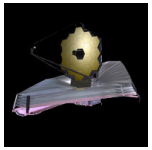

2512 - Seeing the Forest and the Trees: Unveiling Small Planet Atmospheres with a Population-Level Framework

Cycle: 1, Proposal Category: GO

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
260.01 (x2)				
	1	TOI 260.01 (T1)	NIRSpec Bright Object Time Series	(1) TOI-260
	2	TOI 260.01 (T2)	NIRSpec Bright Object Time Series	(1) TOI-260
776.01 (x2)				
	3	TOI-776.01 (T1)	NIRSpec Bright Object Time Series	(5) TOI-776
	4	TOI-776.01 (T2)	NIRSpec Bright Object Time Series	(5) TOI-776
776.02 (x2)				

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	5	TOI-776.02 (T1)	NIRSpec Bright Object Time Series	(5) TOI-776
	6	TOI-776.02 (T2)	NIRSpec Bright Object Time Series	(5) TOI-776
562.01 (x1)				
	7	TOI-562.01 (T1)	NIRSpec Bright Object Time Series	(6) TOI-562
836.01 (x1)				
	8	TOI-836.01 (T1)	NIRSpec Bright Object Time Series	(7) TOI-836
836.02 (x2)				
	9	TOI-836.02 (T1)	NIRSpec Bright Object Time Series	(7) TOI-836
	10	TOI-836.02 (T2)	NIRSpec Bright Object Time Series	(7) TOI-836
134.01 (x3)				
	11	TOI-134.01 (T1)	NIRSpec Bright Object Time Series	(8) TOI-134
	12	TOI-134.01 (T2)	NIRSpec Bright Object Time Series	(8) TOI-134
	13	TOI-134.01 (T3)	NIRSpec Bright Object Time Series	(8) TOI-134
455.01 (x1)				
	14	TOI-455.01 (T1)	NIRSpec Bright Object Time Series	(9) TOI-455
175.01 (x2)				
	15	TOI-175.01 (T1)	NIRSpec Bright Object Time Series	(3) TOI-175
	16	TOI-175.01 (T2)	NIRSpec Bright Object Time Series	(3) TOI-175
402.01 (x1)				
	17	TOI-402.01 (T1)	NIRSpec Bright Object Time Series	(16) TOI-402
402.02 (x2)				
	18	TOI-402.02 (T1)	NIRSpec Bright Object Time Series	(16) TOI-402
	19	TOI-402.02 (T2)	NIRSpec Bright Object Time Series	(16) TOI-402
19 WISEA Pre Imaging				
	20	19 WISEA	NIRCam Imaging	(19) WISEA-J030148.40-163532.7

ABSTRACT

The last decades of exoplanet exploration have revealed that the diversity of planets within the Galaxy far exceeds that within our solar system. Specifically, Kepler revealed a new population of 1-3 Rearth short period planets that seem to bridge the gap between giants and terrestrials in our own bimodal planetary system. Their bulk properties imply diminishingly thin hydrogen envelopes, producing an intermediate physical state between planets with predominantly primordial atmospheres and those with secondary atmospheres. However, we lack observations to determine whether this

is truly the case, how such atmospheres are produced, and how similar or different they are to solar system planets. Atmospheric composition provides the necessary additional dimension to unveil the nature of this new class of planet, which we maintain will be JWST's greatest exoplanet legacy. We have carefully constructed the first exoplanet atmospheres survey designed to build a critical link between atmospheric characterization and planetary demographics. We will observe 11 transiting exoplanets, including four pairs of planets in the same system. By utilizing JWST's unique capabilities, we will measure the relative abundances of major molecular species expected to provide key insights into the formation and evolution pathways of exoplanets. Through our holistic approach we will analyze planets individually, within their own system architectures, and ultimately as a population. This will culminate in a program that will provide the community with a necessary kickstart to future information-rich observations of small planets, and will ultimately sculpt JWST's lasting legacy.

