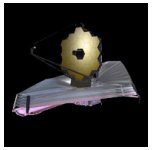

5959 - KRONOS: Keys to Revealing the Origin and Nature Of sub-neptune Systems

Cycle: 3, Proposal Category: GO

INVESTIGATORS

Name	*Institution*
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Name	***Institution***
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Dr. Shreyas Vissapragada (CoI)	Carnegie Institution of Washington
Dr. Peter McGill (CoI)	Lawrence Livermore National Laboratory

OBSERVATIONS

Folder	***Observation***	***Label***	***Observing Template***	***Science Target***
Observation Folder				
	1	V1298 Tau c	NIRSpec Bright Object Time Series	(1) V-V1298-Tau
	2	V1298 Tau c	NIRISS Single-Object Slitless Spectroscopy	(1) V-V1298-Tau
	3	V1298 Tau d	NIRSpec Bright Object Time Series	(1) V-V1298-Tau
	16	V1298 Tau d	NIRSpec Bright Object Time Series	(1) V-V1298-Tau
	4	V1298 Tau d	NIRISS Single-Object Slitless Spectroscopy	(1) V-V1298-Tau
	17	V1298 Tau d	NIRISS Single-Object Slitless Spectroscopy	(1) V-V1298-Tau
	5	TOI 451 c	NIRSpec Bright Object Time Series	(2) CD-38-1467
	15	TOI 451 c	NIRSpec Bright Object Time Series	(7) CD-38-1467-copy
	6	TOI 451 c	NIRISS Single-Object Slitless Spectroscopy	(7) CD-38-1467-copy
	7	TOI 451 d	NIRSpec Bright Object Time Series	(7) CD-38-1467-copy
	8	TOI 451 d	NIRISS Single-Object Slitless Spectroscopy	(7) CD-38-1467-copy
	9	TOI 2076 b	NIRSpec Bright Object Time Series	(3) BD+40-2790
	10	TOI 2076 b	NIRISS Single-Object Slitless Spectroscopy	(3) BD+40-2790
	11	TOI 2076 c	NIRSpec Bright Object Time Series	(3) BD+40-2790
	12	TOI 2076 c	NIRISS Single-Object Slitless Spectroscopy	(3) BD+40-2790
	13	TOI 2076 d	NIRSpec Bright Object Time Series	(3) BD+40-2790
	14	TOI 2076 d	NIRISS Single-Object Slitless Spectroscopy	(3) BD+40-2790

ABSTRACT

Mature sub-Neptune-sized exoplanets with H/He atmospheres (from 2.5-4 REarth) are common but remain enigmatic due to predominantly cloudy, featureless NIR spectra. We propose to investigate young sub-Neptunes (< 200 Myr), which so far have shown preferentially clear atmospheres favorable for transmission spectroscopy. Within this large program we will (1) Determine if sub-Neptune atmospheric metallicity is primordial. Sub-Neptunes could form with high atmospheric metallicities or they may evolve to be metal-rich through photoevaporation, photochemistry, and planetary bombardment. (2) Determine whether sub-Neptunes are water enriched or depleted. Depending on their formation location, they could either be "gas dwarfs" with water-depleted atmospheres and rocky cores or "water worlds" with water-enriched atmospheres and ice/rock cores. (3) Analyze the homogeneity of multi-sub-Neptune systems. Depending on formation histories, planets in the same system may all be water worlds, gas dwarfs, or some combination of both.

To achieve our science goals, we will observe a sample of seven sub-Neptunes in three systems to fully characterize all known 3+ multi-sub-Neptune systems orbiting young young stars. Our sample will successfully answer questions about intra- and extra-system diversity, which has not been achieved in any other JWST program. We will observe all 7 planets with both NIRISS/SOSS and NIRSpec/G395H (1-5 micron) to obtain high signal-to-noise broad near-infrared spectra of our planets to measure abundances of C-, O-, S- and possibly N-bearing species. We request a total of 77.7 science hours (130 charged hours) to achieve our objectives.

OBSERVING DESCRIPTION

Transit observations of seven young sub-Neptunes with NIRISS/SOSS and NIRSpec/G395H.

The transit duration for V1298 Tau c is 4.66 hours. We want an out-of-transit baseline of slightly less than or equivalent to the transit duration, with an additional minimum 0.5 hour burn-in time. Therefore, we request observations start 2.0 hours before the transit, go through the transit, and observe for an additional 1.0 hours post-transit. The total duration should be 7.6 hours = 28,800 seconds per transit.

The transit duration for V1298 Tau d is 5.59 hours. We want an out-of-transit baseline of slightly less than or equivalent to the transit duration, with an additional minimum 0.5 hour burn-in time. Therefore, we request observations start 2.0 hours before the transit, go through the transit, and observe for an additional 1.4 hours post-transit. The total duration should be 9.0 hours = 32,400 seconds per transit.

The transit duration for TOI-451 c is 3.06 hours. We want an out-of-transit baseline ofslightly less than or equivalent to the transit duration, with an additional minimum 0.5 hour burn-in time. Therefore, we request observations start 2.0 hours before the transit, go through the transit, and observe for an additional 1.14 hours post-transit. The total duration should be 6.2 hours = 22,320 seconds per transit.

