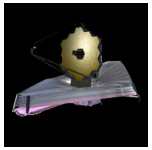

1635 - Galaxy Protoclusters as Drivers of Cosmic Reionization

Cycle: 1, Proposal Category: GO

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	52	feb17-NRS-I-246.8-filler	NIRSpec MultiObject Spectroscopy	(1) CATLAE-WEST-FINAL-I
	53	feb18-NRS-II-filler	NIRSpec MultiObject Spectroscopy	(2) CATLAE-WEST-FINAL-II
	54	feb19-NRS-III-245.623-filler	NIRSpec MultiObject Spectroscopy	(37) CATLAE-WEST-FINAL-III
	55	feb18-NRS-IV-245.666-filler	NIRSpec MultiObject Spectroscopy	(36) CATLAE-WEST-FINAL-IV
	56	feb19-NRS-V-filler	NIRSpec MultiObject Spectroscopy	(35) CATLAE-WEST-FINAL-V
Observation Folder				
	25		NIRCam Imaging	(3) Z7OD-MOSAIC-OBS25
Observation Folder				
	26		NIRCam Imaging	(7) Z7OD-MOSAIC-OBS26

ABSTRACT

The environmental dependence of galaxy properties today requires an accelerated assembly history in high density environments. Protoclusters, the overdense regions of the universe that ultimately collapse into massive galaxy clusters, contribute a significant fraction of all cosmic star formation during the era of reionization. The galaxy overdensity may enhance the escape of ionizing photons, making protoclusters crucial in driving the timing and topology of cosmic reionization. We propose to measure the brightest rest-frame-optical emission lines from spectrosopically-confirmed galaxies comprising the largest overdensity yet identified near the midpoint of cosmic reionization, z7OD. Eight protocluster members, identified by their Lyman-alpha emission, are the primary targets for these NIRSpec MOS observations, which will measure rest-frame optical emission lines between the [OII] doublet and hydrogen Balmer alpha lines. We aim to measure the transmission of the IGM in and around an ionized, cosmic bubble, determine the physical properties of the galaxies that ionized the bubble, and compare them to field galaxies at $z > 3.37$ (observed simultaneously). We will measure the Lyman-alpha escape fraction and the Lyman-alpha velocity offset, information required to map spatial variation in IGM transmission. Protoclusters at this redshift are predicted to contain significant amount of cold gas, possibly triggering high specific star formation rates and accelerating the chemical evolution of the galaxies; ideas we will test by directly measuring diagnostic emission-line ratios.

OBSERVING DESCRIPTION

We will image the western ionized bubble of z7OD, a redshift 6.93 protocluster on the edge of the COSMOS field, using NIRCAM and then measure astrometric positions for eight z7OD LAEs and a field sample of ~36 (130) galaxies at redshifts greater than 4.9 (3.37), respectively. Multi-object spectroscopy with NIRSPEC will then provide observed-frame-optical spectra including strong emission lines from H-beta and the [O III] doublet. We chose the high dispersion grating (G395H, R~3700) to resolve line profiles. ETC calculations show no loss of sensitivity (relative to G395M) when G395H spectra are binned because the observations are (zodiacal) background limited. Five MSA configurations are required in order to place the eight LAEs in shutters in the upper left corner of quadrant 3 or 4, thereby covering the H-alpha emission line.

NIRCAM Pre-imaging:

We request NIRCam pre-imaging of five fields with the short (F150W2) and long (F444W) wavelength cameras. A fullbox dither pattern with 6TIGHT spacing was chosen to eliminate detector gaps and create a continuous image following the elongation of the protocluster. With the MEDIUM8 readout pattern, 6 (west) and 8 (east, fainter galaxies) groups in each integration, and two subpixel dithers to improve PSF sampling, the 12 integrations provide exposure tims of 7473 s and 10,049, respectively. We expect to detect y=27.4 LAEs at SNR ratios of 34 and 40 in F150W2 in the west and east mosaics.

