy 25)]</p> <p>[==>(Copy 26)]</p> <p>[==>(Copy 27)]</p> <p>[==>(Copy 28)]</p> <p>[==>(Copy 29)]</p> <p>[==>(Copy 30)]</p> <p>[==>(Copy 31)]</p> <p>[==>(Copy 32)]</p> <p>[==>(Copy 33)]</p> <p>[==>(Copy 34)]</p> <p>[==>(Copy 35)]</p> <p>[==>(Copy 36)]</p> <p>[==>(Copy 37)]</p> <p>[==>(Copy 38)]</p> <p>[==>(Copy 39)]</p> <p>[==>(Copy 40)]</p> <p>[==>(Copy 41)]</p> <p>[==>(Copy 42)]</p> <p>[==>(Copy 43)]</p>							

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

7	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 7-8 Non-Int in 2M0036+18 (51)	44.969893 Secs (44.97 Secs) [==>]	[4]
---	-------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

8	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 7-8 Non-Int in 2M0036+18 (51)	44.969893 Secs X 43 (1933.705 Secs)	[4]
<p>[==>(Copy 1)]</p> <p>[==>(Copy 2)]</p> <p>[==>(Copy 3)]</p> <p>[==>(Copy 4)]</p> <p>[==>(Copy 5)]</p> <p>[==>(Copy 6)]</p> <p>[==>(Copy 7)]</p> <p>[==>(Copy 8)]</p> <p>[==>(Copy 9)]</p> <p>[==>(Copy 10)]</p> <p>[==>(Copy 11)]</p> <p>[==>(Copy 12)]</p> <p>[==>(Copy 13)]</p> <p>[==>(Copy 14)]</p> <p>[==>(Copy 15)]</p> <p>[==>(Copy 16)]</p> <p>[==>(Copy 17)]</p> <p>[==>(Copy 18)]</p> <p>[==>(Copy 19)]</p> <p>[==>(Copy 20)]</p> <p>[==>(Copy 21)]</p> <p>[==>(Copy 22)]</p> <p>[==>(Copy 23)]</p> <p>[==>(Copy 24)]</p> <p>[==>(Copy 25)]</p> <p>[==>(Copy 26)]</p> <p>[==>(Copy 27)]</p> <p>[==>(Copy 28)]</p> <p>[==>(Copy 29)]</p> <p>[==>(Copy 30)]</p> <p>[==>(Copy 31)]</p> <p>[==>(Copy 32)]</p> <p>[==>(Copy 33)]</p> <p>[==>(Copy 34)]</p> <p>[==>(Copy 35)]</p> <p>[==>(Copy 36)]</p> <p>[==>(Copy 37)]</p> <p>[==>(Copy 38)]</p> <p>[==>(Copy 39)]</p> <p>[==>(Copy 40)]</p> <p>[==>(Copy 41)]</p> <p>[==>(Copy 42)]</p> <p>[==>(Copy 43)]</p>							[4]

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

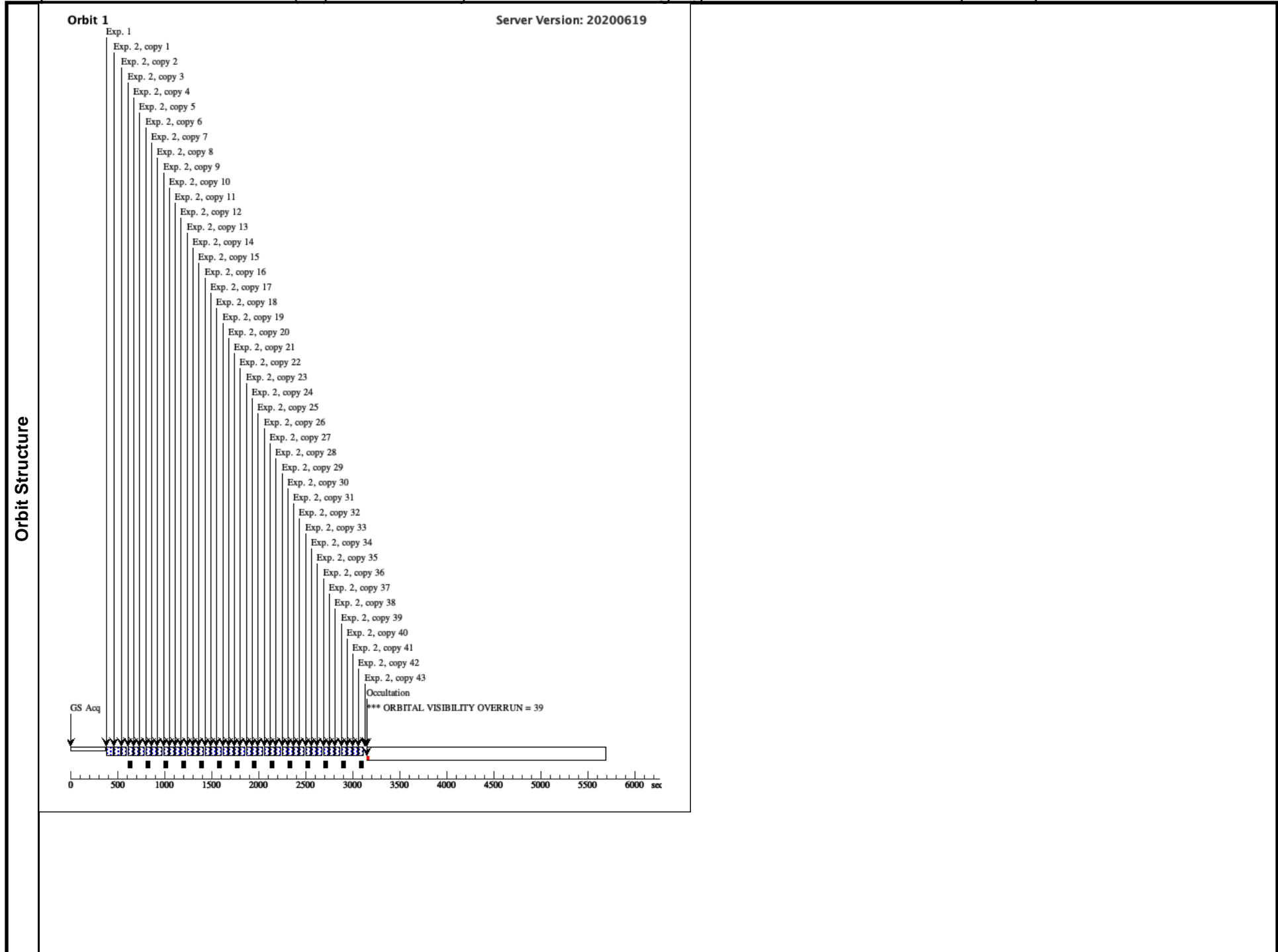
9	(1) LSPM-J0036+18 21	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 9-10 Non-Int nt in 2M0036+18 (51)	44.969893 Secs (44.97 Secs) [==>]	[5]
---	-------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

