



6559 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

Cycle: 2, Proposal Category: CAL/MIRI

INVESTIGATORS

<i>Name</i>	<i>Institution</i>
Dr. Jonathan Aguilar (PI)	Space Telescope Science Institute

OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
MASK1065				
	1	1065	MIRI Coronagraphic Imaging	(1) HD-167855A
MASK1140				
	4	1140	MIRI Coronagraphic Imaging	(1) HD-167855A
MASK1550				
	7	1550	MIRI Coronagraphic Imaging	(1) HD-167855A
MASKLYOT				
	10	LYOT	MIRI Coronagraphic Imaging	(1) HD-167855A

ABSTRACT

MIRI coronagraphy with FULL-FRAME readout is a new observing mode available for Cycle 3 which reads out the entire detector, including the Imager field of view. Previous coronagraphic observations could only be configured for subarray readout. This observing program tests MIRI FULL-FRAME coronagraphy for all four coronagraphic configurations. It includes only a single observation of a binary star with each of the four coronagraphs, but does not include any backgrounds or observations of PSF reference stars. These observations will test the target acquisition sequence for each coronagraph, which use new TA regions of interest, will evaluate the ability of the pipeline to handle FULL-FRAME data, and will enable the commissioning of this new MIRI observing mode.

OBSERVING DESCRIPTION

--- Dec 11, 2023 ---

This program uses the HD 167855 A/B system to test full-frame readout mode for all four coronagraphs. For each coronagraph, it will execute a single observing sequence consisting of 2 TA exposures and a brief occulted exposure targeting HD 167855 A. HD 167855 B will be used for inferring the position of A when it is occulted.

This calibration program may change in response to system developments and the final Cycle 3 science program.

Proposal 6559 - Targets - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)	HD-167855A	RA: 18 11 15.2386 (272.8134942d)	Proper Motion RA: 10.707 mas/yr	
		Dec: +69 14 59.78 (69.24994d)	Proper Motion Dec: 30.479 mas/yr		
		Equinox: J2000	Parallax: 0.0082679"		
			Epoch of Position: 2000		
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>				
	<i>Category=Star</i>				
	<i>Description=[G stars]</i>				

Proposal 6559 - Observation 1 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

Fri Jan 26 20:00:09 GMT 2024

Observation	<p>Proposal 6559, Observation 1: 1065</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Coronagraphic Imaging</p>												
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)	HD-167855A	RA: 18 11 15.2386 (272.8134942d) Dec: +69 14 59.78 (69.24994d) Equinox: J2000			Proper Motion RA: 10.707 mas/yr Proper Motion Dec: 30.479 mas/yr Parallax: 0.0082679" Epoch of Position: 2000							
	<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=Star</i></p> <p><i>Description=[G stars]</i></p>												
Acquisition	#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID			
	1	SAME	FND	1	FAST	4	1	1	11.1	179796			
Template	<p>Repeat observation</p> <p>NO</p>												
Dithers	#	Dither Type											
	1	NONE											
Spectral Elements	#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	4QPM/F1065C	FULL	4QPM	F1065C	FASTR1	20	4	1	1	4	230.328	179796

Proposal 6559 - Observation 1 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments

Proposal 6559 - Observation 4 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

Fri Jan 26 20:00:09 GMT 2024

Observation	<p>Proposal 6559, Observation 4: 1140</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Coronagraphic Imaging</p>												
Diagnostics	(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(1)	HD-167855A	RA: 18 11 15.2386 (272.8134942d) Dec: +69 14 59.78 (69.24994d) Equinox: J2000			Proper Motion RA: 10.707 mas/yr Proper Motion Dec: 30.479 mas/yr Parallax: 0.0082679" Epoch of Position: 2000							
	<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=Star</i></p> <p><i>Description=[G stars]</i></p>												
Acquisition	#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID			
	1	SAME	FND	1	FAST	4	1	1	11.1	179796			
Template	<p>Repeat observation</p> <p>NO</p>												
Dithers	#	Dither Type											
	1	NONE											
Spectral Elements	#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	4QPM/F1140C	FULL	4QPM	F1140C	FASTR1	20	4	1	1	4	230.328	179796

Proposal 6559 - Observation 4 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments

Proposal 6559 - Observation 7 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

Fri Jan 26 20:00:09 GMT 2024

Observation	<p>Proposal 6559, Observation 7: 1550</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Coronagraphic Imaging</p>												
Diagnostics	<p>(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(1)	HD-167855A	RA: 18 11 15.2386 (272.8134942d) Dec: +69 14 59.78 (69.24994d) Equinox: J2000			Proper Motion RA: 10.707 mas/yr Proper Motion Dec: 30.479 mas/yr Parallax: 0.0082679" Epoch of Position: 2000							
	<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=Star</i></p> <p><i>Description=[G stars]</i></p>												
Acquisition	#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID			
	1	SAME	FND	1	FAST	4	1	1	11.1	179796			
Template	<p>Repeat observation</p> <p>NO</p>												
Dithers	#	Dither Type											
	1	NONE											
Spectral Elements	#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	4QPM/F1550C	FULL	4QPM	F1550C	FASTR1	20	4	1	1	4	230.328	179796

Proposal 6559 - Observation 7 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments

Proposal 6559 - Observation 10 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

Fri Jan 26 20:00:09 GMT 2024

Observation	<p>Proposal 6559, Observation 10: LYOT</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Coronagraphic Imaging</p>												
Diagnostics	(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(1)	HD-167855A	RA: 18 11 15.2386 (272.8134942d) Dec: +69 14 59.78 (69.24994d) Equinox: J2000			Proper Motion RA: 10.707 mas/yr Proper Motion Dec: 30.479 mas/yr Parallax: 0.0082679" Epoch of Position: 2000							
	<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=Star</i></p> <p><i>Description=[G stars]</i></p>												
Acquisition	#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID			
	1	SAME	FND	1	FAST	4	1	1	11.1	179796			
Template	<p>Repeat observation</p> <p>NO</p>												
Dithers	#	Dither Type											
	1	NONE											
Spectral Elements	#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	LYOT/F2300C	FULL	LYOT	F2300C	FASTR1	20	4	1	1	4	230.328	179796

Proposal 6559 - Observation 10 - CAL-MIRI-291 MIRI Coronagraphy Full-frame Readout Test

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments