7251 - Does Our Closest M-Dwarf Rocky Neighbor Have An Atmosphere? We Need to Find Out.

Cycle: 4, Proposal Category: GO

INVESTIGATORS

Name	*Institution*
Ms. Katherine Bennett (PI)	**The Johns Hopkins University**
Prof. David K. Sing (CoI) (US Admin CoI) (Contact)	The Johns Hopkins University
Dr. Kevin Stevenson (CoI)	The Johns Hopkins University Applied Physics Laboratory
Zafar Rustamkulov (CoI)	The Johns Hopkins University
Dr. Munazza Alam (CoI)	Space Telescope Science Institute
Dr. Guangwei Fu (CoI)	The Johns Hopkins University
Natalie Allen (CoI)	The Johns Hopkins University
Dr. Ryan J MacDonald (CoI) (ESA Member)	University of St Andrews
Prof. Nathan J Mayne (CoI) (ESA Member)	University of Exeter
Dr. Jacob Lustig-Yaeger (CoI)	The Johns Hopkins University Applied Physics Laboratory
Dr. James Kirk (CoI) (ESA Member)	Imperial College London
Ms. Lakeisha M. Ramos Rosado (CoI)	The Johns Hopkins University
Dr. Jeff A. Valenti (CoI)	Space Telescope Science Institute

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1	F150W2+F322W2 1	NIRCam Grism Time Series	(1) BD-17-588A
	2	F150W2+F444W 1	NIRCam Grism Time Series	(1) BD-17-588A
	3	F150W2+F322W2 2	NIRCam Grism Time Series	(1) BD-17-588A
	4	F150W2+F444W 2	NIRCam Grism Time Series	(1) BD-17-588A

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	5	F150W2+F322W2 3	NIRCam Grism Time Series	(1) BD-17-588A
	6	F150W2+F444W 3	NIRCam Grism Time Series	(1) BD-17-588A
	7	F150W2+F322W2 4	NIRCam Grism Time Series	(1) BD-17-588A
	8	F150W2+F444W 4	NIRCam Grism Time Series	(1) BD-17-588A

ABSTRACT

Knowing which M-dwarf rocky planets have atmospheres and which do not is critical to our understanding of the prevalence of habitable conditions in the Galaxy. This question is at the forefront of the exoplanet community, yet so far the community has been riddled with inconclusive data and mere elusive hints of atmospheres. We propose a deep (eight transit) and broad (1-5 micron) dive into one of the M-dwarf rocky planets that is most likely to have an atmosphere: LTT 1445Ab. This planet, part of a triplet M-dwarf system 6.9 pc away, is our closest transiting M-dwarf rocky neighbor, and its size (1.3 Earth radii and 2.9 Earth masses) and equilibrium temperature (424 K) hold promise for the presence of an atmosphere. Importantly, recent HST observations reveal a non-flat near-IR spectrum that must be followed up on as soon as possible. Unfortunately, the planet's proximity also means that its bright host star saturates most JWST near-IR observing modes. Now, however, with the new implementation of the NIRCam Short-Wavelength Grism Time Series, we can for the first time observe LTT1445Ab in transmission without risk of saturation. We propose four transits with the F150W2+F322W2 filters and four with F150W2+F444W for complete 1-5 micron coverage of this promising target. We note that LTT1445Ab's hotter and smaller sibling, LTT 1445Ac, is being targeted by the STScI Rocky Worlds DDT Program. By coupling the DDT emission photometry study with our NIRCam transmission spectroscopy study, we can map the presence of atmospheres within a single system. What's more, if LTT 1445Ab does not have an atmosphere, this would have profound implications for M-dwarf habitability in general.

OBSERVING DESCRIPTION

We will observe 8 transits of LTT 1445Ab with the NIRCam Grism Time Series template. We require a period/phase constraint on all visits to observe the transits. We require an Aperture PA constraint to prevent spectral contamination by two other stars(LTT1445B and C) in the triple system. Based on estimated separations in 2025, we allow for V3 roll angles to place the B and C stars in the dead space between adjacent A spectra (between each multistripe subarray) on the short-wavelength detectors.

In the 2MASS image, there appear to be two other possible contaminating sources around RA 03 01 51.132 h and Dec -16 36 53.23 degrees. However, upon further investigation, these are artifacts - "ghost" images of LTT1445 - and thus we do not avoid these V3 roll angles.

