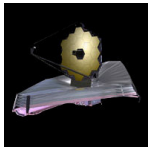

1207 - MIRI in the Hubble Ultra-Deep Field

Cycle: 1, Proposal Category: GTO

INVESTIGATORS

Name	*Institution*
Dr. George Rieke (PI)	**University of Arizona**
Dr. Stacey Alberts (CoI)	University of Arizona
Dr. Irene Shivaei (CoI)	University of Arizona
Dr. Jianwei Lyu (CoI)	University of Arizona
Dr. Jane Morrison (CoI)	University of Arizona

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
HUDF MIRI Imaging Survey				
	1	Mosaic	MIRI Imaging	(1) XDF-OFFCENTER
	5	Mosaic Copy of Tile-2	MIRI Imaging	(10) XDF-OFFCENTER-TILE-2
	6	Mosaic Copy of Tile-6	MIRI Imaging	(11) XDF-OFFCENTER-TILE-6
HUDF NIRSpec Follow-up				
	2	HUDF_NS1_june23	NIRSpec MultiObject Spectroscopy	(15) final_merged_23june2023
	3	HUDF_NS2_June23	NIRSpec MultiObject Spectroscopy	(15) final_merged_23june2023
	4	HUDF_NS3_June23	NIRSpec MultiObject Spectroscopy	(15) final_merged_23june2023

ABSTRACT

We plan a MIRI multi-band survey in the GOODS-S/HUDF region, covering about 30 square arcmin and using all the MIRI imaging bands. Selected galaxies from this survey will be observed with NIRSpec at R = 1000 and from 1 to 5.2 microns. We will model the photometry to separate AGNs from star forming galaxies. We expect to find 30 - 40 AGN of known types and detected at 10:1 signal to noise or higher at 21 microns. We should be able to identify any previously unknown obscured AGNs, and with the deep X-ray, optical and radio data in the same field should obtain a

complete sample of these objects. This same survey will provide high quality measurements of some 2000 star forming galaxies. We will compare star formation rates determined from X-rays, hydrogen recombination lines, UV, and mid-infrared to calibrate these indicators at z = 2. We will also use the spectra to estimate metallicities and study the dependence of the aromatic bands and other properties of the galaxies on this parameter. Together these measurements will let us determine accurate SFR densities, luminosity functions, and other parameters relevant to galaxy evolution.

GRIEKE_4001-4011

OBSERVING DESCRIPTION

This program will be executed in two parts. First, MIRI imaging in 8 bands will be obtained in a 3x5 mosaic of the HUDF/GOODS-S region. The mosaic position was chosen to optimize overlap with the NIRCam GTO HUDF/GOODS-S program. AGN can be identified by their SEDs filling in the minimum in star forming galaxy SEDs near rest 4.5 microns. We are developing techniques based on the relative flux densities in the MIRI and some of the NIRCam bands for rapid separation of AGN from star forming galaxies, whose spectra not only have the aforementioned minimum but also are characterized by strong aromatic emission features. Deriving robust star formation rates from 21 micron photometry of highly luminous galaxies (i.e. ULIRGs) will require: 1.) distinguishing nuclear- concentrated star formation from galaxies where the SF is distributed over the disk, an issue for z < 1 (Rujopakarn et et al. 2013; Shipley et al. 2016); and 2.) determining in which cases the 21 microns output is contaminated by AGN. The mid-IR spectral energy distribution can be used as a proxy for the central concentration of star forming galaxies. JWST photometry can help select the appropriate spectral template through comparing the behavior of the output of the aromatic bands, which are dominant for 6 - 13 microns, with that of the dust grains that dominate the emission at 13 - 30 microns. For example, the MIRI photometric bands at 12.8 microns and 21 microns sample these two spectral components separately for 0 < z < 0.6. Their relative behavior can be expressed by the ratio of the flux densities in the two bands. Using the templates suggested by Rujopakarn et al. (2013), the ratio f(12.8)/f(21) for (low central concentration) over (high central concentration) is a factor of 1.5 or more over this redshift range. This approach can be extended to z = 1 by using the 15 micron and 25.5 micron bands. A relatively short integration in the latter band suffices for this application. AGN contamination can be identified with moderately deep observations in the additional MIRI bands, and the results can be tested with the ancillary datasets (e.g., deep X-ray and radio). Finally, the most luminous and embedded star forming galaxies can be identified from previous ultradeep surveys with Spitzer and Herschel, plus the high resolution (0.35 arcsec) and deep radio observations in this region.