NIRSPEC Multi-object Spectroscopy:

We observe five fields. These observations do not require nodding but do require 1 dither (~80 shutters) to cover the wavelength gap. The MSA will be reconfigured following the dither. We designed the first configuration in each field using the automated mode of MPT, a possible PA, a three-shutter slitlet, and the "Entire Open Shutter Area" source centering constraint. Once Observations 2, 4, 6, 8, and 10 are assigned a PA, we will revise the MSA Plans in MPT.

Our H-Balmer line science can be completed with H-beta, but we will make every effort to observe H-alpha for each LAE. Spectral coverage starts at the blocking filter cutoff (2.87 micron) and reaches a shutter-position-dependent maximum wavelength of up to 5.27 micron based on ETC calculations. The redshift of z7OD is the maximum redshift at which NIRSPEC can cover H-alpha. Each MSA configuration covers 1 or 2 Z7OD LAEs, which we place in the upper left corner of quadrant 3 or 4 by adjusting that Plan's RA and DEC. We then use the MSAViz tool to check that the observed wavelength of H-alpha (5.20 - 5.23 micron) falls on the detector, iteratively shifting the pointing to move the LAE into a shutter

further left (NIRSPEC 'X' coordinate). We duplicated this configuration and will manually edit it to include an ~80 shutter shift to close the wavelength gap, again checking the direction to ensure that the H-alpha line still falls on the detector. Spectroscopy at the second position closes the wavelength gap between the detectors, a region where some high-redshift sources will have an H-beta or [O III] line (although all 3 lines never fall in the gap at the same time). We then manually edit the filler galaxies, attempting to add the filler galaxies from the first configuration but replacing those that fall on a permanently closed shutter with another target. The final step in our custom mask design is to open shutters that will measure the sky background. This custom design selects ~7 seven shutters for each science target in the plan, matching the target's X-position on the MSA to obtain the required wavelength coverage. A master background spectrum will be created from the extracted 1D sky spectra.

The full NIRSPEC detector is read out using NRSIRS2, as recommended for deep observations. Four integrations composed of 12 groups each provide a total integration time of 3560 s per configuration at each of the 2 dither positions, or 7120 s total integration. The observation at each dither position is broken into two exposures to accomodate coordinated parallel observations. These MOS observations will detect emission-line fluxes as faint as 9.5e-19 (2.2e-18) ergs/s/cm2 at 3.85 (5.20) micron, respectively. For the brightest z7OD LAEs, the spectra will provide S/N per pixel of 10, 6.4, and 23, respectively, at H-alpha, H-beta, and [O III] 5007.

PARALLEL OBSERVATIONS:
NIRCAM imaging (F090W, F115W, F150W, F200W, F322W2, F410M, and F444W) will be obtained during the NIRSPEC observations. These images provide the first high-resolution, infrared imaging of this area of the COSMOS field, so we expect them to be of use to a wide community. We plan the NIRCAM parallel imaging around the two NIRSPEC configuration (~18" separation in the 'X-direction') and match them to the exposures at each location.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	CATLAE-WEST-FINAL-I	RA: 10 02 23.1148 (150.5963117d) Dec: +02 05 28.47 (2.09124d) Equinox: J2000		
Comments: *Description=[]*				
(2)	CATLAE-WEST-FINAL-II	RA: 10 02 21.4713 (150.5894637d) Dec: +02 05 19.50 (2.08875d) Equinox: J2000		
Comments: *Description=[]*				
(3)	Z7OD-MOSAIC-OBS25	RA: 10 02 37.2906 (150.6553775d) Dec: +02 05 10.42 (2.08623d) Equinox: J2000		
Comments: *Category=Galaxy* *Description=[Lyman-alpha galaxies]* *Extended=YES*				
(7)	Z7OD-MOSAIC-OBS26	RA: 10 02 8.0271 (150.5334462d) Dec: +02 05 38.35 (2.09399d) Equinox: J2000		
Comments: *Category=Galaxy* *Description=[Lyman-alpha galaxies]* *Extended=YES*				
(35)	CATLAE-WEST-FINAL-V	RA: 10 02 23.2621 (150.5969254d) Dec: +02 05 29.68 (2.09158d) Equinox: J2000		
Comments: *Description=[]*				
(36)	CATLAE-WEST-FINAL-IV	RA: 10 02 25.0791 (150.6044962d) Dec: +02 05 19.25 (2.08868d) Equinox: J2000		
Comments: *Description=[]*				
(37)	CATLAE-WEST-FINAL-III	RA: 10 02 23.3943 (150.5974762d) Dec: +02 05 30.03 (2.09167d) Equinox: J2000		
Comments: *Description=[]*				

