



1524 - MRS PSF Characterization

Cycle: 1, Proposal Category: CAL/MIRI

INVESTIGATORS

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Greg Sloan (CoI)	Space Telescope Science Institute

OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Observation Folder				
	1	del UMi dither 1	MIRI Medium Resolution Spectroscopy	(2) DELUMI
	2	del UMi dither 2	MIRI Medium Resolution Spectroscopy	(2) DELUMI
	3	del UMi dither 5	MIRI Medium Resolution Spectroscopy	(2) DELUMI
	4	del UMi dither 6	MIRI Medium Resolution Spectroscopy	(2) DELUMI
	5	del UMi Background	MIRI Medium Resolution Spectroscopy	(4) DELUMI-BKG
	6	del UMi dither 7	MIRI Medium Resolution Spectroscopy	(2) DELUMI
	7	del UMi dither 8	MIRI Medium Resolution Spectroscopy	(2) DELUMI
	8	del UMi dither 9	MIRI Medium Resolution Spectroscopy	(2) DELUMI
	15	10LAC: Background	MIRI Medium Resolution Spectroscopy	(6) 10LAC-BKG
	16	10LAC: Calibration Scan	MIRI Medium Resolution Spectroscopy	(5) 10LAC
	17	10LAC: Wheel Repeats	MIRI Medium Resolution Spectroscopy	(5) 10LAC

ABSTRACT

JWST Proposal 1524 (Created: Wednesday, March 1, 2023 at 5:00:33 PM Eastern Standard Time) - Overview

This activity will characterize the point spread functions (PSFs) in the MIRI medium resolution spectrometer (MRS). The primary goals are to measure the PSF in the reconstructed data cubes delivered by dither sequences that were not verified during commissioning, to measure the PSF at short wavelengths using a genuine point source rather than a slightly extended source, and to increase the SNR of the PSF and monitor any changes arising from changes in the configuration of the primary mirror. The activity will observe the bright star UMi, which is a point source at all wavelengths and will permit a proper measurement of the PSF in MRS Channels 1 and 2, as well as the planetary nebula SMP LMC 058 using dither patterns not exercised during commissioning in order to ensure full characterization in Channels 3 and 4.

This calibration program is provisional and may change in response to system developments and the final science program.

OBSERVING DESCRIPTION

This activity measures the PSF of a point source and a compact extended source (delta UMi and SMP LMC 058, respectively) in multiple extended and point-source dither patterns on the MRS.

TIMING CONSTRAINTS:

Timing constraints assume a launch date of 25 Dec 2021 and the beginning of Cycle 1 on 23 Jun 2022.

SMP LMC 058 should be observed in Month 1 of Cycle 1, and del UMi should be observed before the end of Month 4. It will not be visible until 9 Sep 2022, so this constraint limits the observation to a period between 9 Sep and 23 Oct 2022.

Missed or failed observations should be rescheduled as soon as possible within the requested periods.

Proposal 1524 - Targets - MRS PSF Characterization

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-058	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0" Epoch of Position: 2000.0	
<i>Comments: 2MASS coordinates - require update</i> Category=ISM Description=[Planetary nebulae] Extended=NO				
(2)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000	Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00	
<i>Comments: Hipparcos coordinates</i> Category=Star Description=[A dwarfs] Extended=NO				
(3)	SMP-LMC-058-BKG	RA: 05 24 7.5200 (81.0313333d) Dec: -70 04 38.60 (-70.07739d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0" Epoch of Position: 2000.0	
<i>Comments: 2MASS coordinates - require update</i> Category=Calibration Description=[Telescope/sky background] Extended=YES				
(4)	DELUMI-BKG	RA: 17 31 9.9700 (262.7915417d) Dec: +86 34 4.00 (86.56778d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0" Epoch of Position: 2000.00	
<i>Comments: Hipparcos coordinates</i> Category=Calibration Description=[Telescope/sky background] Extended=YES				
(5)	10LAC	RA: 22 39 15.6763 (339.8153179d) Dec: +39 03 0.88 (39.05024d) Equinox: J2000	Proper Motion RA: -1.274 mas/yr Proper Motion Dec: -5.605 mas/yr Parallax: 0.0021920" Epoch of Position: 2016.0	
<i>Comments: Gaia DR3 coordinates</i> Category=Calibration Description=[Astrometric, Point spread function, Spectrophotometric] Extended=NO				
(6)	10LAC-BKG	RA: 22 39 14.4898 (339.8103742d) Dec: +39 04 30.68 (39.07519d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0"	
<i>Comments:</i> Category=Calibration Description=[Telescope/sky background] Extended=NO				