This MIRI imaging, together with the NIRCam GTO imaging, will then be used to select targets for NIRSpec MOS follow-up. Two pointings with NIRSpec will obtain R=1000, 1-5um spectra for selected targets. The target selection will prioritize conditional targets identified with MIRI (color-selected AGN, etc) and other interesting sources relevant to this program (radio sources, proto-cluster members, etc). Accurate positions will be

determined through NIRCam imaging. As NIRSpec MOS follow-up in this proposal requires both MIRI and NIRCam pre-imaging, it is required that the NIRSpec follow-up not be scheduled for at least 60 days following the MIRI or NIRCam imaging, whichever is observed last. Background subtraction for the NIRSpec MSA will be done using the master background strategy with "blank sky" shutters.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	XDF-OFFCENTER	RA: 03 32 34.8000 (53.1450000d) Dec: -27 48 32.60 (-27.80906d) Equinox: J2000		
Comments: This pointing is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed. *Category=Unidentified* *Description=[Blank field]*				
(10)	XDF-OFFCENTER-TILE-2	RA: 03 32 34.8197 (53.1450821d) Dec: -27 46 24.18 (-27.77338d) Equinox: J2000		
Comments: This pointing is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed. *Category=Unidentified* *Description=[Blank field]*				
(11)	XDF-OFFCENTER-TILE-6	RA: 03 32 43.6768 (53.1819867d) Dec: -27 47 41.43 (-27.79484d) Equinox: J2000		
Comments: This pointing is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed. *Category=Unidentified* *Description=[Blank field]*				
(15)	final_merged_23june2023	RA: 03 32 35.9714 (53.1498808d) Dec: -27 47 59.97 (-27.79999d) Equinox: J2000		
Comments: *Description=[]*				

Observation

Proposal 1207, Observation 1: Mosaic Mon Jun 26 14:00:48 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Comments: This mosaic is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed.

The exposure times at the long wavelengths, particular 21um, have a margin against higher backgrounds of ~30%. If on-orbit backgrounds prove to be higher than projected, the exposure times will have to be revisited.

We have opted for a 5% overlap to maximize the area covered by this survey. This will result in some minimal coverage (~2 dithers) in the knife-edge gap.

Diagnostics

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:2) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:3) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:4) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:5) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:6) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:7) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:8) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:9) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:10) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:11) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:12) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:13) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:14) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 1:15) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	XDF-OFFCENTER	RA: 03 32 34.8000 (53.1450000d) Dec: -27 48 32.60 (-27.80906d) Equinox: J2000		

Comments: This pointing is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed.
Category=Unidentified
Description=[Blank field]

Template

Subarray
FULL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
5	3	5.0	5.0	0.0	0.0	HILBERT_CURVE

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	4-Point-Sets	1	4		5	1	POINT SOURCE	POSITIVE	SMALL

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F560W	FASTR1	59	1	1	Dither 1	4	4	654.909	
2	F770W	FASTR1	78	1	1	Dither 1	4	4	865.812	
3	F1000W	FASTR1	58	1	1	Dither 1	4	4	643.809	
4	F1280W	FASTR1	68	1	1	Dither 1	4	4	754.811	
5	F1500W	FASTR1	101	1	1	Dither 1	4	4	1121.116	
6	F1800W	FASTR1	68	1	1	Dither 1	4	4	754.811	
7	F2100W	FASTR1	32	6	1	Dither 1	4	24	2186.732	
8	F2550W	FASTR1	18	4	1	Dither 1	4	16	832.512	

Special Requirements

Group Visits within 53.0 Days
Aperture PA Range 33 to 33 Degrees (V3 28.16455103 to 28.16455103)
Visits Same PA

Observation

Proposal 1207, Observation 5: Mosaic Copy of Tile-2 Mon Jun 26 14:00:48 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Comments: This mosaic is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed.