Observation

Proposal 1635, Observation 52: feb17-NRS-I-246.8-filler Wed Feb 22 20:01:24 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec MultiObject Spectroscopy

Coordinated Parallel Template(s): NIRCam Imaging

Diagnostics

(Visit 52:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	CATLAE-WEST-FINAL-I	RA: 10 02 23.1148 (150.5963117d) Dec: +02 05 28.47 (2.09124d) Equinox: J2000		

Comments:
Description=[]

Acquisition

NIRSpec MultiObject Spectroscopy	Reference Star Bin	Target	Filter	MSA Configuration	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	Filter: CLEAR; Readout: NRSRAPIDD6; 8 sources in 3 quads; [Optimal TA Accuracy]	SAME	CLEAR	Auto Acq MSA Config	NRSRAPIDD6	3	1	4	687.153	

Template

NIRSpec MultiObject Spectroscopy	NIRCam Imaging
TA Method: MSATA	Module: ALL
Obtain Confirmation Images: No	Subarray: FULL
Science Aperture: MSA Center	
Primary Candidate List: LAE-14,1,8,new-a,new-b (5 sources)	
Filler Candidate List: filler-I (713 sources)	
Spectral Overlap Map: jwst-nirspec-g395h	
Spectral Overlap Threshold: 1.5	

Reference Stars

Visit	ID	RA	Dec	Magnitude	Visit	ID	RA	Dec	Magnitude
1	5023	150.564900	2.122981	24.7299	1	5063	150.532065	2.095511	24.8237
1	5029	150.574982	2.118385	24.8930	1	5065	150.530186	2.092844	24.6015
1	5056	150.577524	2.098304	23.6690	1	5066	150.539260	2.092432	24.8249
1	5060	150.536238	2.096261	23.6621	1	5074	150.586814	2.088481	24.9997

Dithers

#	Dither Type
1	NONE

Spectral Elements

NIRSpec MultiObject Spectroscopy	Exposure Specification	MSA Configuration	Nod Pattern	Pointing	Aperture PA	Dispersion Offset (Shutters)	Cross-Dispersion Offset (Shutters)	Total Dithers	Total Integrations	Total Exposure Time
1	1 (G395H/F290LP)	c1		150.55757916666667 Degrees 2.0947222222222224 Degrees	246.79860081317682			1	2	2363.4
2	1 (G395H/F290LP)	c1		150.55757916666667 Degrees 2.0947222222222224 Degrees	246.79861029080587		-2.0	1	2	2363.4
3	1 (G395H/F290LP)	c1		150.55757916666667 Degrees 2.0947222222222224 Degrees	246.79861029080587		-2.0	1	2	2363.4
4	1 (G395H/F290LP)	c1		150.55757916666667 Degrees 2.0947222222222224 Degrees	246.79860081317682			1	2	2363.4

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F090W	F410M	MEDIUM8	7	3	3	1	2211.775	
2	F090W	F410M	MEDIUM8	7	3	3	1	2211.775	
3	F115W	F322W2	MEDIUM8	7	3	3	1	2211.775	
4	F150W	F444W	MEDIUM8	7	3	3	1	2211.775	