In each visit, the main science exposure will be 3.89 hours (twice the transit duration, plus approximately 69 minutes to allow some scheduling

flexibility and to allow the observatory to settle). We will acquire the target directly, using the F405N+F444W filter combination, RAPID readout pattern, and 3 groups.

For half of the transits, we will use an F322W2+F150W2 configuration: LW F322W2 filter, SW F150W2 filter, SUB40STRIPE1_DHS subarray, DHS3 readout pattern, 7 groups/integration, 3168 integrations. Based on updated ETC calculations, we expect each DHS3 integration with 7 groups to reach 62% of full well (89% of ETC "saturation") and generate a data excess of 6.6 GB per visit (though this is an overestimate now that we know that APT data excess estimates for DHS readouts are overestimated by ~15%). Integations will have a cadence of 4.42 s.

For the other half of the transits, we will use an F444W+F150W2 configuration: LW F444W filter, SW F150W2 filter, SUB40STRIPE1_DHS subarray, DHS3 readout pattern, 8 groups/integration, 2757 integrations. Based on updated ETC calculations, We expect each DHS3 integration with 8 groups to reach 58% of full well (83% of ETC "saturation") and generate a data excess of 6.1 GB per visit (again, this is an overestimate). Integations will have a cadence of 5.08 s.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d)	Proper Motion RA: -369.972 mas/yr	
		Dec: -16 35 40.32 (-16.59453d)	Proper Motion Dec: -267.931 mas/yr	
		Equinox: J2000	Parallax: 0.1456922 "	
			Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Observation

Proposal 7251, Observation 1: F150W2+F322W2 1

Wed Jun 04 22:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRCam Grism Time Series

Diagnostics

(F150W2+F322W2 1 (Obs 1)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d) Dec: -16 35 40.32 (-16.59453d) Equinox: J2000	Proper Motion RA: -369.972 mas/yr Proper Motion Dec: -267.931 mas/yr Parallax: 0.1456922 " Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Acquisition

#	Target	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	SUB32TA_DHS	F405N+F444W	RAPID	3	1	1	0.062	244326

Template

Subarray	No. of Output Channels	SW Channel Mode
SUB41S1_2-SPECTRA	4	GRISM

Spectral Elements

#	Short Pupil+Filter	Long Pupil+Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	GDHS0+F150W2	GRISMR+F322W2	DHS3	7	3168	1	3168	14009.783	244326

Special Requirements

Phase 0.9803722961421 to 0.9881477185059975 with period 5.3587657 Days and zero-phase 2458412.70851 HJD
Aperture PA Range 25.30766958 to 39.30766958 Degrees (V3 25.0 to 39.0)
Aperture PA Range 53.30766958 to 67.30766958 Degrees (V3 53.0 to 67.0)
Aperture PA Range 91.30766958 to 102.30766958 Degrees (V3 91.0 to 102.0)
Aperture PA Range 170.30766958 to 181.30766958 Degrees (V3 170.0 to 181.0)
Aperture PA Range 205.30766958 to 219.30766958 Degrees (V3 205.0 to 219.0)
Aperture PA Range 233.30766958 to 247.30766958 Degrees (V3 233.0 to 247.0)
Aperture PA Range 271.30766958 to 282.30766958 Degrees (V3 271.0 to 282.0)
Aperture PA Range 350.30766958 to 1.30766958 Degrees (V3 350.0 to 1.0)
Time Series Observation
No Parallel Attachments

2 After 1 by 30 Days to 60 Days

Observation

Proposal 7251, Observation 2: F150W2+F444W 1

Wed Jun 04 22:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRCam Grism Time Series

Diagnostics

(F150W2+F444W 1 (Obs 2)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d) Dec: -16 35 40.32 (-16.59453d) Equinox: J2000	Proper Motion RA: -369.972 mas/yr Proper Motion Dec: -267.931 mas/yr Parallax: 0.1456922 " Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Acquisition

#	Target	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	SUB32TA_DHS	F405N+F444W	RAPID	3	1	1	0.062	244326

Template

Subarray	No. of Output Channels	SW Channel Mode
SUB41S1_2-SPECTRA	4	GRISM

Spectral Elements

#	Short Pupil+Filter	Long Pupil+Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	GDHS0+F150W2	GRISMR+F444W	DHS3	8	2757	1	2757	14012.59	244326