The exposure times at the long wavelengths, particular 21um, have a margin against higher backgrounds of ~30%. If on-orbit backgrounds prove to be higher than projected, the exposure times will have to be revisited.

We have opted for a 5% overlap to maximize the area covered by this survey. This will result in some minimal coverage (~2 dithers) in the knife-edge gap.

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(10)	XDF-OFFCENTER-TILE-2	RA: 03 32 34.8197 (53.1450821d) Dec: -27 46 24.18 (-27.77338d) Equinox: J2000		

Comments: This pointing is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed.
Category=Unidentified
Description=[Blank field]

Template

Subarray
FULL

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	4-Point-Sets	1	4		5	1	POINT SOURCE	POSITIVE	SMALL

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F560W	FASTR1	59	1	1	Dither 1	4	4	654.909	
2	F770W	FASTR1	78	1	1	Dither 1	4	4	865.812	
3	F1000W	FASTR1	58	1	1	Dither 1	4	4	643.809	
4	F1280W	FASTR1	68	1	1	Dither 1	4	4	754.811	
5	F1500W	FASTR1	101	1	1	Dither 1	4	4	1121.116	
6	F1800W	FASTR1	68	1	1	Dither 1	4	4	754.811	
7	F2100W	FASTR1	32	6	1	Dither 1	4	24	2186.732	
8	F2550W	FASTR1	18	4	1	Dither 1	4	16	832.512	

Special Requirements	Aperture PA Range 33 to 83 Degrees (V3 28.16455103 to 78.16455103)

Observation

Proposal 1207, Observation 6: Mosaic Copy of Tile-6 Mon Jun 26 14:00:48 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Comments: This mosaic is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed.

The exposure times at the long wavelengths, particular 21um, have a margin against higher backgrounds of ~30%. If on-orbit backgrounds prove to be higher than projected, the exposure times will have to be revisited.

We have opted for a 5% overlap to maximize the area covered by this survey. This will result in some minimal coverage (~2 dithers) in the knife-edge gap.

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(11)	XDF-OFFCENTER-TILE-6	RA: 03 32 43.6768 (53.1819867d) Dec: -27 47 41.43 (-27.79484d) Equinox: J2000		

Comments: This pointing is roughly centered on the XDF and the proposed location of NIRCam GTO imaging (MRIEKE_0001-0068). Exact positioning will rely on the launch date and final PA of the NIRCam GTO program. When this information is available, this pointing center and PA will be re-assessed.
Category=Unidentified
Description=[Blank field]

Template

Subarray
FULL

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	4-Point-Sets	1	4		5	1	POINT SOURCE	POSITIVE	SMALL

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F560W	FASTR1	59	1	1	Dither 1	4	4	654.909	
2	F770W	FASTR1	78	1	1	Dither 1	4	4	865.812	
3	F1000W	FASTR1	58	1	1	Dither 1	4	4	643.809	
4	F1280W	FASTR1	68	1	1	Dither 1	4	4	754.811	
5	F1500W	FASTR1	101	1	1	Dither 1	4	4	1121.116	
6	F1800W	FASTR1	68	1	1	Dither 1	4	4	754.811	
7	F2100W	FASTR1	32	6	1	Dither 1	4	24	2186.732	
8	F2550W	FASTR1	18	4	1	Dither 1	4	16	832.512	

Special Requirements	Aperture PA Range 33 to 83 Degrees (V3 28.16455103 to 78.16455103)

Observation

Proposal 1207, Observation 2: HUDF_NS1_june23 Mon Jun 26 14:00:48 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec MultiObject Spectroscopy

Comments: Jun 22, 2023: this observation has been updated with the final MSA configuration based on JWST target selection

This observation is a place holder for a NIRSpec pointing with this exposure set-up. The final NIRSpec pointing and MSA slit configuration is dependent on conditional targets identified through MIRI and NIRCam pre-imaging.

As NIRSpec MOS follow-up in this proposal requires both MIRI and NIRCam pre-imaging, it is required that the NIRSpec follow-up not be scheduled for at least 60 days following the MIRI or NIRCam imaging, whichever is observed last.

Background subtraction for the MSA will be done using the master background strategy with "blank sky" shutters.