Special Requirements

Aperture PA Range 246.8 to 246.8 Degrees (V3 108.2254303 to 108.2254303)
No Parallel Attachments
MSA Scheduled Aperture PA 246.7999997 to 246.7999997 Degrees (V3 108.22543 to 108.22543)

Observation

Proposal 1635, Observation 53: feb18-NRS-II-filler Wed Feb 22 20:01:24 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec MultiObject Spectroscopy

Coordinated Parallel Template(s): NIRCam Imaging

Diagnostics

(Visit 53:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	CATLAE-WEST-FINAL-II	RA: 10 02 21.4713 (150.5894637d) Dec: +02 05 19.50 (2.08875d) Equinox: J2000		

Comments:
Description=[]

Acquisition

NIRSpec MultiObject Spectroscopy	Reference Star Bin	Target	Filter	MSA Configuration	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	Filter: CLEAR; Readout: NRSRAPIDD6; 8 sources in 3 quads; [Optimal TA Accuracy]	SAME	CLEAR	Auto Acq MSA Config	NRSRAPIDD6	3	1	4	687.153	

Template

NIRSpec MultiObject Spectroscopy	NIRCam Imaging
TA Method: MSATA	Module: ALL
Obtain Confirmation Images: No	Subarray: FULL
Science Aperture: MSA Center	
Primary Candidate List: LAE-2,8,newLAE-a,newLAE-b (4 sources)	
Filler Candidate List: filler (770 sources)	
Spectral Overlap Map: jwst-nirspec-g395h	
Spectral Overlap Threshold: 1.5	

Reference Stars

Visit	ID	RA	Dec	Magnitude	Visit	ID	RA	Dec	Magnitude
1	5079	150.513496	2.085941	25.2062	1	5408	150.517258	2.091295	24.5496
1	5370	150.537615	2.062981	24.7700	1	5416	150.511951	2.085460	25.1734
1	5371	150.541147	2.059809	23.8154	1	5419	150.490404	2.082247	24.7511
1	5396	150.529393	2.058697	25.2018	1	5436	150.530493	2.071144	25.1552

Dithers

#	Dither Type
1	NONE

Spectral Elements

NIRSpec MultiObject Spectroscopy	Exposure Specification	MSA Configuration	Nod Pattern	Pointing	Aperture PA	Dispersion Offset (Shutters)	Cross-Dispersion Offset (Shutters)	Total Dithers	Total Integrations	Total Exposure Time
1	1 (G395H/F290LP)	c1		150.51029708333334 Degrees 2.0677277777777 78 Degrees	245.57219265681726			1	2	2217.511
2	1 (G395H/F290LP)	c1		150.51029708333334 Degrees 2.0677277777777 78 Degrees	245.57220191527847		-2.0	1	2	2217.511
3	1 (G395H/F290LP)	c1		150.51029708333334 Degrees 2.0677277777777 78 Degrees	245.57220191527847		-2.0	1	2	2217.511
4	1 (G395H/F290LP)	c1		150.51029708333334 Degrees 2.0677277777777 78 Degrees	245.57219265681726			1	2	2217.511

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F090W	F410M	MEDIUM8	10	2	2	1	2115.144	
2	F090W	F410M	MEDIUM8	10	2	2	1	2115.144	
3	F115W	F322W2	MEDIUM8	10	2	2	1	2115.144	
4	F150W	F444W	MEDIUM8	10	2	2	1	2115.144	

Special Requirements

No Parallel Attachments
MSA Scheduled Aperture PA 245.5750697 to 245.5750697 Degrees (V3 107.0005 to 107.0005)

Observation

Proposal 1635, Observation 54: feb19-NRS-III-245.623-filler Wed Feb 22 20:01:24 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec MultiObject Spectroscopy