The transit duration for TOI-451d is 4.05 hours. We want an out-of-transit baseline of slightly less than or equivalent to the transit duration, with an additional minimum 0.5 hour burn-in time. Therefore, we request observations start 2.0 hours before the transit, go through the transit, and observe for an additional 1.0 hours post-transit. The total duration should be 7.0 hours = 25,200 seconds per transit.

The transit duration for TOI-2076 b is 3.33 hours. We want an out-of-transit baseline of slightly less than or equivalent to the transit duration, with an additional minimum 0.5 hour burn-in time. Therefore, we request observations start 1.6 hours before the transit, go through the transit, and observe for an additional 1.1 hours post-transit. The total duration should be 6.2 hours = 22,320 seconds per transit.

The transit duration for TOI-2076 c is 4.22 hours. We want an out-of-transit baseline of slightly less than or equivalent to the transit duration, with an additional minimum 0.5 hour burn-in time. Therefore, we request observations start 2 hours before the transit, go through the transit, and observe for an additional 1 hours post-transit. The total duration should be 7.2 hours = 25,920 seconds per transit.

The transit duration for TOI-2076 d is 3.20 hours. We want an out-of-transit baseline of slightly less than or equivalent to the transit duration, with an additional minimum 0.5 hour burn-in time. Therefore, we request observations start 2.0 hours before the transit, go through the transit, and observe for an additional 1.0 hours post-transit. The total duration should be 6.2 hours = 22,320 seconds per transit.

We request the same set-up for both the NIRISS/SOSS and NIRSpec/G395H observations of each target.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	V-V1298-Tau	RA: 04 05 19.5971 (61.3316546d) Dec: +20 09 25.31 (20.15703d) Equinox: J2000	Proper Motion RA: 5.412668487908132 mas/yr Proper Motion Dec: -16.05162768564503 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Exoplanet Systems, Exoplanets, G stars]* *Extended=NO*				
(2)	CD-38-1467	RA: 04 11 51.9469 (62.9664454d) Dec: -37 56 23.22 (-37.93978d) Equinox: J2000	Proper Motion RA: -11.061 mas/yr Proper Motion Dec: 12.347 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Exoplanet Systems, Exoplanets, G stars]*				
(3)	BD+40-2790	RA: 14 29 34.0787 (217.3919946d) Dec: +39 47 25.43 (39.79040d) Equinox: J2000	Proper Motion RA: -118.07067470218699 mas/yr Proper Motion Dec: -6.859847219125559 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Exoplanet Systems, Exoplanets, G stars]*				
(4)	Gaia-DR3-51886331671984640	RA: 04 05 18.6433 (61.3276804d) Dec: +20 09 10.90 (20.15303d) Equinox: J2000	Proper Motion RA: 20.100683600526306 mas/yr Proper Motion Dec: -12.851710572922082 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[G stars]*				
(5)	UCAC4-261-004415	RA: 04 11 49.1833 (62.9549304d) Dec: -37 56 42.22 (-37.94506d) Equinox: J2000	Proper Motion RA: -11.481 mas/yr Proper Motion Dec: 12.229 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[G stars]*				
(6)	SDSS-J142937.92+394703.7	RA: 14 29 37.9114 (217.4079642d) Dec: +39 47 3.69 (39.78436d) Equinox: J2000	Proper Motion RA: -6.4236824945001665 mas/yr Proper Motion Dec: -9.333002319970639 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[M stars]*				
(7)	CD-38-1467-copy	RA: 04 11 51.9319 (62.9663829d) Dec: -37 56 23.02 (-37.93973d) Equinox: J2000	Proper Motion RA: -11.060773286516675 mas/yr Proper Motion Dec: 12.346551282402876 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Exoplanet Systems, Exoplanets, G stars]*				
(8)	UCAC4-261-004415-copy	RA: 04 11 49.1678 (62.9548658d) Dec: -37 56 42.02 (-37.94501d) Equinox: J2000	Proper Motion RA: -11.480862415944873 mas/yr Proper Motion Dec: 12.228948457013146 mas/yr Epoch of Position: 2016	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[G stars]*				

Observation

Proposal 5959, Observation 1: V1298 Tau c

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(V1298 Tau c (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)	V-V1298-Tau	RA: 04 05 19.5971 (61.3316546d) Dec: +20 09 25.31 (20.15703d) Equinox: J2000	Proper Motion RA: 5.412668487908132 mas/yr Proper Motion Dec: -16.05162768564503 mas/yr Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]
Extended=NO

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	4 Gaia-DR3-5188633167198464 0	WATA	SUB32	F110W	NRSRAPID	3	1	1	0.08	169312

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	4	7628	1	1	7628	34558.501	169312