Diagnostics

(HUDF_NS1_june23 (Obs 2)) Warning (Form): Config c1 (#1) has 11 primary slit traces affected by failed open shutters.

(HUDF_NS1_june23 (Obs 2)) Warning (Form): Config c1 (#1) has 73 master background shutters affected by failed open or closed shutters.

(HUDF_NS1_june23 (Obs 2)) Warning (Form): Config c1 (#2) has 11 primary slit traces affected by failed open shutters.

(HUDF_NS1_june23 (Obs 2)) Warning (Form): Config c1 (#2) has 73 master background shutters affected by failed open or closed shutters.

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(15)	final_merged_23june2023	RA: 03 32 35.9714 (53.1498808d) Dec: -27 47 59.97 (-27.79999d) Equinox: J2000		

Comments:
Description=[]

Acquisition

#	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

TA Method	Obtain Confirmation Images	Science Aperture	Primary Candidate List	Filler Candidate List	Spectral Overlap Map	Spectral Overlap Threshold
MSATA	No	MSA Center	final_merged_23june2023 (297 sources)		jwst-nirspec-mr	1.5

Reference Stars

Visit	ID	RA	Dec	Magnitude	Visit	ID	RA	Dec	Magnitude
1	47506	53.176515	-27.789777	24.937	1	57631	53.151750	-27.763535	25.209
1	49402	53.198447	-27.784944	23.945	1	58342	53.154283	-27.761413	24.965
1	49729	53.178503	-27.784107	23.756	1	62499	53.195631	-27.748089	23.916
1	54063	53.152899	-27.772573	24.279	1	10012297	53.197747	-27.767834	24.081

Spectral Elements

#	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 (G140M/F100LP)	c1	3 Shutter Slitlet	53.17715 Degrees -27.764524999999992 Degrees	29.059134614107787			3	6	7090.201
2	2 (G235M/F170LP)	c1	3 Shutter Slitlet	53.17715 Degrees -27.764524999999992 Degrees	29.059134614107787			3	6	7090.201

Special Requirements

MSA Scheduled Aperture PA 29.0718 to 29.0718 Degrees (V3 250.49724 to 250.49724)

Group Observations 2, 3, 4 within 30 Days

Observation

Proposal 1207, Observation 3: HUDF_NS2_June23 Mon Jun 26 14:00:48 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec MultiObject Spectroscopy

Comments: Jun 22, 2023: this observation has been updated with the final MSA configuration based on JWST target selection

This observation is a place holder for a NIRSPec pointing with this exposure set-up. The final NIRSpec pointing and MSA slit configuration is dependent on conditional targets identified through MIRI and NIRCam pre-imaging.

As NIRSpec MOS follow-up in this proposal requires both MIRI and NIRCam pre-imaging, it is required that the NIRSpec follow-up not be scheduled for at least 60 days following the MIRI or NIRCam imaging, whichever is observed last.

Background subtraction for the MSA will be done using the master background strategy with "blank sky" shutters.

Diagnostics

(HUDF_NS2_June23 (Obs 3)) Warning (Form): Config c1 (#1) has 10 primary slit traces affected by failed open shutters.

(HUDF_NS2_June23 (Obs 3)) Warning (Form): Config c1 (#1) has 62 master background shutters affected by failed open or closed shutters.

(HUDF_NS2_June23 (Obs 3)) Warning (Form): Config c1 (#2) has 10 primary slit traces affected by failed open shutters.

(HUDF_NS2_June23 (Obs 3)) Warning (Form): Config c1 (#2) has 62 master background shutters affected by failed open or closed shutters.