OBSERVING DESCRIPTION

We will observe 11 planets around 8 stars, with 3 pairs of planets within the same stellar systems. We will observe each planet with the same observational mode and set-up for consistency. In total we will observe 19 individual transit events, where each planet's transit is observed between 1 - 3 times, to achieve the needed precision for the outlined science goals. We use NIRSpec in BOTS (Bright Object Time Series) mode, which requires the S1600A1 aperture with a fixed 1.6"x1.6" field of view (FoV). We will use the G395H/F290LP combination (2.87-5.27 microns) and SUB2048 subarray for all of our observations. This will ensure a uniform treatment of the data. This program is schedulable throughout cycle 1, and there are multiple opportunities throughout the year where our target stars are visible to JWST, each with multiple transit opportunities. Each observation must be scheduled to cover the transit of the planet. We have set the phase constraints to allow for a range of 60 minutes for the JWST observation start window for ease of scheduling. For each of our observations we will obtain a minimum of (2*Transit duration) + 1.75 hours. We anticipate needing to discard a maximum of 0.75 hours of data at the start of each observation due to detector settling effects which result in a ramp-like increase in the flux measured which would be unusable in our analysis. Our targets have transit times ranging from 1.2 hours to 2.77 hours. We calculated the time needed for each of our observations based on our science goal of reaching 30ppm precision on all of our targets; in total, the time needed includes data prior to, during, and following the transit event to obtain an adequate baseline of the stellar flux. We will measure 19 transits over 11 targets with a science time of 85.21 hours, and a total charged time of 141.64 hours including the observatory resets, overheads, slewing, and target acquisition. As all of our targets are bright (J mag: 6.4 - 7.6), therefore we will conduct target acquisition (TA) on alternative targets to avoid saturation. For TA we will utilize the Wide Aperture Target Acquisition (WATA) mode on targets that are within the visit splitting distance of each of our target stars. We have selected sources with valid 2MASS J magnitudes and Gaia DR2 proper motions to ensure they are suitable for accurate TA. We used VizieR and Aladin to validate our sources, and the online STScI ETC to determine the set-up required. For 8/11 of our targets we will use the SUB32 subarray with the clear filter, for 2/11 we will use SUB2048 with the clear filter, and 1/11 requires the full field with the clear filter to achieve the needed signal-to-noise for TA. We will double check each of these with scheduling prior to conducting the observations to ensure success

of the program.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	TOI-260	RA: 00 19 5.5243 (4.7730179d) Dec: -09 57 58.14 (-9.96615d) Equinox: J2000	Proper Motion RA: -0.0024769094763926838 sec of time/yr Proper Motion Dec: -0.301435000096717 arcsec/yr Epoch of Position: 2015.5	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Exoplanets]* *Extended=NO*				
(2)	260-TA-REF	RA: 00 19 4.9761 (4.7707337d) Dec: -09 57 34.35 (-9.95954d) Equinox: J2000	Proper Motion RA: 17.227 mas/yr Proper Motion Dec: -14.517 mas/yr Epoch of Position: 2015.5	
Comments: This object was generated by the targetselector and retrieved from the 2MASS database. *Gaia DR2 2428162406493855744* *https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fa95c9b6902&-out.add=.&-source=I/345/gaia2&-c=004.77080912111%20-09.95960445301,eq=ICRS,rs=2&-out.orig=o* *2MASS 00190502-0957345* *JMag = 16.14* *Category=Unidentified* *Description=[Infrared sources, Visible sources]*				
(3)	TOI-175	RA: 08 18 7.6215 (124.5317563d) Dec: -68 18 46.80 (-68.31300d) Equinox: J2000	Proper Motion RA: 94.767 mas/yr Proper Motion Dec: -340.470 mas/yr Parallax: 0.0941385" Epoch of Position: 2015.5	
Comments: coordinates, proper motions and parallax from GAIA DR2 *J 7.933 [0.027] C 2003yCat.2246....0C* *H 7.359 [0.049] C 2003yCat.2246....0C* *K 7.101 [0.018] C 2003yCat.2246....0C* *Category=Star* *Description=[Exoplanet Systems, M dwarfs]* *Extended=NO*				
(4)	175-TA-REF	RA: 08 17 58.5265 (124.4938604d) Dec: -68 18 57.14 (-68.31587d) Equinox: J2000	Proper Motion RA: 0.471 mas/yr Proper Motion Dec: 9.750 mas/yr Epoch of Position: 2015.5	
Comments: 2MASS 08175852-6818572 - https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fa962c973ee&-out.add=.&-source=II/246/out&2MASS===08175852-6818572 *Gaia DR2 5271054865206500224 - https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fa962c973ee&-out.add=.&-source=I/345/gaia2&-c=124.49386581031%20-68.31583075341,eq=ICRS,rs=2&-out.orig=o* *J mag = 16.4Jmag 2MASS* *51.4" away from target but within the visit splitting distance of 65"* *NOTE: DIFFERENT FROM GTO PROGRAM TA reference star from GAIA DR2, ID 5271055170147005696 GMag 20.4332 with unknown Jmag* *Category=Unidentified* *Description=[Infrared sources, Visible sources]*				
(5)	TOI-776	RA: 11 54 18.7193 (178.5779971d) Dec: -37 33 12.08 (-37.55336d) Equinox: J2000	Proper Motion RA: 0.021116414998593572 sec of time/yr Proper Motion Dec: -0.1450590001013552 arcsec/yr Epoch of Position: 2015.5	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Exoplanets]* *Extended=NO*				

