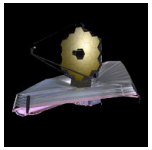

6615 - CAL-MIRI-309 MIRI Last Frame Characterization

Cycle: 3, Proposal Category: CAL/MIRI

INVESTIGATORS

Name	*Institution*
Mike Engesser (PI)	**Space Telescope Science Institute**
Dr. Michael W. Regan (CoI)	Space Telescope Science Institute
Dr. Alberto Noriega-Crespo (CoI)	Space Telescope Science Institute
Dr. Greg Sloan (CoI)	Space Telescope Science Institute

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	2	NGC-2070 Last Frame	MIRI Imaging	(1) NGC-2070

ABSTRACT

This program will obtain additional data for analysis and calibration of the MIRI Last Frame Effect. Cycle 2 observations provided a great dataset with high SNR for the low-flux regime of both point-source and extended features. These data in combination with similarly designed ground-test data extend the parameter space over which a correction can be created. However, the Cycle 2 data did not adequately sample the full dynamic range of the detectors. This program target, NGC 2070, is a bright source with a mix of complex point-like and extended features which will reach saturation in as few as 5 groups, minimizing required time. In place of dithers, we will tile over a large portion of the target to place the features over a variety of detector pixels.

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

OBSERVING DESCRIPTION

We will obtain imaging of NGC 2070 using a similar strategy to CAL-MIRI-209. In this case, we will obtain 10 pointings, with 10 exposures each of 5 and 6 groups. The 6 group exposures will be used to determine what that 5th group should look like in the absence of the last frame effect. This will give greater than ~40 million samples spanning the full dynamic range of the detectors to fold into the correction.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	NGC-2070	RA: 05 38 42.0000 (84.6750000d) Dec: -69 06 0.00 (-69.10000d) Equinox: J2000	Epoch of Position: 2000	

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

Observation

Proposal 6615, Observation 2: NGC-2070 Last Frame Fri May 17 07:00:37 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Comments: Simultaneous imaging is not using FULL array, this is to avoid saturation which is very likely in full array mode for the Orion Nebula.

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.
(Visit 2:3) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 2:4) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 2:5) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 2:6) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 2:7) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	NGC-2070	RA: 05 38 42.0000 (84.6750000d) Dec: -69 06 0.00 (-69.10000d) Equinox: J2000	Epoch of Position: 2000	

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

Template

Subarray
FULL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	5	50.0	30.0	0.0	0.0	DEFAULT

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	5	1	10	None	1	10	138.752	
2	F770W	FASTR1	6	1	10	None	1	10	166.502	

Special Requirements

Sequence Visits , Non-interruptible
Visits Same PA