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(15)	final_merged_23june2023	RA: 03 32 35.9714 (53.1498808d) Dec: -27 47 59.97 (-27.79999d) Equinox: J2000		

Comments:
Description=[]

Acquisition

#	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

TA Method	Obtain Confirmation Images	Science Aperture	Primary Candidate List	Filler Candidate List	Spectral Overlap Map	Spectral Overlap Threshold
MSATA	No	MSA Center	final_merged_23june2023 (297 sources)		jwst-nirspec-mr	1.5

Reference Stars

Visit	ID	RA	Dec	Magnitude	Visit	ID	RA	Dec	Magnitude
1	37598	53.130416	-27.814584	23.85	1	50947	53.176348	-27.780933	24.931
1	45461	53.124260	-27.795437	24.135	1	53679	53.127163	-27.773670	24.6
1	47506	53.176515	-27.789777	24.937	1	54612	53.144680	-27.771185	24.593
1	47522	53.162563	-27.789724	24.386	1	55541	53.144267	-27.769134	24.888

Spectral Elements

#	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 (G140M/F100LP)	c1	3 Shutter Slitlet	53.150174166666666 Degrees -27.797147222222236 Degrees	29.581068662332978			3	6	7090.201
2	2 (G235M/F170LP)	c1	3 Shutter Slitlet	53.150174166666666 Degrees -27.797147222222236 Degrees	29.581068662332978			3	6	7090.201

Special Requirements

MSA Scheduled Aperture PA 29.5812 to 29.5812 Degrees (V3 251.00662 to 251.00662)

Group Observations 2, 3, 4 within 30 Days

Observation

Proposal 1207, Observation 4: HUDF_NS3_June23 Mon Jun 26 14:00:48 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec MultiObject Spectroscopy

Comments: Jun 22, 2023: this observation has been updated with the final MSA configuration based on JWST target selection

This observation is a place holder for a NIRSPec pointing with this exposure set-up. The final NIRSpec pointing and MSA slit configuration is dependent on conditional targets identified through MIRI and NIRCam pre-imaging.

As NIRSpec MOS follow-up in this proposal requires both MIRI and NIRCam pre-imaging, it is required that the NIRSpec follow-up not be scheduled for at least 60 days following the MIRI or NIRCam imaging, whichever is observed last.

Background subtraction for the MSA will be done using the master background strategy with "blank sky" shutters.

Diagnostics

(HUDF_NS3_June23 (Obs 4)) Warning (Form): Config c1 (#1) has 76 master background shutters affected by failed open or closed shutters.

(HUDF_NS3_June23 (Obs 4)) Warning (Form): Config c1 (#1) has 8 primary slit traces affected by failed open shutters.

(HUDF_NS3_June23 (Obs 4)) Warning (Form): Config c1 (#2) has 76 master background shutters affected by failed open or closed shutters.

(HUDF_NS3_June23 (Obs 4)) Warning (Form): Config c1 (#2) has 8 primary slit traces affected by failed open shutters.

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

(Visit 4:1) Warning (Form): The recommended value is 8 Reference Stars for this template.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(15)	final_merged_23june2023	RA: 03 32 35.9714 (53.1498808d) Dec: -27 47 59.97 (-27.79999d) Equinox: J2000		

Comments:
Description=[]

Acquisition

#	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; 7 sources in 4 quads; [Optimal TA Accuracy]	SAME	CLEAR	Auto Acq MSA Config	NRSRAPIDD6	3	1	4	687.153	

Template

TA Method	Obtain Confirmation Images	Science Aperture	Primary Candidate List	Filler Candidate List	Spectral Overlap Map	Spectral Overlap Threshold
MSATA	No	MSA Center	final_merged_23june2023 (297 sources)		jwst-nirspec-mr	1.5

Reference Stars

Visit	ID	RA	Dec	Magnitude	Visit	ID	RA	Dec	Magnitude
1	36735	53.175811	-27.816629	25.188	1	185535	53.144626	-27.851608	25.02
1	40004	53.126749	-27.808927	24.183	1	191924	53.112620	-27.834060	24.67
1	41123	53.129049	-27.806437	25.116	1	192856	53.115990	-27.831183	24.76
1	41981	53.166728	-27.804240	25.005					

Spectral Elements

#	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 (G140M/F100LP)	c1	3 Shutter Slitlet	53.135686666666665 Degrees -27.821241666666665 Degrees	29.00818690775197			3	6	7090.201
2	2 (G235M/F170LP)	c1	3 Shutter Slitlet	53.135686666666665 Degrees -27.821241666666665 Degrees	29.00818690775197			3	6	7090.201

Special Requirements

MSA Scheduled Aperture PA 29.0016 to 29.0016 Degrees (V3 250.42705 to 250.42705)

Group Observations 2, 3, 4 within 30 Days