Special Requirements	Between Dates 19-FEB-2025:00:00:00 and 21-FEB-2025:00:00:00 Between Dates 27-FEB-2025:00:00:00 and 01-MAR-2025:00:00:00 Between Dates 16-MAR-2025:00:00:00 and 18-MAR-2025:00:00:00 Between Dates 24-MAR-2025:00:00:00 and 26-MAR-2025:00:00:00 Between Dates 09-APR-2025:00:00:00 and 12-APR-2025:00:00:00 Between Dates 18-APR-2025:00:00:00 and 21-APR-2025:00:00:00 Between Dates 03-MAY-2025:00:00:00 and 06-MAY-2025:00:00:00 Between Dates 11-MAY-2025:00:00:00 and 15-MAY-2025:00:00:00 Between Dates 28-MAY-2025:00:00:00 and 01-JUN-2025:00:00:00 Between Dates 05-JUN-2025:00:00:00 and 08-JUN-2025:00:00:00 Between Dates 22-JUN-2025:00:00:00 and 26-JUN-2025:00:00:00 Between Dates 01-JUL-2025:00:00:00 and 04-JUL-2025:00:00:00 Between Dates 16-JUL-2025:00:00:00 and 20-JUL-2025:00:00:00 Between Dates 25-JUL-2025:00:00:00 and 29-JUL-2025:00:00:00 Between Dates 10-AUG-2025:00:00:00 and 14-AUG-2025:00:00:00 Between Dates 18-AUG-2025:00:00:00 and 22-AUG-2025:00:00:00 Between Dates 05-SEP-2025:00:00:00 and 08-SEP-2025:00:00:00 Between Dates 12-SEP-2025:00:00:00 and 16-SEP-2025:00:00:00 Between Dates 30-SEP-2025:00:00:00 and 03-OCT-2025:00:00:00 Between Dates 07-OCT-2025:00:00:00 and 11-OCT-2025:00:00:00 Between Dates 23-OCT-2025:00:00:00 and 27-OCT-2025:00:00:00 Between Dates 01-NOV-2025:00:00:00 and 05-NOV-2025:00:00:00 Between Dates 17-NOV-2025:00:00:00 and 21-NOV-2025:00:00:00 Between Dates 25-NOV-2025:00:00:00 and 29-NOV-2025:00:00:00 Between Dates 12-DEC-2025:00:00:00 and 16-DEC-2025:00:00:00 Between Dates 20-DEC-2025:00:00:00 and 24-DEC-2025:00:00:00 Between Dates 05-JAN-2026:00:00:00 and 09-JAN-2026:00:00:00 Between Dates 14-JAN-2026:00:00:00 and 18-JAN-2026:00:00:00 Between Dates 29-JAN-2026:00:00:00 and 03-FEB-2026:00:00:00 Between Dates 07-FEB-2026:00:00:00 and 11-FEB-2026:00:00:00 Between Dates 24-FEB-2026:00:00:00 and 28-FEB-2026:00:00:00 Between Dates 04-MAR-2026:00:00:00 and 08-MAR-2026:00:00:00 Between Dates 21-MAR-2026:00:00:00 and 25-MAR-2026:00:00:00 Between Dates 29-MAR-2026:00:00:00 and 02-APR-2026:00:00:00 Phase 0.975757393 to 0.98080815 with period 8.24958 Days and zero-phase 2461032.001 HJD Time Series Observation No Parallel Attachments

Observation

Proposal 5959, Observation 2: V1298 Tau c

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRISS Single-Object Slitless Spectroscopy

Diagnostics

(V1298 Tau c (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)	V-V1298-Tau	RA: 04 05 19.5971 (61.3316546d)	Proper Motion RA: 5.412668487908132 mas/yr	
		Dec: +20 09 25.31 (20.15703d)	Proper Motion Dec: -16.05162768564503 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]
Extended=NO

Acquisition

#	Target	Acquisition Mode	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	SAME	SOSSFAINT	F480M	NISRAPID	3	1	1	0.202	169312

Template

Subarray	Include Short First Exposure and F277W Exposure?
SUBSTRIP96	true

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	NISRAPID	1	1	1	1	1	4.448	
2	NISRAPID	5	2598	1	1	2598	34565.039	169312
3	NISRAPID	5	10	1	1	10	133.045	