Coordinated Parallel Template(s): NIRCam Imaging

Diagnostics

(Visit 54:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(37)	CATLAE-WEST-FINAL-III	RA: 10 02 23.3943 (150.5974762d) Dec: +02 05 30.03 (2.09167d) Equinox: J2000		

Comments:
Description=[]

Acquisition

NIRSpec MultiObject Spectroscopy	Reference Star Bin	Target	Filter	MSA Configuration	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	Filter: CLEAR; Readout: NRSRAPIDD6; 8 sources in 4 quads; [Optimal TA Accuracy]	SAME	CLEAR	Auto Acq MSA Config	NRSRAPIDD6	3	1	4	687.153	

Template

NIRSpec MultiObject Spectroscopy	NIRCam Imaging
TA Method: MSATA	Module: ALL
Obtain Confirmation Images: No	Subarray: FULL
Science Aperture: MSA Center	
Primary Candidate List: LAE-11,10,new16 (12 sources)	
Filler Candidate List: NRS-III-filler (770 sources)	
Spectral Overlap Map: jwst-nirspec-g395h	
Spectral Overlap Threshold: 1.5	

Reference Stars

Visit	ID	RA	Dec	Magnitude	Visit	ID	RA	Dec	Magnitude
1	5168	150.678918	2.117753	24.6654	1	5241	150.688487	2.088680	23.7080
1	5204	150.678151	2.102502	24.8518	1	5246	150.649555	2.086118	24.9752
1	5221	150.639563	2.093522	24.7166	1	5254	150.683773	2.084481	24.5732
1	5229	150.633804	2.091929	24.9225	1	5293	150.662644	2.064850	24.7256

Dithers

#	Dither Type
1	NONE

Spectral Elements

NIRSpec MultiObject Spectroscopy	Exposure Specification	MSA Configuration	Nod Pattern	Pointing	Aperture PA	Dispersion Offset (Shutters)	Cross-Dispersion Offset (Shutters)	Total Dithers	Total Integrations	Total Exposure Time
1	1 (G395H/F290LP)	c1		150.665056666666666 Degrees 2.0877944444444445 Degrees	245.62542164161897			1	2	2363.4
2	1 (G395H/F290LP)	c1		150.665056666666666 Degrees 2.0877944444444445 Degrees	245.62543099804665		-2.0	1	2	2363.4
3	1 (G395H/F290LP)	c1		150.665056666666666 Degrees 2.0877944444444445 Degrees	245.62543099804665		-2.0	1	2	2363.4
4	1 (G395H/F290LP)	c1		150.665056666666666 Degrees 2.0877944444444445 Degrees	245.62542164161897			1	2	2363.4

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F090W	F410M	MEDIUM8	7	3	3	1	2211.775	
2	F090W	F410M	MEDIUM8	7	3	3	1	2211.775	
3	F115W	F322W2	MEDIUM8	7	3	3	1	2211.775	
4	F150W	F444W	MEDIUM8	7	3	3	1	2211.775	

Special Requirements

Aperture PA Range 245.623 to 245.623 Degrees (V3 107.0484303 to 107.0484303)
No Parallel Attachments
MSA Scheduled Aperture PA 245.6229997 to 245.6229997 Degrees (V3 107.04843 to 107.04843)

Observation

Proposal 1635, Observation 55: feb18-NRS-IV-245.666-filler Wed Feb 22 20:01:24 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec MultiObject Spectroscopy

Coordinated Parallel Template(s): NIRCam Imaging

Diagnostics

(Visit 55:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(36)	CATLAE-WEST-FINAL-IV	RA: 10 02 25.0791 (150.6044962d) Dec: +02 05 19.25 (2.08868d) Equinox: J2000		

Comments:
Description=[]

Acquisition

NIRSpec MultiObject Spectroscopy	Reference Star Bin	Target	Filter	MSA Configuration	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	Filter: CLEAR; Readout: NRSRAPIDD6; 8 sources in 4 quads; [Optimal TA Accuracy]	SAME	CLEAR	Auto Acq MSA Config	NRSRAPIDD6	3	1	4	687.153	