Special Requirements	Phase 0.9803662334724093 to 0.9881416558363068 with period 5.3587657 Days and zero-phase 2458412.70851 HJD Aperture PA Range 24.82541495 to 38.82541495 Degrees (V3 25.0 to 39.0) Aperture PA Range 52.82541495 to 66.82541495 Degrees (V3 53.0 to 67.0) Aperture PA Range 90.82541495 to 101.82541495 Degrees (V3 91.0 to 102.0) Aperture PA Range 169.82541495 to 180.82541495 Degrees (V3 170.0 to 181.0) Aperture PA Range 204.82541495 to 218.82541495 Degrees (V3 205.0 to 219.0) Aperture PA Range 232.82541495 to 246.82541495 Degrees (V3 233.0 to 247.0) Aperture PA Range 270.82541495 to 281.82541495 Degrees (V3 271.0 to 282.0) Aperture PA Range 349.82541495 to 0.82541495 Degrees (V3 350.0 to 1.0) Time Series Observation No Parallel Attachments 2 After 1 by 30 Days to 60 Days 3 After 2 4 After 2 5 After 2 6 After 2 7 After 2 8 After 2

Observation

Proposal 7251, Observation 3: F150W2+F322W2 2

Wed Jun 04 22:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRCam Grism Time Series

Diagnostics

(F150W2+F322W2 2 (Obs 3)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d) Dec: -16 35 40.32 (-16.59453d) Equinox: J2000	Proper Motion RA: -369.972 mas/yr Proper Motion Dec: -267.931 mas/yr Parallax: 0.1456922 " Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Acquisition

#	Target	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	SUB32TA_DHS	F405N+F444W	RAPID	3	1	1	0.062	244326

Template

Subarray	No. of Output Channels	SW Channel Mode
SUB41S1_2-SPECTRA	4	GRISM

Spectral Elements

#	Short Pupil+Filter	Long Pupil+Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	GDHS0+F150W2	GRISMR+F322W2	DHS3	7	3168	1	3168	14009.783	244326

Special Requirements

Phase 0.9803722961421 to 0.9881477185059975 with period 5.3587657 Days and zero-phase 2458412.70851 HJD
Aperture PA Range 25.30766958 to 39.30766958 Degrees (V3 25.0 to 39.0)
Aperture PA Range 53.30766958 to 67.30766958 Degrees (V3 53.0 to 67.0)
Aperture PA Range 91.30766958 to 102.30766958 Degrees (V3 91.0 to 102.0)
Aperture PA Range 170.30766958 to 181.30766958 Degrees (V3 170.0 to 181.0)
Aperture PA Range 205.30766958 to 219.30766958 Degrees (V3 205.0 to 219.0)
Aperture PA Range 233.30766958 to 247.30766958 Degrees (V3 233.0 to 247.0)
Aperture PA Range 271.30766958 to 282.30766958 Degrees (V3 271.0 to 282.0)
Aperture PA Range 350.30766958 to 1.30766958 Degrees (V3 350.0 to 1.0)
Time Series Observation
No Parallel Attachments

3 After 2

Observation

Proposal 7251, Observation 4: F150W2+F444W 2

Wed Jun 04 22:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRCam Grism Time Series

Diagnostics

(F150W2+F444W 2 (Obs 4)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d) Dec: -16 35 40.32 (-16.59453d) Equinox: J2000	Proper Motion RA: -369.972 mas/yr Proper Motion Dec: -267.931 mas/yr Parallax: 0.1456922 " Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Acquisition

#	Target	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	SUB32TA_DHS	F405N+F444W	RAPID	3	1	1	0.062	244326

Template

Subarray	No. of Output Channels	SW Channel Mode
SUB41S1_2-SPECTRA	4	GRISM

Spectral Elements

#	Short Pupil+Filter	Long Pupil+Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	GDHS0+F150W2	GRISMR+F444W	DHS3	8	2757	1	2757	14012.59	244326