Special Requirements	Between Dates 19-FEB-2025:00:00:00 and 21-FEB-2025:00:00:00 Between Dates 27-FEB-2025:00:00:00 and 01-MAR-2025:00:00:00 Between Dates 16-MAR-2025:00:00:00 and 18-MAR-2025:00:00:00 Between Dates 24-MAR-2025:00:00:00 and 26-MAR-2025:00:00:00 Between Dates 09-APR-2025:00:00:00 and 12-APR-2025:00:00:00 Between Dates 18-APR-2025:00:00:00 and 21-APR-2025:00:00:00 Between Dates 03-MAY-2025:00:00:00 and 06-MAY-2025:00:00:00 Between Dates 11-MAY-2025:00:00:00 and 15-MAY-2025:00:00:00 Between Dates 28-MAY-2025:00:00:00 and 01-JUN-2025:00:00:00 Between Dates 05-JUN-2025:00:00:00 and 08-JUN-2025:00:00:00 Between Dates 22-JUN-2025:00:00:00 and 26-JUN-2025:00:00:00 Between Dates 01-JUL-2025:00:00:00 and 04-JUL-2025:00:00:00 Between Dates 16-JUL-2025:00:00:00 and 20-JUL-2025:00:00:00 Between Dates 25-JUL-2025:00:00:00 and 29-JUL-2025:00:00:00 Between Dates 10-AUG-2025:00:00:00 and 14-AUG-2025:00:00:00 Between Dates 18-AUG-2025:00:00:00 and 22-AUG-2025:00:00:00 Between Dates 05-SEP-2025:00:00:00 and 08-SEP-2025:00:00:00 Between Dates 12-SEP-2025:00:00:00 and 16-SEP-2025:00:00:00 Between Dates 30-SEP-2025:00:00:00 and 03-OCT-2025:00:00:00 Between Dates 07-OCT-2025:00:00:00 and 11-OCT-2025:00:00:00 Between Dates 23-OCT-2025:00:00:00 and 27-OCT-2025:00:00:00 Between Dates 01-NOV-2025:00:00:00 and 05-NOV-2025:00:00:00 Between Dates 17-NOV-2025:00:00:00 and 21-NOV-2025:00:00:00 Between Dates 25-NOV-2025:00:00:00 and 29-NOV-2025:00:00:00 Between Dates 12-DEC-2025:00:00:00 and 16-DEC-2025:00:00:00 Between Dates 20-DEC-2025:00:00:00 and 24-DEC-2025:00:00:00 Between Dates 05-JAN-2026:00:00:00 and 09-JAN-2026:00:00:00 Between Dates 14-JAN-2026:00:00:00 and 18-JAN-2026:00:00:00 Between Dates 29-JAN-2026:00:00:00 and 03-FEB-2026:00:00:00 Between Dates 07-FEB-2026:00:00:00 and 11-FEB-2026:00:00:00 Between Dates 24-FEB-2026:00:00:00 and 28-FEB-2026:00:00:00 Between Dates 04-MAR-2026:00:00:00 and 08-MAR-2026:00:00:00 Between Dates 21-MAR-2026:00:00:00 and 25-MAR-2026:00:00:00 Between Dates 29-MAR-2026:00:00:00 and 02-APR-2026:00:00:00 Phase 0.975757393 to 0.98080815 with period 8.24958 Days and zero-phase 2460900.037 HJD Aperture PA Range 70 to 71 Degrees (V3 69.43873283 to 70.43873283) Aperture PA Range 252 to 253 Degrees (V3 251.43873283 to 252.43873283) Aperture PA Range 259 to 262 Degrees (V3 258.43873283 to 261.43873283) Time Series Observation No Parallel Attachments

Observation

Proposal 5959, Observation 3: V1298 Tau d

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(V1298 Tau d (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.

(Visit 3:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	V-V1298-Tau	RA: 04 05 19.5971 (61.3316546d)	Proper Motion RA: 5.412668487908132 mas/yr	
		Dec: +20 09 25.31 (20.15703d)	Proper Motion Dec: -16.05162768564503 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]
Extended=NO

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	4 Gaia-DR3-51886331671984640	WATA	SUB32	F110W	NRSRAPID	3	1	1	0.08	169312

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	4	8741	1	1	8741	39600.926	169312

Special Requirements	Between Dates 22-FEB-2025:00:00:00 and 26-FEB-2025:00:00:00 Between Dates 19-MAR-2025:00:00:00 and 23-MAR-2025:00:00:00 Between Dates 13-APR-2025:00:00:00 and 16-APR-2025:00:00:00 Between Dates 07-MAY-2025:00:00:00 and 11-MAY-2025:00:00:00 Between Dates 01-JUN-2025:00:00:00 and 05-JUN-2025:00:00:00 Between Dates 26-JUN-2025:00:00:00 and 30-JUN-2025:00:00:00 Between Dates 21-JUL-2025:00:00:00 and 25-JUL-2025:00:00:00 Between Dates 15-AUG-2025:00:00:00 and 18-AUG-2025:00:00:00 Between Dates 08-SEP-2025:00:00:00 and 12-SEP-2025:00:00:00 Between Dates 03-OCT-2025:00:00:00 and 07-OCT-2025:00:00:00 Between Dates 28-OCT-2025:00:00:00 and 01-NOV-2025:00:00:00 Between Dates 22-NOV-2025:00:00:00 and 26-NOV-2025:00:00:00 Between Dates 17-DEC-2025:00:00:00 and 20-DEC-2025:00:00:00 Between Dates 10-JAN-2026:00:00:00 and 14-JAN-2026:00:00:00 Between Dates 04-FEB-2026:00:00:00 and 08-FEB-2026:00:00:00 Between Dates 01-MAR-2026:00:00:00 and 05-MAR-2026:00:00:00 Between Dates 26-MAR-2026:00:00:00 and 30-MAR-2026:00:00:00 Phase 0.9782817226 to 0.981817256 with period 12.4032 Days and zero-phase 2460904.541 HJD Time Series Observation No Parallel Attachments

Observation

Proposal 5959, Observation 16: V1298 Tau d Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(V1298 Tau d (Obs 16)) 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 16:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	V-V1298-Tau	RA: 04 05 19.5971 (61.3316546d)	Proper Motion RA: 5.412668487908132 mas/yr	
		Dec: +20 09 25.31 (20.15703d)	Proper Motion Dec: -16.05162768564503 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]
Extended=NO

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	4 Gaia-DR3-5188633167198464 0	WATA	SUB32	F110W	NRSRAPID	3	1	1	0.08	169312

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	4	8741	1	1	8741	39600.926	169312