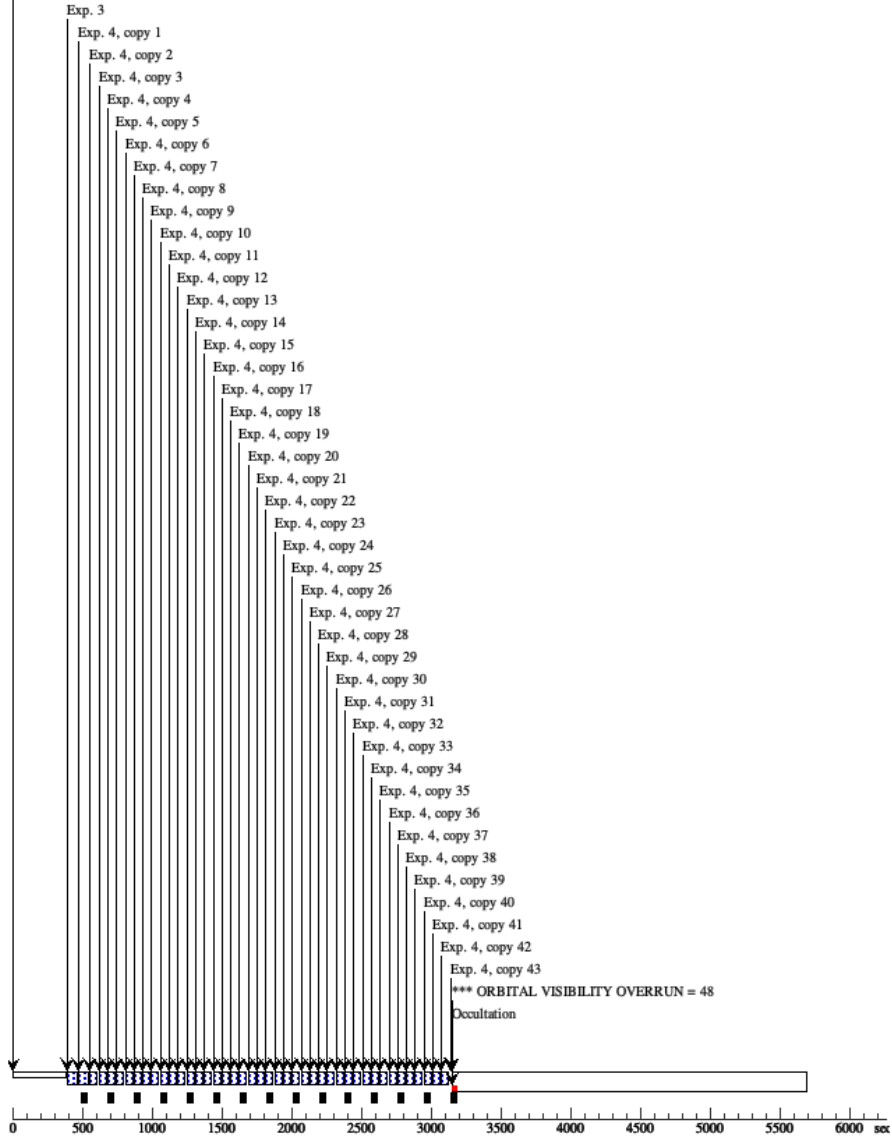
10	(WFC3IR.sp (1) LSPM-J0036+18 .1367977) 21	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 9-10 Non-Int in 2M0036+18 (51)	44.969893 Secs X 43 (1933.705 Secs)	[5]
<p>[==>(Copy 1)]</p> <p>[==>(Copy 2)]</p> <p>[==>(Copy 3)]</p> <p>[==>(Copy 4)]</p> <p>[==>(Copy 5)]</p> <p>[==>(Copy 6)]</p> <p>[==>(Copy 7)]</p> <p>[==>(Copy 8)]</p> <p>[==>(Copy 9)]</p> <p>[==>(Copy 10)]</p> <p>[==>(Copy 11)]</p> <p>[==>(Copy 12)]</p> <p>[==>(Copy 13)]</p> <p>[==>(Copy 14)]</p> <p>[==>(Copy 15)]</p> <p>[==>(Copy 16)]</p> <p>[==>(Copy 17)]</p> <p>[==>(Copy 18)]</p> <p>[==>(Copy 19)]</p> <p>[==>(Copy 20)]</p> <p>[==>(Copy 21)]</p> <p>[==>(Copy 22)]</p> <p>[==>(Copy 23)]</p> <p>[==>(Copy 24)]</p> <p>[==>(Copy 25)]</p> <p>[==>(Copy 26)]</p> <p>[==>(Copy 27)]</p> <p>[==>(Copy 28)]</p> <p>[==>(Copy 29)]</p> <p>[==>(Copy 30)]</p> <p>[==>(Copy 31)]</p> <p>[==>(Copy 32)]</p> <p>[==>(Copy 33)]</p> <p>[==>(Copy 34)]</p> <p>[==>(Copy 35)]</p> <p>[==>(Copy 36)]</p> <p>[==>(Copy 37)]</p> <p>[==>(Copy 38)]</p> <p>[==>(Copy 39)]</p> <p>[==>(Copy 40)]</p> <p>[==>(Copy 41)]</p> <p>[==>(Copy 42)]</p> <p>[==>(Copy 43)]</p>							