(6)	TOI-562	RA: 09 36 1.7915 (144.0074646d) Dec: -21 39 54.23 (-21.66506d) Equinox: J2000	Proper Motion RA: 0.009949091869526031 sec of time/yr Proper Motion Dec: -0.9903110000777815 arcsec/yr Epoch of Position: 2015.5

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

(7)	TOI-836	RA: 15 00 19.1712 (225.0798800d) Dec: -24 27 15.11 (-24.45420d) Equinox: J2000	Proper Motion RA: -0.014663418930896694 sec of time/yr Proper Motion Dec: -0.027039999986300245 arcsec/yr Epoch of Position: 2015.5

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

(8)	TOI-134	RA: 23 20 6.8620 (350.0285917d) Dec: -60 03 56.63 (-60.06573d) Equinox: J2000	Proper Motion RA: -0.04274643160953483 sec of time/yr Proper Motion Dec: -0.12778100001469284 arcsec/yr Epoch of Position: 2015.5

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

(9)	TOI-455	RA: 03 01 50.9947 (45.4624779d) Dec: -16 35 40.18 (-16.59449d) Equinox: J2000	Proper Motion RA: -0.025682752912145126 sec of time/yr Proper Motion Dec: -0.26851000000078784 arcsec/yr Epoch of Position: 2015.5

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

(11)	776-TA-REF	RA: 11 54 16.5226 (178.5688442d) Dec: -37 33 1.76 (-37.55049d) Equinox: J2000	Proper Motion RA: 10.407 mas/yr Proper Motion Dec: -0.139 mas/yr Epoch of Position: 2015.5

Comments: This object was generated by the targetselector and retrieved from the 2MASS database.
2MASS 11541652-3733017
Gaia DR2 3460438662009633024 (https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fa554d90616&-out.add=.&-source=I/345/gaia2&-c=178.56889388987%20-37.55047454330,eq=ICRS,rs=2&-out.orig=o)
Category=Unidentified
Description=[Infrared sources, Visible sources]

(12)	562-TA-REF	RA: 09 36 5.1326 (144.0213858d) Dec: -21 39 30.45 (-21.65846d) Equinox: J2000	Proper Motion RA: 6.968 mas/yr Proper Motion Dec: -10.007 mas/yr Epoch of Position: 2015.5

Comments: This object was generated by the targetselector and retrieved from the 2MASS database.
2MASS 09360513-2139304
Jmag = 15.753
49.5" away from target within visit splitting distance of 60"