Special Requirements	Between Dates 22-FEB-2025:00:00:00 and 26-FEB-2025:00:00:00 Between Dates 19-MAR-2025:00:00:00 and 23-MAR-2025:00:00:00 Between Dates 13-APR-2025:00:00:00 and 16-APR-2025:00:00:00 Between Dates 07-MAY-2025:00:00:00 and 11-MAY-2025:00:00:00 Between Dates 01-JUN-2025:00:00:00 and 05-JUN-2025:00:00:00 Between Dates 26-JUN-2025:00:00:00 and 30-JUN-2025:00:00:00 Between Dates 21-JUL-2025:00:00:00 and 25-JUL-2025:00:00:00 Between Dates 15-AUG-2025:00:00:00 and 18-AUG-2025:00:00:00 Between Dates 08-SEP-2025:00:00:00 and 12-SEP-2025:00:00:00 Between Dates 03-OCT-2025:00:00:00 and 07-OCT-2025:00:00:00 Between Dates 28-OCT-2025:00:00:00 and 01-NOV-2025:00:00:00 Between Dates 22-NOV-2025:00:00:00 and 26-NOV-2025:00:00:00 Between Dates 17-DEC-2025:00:00:00 and 20-DEC-2025:00:00:00 Between Dates 10-JAN-2026:00:00:00 and 14-JAN-2026:00:00:00 Between Dates 04-FEB-2026:00:00:00 and 08-FEB-2026:00:00:00 Between Dates 01-MAR-2026:00:00:00 and 05-MAR-2026:00:00:00 Between Dates 26-MAR-2026:00:00:00 and 30-MAR-2026:00:00:00 Phase 0.981523153 to 0.984882501 with period 12.3960 Days and zero-phase 2460718.467 HJD Time Series Observation No Parallel Attachments

Observation

Proposal 5959, Observation 4: V1298 Tau d Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRISS Single-Object Slitless Spectroscopy

Diagnostics

(V1298 Tau d (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)	V-V1298-Tau	RA: 04 05 19.5971 (61.3316546d)	Proper Motion RA: 5.412668487908132 mas/yr	
		Dec: +20 09 25.31 (20.15703d)	Proper Motion Dec: -16.05162768564503 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]
Extended=NO

Acquisition

#	Target	Acquisition Mode	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	SAME	SOSSFAINT	F480M	NISRAPID	3	1	1	0.202	169312

Template

Subarray	Include Short First Exposure and F277W Exposure?
SUBSTRIP96	true

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	NISRAPID	1	1	1	1	1	4.448	
2	NISRAPID	5	2976	1	1	2976	39594.132	169312
3	NISRAPID	5	10	1	1	10	133.045	

Special Requirements	Between Dates 22-FEB-2025:00:00:00 and 26-FEB-2025:00:00:00 Between Dates 19-MAR-2025:00:00:00 and 23-MAR-2025:00:00:00 Between Dates 13-APR-2025:00:00:00 and 16-APR-2025:00:00:00 Between Dates 07-MAY-2025:00:00:00 and 11-MAY-2025:00:00:00 Between Dates 01-JUN-2025:00:00:00 and 05-JUN-2025:00:00:00 Between Dates 26-JUN-2025:00:00:00 and 30-JUN-2025:00:00:00 Between Dates 21-JUL-2025:00:00:00 and 25-JUL-2025:00:00:00 Between Dates 15-AUG-2025:00:00:00 and 18-AUG-2025:00:00:00 Between Dates 08-SEP-2025:00:00:00 and 12-SEP-2025:00:00:00 Between Dates 03-OCT-2025:00:00:00 and 07-OCT-2025:00:00:00 Between Dates 28-OCT-2025:00:00:00 and 01-NOV-2025:00:00:00 Between Dates 22-NOV-2025:00:00:00 and 26-NOV-2025:00:00:00 Between Dates 17-DEC-2025:00:00:00 and 20-DEC-2025:00:00:00 Between Dates 10-JAN-2026:00:00:00 and 14-JAN-2026:00:00:00 Between Dates 04-FEB-2026:00:00:00 and 08-FEB-2026:00:00:00 Between Dates 01-MAR-2026:00:00:00 and 05-MAR-2026:00:00:00 Between Dates 26-MAR-2026:00:00:00 and 30-MAR-2026:00:00:00 Phase 0.9782817226 to 0.981817256 with period 12.4032 Days and zero-phase 2460904.541 HJD Aperture PA Range 70 to 71 Degrees (V3 69.43873283 to 70.43873283) Aperture PA Range 252 to 253 Degrees (V3 251.43873283 to 252.43873283) Aperture PA Range 259 to 262 Degrees (V3 258.43873283 to 261.43873283) Time Series Observation No Parallel Attachments

Observation

Proposal 5959, Observation 17: V1298 Tau d Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRISS Single-Object Slitless Spectroscopy

Diagnostics

(V1298 Tau d (Obs 17)) 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 17:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	V-V1298-Tau	RA: 04 05 19.5971 (61.3316546d)	Proper Motion RA: 5.412668487908132 mas/yr	
		Dec: +20 09 25.31 (20.15703d)	Proper Motion Dec: -16.05162768564503 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]
Extended=NO

Acquisition

#	Target	Acquisition Mode	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	SAME	SOSSFAINT	F480M	NISRAPID	3	1	1	0.202	169312