Fixed Targets

Proposal 1524 - Observation 1 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 1: del UMi dither 1 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy									
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			
	(2)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000	Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00						
	<i>Comments: Hipparcos coordinates</i> <i>Category=Star</i> <i>Description=[A dwarfs]</i> <i>Extended=NO</i>									
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	FND	FAST	6	1	1	16.65	21981.11	
Template	Primary Channel			Simultaneous Imaging			Imager Subarray			
	ALL			YES			FULL			
Dithers	#	Dither Type			Optimized For			Direction		
	1	4-Point			POINT SOURCE			NEGATIVE		
	2	4-Point			POINT SOURCE			POSITIVE		

Proposal 1524 - Observation 1 - MRS PSF Characterization

	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
Spectral Elements	1		IMAGER	F770W	FASTR1	8	1	1	Dither 1	4	4	88.801	
	1	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	1	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	2		IMAGER	F770W	FASTR1	8	1	1	Dither 2	4	4	88.801	
	2	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 2	4	4	88.801	
	2	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 2	4	4	88.801	
	3		IMAGER	F770W	FASTR1	8	1	1	Dither 1	4	4	88.801	
	3	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	3	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	4		IMAGER	F770W	FASTR1	8	1	1	Dither 2	4	4	88.801	
	4	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 2	4	4	88.801	
	4	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 2	4	4	88.801	
	5		IMAGER	F770W	FASTR1	8	1	1	Dither 1	4	4	88.801	
	5	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	5	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	6		IMAGER	F770W	FASTR1	8	1	1	Dither 2	4	4	88.801	
	6	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 2	4	4	88.801	
	6	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 2	4	4	88.801	
Special Requirements	Before Date 15-MAY-2023:00:00:00												
	Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible												

Proposal 1524 - Observation 2 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	<p>Proposal 1524, Observation 2: del UMi dither 2</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Medium Resolution Spectroscopy</p>								
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		
	(2)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000	Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00					
	<p><i>Comments: Hipparcos coordinates</i></p> <p><i>Category=Star</i></p> <p><i>Description=[A dwarfs]</i></p> <p><i>Extended=NO</i></p>								
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	FND	FAST	6	1	1	16.65	21981.11
Template	Primary Channel			Simultaneous Imaging			Imager Subarray		
	CHANNEL2			NO			FULL		
Dithers	#	Dither Type			Optimized For		Direction		
	1	4-Point			POINT SOURCE		NEGATIVE		
	2	4-Point			POINT SOURCE		POSITIVE		

Proposal 1524 - Observation 2 - MRS PSF Characterization

	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
Spectral Elements	1	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	1	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	2	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 2	4	4	88.801	
	2	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 2	4	4	88.801	
	3	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	3	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	4	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 2	4	4	88.801	
	4	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 2	4	4	88.801	
	5	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	5	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	6	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 2	4	4	88.801	
	6	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 2	4	4	88.801	
Special Requirements	Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible												