Gaia DR2 5664811247788711040
https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fa57df471b4&-out.add=.&-source=I/345/gaia2&-c=144.02141124795%20-21.65851205484,eq=ICRS,rs=2&-out.orig=o
Category=Unidentified
Description=[Infrared sources, Visible sources]

(13)	836-TA-REF	RA: 15 00 18.7452 (225.0781050d) Dec: -24 27 2.23 (-24.45062d) Equinox: J2000	Proper Motion RA: -16.793 mas/yr Proper Motion Dec: 1.776 mas/yr Epoch of Position: 2015.5

Comments: This object was generated by the targetselector and retrieved from the 2MASS database.
2MASS 15001874-2427022
Jmag 16.2
15.2" away from target within visit splitting distance of 55"

Gaia DR2 6230733932759651840
https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fa58b1e7280&-out.add=.&-source=I/345/gaia2&-c=225.07811546298%20-24.45065146946,eq=ICRS,rs=2&-out.orig=o
Category=Unidentified
Description=[Infrared sources, Visible sources]

(14)	134-TA-REF	RA: 23 20 3.6866 (350.0153608d) Dec: -60 04 16.35 (-60.07121d) Equinox: J2000	Proper Motion RA: 14.353 mas/yr Proper Motion Dec: -8.695 mas/yr Epoch of Position: 2015.5

Comments: This object was generated by the targetselector and retrieved from the 2MASS database.
2MASS 23200368-6004163
Jmag = 15.023
36" away from target within visit splitting distance of 40"

Gaia DR2 6490461089163448960
https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fa58ea97940&-out.add=.&-source=I/345/gaia2&-c=350.01551870967%20-60.07123789579,eq=ICRS,rs=2&-out.orig=o
Category=Unidentified
Description=[Infrared sources, Visible sources]

(16)	TOI-402	RA: 02 27 28.2923 (36.8678846d) Dec: -27 38 10.02 (-27.63612d) Equinox: J2000	Proper Motion RA: -0.00553780008952981 sec of time/yr Proper Motion Dec: -0.21161399999982677 arcsec/yr Epoch of Position: 2015.5

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

(17)	402-TA-REF	RA: 02 27 26.9044 (36.8621017d) Dec: -27 38 19.57 (-27.63877d) Equinox: J2000	Proper Motion RA: -1.152 mas/yr Proper Motion Dec: -4.095 mas/yr Epoch of Position: 2015.5

Comments: Gaia DR2 5068777809825770112
y Mag = 18.19 (Pan-STARRS)
23.4" away from target

DR2 - https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fabc350224d&-out.add=.&-source=I/345/gaia2&-c=036.86209623802%20-27.63878617175,eq=ICRS,rs=2&-out.orig=o
Pna-STARRS - https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fabc350224d&-out.add=.&-source=II/349/ps1&-c=036.862098320%20-27.638782980,eq=J2000,rs=2&-out.orig=o
Category=Unidentified
Description=[Infrared sources, Visible sources]

(18)	455-TA-REF	RA: 03 01 57.1826 (45.4882608d) Dec: -16 34 6.09 (-16.56836d) Equinox: J2000	

Comments: Using the Gaia DR2 rb magnitude and the i band for SDSS in the ETC
https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fb3b4764d6c&-out.add=.&-source=I/345/gaia2&-c=045.48826076100%20-16.56835867349,eq=ICRS,rs=2&-out.orig=o

DR2: Gaia DR2 5153093450979433856

Alternate target: 2MASS 03015532-1638189
But this will saturate 4 pixels using the MSATA setting needed to widen the area
https://vizier.u-strasbg.fr/viz-bin/VizieR-5?-ref=VIZ5fb2face0354&-out.add=.&-source=II/246/out&2MASS===03015532-1638189
Category=Unidentified
Description=[Infrared sources]

