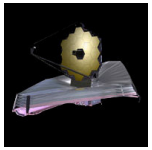

2733 - JWST Early Release Observation 7

Cycle: 0, Proposal Category: COM/ERO

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Imaging				
	1	NGC 3132 NIRCam imaging	NIRCam Imaging	(1) NGC-3132
	2	NGC 3132 MIRI Imaging	MIRI Imaging	(1) NGC-3132

ABSTRACT

ERO of the planetary nebula NGC 3132 (AKA the southern ring). This proposal contains NIRCam and MIRI imaging.

OBSERVING DESCRIPTION

ERO of the planetary nebula NGC 3132 (AKA the southern ring). This ERO is NIRCam and MIRI imaging only, no spectroscopy. NGC3132 is characterized by strong ionized and H2 lines (Monreal-Ibero et al, 2021; Mata et al. 2016).

NIRCam imaging: NGC 3132 is dominated by emission from Hydrogen recombination lines, H2 rotational lines, and ionized lines like [NeII]. We target the nebula with a combination of broad-band and narrow-band filters: F090W for the background stellar field and scattered light on dust. F356W to detect any PAH emission plus get stellar colors in combination with F090W. F187N for the bright PaAlpha line, F405N for the BrAlpha (the color ratio of Br + Pa will reveal e temperature differences), F212N and F470N to detect H2 emission. The narrow-band filter exposure times are set to get very high SNR on the PaAlpha line while not saturating. The broad-band exposure time are set according to Spitzer IRAC images. The nebula is contained within NIRCam module B, and we use the INTRAMODULEX dither pattern with 8 pointings to get uniform coverage.

MIRI imaging: Integrations are set according to Spitzer IRAC and MIPS images. We target the 11.3 micron PAH specifically, as it is seen in the Spitzer spectrum. We also target F1280W to measure the known bright [NeII] line. We use the 8-point cycling dither pattern, and 2 mosaic tiles to roughly cover the NIRCam module B field.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	NGC-3132	RA: 10 07 1.2322 (151.7551342d) Dec: -40 26 14.74 (-40.43743d) Equinox: J2000	Proper Motion RA: -6.738261352264727E-4 sec of time/yr Proper Motion Dec: 4.1099999999999996E-4 arcsec/yr Epoch of Position: 2015.5	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[Planetary nebulae]

Observation

Proposal 2733, Observation 1: NGC 3132 NIRCam imaging

Mon May 16 20:01:36 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Diagnostics

(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)	NGC-3132	RA: 10 07 1.2322 (151.7551342d) Dec: -40 26 14.74 (-40.43743d) Equinox: J2000	Proper Motion RA: -6.738261352264727E-4 sec of time/yr Proper Motion Dec: 4.1099999999999996E-4 arcsec/yr Epoch of Position: 2015.5	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[Planetary nebulae]

Template

Module	Subarray
B	FULL

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEX	8	STANDARD		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	F212N	F405N+F444W	SHALLOW2	6	1	8	8	2319.142	
2	F187N	F470N+F444W	SHALLOW2	6	1	8	8	2319.142	
3	F090W	F356W	BRIGHT1	9	1	8	8	1460.201	

Special Requirements

Aperture PA Range 111.02984889 to 112.02984889 Degrees (V3 111.0 to 112.0)

Observation

Proposal 2733, Observation 2: NGC 3132 MIRI Imaging Mon May 16 20:01:36 GMT 2022

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Diagnostics

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

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	NGC-3132	RA: 10 07 1.2322 (151.7551342d) Dec: -40 26 14.74 (-40.43743d) Equinox: J2000	Proper Motion RA: -6.738261352264727E-4 sec of time/yr Proper Motion Dec: 4.1099999999999996E-4 arcsec/yr Epoch of Position: 2015.5	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=ISM
Description=[Planetary nebulae]

Template

Subarray
FULL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift	Column shift	Tile Order
1	2	20.0	20.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	CYCLING	1	8		1	1			LARGE

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F770W	FASTR1	30	2	1	Dither 1	8	16	1354.22	
2	F1130W	FASTR1	30	2	1	Dither 1	8	16	1354.22	
3	F1280W	FASTR1	30	2	1	Dither 1	8	16	1354.22	
4	F1800W	FASTR1	30	2	1	Dither 1	8	16	1354.22	

Special Requirements	
	Group Visits within 53.0 Days Aperture PA Range 124.83425324 to 125.83425324 Degrees (V3 120.0 to 121.0) Visits Same PA Offset -4.895646875184153 arcsec, -3.767351334238865 arcsec