Comments: science exposures for variability monitoring



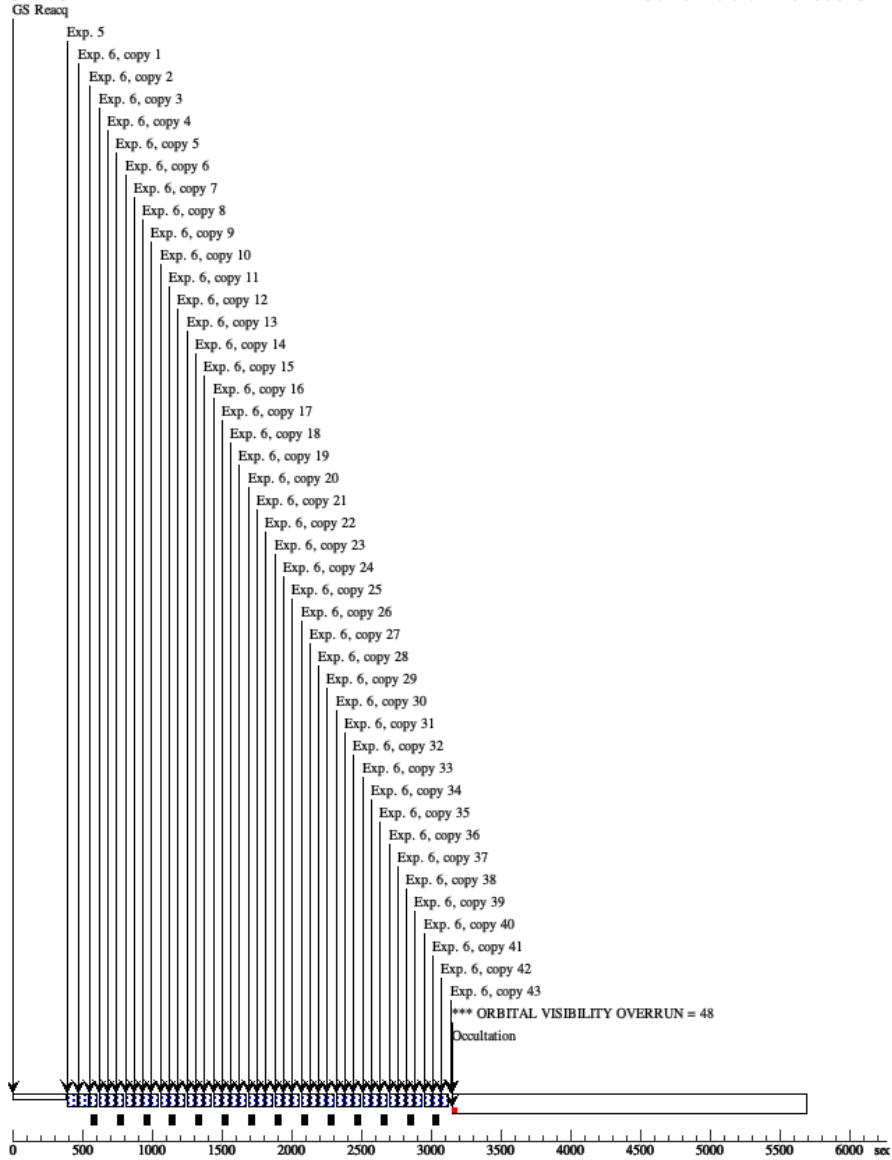
Orbit 2
GS Reacq

Server Version: 20200619



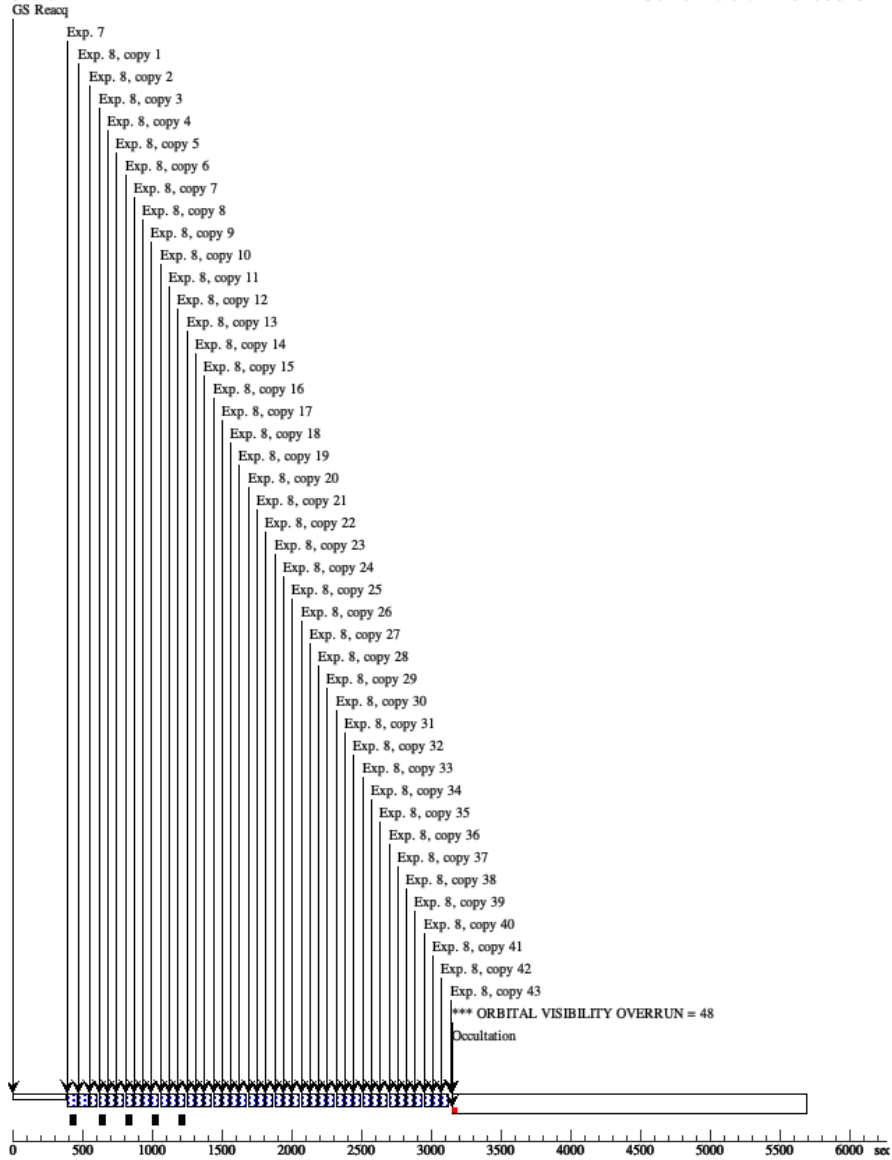
Orbit 3

Server Version: 20200619

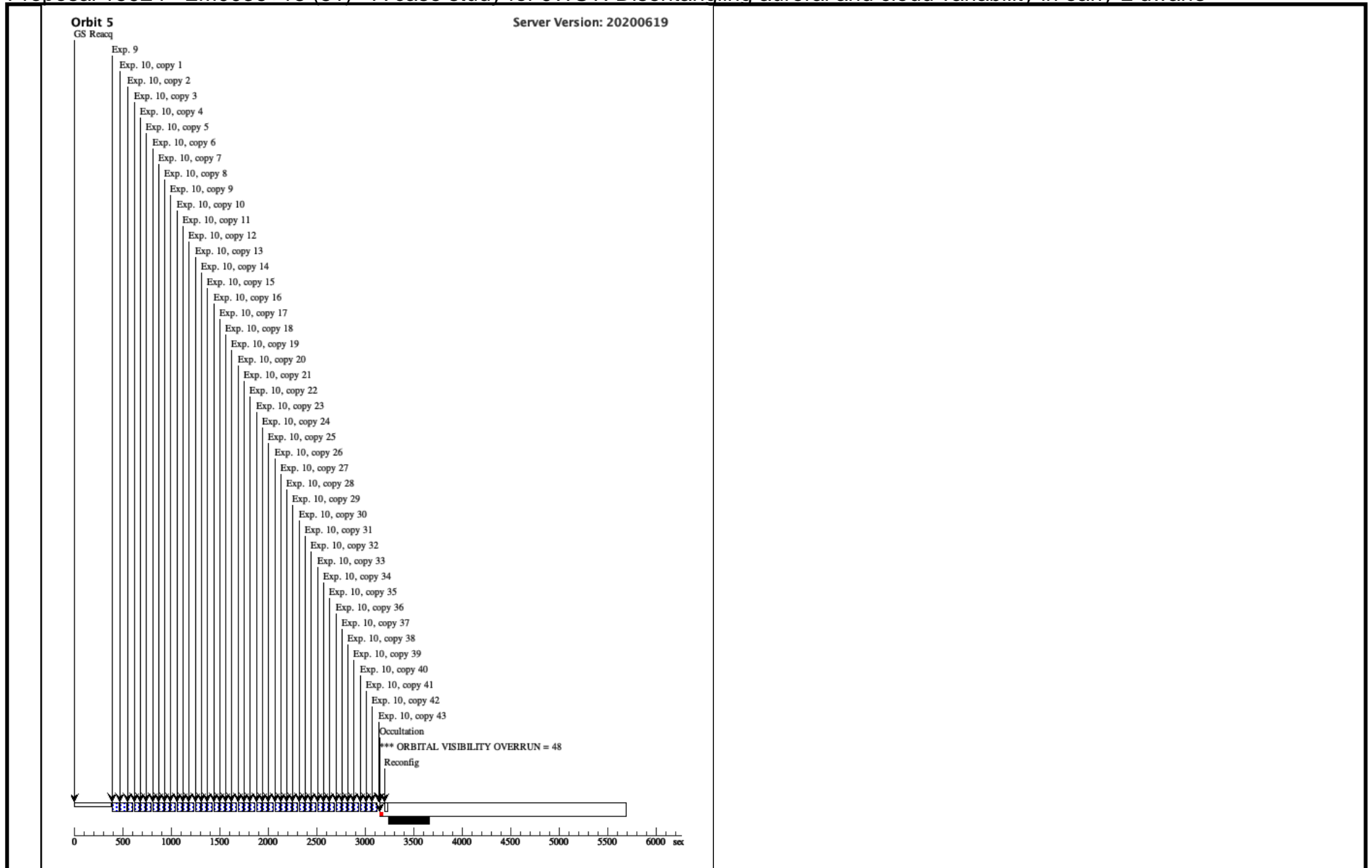


Orbit 4

Server Version: 20200619



Proposal 15924 - 2M0036+18 (51) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs



Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Mon Aug 03 22:13:43 GMT 2020

Visit	Proposal 15924, 2M1721+33 (02), scheduling Diagnostic Status: Warning Scientific Instruments: WFC3/IR Special Requirements: (none) <i>Comments: This 5-orbit visit should be coordinated with simultaneous VLA observations.</i>					
	Diagnostics	(2M1721+33 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN				
(2M1721+33 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN						
(2M1721+33 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN						
(2M1721+33 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN						
(2M1721+33 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	2MASSI- J1721039+334415	RA: 17 21 1.3274 (260.2555308d) Dec: +33 44 26.09 (33.74058d) Equinox: J2000	Proper Motion RA: -0.14876448462727557 sec of time/yr Proper Motion Dec: 0.591642 arcsec/yr Epoch of Position: 2015.5	V=(?) J=13.625	Reference Frame: SIMBAD
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=EXT-STAR Description=[BROWN DWARF] Extended=NO						

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(2) 2MASS-J17210 39+334415	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 1-2 Non-Int in 2M1721+33 (02)	44.969893 Secs (44.97 Secs)	[==>]	[1]	
<i>Comments: short exposure to determine target position in grism aperture.</i>									

Exposures

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

2	(WFC3IR.sp (2) 2MASSI-J17210 .1368161) 39+334415	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 1-2 Non-Int in 2M1721+33 (02)	44.969893 Secs X 43 (1933.705 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[1]
---	---	----------------------------------	------	----------------------------------	---	--	-----

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

3	(2) 2MASSI-J1721039+334415	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 3-4 Non-Int in 2M1721+33 (02)	44.969893 Secs (44.97 Secs) [==>]	[2]
---	----------------------------	-------------------------------	-------	----------------------------------	--	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

4	(WFC3IR.sp (2) 2MASSI-J17210 .1368161) 39+334415	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 3-4 Non-Int in 2M1721+33 (02)	44.969893 Secs X 43 (1933.705 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[2]
---	---	----------------------------------	------	----------------------------------	---	--	-----

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

5	(2) 2MASSI-J1721039+334415	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 5-6 Non-Int in 2M1721+33 (02)	44.969893 Secs (44.97 Secs) [==>]	[3]
---	----------------------------	-------------------------------	-------	----------------------------------	--	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

6	(WFC3IR.sp (2) 2MASSI-J17210 .1368161) 39+334415	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 5-6 Non-Int in 2M1721+33 (02)	44.969893 Secs X 43 (1933.705 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[3]
---	---	----------------------------------	------	----------------------------------	---	--	-----

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

7	(2) 2MASSI-J1721039+334415	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 7-8 Non-Int in 2M1721+33 (02)	44.969893 Secs (44.97 Secs) [==>]	[4]
---	----------------------------	-------------------------------	-------	----------------------------------	--	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

8	(WFC3IR.sp (2) 2MASSI-J17210 .1368161) 39+334415	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 7-8 Non-Int in 2M1721+33 (02)	44.969893 Secs X 43 (1933.705 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[4]
---	---	----------------------------------	------	----------------------------------	---	--	-----