	(19)	WISEA-J030148.40-163532.7	RA: 03 01 48.4032 (45.4516800d) Dec: -16 35 32.75 (-16.59243d) Equinox: J2000	Proper Motion RA: 5 mas/yr Proper Motion Dec: 476 mas/yr Epoch of Position: 2010.5589
	Comments: This object was generated by the targetselector and retrieved from the NED database. *Category=Star* *Description=[Exoplanets]* *Extended=NO*			

Observation

Proposal 2512, Observation 1: TOI 260.01 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HIP-1532

Diagnostics

(TOI 260.01 (T1) (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)	TOI-260	RA: 00 19 5.5243 (4.7730179d) Dec: -09 57 58.14 (-9.96615d) Equinox: J2000	Proper Motion RA: -0.0024769094763926838 sec of time/yr Proper Motion Dec: -0.301435000096717 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	2 260-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	3	5718	1	1	5718	20747.649	59089

Special Requirements

Phase 0.9884310969 to 0.9915243865 with period 13.470018 Days and zero-phase 2458391.79441 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 2: TOI 260.01 (T2) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HIP-1532

Diagnostics

(TOI 260.01 (T2) (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)	TOI-260	RA: 00 19 5.5243 (4.7730179d) Dec: -09 57 58.14 (-9.96615d) Equinox: J2000	Proper Motion RA: -0.0024769094763926838 sec of time/yr Proper Motion Dec: -0.301435000096717 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	2 260-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	3	5718	1	1	5718	20747.649	59089

Special Requirements

Phase 0.9884310969 to 0.9915243865 with period 13.470018 Days and zero-phase 2458391.79441 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 3: TOI-776.01 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: LP-961-53

Diagnostics

(TOI-776.01 (T1) (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
(5)	TOI-776	RA: 11 54 18.7193 (178.5779971d) Dec: -37 33 12.08 (-37.55336d) Equinox: J2000	Proper Motion RA: 0.021116414998593572 sec of time/yr Proper Motion Dec: -0.1450590001013552 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	11 776-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	8	3233	1	1	3233	26311.706	57035

Special Requirements

Phase 0.9920156815 to 0.994677121 with period 15.655688 Days and zero-phase 2458572.10452 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 4: TOI-776.01 (T2) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: LP-961-53

Diagnostics

(TOI-776.01 (T2) (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
(5)	TOI-776	RA: 11 54 18.7193 (178.5779971d) Dec: -37 33 12.08 (-37.55336d) Equinox: J2000	Proper Motion RA: 0.021116414998593572 sec of time/yr Proper Motion Dec: -0.1450590001013552 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	11 776-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	8	3233	1	1	3233	26311.706	57035

Special Requirements

Phase 0.9920156815 to 0.994677121 with period 15.655688 Days and zero-phase 2458572.10452 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 5: TOI-776.02 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: LP-961-53

Diagnostics

(TOI-776.02 (T1) (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
(5)	TOI-776	RA: 11 54 18.7193 (178.5779971d) Dec: -37 33 12.08 (-37.55336d) Equinox: J2000	Proper Motion RA: 0.021116414998593572 sec of time/yr Proper Motion Dec: -0.1450590001013552 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	11 776-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	8	2923	1	1	2923	23788.777	59089

Special Requirements

Phase 0.9789225141 to 0.983977067 with period 8.243393 Days and zero-phase 2458570.91538 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 6: TOI-776.02 (T2) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: LP-961-53

Diagnostics

(TOI-776.02 (T2) (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
(5)	TOI-776	RA: 11 54 18.7193 (178.5779971d) Dec: -37 33 12.08 (-37.55336d) Equinox: J2000	Proper Motion RA: 0.021116414998593572 sec of time/yr Proper Motion Dec: -0.1450590001013552 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	11 776-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	8	2923	1	1	2923	23788.777	59089

Special Requirements

Phase 0.9789225141 to 0.983977067 with period 8.243393 Days and zero-phase 2458570.91538 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 7: TOI-562.01 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HIP-47103

Diagnostics

(TOI-562.01 (T1) (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
(6)	TOI-562	RA: 09 36 1.7915 (144.0074646d) Dec: -21 39 54.23 (-21.66506d) Equinox: J2000	Proper Motion RA: 0.009949091869526031 sec of time/yr Proper Motion Dec: -0.9903110000777815 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	12 562-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	3	4401	1	1	4401	15968.94	59089

Special Requirements

Phase 0.9673517873 to 0.9779518564 with period 3.930792 Days and zero-phase 2458517.4986 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 8: TOI-836.01 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HIP-73427

Diagnostics

(TOI-836.01 (T1) (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)	TOI-836	RA: 15 00 19.1712 (225.0798800d) Dec: -24 27 15.11 (-24.45420d) Equinox: J2000	Proper Motion RA: -0.014663418930896694 sec of time/yr Proper Motion Dec: -0.027039999986300245 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	13 836-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	3	6755	1	1	6755	24510.382	59089

Special Requirements

Phase 0.9793458992 to 0.9841942796 with period 8.593935 Days and zero-phase 2458599.26396 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 9: TOI-836.02 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HIP-73427

Diagnostics

(TOI-836.02 (T1) (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.

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(7)	TOI-836	RA: 15 00 19.1712 (225.0798800d) Dec: -24 27 15.11 (-24.45420d) Equinox: J2000	Proper Motion RA: -0.014663418930896694 sec of time/yr Proper Motion Dec: -0.027039999986300245 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	13 836-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	3	5259	1	1	5259	19082.176	59089

Special Requirements

Phase 0.9616857234 to 0.9726014717 with period 3.817115 Days and zero-phase 2458599.4923 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 10: TOI-836.02 (T2) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HIP-73427

Diagnostics

(TOI-836.02 (T2) (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
(7)	TOI-836	RA: 15 00 19.1712 (225.0798800d) Dec: -24 27 15.11 (-24.45420d) Equinox: J2000	Proper Motion RA: -0.014663418930896694 sec of time/yr Proper Motion Dec: -0.027039999986300245 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	13 836-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	3	5259	1	1	5259	19082.176	59089

Special Requirements

Phase 0.9616857234 to 0.9726014717 with period 3.817115 Days and zero-phase 2458599.4923 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 11: TOI-134.01 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: GJ-4332

Diagnostics

(TOI-134.01 (T1) (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.

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(8)	TOI-134	RA: 23 20 6.8620 (350.0285917d) Dec: -60 03 56.63 (-60.06573d) Equinox: J2000	Proper Motion RA: -0.04274643160953483 sec of time/yr Proper Motion Dec: -0.12778100001469284 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	14 134-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	5	2801	1	1	2801	15216.376	59089

Special Requirements

Phase 0.9114019822 to 0.9411328606 with period 1.401461 Days and zero-phase 2458339.5478 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 12: TOI-134.01 (T2) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: GJ-4332

Diagnostics

(TOI-134.01 (T2) (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
(8)	TOI-134	RA: 23 20 6.8620 (350.0285917d) Dec: -60 03 56.63 (-60.06573d) Equinox: J2000	Proper Motion RA: -0.04274643160953483 sec of time/yr Proper Motion Dec: -0.12778100001469284 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	14 134-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	5	2801	1	1	2801	15216.376	59089

Special Requirements

Phase 0.9114019822 to 0.9411328606 with period 1.401461 Days and zero-phase 2458339.5478 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 13: TOI-134.01 (T3) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: GJ-4332

Diagnostics

(TOI-134.01 (T3) (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.