Template

Subarray	Include Short First Exposure and F277W Exposure?
SUBSTRIP96	true

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	NISRAPID	1	1	1	1	1	4.448	
2	NISRAPID	5	2976	1	1	2976	39594.132	169312
3	NISRAPID	5	10	1	1	10	133.045	

Special Requirements	Between Dates 22-FEB-2025:00:00:00 and 26-FEB-2025:00:00:00 Between Dates 19-MAR-2025:00:00:00 and 23-MAR-2025:00:00:00 Between Dates 13-APR-2025:00:00:00 and 16-APR-2025:00:00:00 Between Dates 07-MAY-2025:00:00:00 and 11-MAY-2025:00:00:00 Between Dates 01-JUN-2025:00:00:00 and 05-JUN-2025:00:00:00 Between Dates 26-JUN-2025:00:00:00 and 30-JUN-2025:00:00:00 Between Dates 21-JUL-2025:00:00:00 and 25-JUL-2025:00:00:00 Between Dates 15-AUG-2025:00:00:00 and 18-AUG-2025:00:00:00 Between Dates 08-SEP-2025:00:00:00 and 12-SEP-2025:00:00:00 Between Dates 03-OCT-2025:00:00:00 and 07-OCT-2025:00:00:00 Between Dates 28-OCT-2025:00:00:00 and 01-NOV-2025:00:00:00 Between Dates 22-NOV-2025:00:00:00 and 26-NOV-2025:00:00:00 Between Dates 17-DEC-2025:00:00:00 and 20-DEC-2025:00:00:00 Between Dates 10-JAN-2026:00:00:00 and 14-JAN-2026:00:00:00 Between Dates 04-FEB-2026:00:00:00 and 08-FEB-2026:00:00:00 Between Dates 01-MAR-2026:00:00:00 and 05-MAR-2026:00:00:00 Between Dates 26-MAR-2026:00:00:00 and 30-MAR-2026:00:00:00 Phase 0.98622667 to 0.9879063 with period 12.4032 Days and zero-phase 2460904.541 HJD Aperture PA Range 70 to 71 Degrees (V3 69.43873283 to 70.43873283) Aperture PA Range 252 to 253 Degrees (V3 251.43873283 to 252.43873283) Aperture PA Range 259 to 262 Degrees (V3 258.43873283 to 261.43873283) Time Series Observation No Parallel Attachments

Observation

Proposal 5959, Observation 5: TOI 451 c

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(TOI 451 c (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
(2)	CD-38-1467	RA: 04 11 51.9469 (62.9664454d)	Proper Motion RA: -11.061 mas/yr	
		Dec: -37 56 23.22 (-37.93978d)	Proper Motion Dec: 12.347 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	5 UCAC4-261-004415	WATA	SUB32	F110W	NRSRAPID	3	1	1	0.08	169312

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	5	4440	1	1	4440	24120.211	169312

Special Requirements

Phase 0.982549088 to 0.987081758 with period 9.192522 Days and zero-phase 2458411.806253 HJD
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 15: TOI 451 c

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(TOI 451 c (Obs 15)) 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 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(7)	CD-38-1467-copy	RA: 04 11 51.9319 (62.9663829d)	Proper Motion RA: -11.060773286516675 mas/yr	
		Dec: -37 56 23.02 (-37.93973d)	Proper Motion Dec: 12.346551282402876 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	8 UCAC4-261-004415-copy	WATA	SUB32	F110W	NRSRAPID	3	1	1	0.08	169312

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	5	4440	1	1	4440	24120.211	169312

Special Requirements

Phase 0.982549088 to 0.987081758 with period 9.192522 Days and zero-phase 2458411.806253 HJD
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 6: TOI 451 c

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRISS Single-Object Slitless Spectroscopy

Diagnostics

(TOI 451 c (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
(7)	CD-38-1467-copy	RA: 04 11 51.9319 (62.9663829d)	Proper Motion RA: -11.060773286516675 mas/yr	
		Dec: -37 56 23.02 (-37.93973d)	Proper Motion Dec: 12.346551282402876 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	Acquisition Mode	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	SAME	SOSSFAINT	F480M	NISRAPID	5	1	1	0.293	169312

Template

Subarray	Include Short First Exposure and F277W Exposure?
SUBSTRIP256	true

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	NISRAPID	1	1	1	1	1	11.008	
2	NISRAPID	6	627	1	1	627	24126.007	169312
3	NISRAPID	6	10	1	1	10	384.785	

Special Requirements

Phase 0.982549088 to 0.987081758 with period 9.192522 Days and zero-phase 2458411.806253 HJD
Aperture PA Range 16 to 65 Degrees (V3 15.43873283 to 64.43873283)
Aperture PA Range 68 to 78 Degrees (V3 67.43873283 to 77.43873283)
Aperture PA Range 81 to 83 Degrees (V3 80.43873283 to 82.43873283)
Aperture PA Range 238 to 260 Degrees (V3 237.43873283 to 259.43873283)
Aperture PA Range 291 to 305 Degrees (V3 290.43873283 to 304.43873283)
Aperture PA Range 348 to 353 Degrees (V3 347.43873283 to 352.43873283)
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 7: TOI 451 d