Template

NIRSpec MultiObject Spectroscopy	NIRCam Imaging
TA Method: MSATA	Module: ALL
Obtain Confirmation Images: No	Subarray: FULL
Science Aperture: MSA Center	
Primary Candidate List: LAE-15,2nd-LAE-13,16,nLAE-d (13 sources)	
Filler Candidate List: CAT-IV-filler (777 sources)	
Spectral Overlap Map: jwst-nirspec-g395h	
Spectral Overlap Threshold: 1.5	

Reference Stars

Visit	ID	RA	Dec	Magnitude	Visit	ID	RA	Dec	Magnitude
1	5213	150.640055	2.096143	24.3466	1	5511	150.607570	2.065292	24.0965
1	5225	150.607639	2.092384	24.3927	1	5520	150.597917	2.078885	23.6257
1	5246	150.649555	2.086118	24.9752	1	5521	150.605174	2.078065	24.9641
1	5272	150.605194	2.077208	23.4646	1	5532	150.615869	2.063491	24.5799

Dithers

#	Dither Type
1	NONE

Spectral Elements

NIRSpec MultiObject Spectroscopy	Exposure Specification	MSA Configuration	Nod Pattern	Pointing	Aperture PA	Dispersion Offset (Shutters)	Cross-Dispersion Offset (Shutters)	Total Dithers	Total Integrations	Total Exposure Time
1	1 (G395H/F290LP)	c1		150.62669041666666 Degrees 2.0809583333333337 Degrees	245.66680936609927			1	2	2363.4
2	1 (G395H/F290LP)	c1		150.62669041666666 Degrees 2.0809583333333337 Degrees	245.66680003992735		2.0	1	2	2363.4
3	1 (G395H/F290LP)	c1		150.62669041666666 Degrees 2.0809583333333337 Degrees	245.66680003992735		2.0	1	2	2363.4
4	1 (G395H/F290LP)	c1		150.62669041666666 Degrees 2.0809583333333337 Degrees	245.66680936609927			1	2	2363.4

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F090W	F410M	MEDIUM8	7	3	3	1	2211.775	
2	F090W	F410M	MEDIUM8	7	3	3	1	2211.775	
3	F115W	F322W2	MEDIUM8	7	3	3	1	2211.775	
4	F150W	F444W	MEDIUM8	7	3	3	1	2211.775	

Special Requirements

No Parallel Attachments
MSA Scheduled Aperture PA 245.6662447 to 245.6662447 Degrees (V3 107.091675 to 107.091675)

Observation

Proposal 1635, Observation 56: feb19-NRS-V-filler Wed Feb 22 20:01:24 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec MultiObject Spectroscopy

Coordinated Parallel Template(s): NIRCam Imaging

Diagnostics

(Visit 56:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(35)	CATLAE-WEST-FINAL-V	RA: 10 02 23.2621 (150.5969254d) Dec: +02 05 29.68 (2.09158d) Equinox: J2000		

Comments:
Description=[]

Acquisition

NIRSpec MultiObject Spectroscopy	Reference Star Bin	Target	Filter	MSA Configuration	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	Filter: CLEAR; Readout: NRSRAPIDD6; 8 sources in 4 quads; [Optimal TA Accuracy]	SAME	CLEAR	Auto Acq MSA Config	NRSRAPIDD6	3	1	4	687.153	

Template

NIRSpec MultiObject Spectroscopy	NIRCam Imaging
TA Method: MSATA	Module: ALL
Obtain Confirmation Images: No	Subarray: FULL
Science Aperture: MSA Center	
Primary Candidate List: LAE-13,11,10,16,22 (12 sources)	
Filler Candidate List: NRS-V-filler (777 sources)	
Spectral Overlap Map: jwst-nirspec-g395h	
Spectral Overlap Threshold: 1.5	