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(8)	TOI-134	RA: 23 20 6.8620 (350.0285917d) Dec: -60 03 56.63 (-60.06573d) Equinox: J2000	Proper Motion RA: -0.04274643160953483 sec of time/yr Proper Motion Dec: -0.12778100001469284 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	14 134-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	5	2801	1	1	2801	15216.376	59089

Special Requirements

Phase 0.9114019822 to 0.9411328606 with period 1.401461 Days and zero-phase 2458339.5478 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 14: TOI-455.01 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: GJ-3193-A / LTT 1445 A
Triple star system
Needs to be conducted after NIRCam Pre imaging of WISEA

Diagnostics

(TOI-455.01 (T1) (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
(9)	TOI-455	RA: 03 01 50.9947 (45.4624779d) Dec: -16 35 40.18 (-16.59449d) Equinox: J2000	Proper Motion RA: -0.025682752912145126 sec of time/yr Proper Motion Dec: -0.26851000000078784 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	19 WISEA-J030148.40-163532.7	WATA	SUB2048	CLEAR	NRSRAPID	3	1	1	3.628	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	3	4468	1	1	4468	16212.049	57035

Special Requirements

Phase 0.9758186228 to 0.9835939853 with period 5.358807 Days and zero-phase 2458422.9263 HJD
Time Series Observation
No Parallel

14 After 20 by 60 Days to 425 Days

Observation

Proposal 2512, Observation 15: TOI-175.01 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: L98-59c

Diagnostics

(TOI-175.01 (T1) (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
(3)	TOI-175	RA: 08 18 7.6215 (124.5317563d)	Proper Motion RA: 94.767 mas/yr	
		Dec: -68 18 46.80 (-68.31300d)	Proper Motion Dec: -340.470 mas/yr	
		Equinox: J2000	Parallax: 0.0941385"	
			Epoch of Position: 2015.5	

Comments: coordinates, proper motions and parallax from GAIA DR2
J 7.933 [0.027] C 2003yCat.2246....0C
H 7.359 [0.049] C 2003yCat.2246....0C
K 7.101 [0.018] C 2003yCat.2246....0C
Category=Star
Description=[Exoplanet Systems, M dwarfs]
Extended=NO

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4 175-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	5	2761	1	1	2761	14999.077	57035

Special Requirements	Phase 0.9666950086 to 0.9779848362 with period 3.690638 Days and zero-phase 2458366.7755 HJD Time Series Observation No Parallel

Observation

Proposal 2512, Observation 16: TOI-175.01 (T2) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: L98-59c

Diagnostics

(TOI-175.01 (T2) (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
(3)	TOI-175	RA: 08 18 7.6215 (124.5317563d) Dec: -68 18 46.80 (-68.31300d) Equinox: J2000	Proper Motion RA: 94.767 mas/yr Proper Motion Dec: -340.470 mas/yr Parallax: 0.0941385" Epoch of Position: 2015.5	

Comments: coordinates, proper motions and parallax from GAIA DR2
J 7.933 [0.027] C 2003yCat.2246....0C
H 7.359 [0.049] C 2003yCat.2246....0C
K 7.101 [0.018] C 2003yCat.2246....0C
Category=Star
Description=[Exoplanet Systems, M dwarfs]
Extended=NO

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4 175-TA-REF	WATA	SUB32	CLEAR	NRSRAPID	3	1	1	0.08	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	5	2761	1	1	2761	14999.077	57035

Special Requirements	Phase 0.9666950086 to 0.9779848362 with period 3.690638 Days and zero-phase 2458366.7755 HJD Time Series Observation No Parallel

Observation

Proposal 2512, Observation 17: TOI-402.01 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HD-15337

Diagnostics

(TOI-402.01 (T1) (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
(16)	TOI-402	RA: 02 27 28.2923 (36.8678846d) Dec: -27 38 10.02 (-27.63612d) Equinox: J2000	Proper Motion RA: -0.00553780008952981 sec of time/yr Proper Motion Dec: -0.21161399999982677 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	17 402-TA-REF	WATA	SUB2048	CLEAR	NRSRAPID	3	1	1	3.628	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	4	5500	1	1	5500	24917.64	57035

Special Requirements

Phase 0.9621517408 to 0.9709129119 with period 4.755833 Days and zero-phase 2458410.962 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 18: TOI-402.02 (T1) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HD-15337