Special Requirements

Phase 0.9803662334724093 to 0.9881416558363068 with period 5.3587657 Days and zero-phase 2458412.70851 HJD
Aperture PA Range 24.82541495 to 38.82541495 Degrees (V3 25.0 to 39.0)
Aperture PA Range 52.82541495 to 66.82541495 Degrees (V3 53.0 to 67.0)
Aperture PA Range 90.82541495 to 101.82541495 Degrees (V3 91.0 to 102.0)
Aperture PA Range 169.82541495 to 180.82541495 Degrees (V3 170.0 to 181.0)
Aperture PA Range 204.82541495 to 218.82541495 Degrees (V3 205.0 to 219.0)
Aperture PA Range 232.82541495 to 246.82541495 Degrees (V3 233.0 to 247.0)
Aperture PA Range 270.82541495 to 281.82541495 Degrees (V3 271.0 to 282.0)
Aperture PA Range 349.82541495 to 0.82541495 Degrees (V3 350.0 to 1.0)
Time Series Observation
No Parallel Attachments

4 After 2

Observation

Proposal 7251, Observation 5: F150W2+F322W2 3

Wed Jun 04 22:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRCam Grism Time Series

Diagnostics

(F150W2+F322W2 3 (Obs 5)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d) Dec: -16 35 40.32 (-16.59453d) Equinox: J2000	Proper Motion RA: -369.972 mas/yr Proper Motion Dec: -267.931 mas/yr Parallax: 0.1456922 " Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Acquisition

#	Target	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	SUB32TA_DHS	F405N+F444W	RAPID	3	1	1	0.062	244326

Template

Subarray	No. of Output Channels	SW Channel Mode
SUB41S1_2-SPECTRA	4	GRISM

Spectral Elements

#	Short Pupil+Filter	Long Pupil+Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	GDHS0+F150W2	GRISMR+F322W2	DHS3	7	3168	1	3168	14009.783	244326

Special Requirements

Phase 0.9803722961421 to 0.9881477185059975 with period 5.3587657 Days and zero-phase 2458412.70851 HJD
Aperture PA Range 25.30766958 to 39.30766958 Degrees (V3 25.0 to 39.0)
Aperture PA Range 53.30766958 to 67.30766958 Degrees (V3 53.0 to 67.0)
Aperture PA Range 91.30766958 to 102.30766958 Degrees (V3 91.0 to 102.0)
Aperture PA Range 170.30766958 to 181.30766958 Degrees (V3 170.0 to 181.0)
Aperture PA Range 205.30766958 to 219.30766958 Degrees (V3 205.0 to 219.0)
Aperture PA Range 233.30766958 to 247.30766958 Degrees (V3 233.0 to 247.0)
Aperture PA Range 271.30766958 to 282.30766958 Degrees (V3 271.0 to 282.0)
Aperture PA Range 350.30766958 to 1.30766958 Degrees (V3 350.0 to 1.0)
Time Series Observation
No Parallel Attachments

5 After 2

Observation

Proposal 7251, Observation 6: F150W2+F444W 3

Wed Jun 04 22:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRCam Grism Time Series

Diagnostics

(F150W2+F444W 3 (Obs 6)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d) Dec: -16 35 40.32 (-16.59453d) Equinox: J2000	Proper Motion RA: -369.972 mas/yr Proper Motion Dec: -267.931 mas/yr Parallax: 0.1456922 " Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Acquisition

#	Target	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	SUB32TA_DHS	F405N+F444W	RAPID	3	1	1	0.062	244326

Template

Subarray	No. of Output Channels	SW Channel Mode
SUB41S1_2-SPECTRA	4	GRISM

Spectral Elements

#	Short Pupil+Filter	Long Pupil+Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	GDHS0+F150W2	GRISMR+F444W	DHS3	8	2757	1	2757	14012.59	244326

Special Requirements

Phase 0.9803662334724093 to 0.9881416558363068 with period 5.3587657 Days and zero-phase 2458412.70851 HJD
Aperture PA Range 24.82541495 to 38.82541495 Degrees (V3 25.0 to 39.0)
Aperture PA Range 52.82541495 to 66.82541495 Degrees (V3 53.0 to 67.0)
Aperture PA Range 90.82541495 to 101.82541495 Degrees (V3 91.0 to 102.0)
Aperture PA Range 169.82541495 to 180.82541495 Degrees (V3 170.0 to 181.0)
Aperture PA Range 204.82541495 to 218.82541495 Degrees (V3 205.0 to 219.0)
Aperture PA Range 232.82541495 to 246.82541495 Degrees (V3 233.0 to 247.0)
Aperture PA Range 270.82541495 to 281.82541495 Degrees (V3 271.0 to 282.0)
Aperture PA Range 349.82541495 to 0.82541495 Degrees (V3 350.0 to 1.0)
Time Series Observation
No Parallel Attachments