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

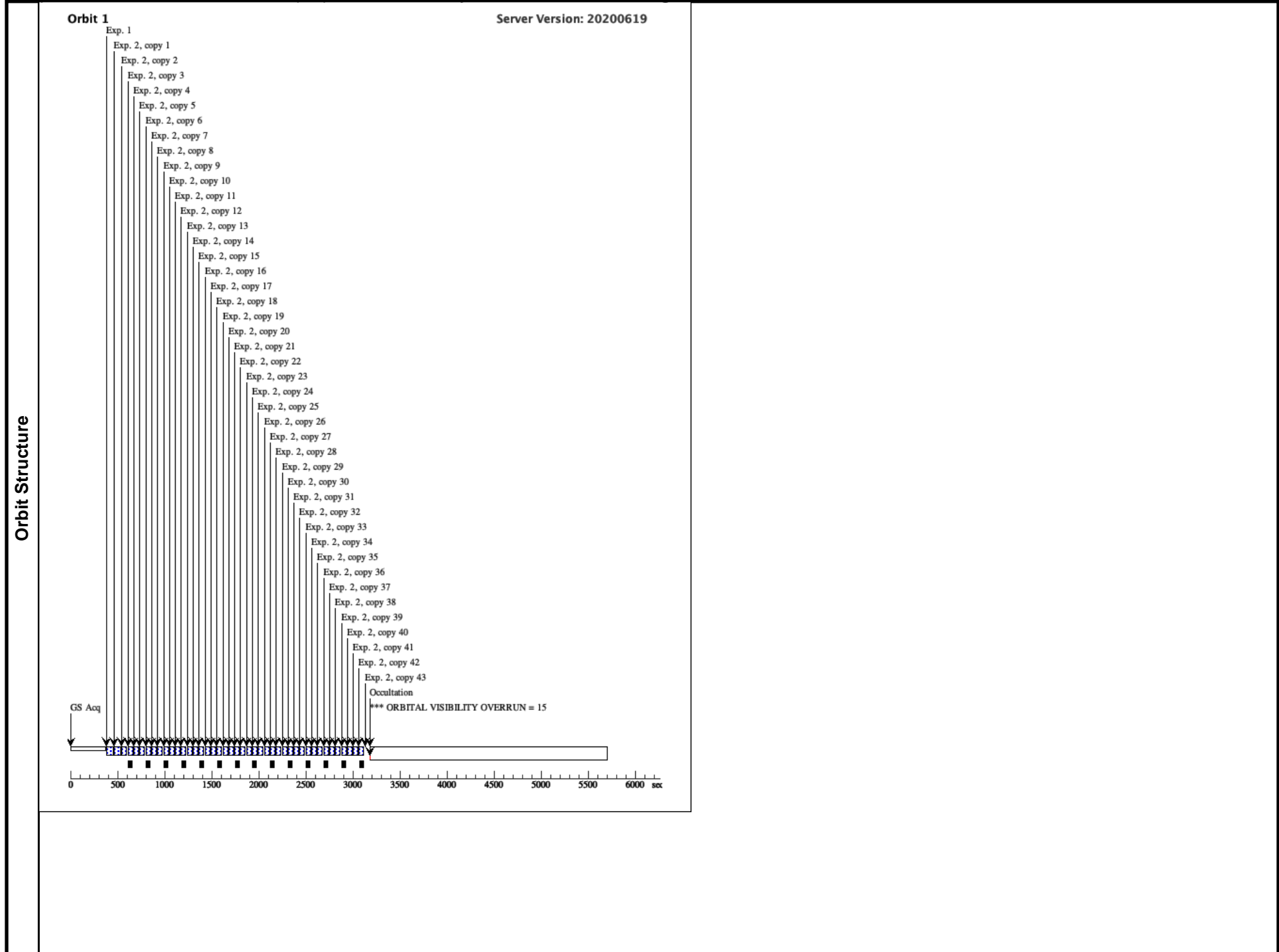
Comments: science exposures for variability monitoring

9	(2) 2MASSI-J1721039+334415	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 9-10 Non-Int in 2M1721+33 (02)	44.969893 Secs (44.97 Secs) [==>]	[5]
---	----------------------------	-------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

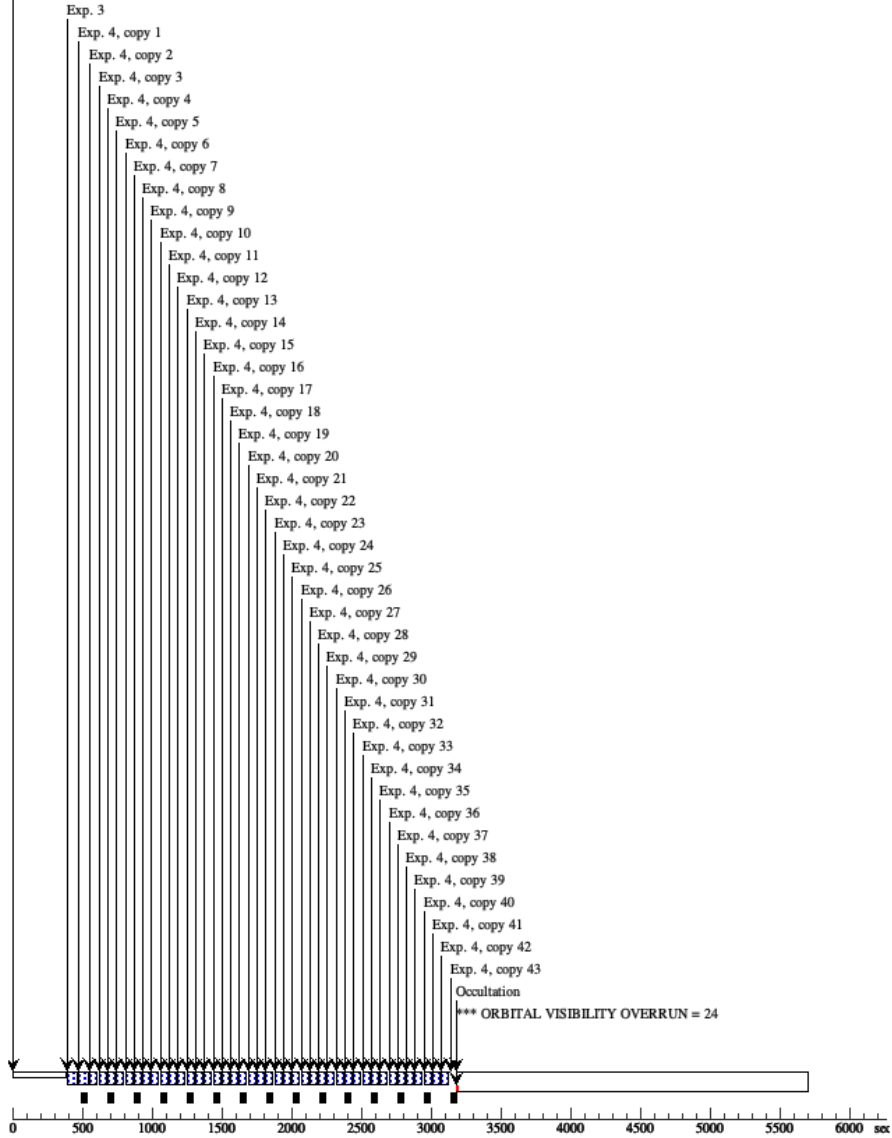
10	(WFC3IR.sp (2) 2MASSI-J17210 .1368161) 39+334415	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 9-10 Non-I nt in 2M1721+33 (02)	44.969893 Secs X 43 (1933.705 Sec s)	[5]
<p>[==>(Copy 1)]</p> <p>[==>(Copy 2)]</p> <p>[==>(Copy 3)]</p> <p>[==>(Copy 4)]</p> <p>[==>(Copy 5)]</p> <p>[==>(Copy 6)]</p> <p>[==>(Copy 7)]</p> <p>[==>(Copy 8)]</p> <p>[==>(Copy 9)]</p> <p>[==>(Copy 10)]</p> <p>[==>(Copy 11)]</p> <p>[==>(Copy 12)]</p> <p>[==>(Copy 13)]</p> <p>[==>(Copy 14)]</p> <p>[==>(Copy 15)]</p> <p>[==>(Copy 16)]</p> <p>[==>(Copy 17)]</p> <p>[==>(Copy 18)]</p> <p>[==>(Copy 19)]</p> <p>[==>(Copy 20)]</p> <p>[==>(Copy 21)]</p> <p>[==>(Copy 22)]</p> <p>[==>(Copy 23)]</p> <p>[==>(Copy 24)]</p> <p>[==>(Copy 25)]</p> <p>[==>(Copy 26)]</p> <p>[==>(Copy 27)]</p> <p>[==>(Copy 28)]</p> <p>[==>(Copy 29)]</p> <p>[==>(Copy 30)]</p> <p>[==>(Copy 31)]</p> <p>[==>(Copy 32)]</p> <p>[==>(Copy 33)]</p> <p>[==>(Copy 34)]</p> <p>[==>(Copy 35)]</p> <p>[==>(Copy 36)]</p> <p>[==>(Copy 37)]</p> <p>[==>(Copy 38)]</p> <p>[==>(Copy 39)]</p> <p>[==>(Copy 40)]</p> <p>[==>(Copy 41)]</p> <p>[==>(Copy 42)]</p> <p>[==>(Copy 43)]</p>							



Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Orbit 2
GS Reacq

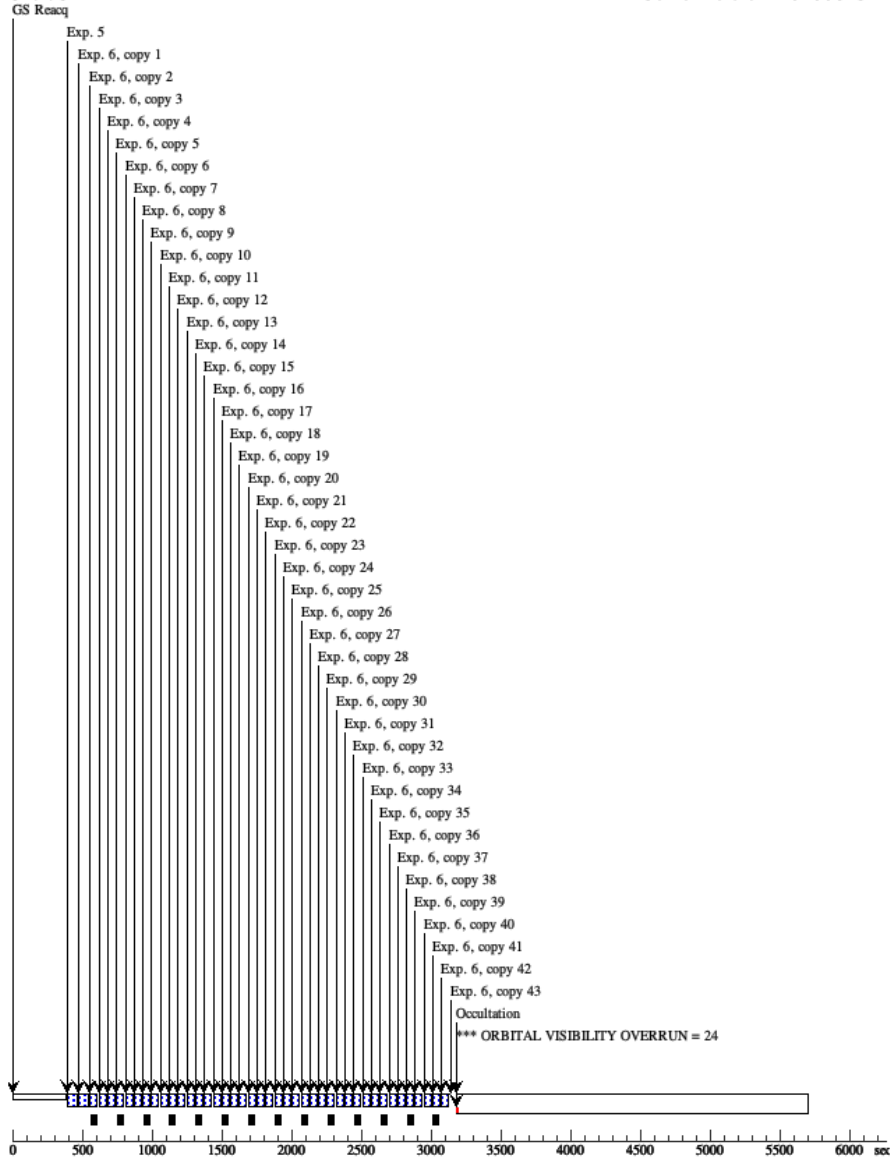
Server Version: 20200619



Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Orbit 3

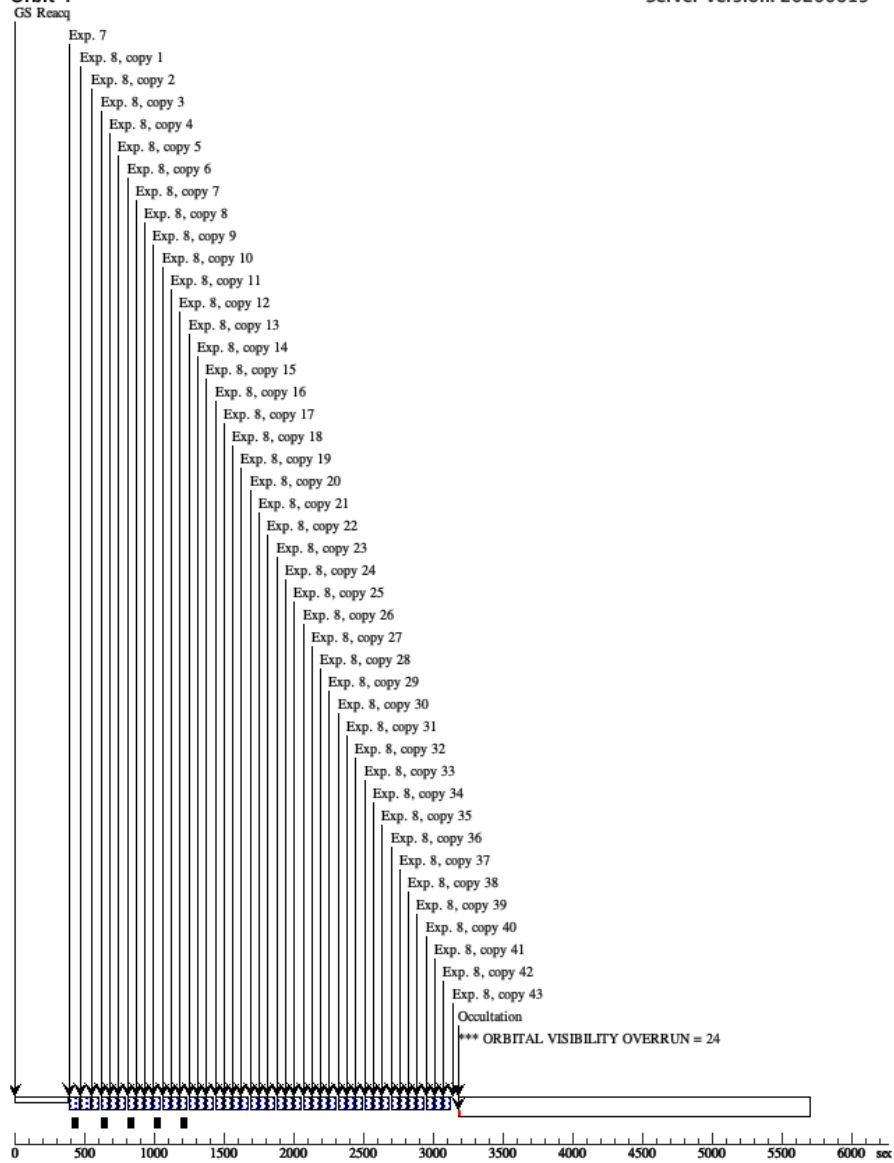
Server Version: 20200619



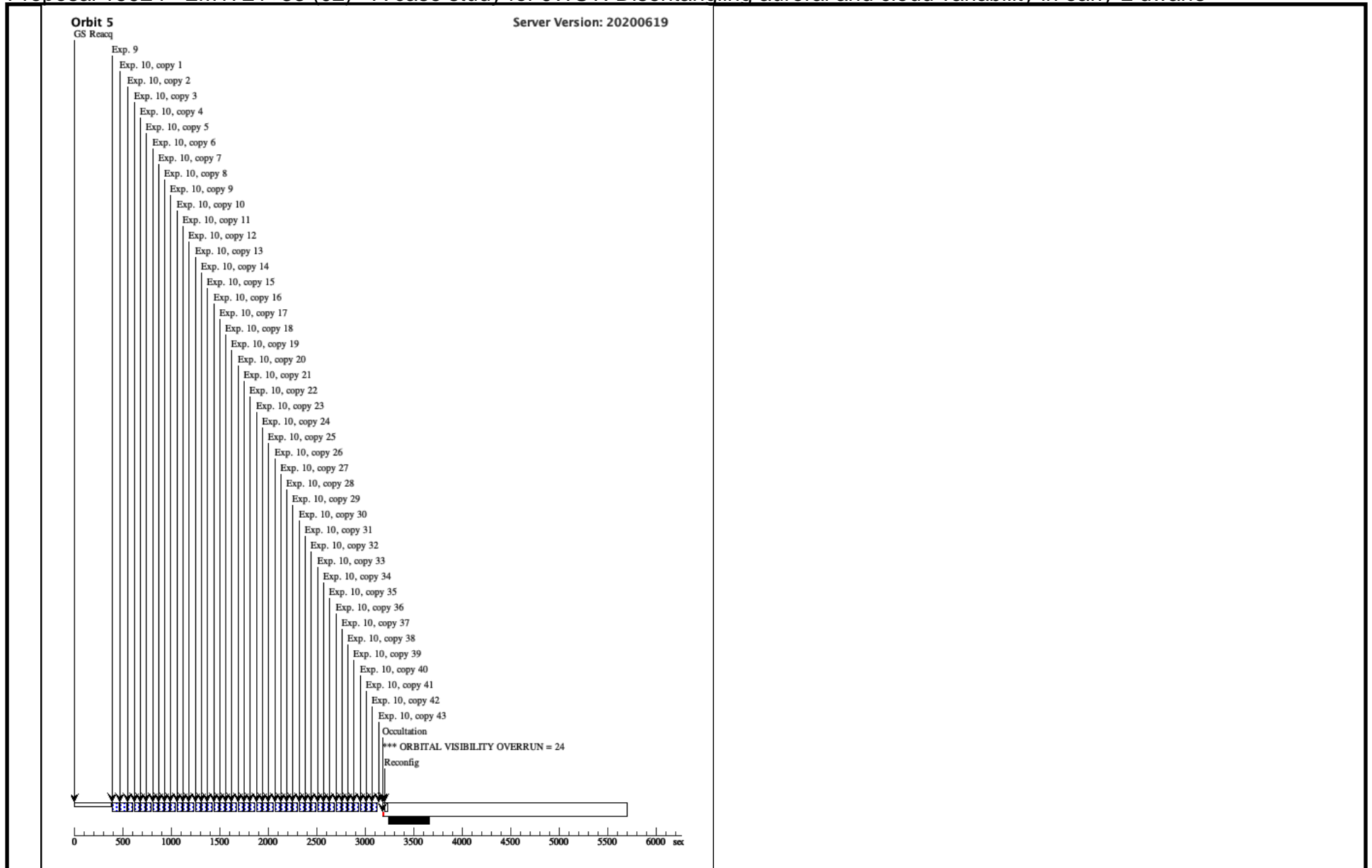
Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Orbit 4

Server Version: 20200619



Proposal 15924 - 2M1721+33 (02) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs



Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Mon Aug 03 22:13:44 GMT 2020