Proposal 1524 - Observation 3 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 3: del UMi dither 5 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy																										
	(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.																										
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(2)</td> <td>DELUMI</td> <td>RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000</td> <td>Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00</td> <td></td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous	(2)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000	Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00		<i>Comments: Hipparcos coordinates</i> <i>Category=Star</i> <i>Description=[A dwarfs]</i> <i>Extended=NO</i>															
	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous																						
(2)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000	Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00																								
Acquisition	<table border="1"> <thead> <tr> <th>#</th> <th>Target</th> <th>Filter</th> <th>Readout Pattern</th> <th>Groups/Int</th> <th>Integrations/Exp</th> <th>Total Integrations</th> <th>Total Exposure Time</th> <th>ETC Wkbk.Calc ID</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>SAME</td> <td>FND</td> <td>FAST</td> <td>6</td> <td>1</td> <td>1</td> <td>16.65</td> <td>21981.11</td> </tr> </tbody> </table>	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	1	SAME	FND	FAST	6	1	1	16.65	21981.11								
	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID																		
1	SAME	FND	FAST	6	1	1	16.65	21981.11																			
Template	Primary Channel			Simultaneous Imaging				Imager Subarray																			
	ALL			NO				FULL																			
Dithers	#		Dither Type			Optimized For			Direction																		
	1		4-Point			EXTENDED SOURCE			NEGATIVE																		
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID														
	1	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801															
	1	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801															
	2	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801															
	2	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801															
	3	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801															
	3	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801															

Proposal 1524 - Observation 3 - MRS PSF Characterization

Special Requirements

Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Proposal 1524 - Observation 4 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 4: del UMi dither 6 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(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)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000			Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00							
<i>Comments: Hipparcos coordinates</i> <i>Category=Star</i> <i>Description=[A dwarfs]</i> <i>Extended=NO</i>													
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID				
	1	SAME	FND	FAST	6	1	1	16.65	21981.11				
Template	Primary Channel				Simultaneous Imaging				Imager Subarray				
	CHANNEL1				NO				FULL				
Dithers	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	1	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	2	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	2	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	3	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	3	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	

Proposal 1524 - Observation 4 - MRS PSF Characterization

Special Requirements

Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Proposal 1524 - Observation 5 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 5: del UMi Background Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(4)	DELUMI-BKG	RA: 17 31 9.9700 (262.7915417d) Dec: +86 34 4.00 (86.56778d) Equinox: J2000			Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0" Epoch of Position: 2000.00							
<i>Comments: Hipparcos coordinates</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i> <i>Extended=YES</i>													
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray					
	FND	ALL			YES			FULL					
Dithers	#	Dither Type			Optimized For			Direction					
	1	2-Point			EXTENDED SOURCE			NEGATIVE					
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1		IMAGER	F770W	FASTR1	8	1	1	Dither 1	2	2	44.401	
	1	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 1	2	2	44.401	
	1	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 1	2	2	44.401	
	2		IMAGER	F770W	FASTR1	8	1	1	Dither 1	2	2	44.401	
	2	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 1	2	2	44.401	
	2	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 1	2	2	44.401	
	3		IMAGER	F770W	FASTR1	8	1	1	Dither 1	2	2	44.401	
	3	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 1	2	2	44.401	
	3	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 1	2	2	44.401	

Proposal 1524 - Observation 5 - MRS PSF Characterization

Special Requirements

Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Proposal 1524 - Observation 6 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 6: del UMi dither 7 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(2)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000			Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00							
<i>Comments: Hipparcos coordinates</i> <i>Category=Star</i> <i>Description=[A dwarfs]</i> <i>Extended=NO</i>													
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC	Wkbk.Calc	ID		
	1	SAME	FND	FAST	6	1	1	16.65		21981.11			
Template	Primary Channel				Simultaneous Imaging				Imager Subarray				
	CHANNEL2				NO				FULL				
Dithers	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	1	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	2	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	2	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	
	3	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801	
	3	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801	

Proposal 1524 - Observation 6 - MRS PSF Characterization

Special Requirements

Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Proposal 1524 - Observation 7 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 7: del UMi dither 8 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy														
	(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.														
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous						
	(2)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000			Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00									
<i>Comments: Hipparcos coordinates</i> <i>Category=Star</i> <i>Description=[A dwarfs]</i> <i>Extended=NO</i>															
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC	Wkbk.Calc	ID				
	1	SAME	FND	FAST	6	1	1	16.65		21981.11					
Template	Primary Channel				Simultaneous Imaging				Imager Subarray						
	CHANNEL3				NO				FULL						
Dithers	#	Dither Type				Optimized For				Direction					
	1	4-Point				EXTENDED SOURCE				NEGATIVE					
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC	Wkbk.Calc	ID
	1	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801			
	1	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801			
	2	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801			
	2	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801			
	3	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801			
	3	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801			

