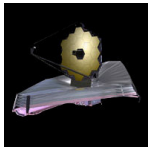

1521 - Imaging External Flatfield

Cycle: 1, Proposal Category: CAL/MIRI

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Dense field Obs 1				
	1	Dense field measurements	MIRI Imaging	(1) LMC-MIRI-A-IMG
	2	Non-linearity at long wavelengths.	MIRI Imaging	(2) MIRI-SLEW-TO-HOT-TARGET-NORTH

ABSTRACT

This activity will obtain external flat fields at low spatial frequencies (L-flats) for the MIRI imager. It builds on the commissioning activity CAR-MIRI-053. We will use the “thousand-points-of-light” technique to measure the L-flats by observing the LMC astrometric field with a dither pattern designed to sample the same stars in multiple positions on the detector. The data obtained in this activity will also be used to monitor geometric distortion and boresight offset corrections (CAL-MIRI-016). These data will also help monitor the shape of the core of the PSF across the detector (CAL-MIRI-014). This activity will be executed once in Cycle 1 in month 3, so that it occurs relatively early in Cycle 1 but still provides a reasonable temporal baseline from the related activity during commissioning.

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

OBSERVING DESCRIPTION

Requirement: No parallel observations are to be executed for this proposal. Visits are requested to be executed within 25 days.

TIMING CONSTRAINTS

This program should be executed once during Month 3 of Cycle 1.

The timing constraints are set based on a launch date of 25 Dec 2021 and the start of Cycle 1 six months later.

While Month 3 is ideal, this schedule has some flexibility. The last week of Month 2 would also work, as would all of Month 4.

Missed or failed observations should be made up as close to Month 3 of Cycle 1 as reasonable.

Proposal 1521 - Targets - Imaging External Flatfield

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	LMC-MIRI-A-IMG	RA: 05 22 27.3787 (80.6140779d) Dec: -69 27 38.49 (-69.46069d) Equinox: J2000	Epoch of Position: 2000	
Comments: The field was chosen, as there is no >3.2 mJy star on it at 5.6um and 7.7m. This was necessary to avoid saturation with the minimum of 5 groups/integration. Note, that the coordinates are not a stellar object but a center of a field. *Category=Calibration* *Description=[Aperture location, Astrometric, External flat field, Telescope/sky background]* *Extended=NO*				
(2)	MIRI-SLEW-TO-HOT-TARGET-NORTH	RA: 18 05 59.9000 (271.4995833d) Dec: +61 00 29.40 (61.00817d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Telescope/sky background]*				

Observation

Proposal 1521, Observation 1: Dense field measurements

Thu Aug 11 03:01:00 GMT 2022

Diagnostic Status: Warning

Observing Template: MIRI Imaging

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.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	LMC-MIRI-A-IMG	RA: 05 22 27.3787 (80.6140779d) Dec: -69 27 38.49 (-69.46069d) Equinox: J2000	Epoch of Position: 2000	

Comments: The field was chosen, as there is no >3.2 mJy star on it at 5.6um and 7.7m.
This was necessary to avoid saturation with the minimum of 5 groups/integration.
Note, that the coordinates are not a stellar object but a center of a field.
Category=Calibration
Description=[Aperture location, Astrometric, External flat field, Telescope/sky background]
Extended=NO

Template

Subarray
FULL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift	Column shift	Tile Order
3	3	67.4	67.0	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	4		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	F560W	FASTR1	6	2	1	Dither 1	4	8	144.302	
2	F770W	FASTR1	6	2	1	Dither 1	4	8	144.302	
3	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	
4	F1130W	FASTR1	8	2	1	Dither 1	4	8	188.703	
5	F1280W	FASTR1	8	2	1	Dither 1	4	8	188.703	
6	F1500W	FASTR1	8	2	1	Dither 1	4	8	188.703	
7	F1800W	FASTR1	8	2	1	Dither 1	4	8	188.703	
8	F2100W	FASTR1	8	2	1	Dither 1	4	8	188.703	
9	F2550W	FASTR1	7	2	1	Dither 1	4	8	166.502	

Special Requirements	
	Between Dates 01-SEP-2022:00:00:00 and 30-SEP-2022:00:00:00 Group Visits within 25 Days Visits Same PA No Parallel

Observation

Proposal 1521, Observation 2: Non-linearity at long wavelengths.

Thu Aug 11 03:01:00 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.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	MIRI-SLEW-TO-HOT-TARGET-NORTH	RA: 18 05 59.9000 (271.4995833d) Dec: +61 00 29.40 (61.00817d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]

Template

Subarray

FULL

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F1500W	FASTR1	250	3	1	None	1	3	2086.83	
2	F1800W	FASTR1	120	3	1	None	1	3	1004.564	
3	F2100W	FASTR1	60	3	1	None	1	3	505.057	
4	F2550W	FASTR1	40	3	1	None	1	3	338.555	

Special Requirements

No Parallel