Visit	Proposal 15924, 2M1906+40 (03), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: ORIENT 0D TO 34 D; ORIENT 54D TO 214 D; ORIENT 234D TO 359 D <i>Comments: This 6-orbit visit should be coordinated with simultaneous VLA observations.</i>												
	Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(3)</td> <td>2MASS- J19064801+4011089</td> <td> RA: 19 06 48.6680 (286.7027833d) Dec: +40 11 5.81 (40.18495d) Equinox: J2000 </td> <td> Proper Motion RA: 0.038251809958638486 sec of time/yr Proper Motion Dec: -0.1799779999146267 arcsec/yr Epoch of Position: 2015.5 </td> <td> V=(?) J=13.078 </td> <td>Reference Frame: SIMBAD</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=EXT-STAR Description=[BROWN DWARF] Extended=NO</p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(3)	2MASS- J19064801+4011089	RA: 19 06 48.6680 (286.7027833d) Dec: +40 11 5.81 (40.18495d) Equinox: J2000	Proper Motion RA: 0.038251809958638486 sec of time/yr Proper Motion Dec: -0.1799779999146267 arcsec/yr Epoch of Position: 2015.5	V=(?) J=13.078
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous								
(3)	2MASS- J19064801+4011089	RA: 19 06 48.6680 (286.7027833d) Dec: +40 11 5.81 (40.18495d) Equinox: J2000	Proper Motion RA: 0.038251809958638486 sec of time/yr Proper Motion Dec: -0.1799779999146267 arcsec/yr Epoch of Position: 2015.5	V=(?) J=13.078	Reference Frame: SIMBAD								

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(3) 2MASS-J190648 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 1-2 Non-Int in 2M1906+40 (03)	44.969893 Secs (44.97 Secs)	[1]		
<i>Comments: short exposure to determine target position in grism aperture.</i>									

Exposures

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

2	(WFC3IR.sp (3) 2MASS-J190648 .1368160) 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 1-2 Non-Int in 2M1906+40 (03)	44.969893 Secs X 43 (1933.705 Secs)	[1]
<p>[==>(Copy 1)]</p> <p>[==>(Copy 2)]</p> <p>[==>(Copy 3)]</p> <p>[==>(Copy 4)]</p> <p>[==>(Copy 5)]</p> <p>[==>(Copy 6)]</p> <p>[==>(Copy 7)]</p> <p>[==>(Copy 8)]</p> <p>[==>(Copy 9)]</p> <p>[==>(Copy 10)]</p> <p>[==>(Copy 11)]</p> <p>[==>(Copy 12)]</p> <p>[==>(Copy 13)]</p> <p>[==>(Copy 14)]</p> <p>[==>(Copy 15)]</p> <p>[==>(Copy 16)]</p> <p>[==>(Copy 17)]</p> <p>[==>(Copy 18)]</p> <p>[==>(Copy 19)]</p> <p>[==>(Copy 20)]</p> <p>[==>(Copy 21)]</p> <p>[==>(Copy 22)]</p> <p>[==>(Copy 23)]</p> <p>[==>(Copy 24)]</p> <p>[==>(Copy 25)]</p> <p>[==>(Copy 26)]</p> <p>[==>(Copy 27)]</p> <p>[==>(Copy 28)]</p> <p>[==>(Copy 29)]</p> <p>[==>(Copy 30)]</p> <p>[==>(Copy 31)]</p> <p>[==>(Copy 32)]</p> <p>[==>(Copy 33)]</p> <p>[==>(Copy 34)]</p> <p>[==>(Copy 35)]</p> <p>[==>(Copy 36)]</p> <p>[==>(Copy 37)]</p> <p>[==>(Copy 38)]</p> <p>[==>(Copy 39)]</p> <p>[==>(Copy 40)]</p> <p>[==>(Copy 41)]</p> <p>[==>(Copy 42)]</p> <p>[==>(Copy 43)]</p>							

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

3	(3) 2MASS-J190648 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 3-4 Non-In t in 2M1906+40 (03)	44.969893 Secs (44.97 Secs) [==>]	[2]
---	---------------------------------	----------------------------------	-------	----------------------------------	--	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

4	(WFC3IR.sp (3) 2MASS-J190648 .1368160) 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 3-4 Non-Int in 2M1906+40 (03)	44.969893 Secs X 43 (1933.705 Secs)	[2]
<p>[==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]</p>							

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

5	(3) 2MASS-J190648 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 5-6 Non-Int in 2M1906+40 (03)	44.969893 Secs (44.97 Secs) [==>]	[3]
---	---------------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

6	(WFC3IR.sp (3) 2MASS-J190648 .1368160) 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 5-6 Non-Int in 2M1906+40 (03)	44.969893 Secs X 43 (1933.705 Secs)	[3]
<p>[==>(Copy 1)]</p> <p>[==>(Copy 2)]</p> <p>[==>(Copy 3)]</p> <p>[==>(Copy 4)]</p> <p>[==>(Copy 5)]</p> <p>[==>(Copy 6)]</p> <p>[==>(Copy 7)]</p> <p>[==>(Copy 8)]</p> <p>[==>(Copy 9)]</p> <p>[==>(Copy 10)]</p> <p>[==>(Copy 11)]</p> <p>[==>(Copy 12)]</p> <p>[==>(Copy 13)]</p> <p>[==>(Copy 14)]</p> <p>[==>(Copy 15)]</p> <p>[==>(Copy 16)]</p> <p>[==>(Copy 17)]</p> <p>[==>(Copy 18)]</p> <p>[==>(Copy 19)]</p> <p>[==>(Copy 20)]</p> <p>[==>(Copy 21)]</p> <p>[==>(Copy 22)]</p> <p>[==>(Copy 23)]</p> <p>[==>(Copy 24)]</p> <p>[==>(Copy 25)]</p> <p>[==>(Copy 26)]</p> <p>[==>(Copy 27)]</p> <p>[==>(Copy 28)]</p> <p>[==>(Copy 29)]</p> <p>[==>(Copy 30)]</p> <p>[==>(Copy 31)]</p> <p>[==>(Copy 32)]</p> <p>[==>(Copy 33)]</p> <p>[==>(Copy 34)]</p> <p>[==>(Copy 35)]</p> <p>[==>(Copy 36)]</p> <p>[==>(Copy 37)]</p> <p>[==>(Copy 38)]</p> <p>[==>(Copy 39)]</p> <p>[==>(Copy 40)]</p> <p>[==>(Copy 41)]</p> <p>[==>(Copy 42)]</p> <p>[==>(Copy 43)]</p>							

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Comments: science exposures for variability monitoring

7	(3) 2MASS-J190648 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 7-8 Non-Int in 2M1906+40 (03)	44.969893 Secs (44.97 Secs) [==>]	[4]
---	---------------------------------	----------------------------------	-------	----------------------------------	---	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

8	(WFC3IR.sp (3) 2MASS-J190648 .1368160) 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 7-8 Non-Int in 2M1906+40 (03)	44.969893 Secs X 43 (1933.705 Secs)	[4]
<p>[==>(Copy 1)]</p> <p>[==>(Copy 2)]</p> <p>[==>(Copy 3)]</p> <p>[==>(Copy 4)]</p> <p>[==>(Copy 5)]</p> <p>[==>(Copy 6)]</p> <p>[==>(Copy 7)]</p> <p>[==>(Copy 8)]</p> <p>[==>(Copy 9)]</p> <p>[==>(Copy 10)]</p> <p>[==>(Copy 11)]</p> <p>[==>(Copy 12)]</p> <p>[==>(Copy 13)]</p> <p>[==>(Copy 14)]</p> <p>[==>(Copy 15)]</p> <p>[==>(Copy 16)]</p> <p>[==>(Copy 17)]</p> <p>[==>(Copy 18)]</p> <p>[==>(Copy 19)]</p> <p>[==>(Copy 20)]</p> <p>[==>(Copy 21)]</p> <p>[==>(Copy 22)]</p> <p>[==>(Copy 23)]</p> <p>[==>(Copy 24)]</p> <p>[==>(Copy 25)]</p> <p>[==>(Copy 26)]</p> <p>[==>(Copy 27)]</p> <p>[==>(Copy 28)]</p> <p>[==>(Copy 29)]</p> <p>[==>(Copy 30)]</p> <p>[==>(Copy 31)]</p> <p>[==>(Copy 32)]</p> <p>[==>(Copy 33)]</p> <p>[==>(Copy 34)]</p> <p>[==>(Copy 35)]</p> <p>[==>(Copy 36)]</p> <p>[==>(Copy 37)]</p> <p>[==>(Copy 38)]</p> <p>[==>(Copy 39)]</p> <p>[==>(Copy 40)]</p> <p>[==>(Copy 41)]</p> <p>[==>(Copy 42)]</p> <p>[==>(Copy 43)]</p>							

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

<i>Comments: science exposures for variability monitoring</i>						
9	(3) 2MASS-J190648 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 9-10 Non-I nt in 2M1906+40 (03)	44.969893 Secs (44.97 Secs) [==>]
<i>Comments: short exposure to determine target position in grism aperture.</i>						

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

10	(WFC3IR.sp (3) 2MASS-J190648 .1368160) 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 9-10 Non-I nt in 2M1906+40 (03)	44.969893 Secs X 43 (1933.705 Sec s) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[5]
----	--	----------------------------------	------	----------------------------------	---	--	-----