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(TOI 451 d (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
(7)	CD-38-1467-copy	RA: 04 11 51.9319 (62.9663829d)	Proper Motion RA: -11.060773286516675 mas/yr	
		Dec: -37 56 23.02 (-37.93973d)	Proper Motion Dec: 12.346551282402876 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	8 UCAC4-261-004415-copy	WATA	SUB32	F110W	NRSRAPID	3	1	1	0.08	169312

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	10	2716	1	1	2716	27003.776	169312

Special Requirements

Between Dates 04-NOV-2024:00:00:00 and 01-DEC-2024:00:00:00
Phase 0.989179337 to 0.991725423 with period 16.364988 Days and zero-phase 2458416.63478 HJD
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 8: TOI 451 d

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRISS Single-Object Slitless Spectroscopy

Diagnostics

(TOI 451 d (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
(7)	CD-38-1467-copy	RA: 04 11 51.9319 (62.9663829d)	Proper Motion RA: -11.060773286516675 mas/yr	
		Dec: -37 56 23.02 (-37.93973d)	Proper Motion Dec: 12.346551282402876 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	Acquisition Mode	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	SAME	SOSSFAINT	F480M	NISRAPID	5	1	1	0.293	169312

Template

Subarray	Include Short First Exposure and F277W Exposure?
SUBSTRIP256	true

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	NISRAPID	1	1	1	1	1	11.008	
2	NISRAPID	6	701	1	1	701	26973.414	169312
3	NISRAPID	6	10	1	1	10	384.785	

Special Requirements

Phase 0.989179337 to 0.991725423 with period 16.364988 Days and zero-phase 2458416.63478 HJD
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 9: TOI 2076 b Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(TOI 2076 b (Obs 9)) 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.

(TOI 2076 b (Obs 9)) Warning (Form): The slew between the acquisition exposure and the farthest science exposure is 50.170 Arcsec (larger than the recommended limit of 40.000 Arcsec) and may result in reduced or no schedulability. See more information in the diagnostic browser.

(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	BD+40-2790	RA: 14 29 34.0787 (217.3919946d)	Proper Motion RA: -118.07067470218699 mas/yr	
		Dec: +39 47 25.43 (39.79040d)	Proper Motion Dec: -6.859847219125559 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	6 SDSS-J142937.92+394703.7	WATA	SUB2048	F110W	NRSRAPID	3	1	1	3.628	169312

Template

Subarray
SUB1024B

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	3	13208	1	1	13208	24120.978	169312

Special Requirements

Phase 0.984507877 to 0.988531663 with period 10.355096 Days and zero-phase 2458743.744 HJD
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 10: TOI 2076 b Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRISS Single-Object Slitless Spectroscopy

Diagnostics

(TOI 2076 b (Obs 10)) 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 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	BD+40-2790	RA: 14 29 34.0787 (217.3919946d)	Proper Motion RA: -118.07067470218699 mas/yr	
		Dec: +39 47 25.43 (39.79040d)	Proper Motion Dec: -6.859847219125559 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	Acquisition Mode	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	SAME	SOSSFAINT	F480M	NISRAPID	3	1	1	0.202	169312

Template

Subarray	Include Short First Exposure and F277W Exposure?
SUBSTRIP96	true

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	NISRAPID	1	1	1	1	1	4.448	
2	NISRAPID	2	3620	1	1	3620	24118.178	169312
3	NISRAPID	2	10	1	1	10	66.625	

Special Requirements

Phase 0.984507877 to 0.988531663 with period 10.355096 Days and zero-phase 2458743.744 HJD
Aperture PA Range 127 to 139 Degrees (V3 126.43873283 to 138.43873283)
Aperture PA Range 144 to 151 Degrees (V3 143.43873283 to 150.43873283)
Aperture PA Range 154 to 155 Degrees (V3 153.43873283 to 154.43873283)
Aperture PA Range 163 to 183 Degrees (V3 162.43873283 to 182.43873283)
Aperture PA Range 185 to 188 Degrees (V3 184.43873283 to 187.43873283)
Aperture PA Range 196 to 203 Degrees (V3 195.43873283 to 202.43873283)
Aperture PA Range 222 to 242 Degrees (V3 221.43873283 to 241.43873283)
Aperture PA Range 245 to 258 Degrees (V3 244.43873283 to 257.43873283)
Aperture PA Range 263 to 271 Degrees (V3 262.43873283 to 270.43873283)
Aperture PA Range 275 to 296 Degrees (V3 274.43873283 to 295.43873283)
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 11: TOI 2076 c

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(TOI 2076 c (Obs 11)) 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.

(TOI 2076 c (Obs 11)) Warning (Form): The slew between the acquisition exposure and the farthest science exposure is 50.157 Arcsec (larger than the recommended limit of 40.000 Arcsec) and may result in reduced or no schedulability. See more information in the diagnostic browser.