Reference Stars

Visit	ID	RA	Dec	Magnitude	Visit	ID	RA	Dec	Magnitude
1	5168	150.678918	2.117753	24.6654	1	5229	150.633804	2.091929	24.9225
1	5213	150.640055	2.096143	24.3466	1	5254	150.683773	2.084481	24.5732
1	5221	150.639563	2.093522	24.7166	1	5261	150.684338	2.082512	25.1182
1	5226	150.636570	2.092320	25.4806	1	5293	150.662644	2.064850	24.7256

Dithers

#	Dither Type
1	NONE

Spectral Elements

NIRSpec MultiObject Spectroscopy	Exposure Specification	MSA Configuration	Nod Pattern	Pointing	Aperture PA	Dispersion Offset (Shutters)	Cross-Dispersion Offset (Shutters)	Total Dithers	Total Integrations	Total Exposure Time
1	1 (G395H/F290LP)	c1		150.66115000000002 Degrees 2.0965583333333333 Degrees	245.73428519441336			1	2	2363.4
2	1 (G395H/F290LP)	c1		150.66115000000002 Degrees 2.0965583333333333 Degrees	245.73427579002083		2.0	1	2	2363.4
3	1 (G395H/F290LP)	c1		150.66115000000002 Degrees 2.0965583333333333 Degrees	245.73427579002083		2.0	1	2	2363.4
4	1 (G395H/F290LP)	c1		150.66115000000002 Degrees 2.0965583333333333 Degrees	245.73428519441336			1	2	2363.4

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F090W	F410M	MEDIUM8	7	3	3	1	2211.775	
2	F090W	F410M	MEDIUM8	7	3	3	1	2211.775	
3	F115W	F322W2	MEDIUM8	7	3	3	1	2211.775	
4	F150W	F444W	MEDIUM8	7	3	3	1	2211.775	

Special Requirements

No Parallel Attachments
MSA Scheduled Aperture PA 245.7322897 to 245.7322897 Degrees (V3 107.15772 to 107.15772)

Observation

Proposal 1635, Observation 25

Wed Feb 22 20:01:24 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Diagnostics

(Visit 25:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Visit 25:2) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Visit 25:3) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	Z7OD-MOSAIC-OBS25	RA: 10 02 37.2906 (150.6553775d) Dec: +02 05 10.42 (2.08623d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Lyman-alpha galaxies]
Extended=YES

Template

Module	Subarray
ALL	FULL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift	Column shift	Tile Order
3	1	0.0	0.0	-18.0	0.0	DEFAULT

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	FULLBOX	6TIGHT	SMALL-GRID-DITHER		2

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F150W2	F444W	SHALLOW4	10	1	12	12	6313.221	

Special Requirements	
	Group Visits within 53.0 Days Aperture PA Range 297 to 297 Degrees (V3 297.0713531 to 297.0713531) Visits Same PA Background Limited. Background no more than 50th percentile above minimum

Observation

Proposal 1635, Observation 26 Wed Feb 22 20:01:24 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Diagnostics

(Visit 26:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Visit 26:2) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Visit 26:3) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(7)	Z7OD-MOSAIC-OBS26	RA: 10 02 8.0271 (150.5334462d) Dec: +02 05 38.35 (2.09399d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Lyman-alpha galaxies]
Extended=YES

Template

Module	Subarray
ALL	FULL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift	Column shift	Tile Order
3	1	0.0	0.0	0.0	0.0	DEFAULT

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	FULLBOX	6TIGHT	SMALL-GRID-DITHER		2

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F150W2	F444W	SHALLOW4	10	1	12	12	6313.221	

Special Requirements	
	Group Visits within 53.0 Days Aperture PA Range 293 to 293 Degrees (V3 293.0713531 to 293.0713531) Visits Same PA Background Limited. Background no more than 50th percentile above minimum