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

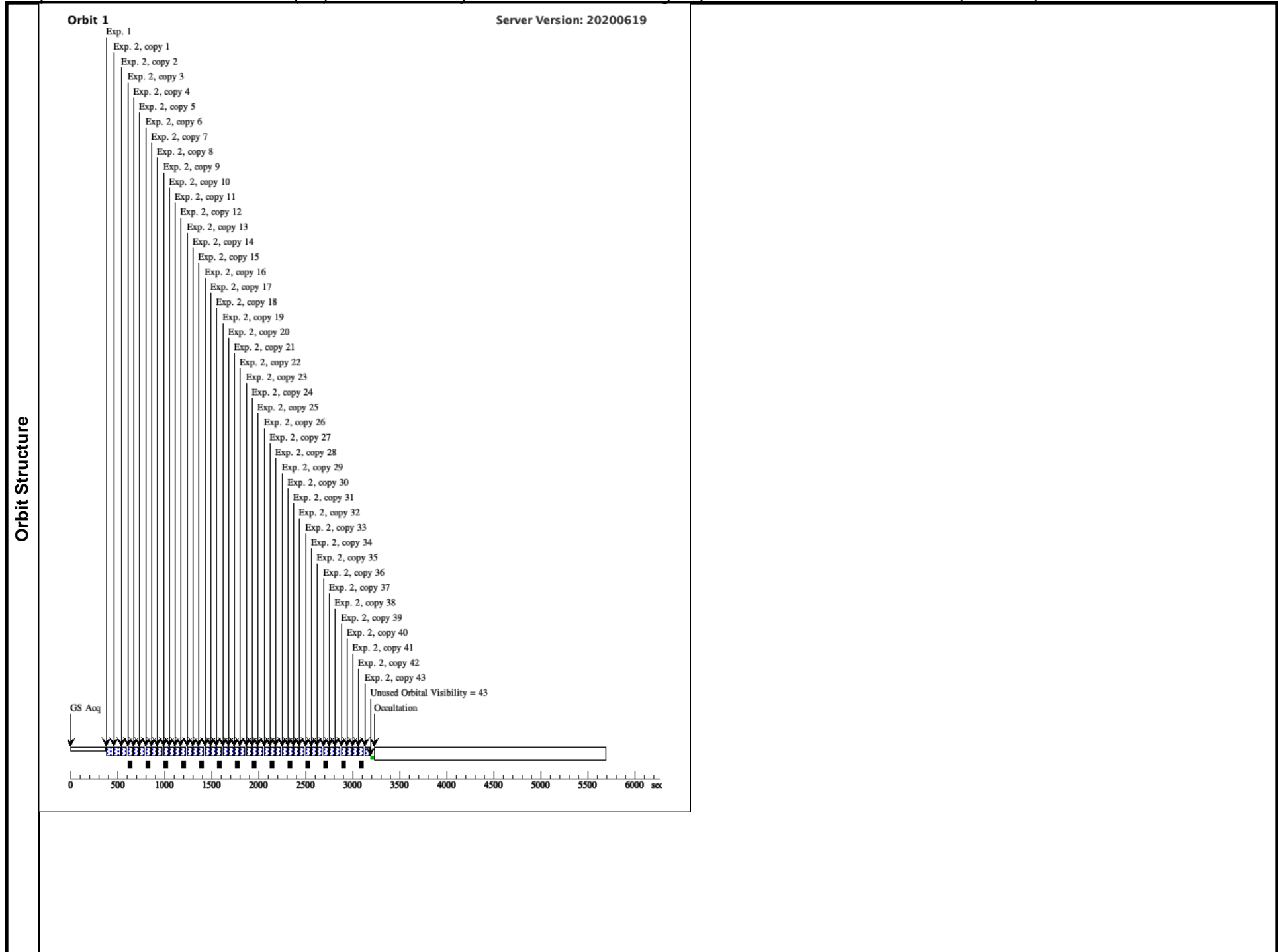
Comments: science exposures for variability monitoring

11	(3) 2MASS-J190648 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	F127M	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 11-12 Non -Int in 2M1906+40 (03)	44.969893 Secs (44.97 Secs) [==>]	[6]
----	---------------------------------	----------------------------------	-------	----------------------------------	--	--------------------------------------	-----

Comments: short exposure to determine target position in grism aperture.

Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

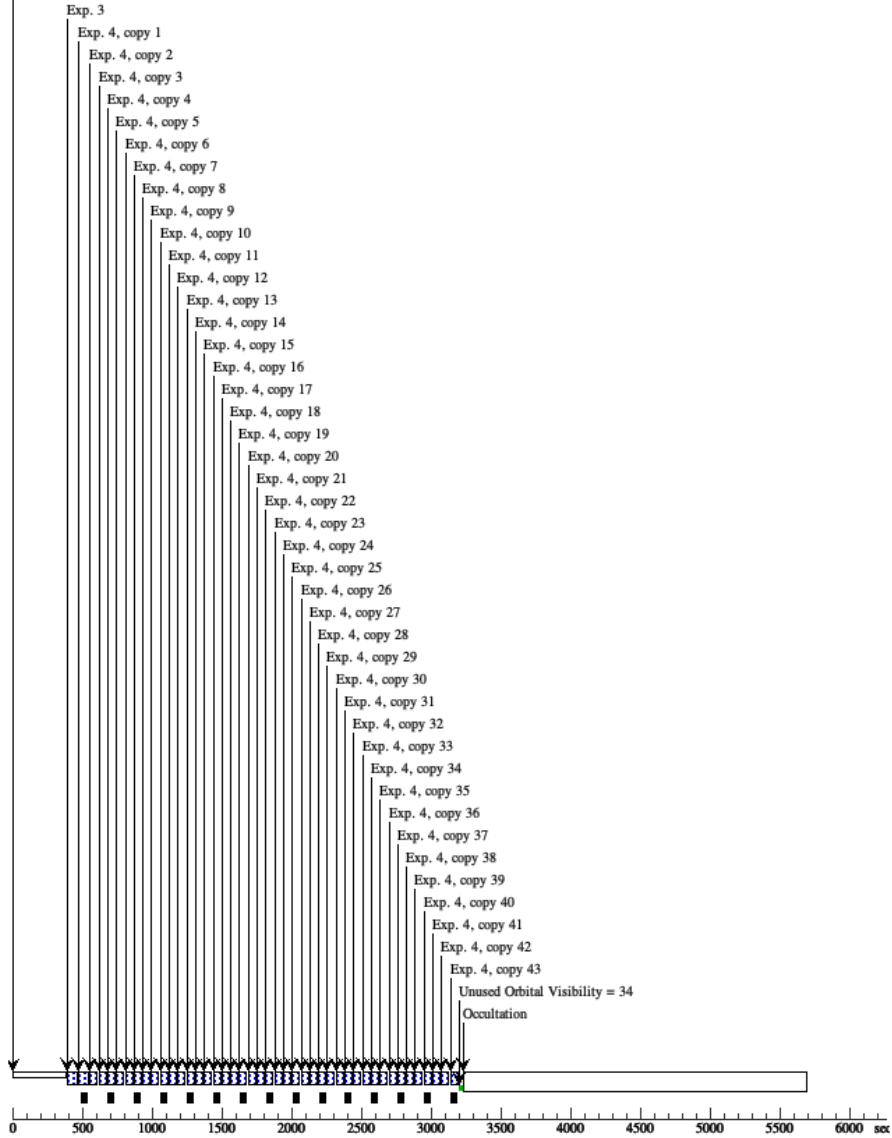
12	(WFC3IR.sp (3) 2MASS-J190648 .1368160) 01+4011089	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=3; SAMP-SEQ=SPAR S25	Sequence 11-12 Non -Int in 2M1906+40 (03)	44.969893 Secs X 43 (1933.705 Secs)	[==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)] [==>(Copy 20)] [==>(Copy 21)] [==>(Copy 22)] [==>(Copy 23)] [==>(Copy 24)] [==>(Copy 25)] [==>(Copy 26)] [==>(Copy 27)] [==>(Copy 28)] [==>(Copy 29)] [==>(Copy 30)] [==>(Copy 31)] [==>(Copy 32)] [==>(Copy 33)] [==>(Copy 34)] [==>(Copy 35)] [==>(Copy 36)] [==>(Copy 37)] [==>(Copy 38)] [==>(Copy 39)] [==>(Copy 40)] [==>(Copy 41)] [==>(Copy 42)] [==>(Copy 43)]	[6]
----	--	----------------------------------	------	----------------------------------	--	-------------------------------------	---	-----



Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Orbit 2
GS Reacq

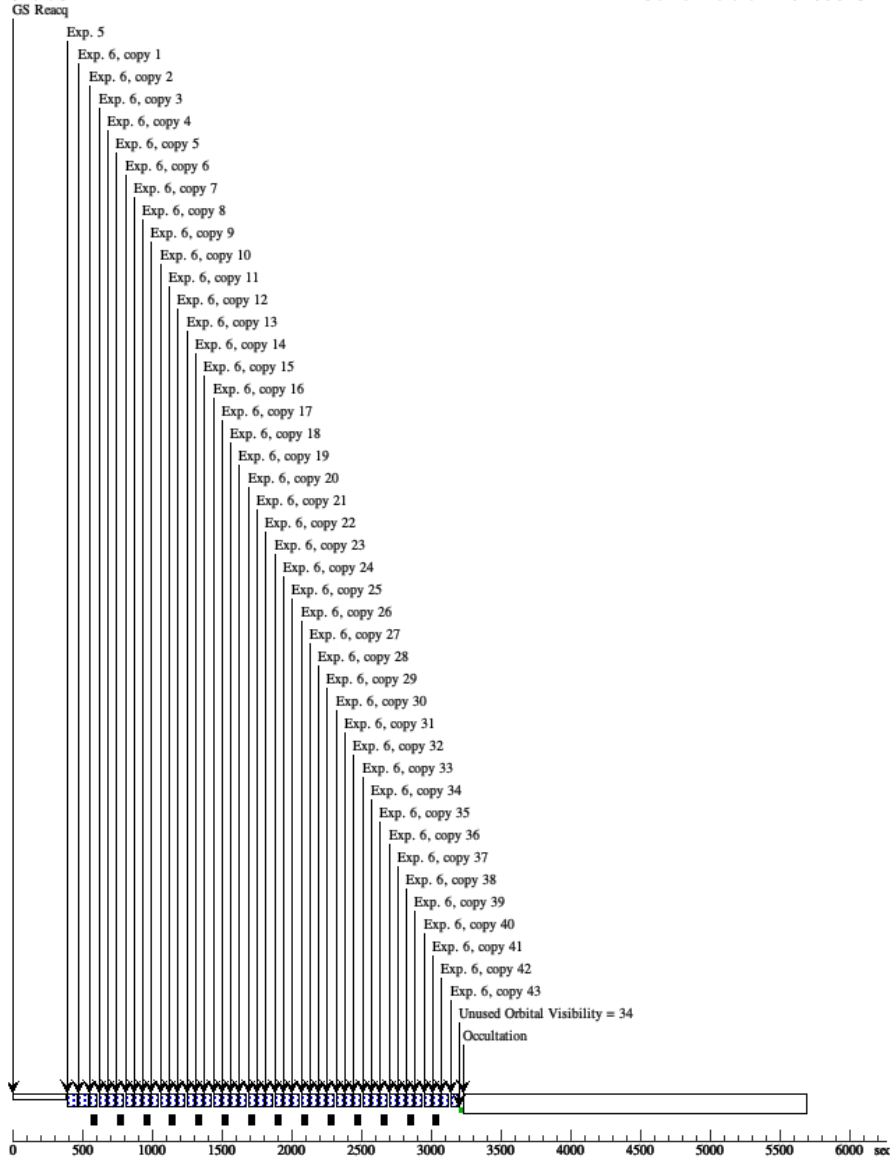
Server Version: 20200619



Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Orbit 3

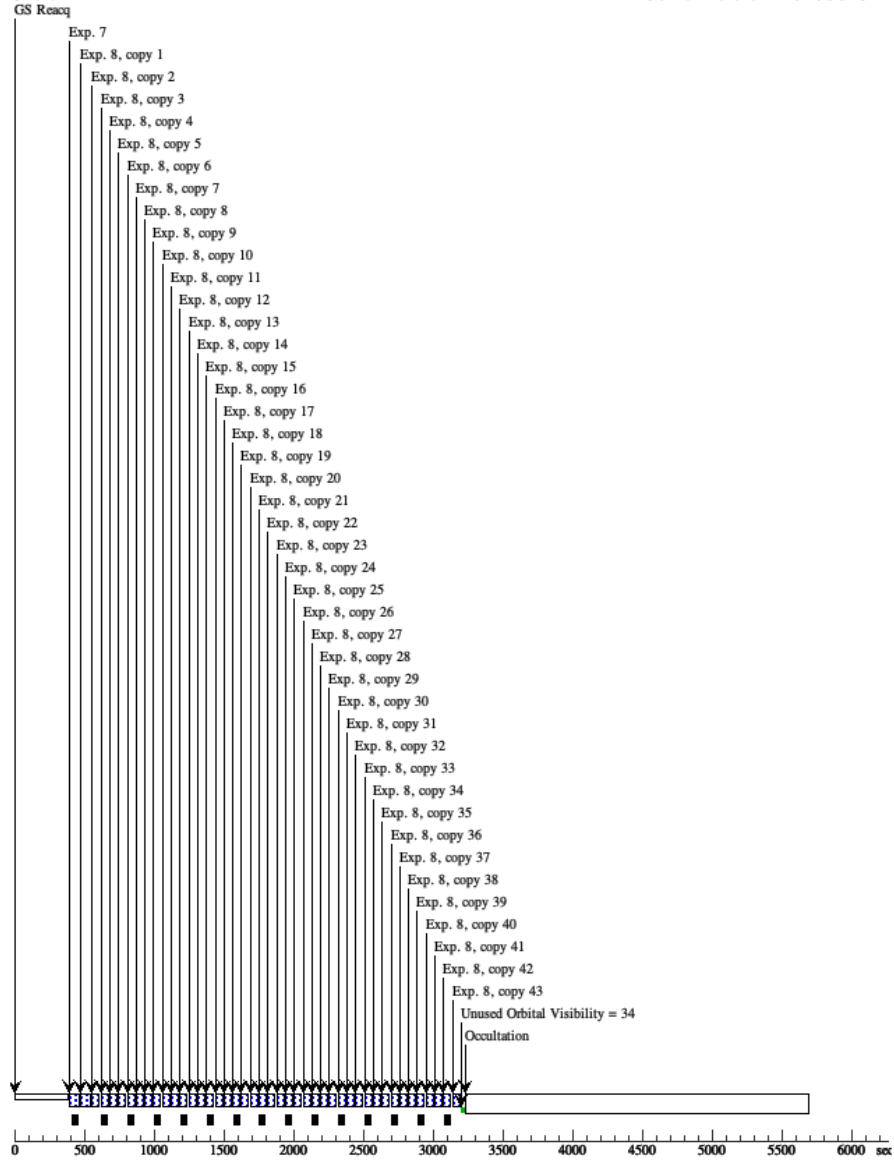
Server Version: 20200619



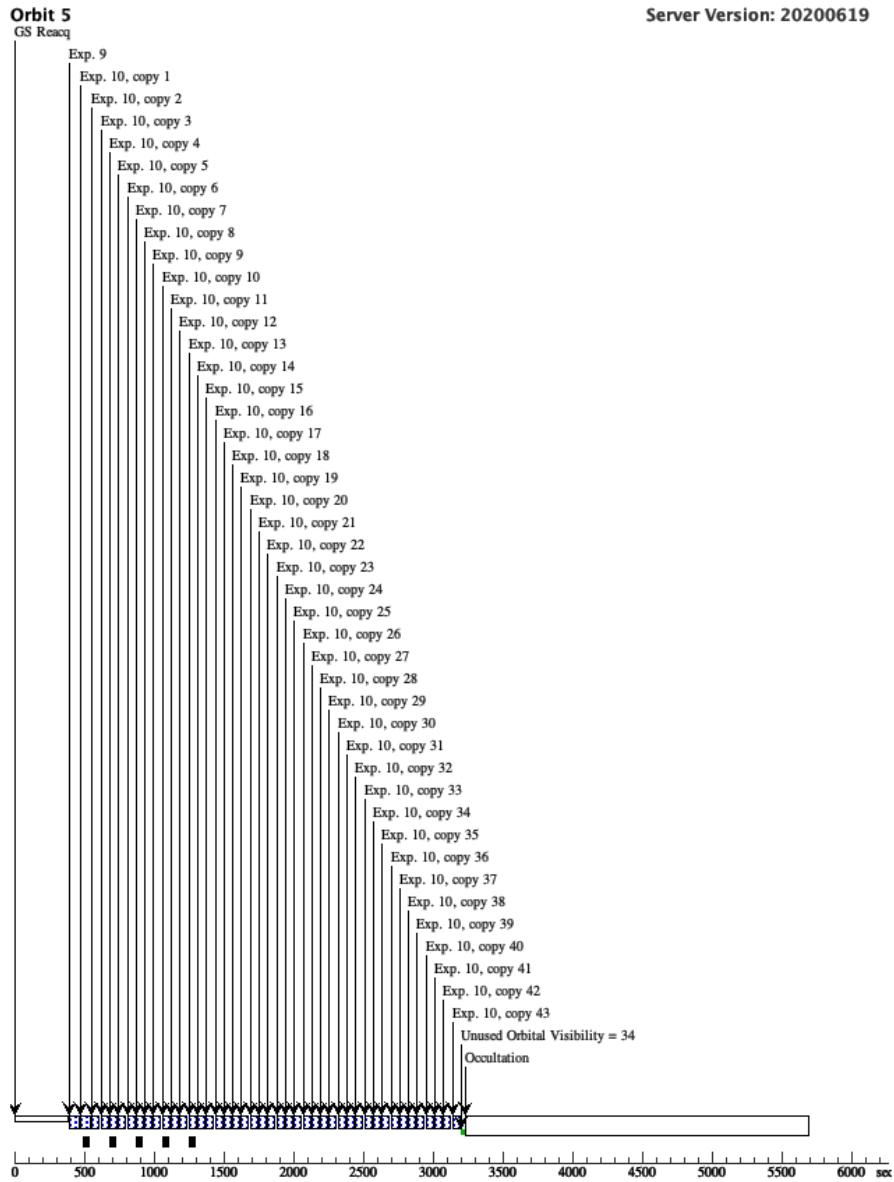
Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

Orbit 4

Server Version: 20200619



Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs



Proposal 15924 - 2M1906+40 (03) - A case study for JWST: Disentangling auroral and cloud variability in early L dwarfs