(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	BD+40-2790	RA: 14 29 34.0787 (217.3919946d)	Proper Motion RA: -118.07067470218699 mas/yr	
		Dec: +39 47 25.43 (39.79040d)	Proper Motion Dec: -6.859847219125559 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	6 SDSS-J142937.92+394703.7	WATA	SUB2048	F110W	NRSRAPID	3	1	1	3.628	169312

Template

Subarray
SUB1024B

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	3	15179	1	1	15179	27720.497	169312

Special Requirements

Phase 0.991375227 to 0.993357902 with period 21.01538 Days and zero-phase 2458748.68944 HJD
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 12: TOI 2076 c Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRISS Single-Object Slitless Spectroscopy

Diagnostics

(TOI 2076 c (Obs 12)) 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 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	BD+40-2790	RA: 14 29 34.0787 (217.3919946d)	Proper Motion RA: -118.07067470218699 mas/yr	
		Dec: +39 47 25.43 (39.79040d)	Proper Motion Dec: -6.859847219125559 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	Acquisition Mode	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	SAME	SOSSFAINT	F480M	NISRAPID	3	1	1	0.202	169312

Template

Subarray	Include Short First Exposure and F277W Exposure?
SUBSTRIP96	true

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	NISRAPID	1	1	1	1	1	4.448	
2	NISRAPID	2	4160	1	1	4160	27715.917	169312
3	NISRAPID	2	10	1	1	10	66.625	

Special Requirements

Phase 0.991375227 to 0.993357902 with period 21.01538 Days and zero-phase 2458748.68944 HJD
Aperture PA Range 127 to 139 Degrees (V3 126.43873283 to 138.43873283)
Aperture PA Range 144 to 151 Degrees (V3 143.43873283 to 150.43873283)
Aperture PA Range 154 to 155 Degrees (V3 153.43873283 to 154.43873283)
Aperture PA Range 163 to 183 Degrees (V3 162.43873283 to 182.43873283)
Aperture PA Range 185 to 188 Degrees (V3 184.43873283 to 187.43873283)
Aperture PA Range 196 to 203 Degrees (V3 195.43873283 to 202.43873283)
Aperture PA Range 222 to 242 Degrees (V3 221.43873283 to 241.43873283)
Aperture PA Range 245 to 258 Degrees (V3 244.43873283 to 257.43873283)
Aperture PA Range 263 to 271 Degrees (V3 262.43873283 to 270.43873283)
Aperture PA Range 275 to 296 Degrees (V3 274.43873283 to 295.43873283)
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 13: TOI 2076 d

Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Diagnostics

(TOI 2076 d (Obs 13)) 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.

(TOI 2076 d (Obs 13)) Warning (Form): The slew between the acquisition exposure and the farthest science exposure is 50.204 Arcsec (larger than the recommended limit of 40.000 Arcsec) and may result in reduced or no schedulability. See more information in the diagnostic browser.

(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	BD+40-2790	RA: 14 29 34.0787 (217.3919946d)	Proper Motion RA: -118.07067470218699 mas/yr	
		Dec: +39 47 25.43 (39.79040d)	Proper Motion Dec: -6.859847219125559 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	6 SDSS-J142937.92+394703.7	WATA	SUB2048	F110W	NRSRAPID	3	1	1	3.628	169312

Template

Subarray
SUB1024B

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G395H/F290LP	NRSRAPID	3	13208	1	1	13208	24120.978	169312

Special Requirements

Phase 0.995432864 to 0.996619092 with period 35.12537 Days and zero-phase 2458938.2931 HJD
Time Series Observation
No Parallel Attachments

Observation

Proposal 5959, Observation 14: TOI 2076 d Wed Jan 14 21:00:43 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRISS Single-Object Slitless Spectroscopy

Diagnostics

(TOI 2076 d (Obs 14)) 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 14:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	BD+40-2790	RA: 14 29 34.0787 (217.3919946d)	Proper Motion RA: -118.07067470218699 mas/yr	
		Dec: +39 47 25.43 (39.79040d)	Proper Motion Dec: -6.859847219125559 mas/yr	
		Equinox: J2000	Epoch of Position: 2016	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Exoplanet Systems, Exoplanets, G stars]

Acquisition

#	Target	Acquisition Mode	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	Optional ETC ID
1	SAME	SOSSFAINT	F480M	NISRAPID	3	1	1	0.202	169312

Template

Subarray	Include Short First Exposure and F277W Exposure?
SUBSTRIP96	true

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	NISRAPID	1	1	1	1	1	4.448	
2	NISRAPID	2	3620	1	1	3620	24118.178	169312
3	NISRAPID	2	10	1	1	10	66.625	

Special Requirements

Phase 0.995432864 to 0.996619092 with period 35.12537 Days and zero-phase 2458938.2931 HJD
Aperture PA Range 127 to 139 Degrees (V3 126.43873283 to 138.43873283)
Aperture PA Range 144 to 151 Degrees (V3 143.43873283 to 150.43873283)
Aperture PA Range 154 to 155 Degrees (V3 153.43873283 to 154.43873283)
Aperture PA Range 163 to 183 Degrees (V3 162.43873283 to 182.43873283)
Aperture PA Range 185 to 188 Degrees (V3 184.43873283 to 187.43873283)
Aperture PA Range 196 to 203 Degrees (V3 195.43873283 to 202.43873283)
Aperture PA Range 222 to 242 Degrees (V3 221.43873283 to 241.43873283)
Aperture PA Range 245 to 258 Degrees (V3 244.43873283 to 257.43873283)
Aperture PA Range 263 to 271 Degrees (V3 262.43873283 to 270.43873283)
Aperture PA Range 275 to 296 Degrees (V3 274.43873283 to 295.43873283)
Time Series Observation
No Parallel Attachments