6 After 2

Observation

Proposal 7251, Observation 7: F150W2+F322W2 4

Wed Jun 04 22:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRCam Grism Time Series

Diagnostics

(F150W2+F322W2 4 (Obs 7)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d) Dec: -16 35 40.32 (-16.59453d) Equinox: J2000	Proper Motion RA: -369.972 mas/yr Proper Motion Dec: -267.931 mas/yr Parallax: 0.1456922 " Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Acquisition

#	Target	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	SUB32TA_DHS	F405N+F444W	RAPID	3	1	1	0.062	244326

Template

Subarray	No. of Output Channels	SW Channel Mode
SUB41S1_2-SPECTRA	4	GRISM

Spectral Elements

#	Short Pupil+Filter	Long Pupil+Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	GDHS0+F150W2	GRISMR+F322W2	DHS3	7	3168	1	3168	14009.783	244326

Special Requirements

Phase 0.9803722961421 to 0.9881477185059975 with period 5.3587657 Days and zero-phase 2458412.70851 HJD
Aperture PA Range 25.30766958 to 39.30766958 Degrees (V3 25.0 to 39.0)
Aperture PA Range 53.30766958 to 67.30766958 Degrees (V3 53.0 to 67.0)
Aperture PA Range 91.30766958 to 102.30766958 Degrees (V3 91.0 to 102.0)
Aperture PA Range 170.30766958 to 181.30766958 Degrees (V3 170.0 to 181.0)
Aperture PA Range 205.30766958 to 219.30766958 Degrees (V3 205.0 to 219.0)
Aperture PA Range 233.30766958 to 247.30766958 Degrees (V3 233.0 to 247.0)
Aperture PA Range 271.30766958 to 282.30766958 Degrees (V3 271.0 to 282.0)
Aperture PA Range 350.30766958 to 1.30766958 Degrees (V3 350.0 to 1.0)
Time Series Observation
No Parallel Attachments

7 After 2

Observation

Proposal 7251, Observation 8: F150W2+F444W 4

Wed Jun 04 22:00:09 GMT 2025

Diagnostic Status: Warning

Observing Template: NIRCam Grism Time Series

Diagnostics

(F150W2+F444W 4 (Obs 8)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BD-17-588A	RA: 03 01 50.9819 (45.4624246d) Dec: -16 35 40.32 (-16.59453d) Equinox: J2000	Proper Motion RA: -369.972 mas/yr Proper Motion Dec: -267.931 mas/yr Parallax: 0.1456922 " Epoch of Position: 2016	

Comments: These are the coordinates from Gaia DR3, epoch = 2016.
Category=Star
Description=[Exoplanet Systems, Exoplanets, M dwarfs, Multiple stars]
Extended=NO

Acquisition

#	Target	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	SUB32TA_DHS	F405N+F444W	RAPID	3	1	1	0.062	244326

Template

Subarray	No. of Output Channels	SW Channel Mode
SUB41S1_2-SPECTRA	4	GRISM

Spectral Elements

#	Short Pupil+Filter	Long Pupil+Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	GDHS0+F150W2	GRISMR+F444W	DHS3	8	2757	1	2757	14012.59	244326

Special Requirements

Phase 0.9803662334724093 to 0.9881416558363068 with period 5.3587657 Days and zero-phase 2458412.70851 HJD
Aperture PA Range 24.82541495 to 38.82541495 Degrees (V3 25.0 to 39.0)
Aperture PA Range 52.82541495 to 66.82541495 Degrees (V3 53.0 to 67.0)
Aperture PA Range 90.82541495 to 101.82541495 Degrees (V3 91.0 to 102.0)
Aperture PA Range 169.82541495 to 180.82541495 Degrees (V3 170.0 to 181.0)
Aperture PA Range 204.82541495 to 218.82541495 Degrees (V3 205.0 to 219.0)
Aperture PA Range 232.82541495 to 246.82541495 Degrees (V3 233.0 to 247.0)
Aperture PA Range 270.82541495 to 281.82541495 Degrees (V3 271.0 to 282.0)
Aperture PA Range 349.82541495 to 0.82541495 Degrees (V3 350.0 to 1.0)
Time Series Observation
No Parallel Attachments

8 After 2