Proposal 1524 - Observation 7 - MRS PSF Characterization

Special Requirements

Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Proposal 1524 - Observation 8 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 8: del UMi dither 9 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy														
	(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.														
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous						
	(2)	DELUMI	RA: 17 32 12.9967 (263.0541529d) Dec: +86 35 11.26 (86.58646d) Equinox: J2000			Proper Motion RA: 10.17 mas/yr Proper Motion Dec: 53.97 mas/yr Parallax: 0.01895" Epoch of Position: 2000.00									
<i>Comments: Hipparcos coordinates</i> <i>Category=Star</i> <i>Description=[A dwarfs]</i> <i>Extended=NO</i>															
Acquisition	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC	Wkbk.Calc	ID				
	1	SAME	FND	FAST	6	1	1	16.65		21981.11					
Template	Primary Channel			Simultaneous Imaging				Imager Subarray							
	CHANNEL4			NO				FULL							
Dithers	#	Dither Type			Optimized For			Direction							
	1	4-Point			EXTENDED SOURCE			NEGATIVE							
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC	Wkbk.Calc	ID
	1	SHORT(A)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801			
	1	SHORT(A)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801			
	2	MEDIUM(B)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801			
	2	MEDIUM(B)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801			
	3	LONG(C)	MRSLONG		FASTR1	8	1	1	Dither 1	4	4	88.801			
	3	LONG(C)	MRSSHORT		FASTR1	8	1	1	Dither 1	4	4	88.801			

Proposal 1524 - Observation 8 - MRS PSF Characterization

Special Requirements

Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Proposal 1524 - Observation 15 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 15: 10LAC: Background Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observation For: [10LAC: Calibration Scan (Obs 16), 10LAC: Wheel Repeats (Obs 17)]												
	(Visit 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Diagnosics													
Fixed Targets	#	Name	Target Coordinates				Targ. Coord. Corrections			Miscellaneous			
	(6)	10LAC-BKG	RA: 22 39 14.4898 (339.8103742d) Dec: +39 04 30.68 (39.07519d) Equinox: J2000				Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0"						
<i>Comments:</i> Category=Calibration Description=[Telescope/sky background] Extended=NO													
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray				
	FND	ALL				YES			FULL				
Dithers	#	Dither Type				Optimized For			Direction				
	1	2-Point				POINT SOURCE			NEGATIVE				
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	1	SHORT(A)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	1	SHORT(A)	MRSSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	
	2		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	2	MEDIUM(B)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	2	MEDIUM(B)	MRSSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	
	3		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	3	LONG(C)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	3	LONG(C)	MRSSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	

