



12635 - CAL-MIRI-583: LRS - New subarray SLITLESSPRISM_IP flat

Cycle: 5, Proposal Category: CAL/MIRI

INVESTIGATORS

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OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Observation Folder				
	2	SLITLESSPRISM_IP Extended	MIRI Low Resolution Spectroscopy	(1) PN-Hu-2-1
	3	SLITLESSPRISM_IP Extended - Background	MIRI External Flat	(3) PN-OFF-DETECTOR-SUB
	4	SLITLESSPRISM_IP Extended - Low Flux	MIRI External Flat	(2) PN-OFF-DETECTOR-FULL

ABSTRACT

This science validation activities is for the new MIRI LRS subarray SLITLESSPRISM_IP. SLITLESSPRISM_IP is an update of SLITLESSPRISM in order to mitigate electromagnetic interference (EMI) that is currently present in SLITLESSPRISM, as well as to move it to a more favorable area of the detector.

Goal: Most subarrays on the imaging detector can extract a FLAT form a FULL array FLAT. However, like SLITLESSPRISM, the new *_IP version

JWST Proposal 12635 (Created: Monday, June 29, 2026, 12:01:14PM Eastern Standard Time) - Overview

covers pixels that fall on one of the coronagraphic four-quadrant phase masks (4QPMs). These pixels are flagged as DO_NOT_USE early in the pipeline and it is therefore necessary to take a special FLAT for this subarray.

Activity: Take new external FLAT for SLITLESSPRISM_IP, based on PID 1054 which did this same activity during commissioning for the SLITLESSPRISM subarray.

OBSERVING DESCRIPTION

Following PID 1054, we are observing a bright planetary nebula in order to get external flats for SLITLESSPRISM_IP. Flats for other new subarrays can be extracted from the FULL array.

Proposal 12635 - Targets - CAL-MIRI-583: LRS - New subarray SLITLESSPRISM IP flat

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)	PN-Hu-2-1	RA: 18 49 47.5610 (282.4481708d) Dec: +20 50 39.40 (20.84428d) Equinox: J2000	Proper Motion RA: -0.893 mas/yr Proper Motion Dec: -7.837000066501787 mas/yr Parallax: 4.1860000000000004E-4" Epoch of Position: 2000	
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> <i>SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.</i> <i>Category=Calibration</i> <i>Description=[Wavelength]</i> <i>Extended=YES</i>				
	(2)	PN-OFF-DETECTOR-FULL	RA: 18 49 40.7119 (282.4196329d) Dec: +20 51 23.35 (20.85649d) Equinox: J2000	Proper Motion RA: 0 Proper Motion Dec: 0 Parallax: 0" Epoch of Position: 2000	
	<i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i> <i>Extended=NO</i>				
	(3)	PN-OFF-DETECTOR-SUB	RA: 18 49 45.7624 (282.4406767d) Dec: +20 51 48.07 (20.86335d) Equinox: J2000		
	<i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i> <i>Extended=NO</i>				

Proposal 12635 - Observation 2 - CAL-MIRI-583: LRS - New subarray SLITLESSPRISM IP flat

Observation	Proposal 12635, Observation 2: SLITLESSPRISM_IP Extended								Mon Jun 29 17:01:14 GMT 2026
	Diagnostic Status: Warning								
Observing Template: MIRI Low Resolution Spectroscopy									
Diagnostics	(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)	PN-Hu-2-1	RA: 18 49 47.5610 (282.4481708d)		Proper Motion RA: -0.893 mas/yr				
			Dec: +20 50 39.40 (20.84428d)		Proper Motion Dec: -7.837000066501787 mas/yr				
			Equinox: J2000		Parallax: 4.1860000000000004E-4"				
					Epoch of Position: 2000				
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.								
	SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.								
	Category=Calibration								
	Description=[Wavelength]								
	Extended=YES								
Acquisition	#	Target							
	1	NONE							
Template	AcqFilter	Subarray				Obtain Verification Image?			
	FND	SLITLESSPRISM_IP				false			
Dithers	#	Dither Type	No. Spectral Steps		Spectral Step Offset		No. Spatial Steps		Spatial Step Offset
	1	EXTENDED FLAT SLITLESS	1		0.11		8		0.55
Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	Optional ETC ID
	1	FASTR1	10	5	295	1	59	497.526	81592

Special Requirements	Before Date 01-SEP-2026:00:00:00
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Proposal 12635 - Observation 3 - CAL-MIRI-583: LRS - New subarray SLITLESSPRISM IP flat

Observation	Proposal 12635, Observation 3: SLITLESSPRISM_IP Extended - Background												Mon Jun 29 17:01:14 GMT 2026	
	Diagnostic Status: Warning													
	Observing Template: MIRI External Flat													
	Comments: Visit to leave imager in FULL frame mode at the end of this CAR. Necessary to minimize the impacts of subarray imprints on subsequent imager CARs.													
Diagnostics	(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.													
Fixed Targets	#	Name	Target Coordinates				Targ. Coord. Corrections				Miscellaneous			
	(3)	PN-OFF-DETECTOR-SUB	RA: 18 49 45.7624 (282.4406767d) Dec: +20 51 48.07 (20.86335d) Equinox: J2000											
	Comments: Category=Calibration Description=[Telescope/sky background] Extended=NO													
Template	Pointing Type	Detector	Dither		Lamp Use		Lamp On Time		Imager Subarray		Grating Wheel Direction			
	PRIME	IMAGER	true		OFF ONLY		0		SLITLESSPRISM_IP		Allow Auto Reorder			
Dithers	#	Dither Type			Starting Point		Number of Points			Pattern Size				
	1	CYCLING			1		20			DEFAULT				
Spectral Elements	#	Detector	MRS Subarray	Filter	Wavelength 1 & 4	Wavelength 2 & 3	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	IMAGER		P750L			FASTR1	10	5	1	20	100	168.653	
Special Requirements	Before Date 01-SEP-2026:00:00:00 No Parallel Attachments													

Proposal 12635 - Observation 4 - CAL-MIRI-583: LRS - New subarray SLITLESSPRISM IP flat

Observation	Proposal 12635, Observation 4: SLITLESSPRISM_IP Extended - Low Flux												Mon Jun 29 17:01:14 GMT 2026		
	Diagnostic Status: Warning														
	Observing Template: MIRI External Flat														
	Comments: Visit to leave imager in FULL frame mode at the end of this CAR. Necessary to minimize the impacts of subarray imprints on subsequent imager CARs.														
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				
	(2)	PN-OFF-DETECTOR-FULL		RA: 18 49 40.7119 (282.4196329d)			Proper Motion RA: 0								
				Dec: +20 51 23.35 (20.85649d)			Proper Motion Dec: 0								
				Equinox: J2000			Parallax: 0"								
	Epoch of Position: 2000														
	Comments: Category=Calibration Description=[Telescope/sky background] Extended=NO														
Template	Pointing Type		Detector		Dither		Lamp Use		Lamp On Time		Imager Subarray		Grating Wheel Direction		
	PRIME		IMAGER		false		OFF ONLY		0		FULL		Allow Auto Reorder		
Spectral Elements	#	Detector		MRS Subarray	Filter	Wavelength 1 & 4	Wavelength 2 & 3	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	IMAGER			FND			FASTR1	5	1	1	1	1		13.875
Special Requirements	Before Date 01-SEP-2026:00:00:00 No Parallel Attachments														