Diagnostics

(TOI-402.02 (T1) (Obs 18)) 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 18:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(16)	TOI-402	RA: 02 27 28.2923 (36.8678846d) Dec: -27 38 10.02 (-27.63612d) Equinox: J2000	Proper Motion RA: -0.00553780008952981 sec of time/yr Proper Motion Dec: -0.21161399999982677 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	17 402-TA-REF	WATA	SUB2048	CLEAR	NRSRAPID	3	1	1	3.628	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	4	4654	1	1	4654	21084.854	57035

Special Requirements

Phase 0.9908266918 to 0.9932470897 with period 17.2148 Days and zero-phase 2458414.0476 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 19: TOI-402.02 (T2) Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRSpec Bright Object Time Series

Comments: Alternate name: HD-15337

Diagnostics

(TOI-402.02 (T2) (Obs 19)) 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 19:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(16)	TOI-402	RA: 02 27 28.2923 (36.8678846d) Dec: -27 38 10.02 (-27.63612d) Equinox: J2000	Proper Motion RA: -0.00553780008952981 sec of time/yr Proper Motion Dec: -0.21161399999982677 arcsec/yr Epoch of Position: 2015.5	

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

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	17 402-TA-REF	WATA	SUB2048	CLEAR	NRSRAPID	3	1	1	3.628	58621

Template

Subarray
SUB2048

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	NRSRAPID	4	4654	1	1	4654	21084.854	57035

Special Requirements

Phase 0.9908266918 to 0.9932470897 with period 17.2148 Days and zero-phase 2458414.0476 HJD
Time Series Observation
No Parallel

Observation

Proposal 2512, Observation 20: 19 WISEA Tue Oct 12 22:01:13 GMT 2021

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Comments: This addition is based on the approved TTRB:

The only TA star within the visit splitting distance of target LTT 1445A b/TOI-455.01 (AllWISE J030148.40-163532.7) has imprecise proper motion -- there is disagreement between historical astrometric catalogs (e.g., AllWISE, USNO-A2.0, GCSC2.3, VHS) at the ~1 arcsec level or more If the proper motions of this TA target are off by 2 sigma, then the separation between LTT 1445A b and the TA source decreases from 37.71 arcsec to 36.71 arcsec (offset of 1 arcsec). Therefore, if we blindly offset from a TA on the TA target to LTT 1445 A, the science target could be outside the 1.6 x 1.6 arcsec aperture. Poor centering in the aperture would increase flux variations due to clipping of the PSF wings by the aperture. We cannot assume that initial pointing accuracy after guide star acquisition and before NIRSpec target acquisition will be accurate enough for our observation, so we need to obtain better proper motion of the TA target. On top of the TA proper motion uncertainty, the components of LTT 1445 (a high proper motion triple system) move significantly relative to each other than the TA star.

In order to ensure accurate pointing for our observations and their scientific integrity, we propose adding NIRCam F115W+F444W imaging of the TA target (AllWISE J030148.40-163532.7 with J=18.3). In order to obtain precise proper motions on a J=18.3 target, we require 472.42 seconds of total exposure time (4 INTRASCA SMALL dithers) to achieve S/N=370/622 in F115W/F444W, respectively. With an additional 1800 seconds of slew time, this would lead to an additional 37 minutes (rounding up 1 hour) of program charge time (an increase of 0.43%, or rounding up 0.7%, to our program time). Our proposed TA observing setup can be seen in JWST ETC Workbook ID: 88486.

Diagnostics

(Visit 20:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(19)	WISEA-J030148.40-163532.7	RA: 03 01 48.4032 (45.4516800d)	Proper Motion RA: 5 mas/yr	
		Dec: -16 35 32.75 (-16.59243d)	Proper Motion Dec: 476 mas/yr	
		Equinox: J2000	Epoch of Position: 2010.5589	

Comments: This object was generated by the targetselector and retrieved from the NED database.
Category=Star
Description=[Exoplanets]
Extended=NO

Template

Module	Subarray
B	FULLP

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRASCA	4	STANDARD	8" (SMALL)	1

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F115W	F444W	RAPID	10	1	4	4	429.471	

Special Requirements	14 After 20 by 60 Days to 425 Days