Proposal 1524 - Observation 15 - MRS PSF Characterization

Special Requirements

Sequence Observations 15, 16, 17, Non-interruptible

Proposal 1524 - Observation 16 - MRS PSF Characterization

Wed Mar 01 22:00:34 GMT 2023

Observation	Proposal 1524, Observation 16: 10LAC: Calibration Scan Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy Background Observations:[10LAC: Background (Obs 15), 10LAC: Wheel Repeats (Obs 17)] Coordinated Parallel Template(s): FGS External Calibration												
	(Visit 16:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(5)	10LAC	RA: 22 39 15.6763 (339.8153179d) Dec: +39 03 0.88 (39.05024d) Equinox: J2000			Proper Motion RA: -1.274 mas/yr Proper Motion Dec: -5.605 mas/yr Parallax: 0.0021920" Epoch of Position: 2016.0							
Comments: Gaia DR3 coordinates Category=Calibration Description=[Astrometric, Point spread function, Spectrophotometric] Extended=NO													
Acquisition	MIRI Medium Resolution Spectroscopy	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID				
	1	SAME	FND	FAST	4	1	1	11.1	116250				
Template	MIRI Medium Resolution Spectroscopy					FGS External Calibration							
	AcqTarget: Same Target as Observation AcqFilter: FND Primary Channel: ALL Simultaneous Imaging: YES Imager Subarray: FULL					Target type: IMAGE Detector: GUIDER2							
Dithers	#	Dither Type			Optimized For			Direction					
	1	Scan			POINT SOURCE			NEGATIVE					
Spectral Elements	MIRI Medium Resolution Spectroscopy	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1		IMAGER	F770W	FASTR1	20	1	1	Dither 1	57	57	3163.546	
	1	SHORT(A)	MRSLONG		FASTR1	20	1	1	Dither 1	57	57	3163.546	
	1	SHORT(A)	MRSSHORT		FASTR1	20	1	1	Dither 1	57	57	3163.546	
	2		IMAGER	F770W	FASTR1	20	1	1	Dither 1	57	57	3163.546	
	2	MEDIUM(B)	MRSLONG		FASTR1	20	1	1	Dither 1	57	57	3163.546	
	2	MEDIUM(B)	MRSSHORT		FASTR1	20	1	1	Dither 1	57	57	3163.546	
	3		IMAGER	F770W	FASTR1	20	1	1	Dither 1	57	57	3163.546	
	3	LONG(C)	MRSLONG		FASTR1	20	1	1	Dither 1	57	57	3163.546	
	3	LONG(C)	MRSSHORT		FASTR1	20	1	1	Dither 1	57	57	3163.546	

Proposal 1524 - Observation 16 - MRS PSF Characterization

Spectral Elements	FGS External Calibration	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Cale ID
1		FGSRAPID	3	1	57	57	2447.984	
2		FGSRAPID	3	1	57	57	2447.984	
3		FGSRAPID	3	1	57	57	2447.984	
Special Requirements	No Parallel Attachments Guide Star in Guider 1 Sequence Observations 15, 16, 17, Non-interruptible							

Proposal 1524 - Observation 17 - MRS PSF Characterization

	MIRI Medium Resolution Spectroscopy	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
Spectral Elements	1		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	1	SHORT(A)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	1	SHORT(A)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	
	2		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	2	MEDIUM(B)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	2	MEDIUM(B)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	
	3		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	3	LONG(C)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	3	LONG(C)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	
	4		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	4	SHORT(A)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	4	SHORT(A)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	
	5		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	5	MEDIUM(B)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	5	MEDIUM(B)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	
	6		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002	
	6	LONG(C)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002	
	6	LONG(C)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002	
7		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002		
7	SHORT(A)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002		
7	SHORT(A)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002		
8		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002		
8	MEDIUM(B)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002		
8	MEDIUM(B)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002		
9		IMAGER	F770W	FASTR1	20	1	1	Dither 1	2	2	111.002		
9	LONG(C)	MRSLONG		FASTR1	20	1	1	Dither 1	2	2	111.002		
9	LONG(C)	MRSSHORT		FASTR1	20	1	1	Dither 1	2	2	111.002		
Spectral Elements	FGS External Calibration		Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID				
	1		FGSRAPID	3	1	2	2	85.894					
	2		FGSRAPID	3	1	2	2	85.894					
	3		FGSRAPID	3	1	2	2	85.894					
	4		FGSRAPID	3	1	2	2	85.894					
	5		FGSRAPID	3	1	2	2	85.894					
	6		FGSRAPID	3	1	2	2	85.894					
	7		FGSRAPID	3	1	2	2	85.894					
	8		FGSRAPID	3	1	2	2	85.894					
9		FGSRAPID	3	1	2	2	85.894						

Proposal 1524 - Observation 17 - MRS PSF Characterization

Special Requirements

No Parallel Attachments
Guide Star in Guider 1

Sequence Observations 15, 16, 17, Non-interruptible