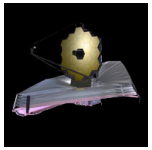

4560 - Exposures for detector bias test in support of AR-4593

Cycle: 2, Proposal Category: ENG

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Part 1: Cal Lamp Exposures for AR-4593				
	1	Nominal Bias (+2.2 V bias)	MIRI External Flat	(2) SEP-blank
	2	Vdetcom = -4.35 V (+2.45 V bias)	MIRI External Flat	(2) SEP-blank
	3	Vdetcom = -4.6 V (+2.7 V bias)	MIRI External Flat	(2) SEP-blank
	4	Vdetcom = -5.1 V (+3.2 V bias)	MIRI External Flat	(2) SEP-blank
	5	Nominal Bias (+2.2 V bias)	MIRI External Flat	(2) SEP-blank
Part 2: SMP LMC 058 Exposures for AR-4593				
	11	Nominal Bias (+2.2 V bias)	MIRI Medium Resolution Spectroscopy	(3) LHA-120-N-133
	12	Vdetcom = -4.35 V (+2.45 V bias)	MIRI Medium Resolution Spectroscopy	(3) LHA-120-N-133
	13	Vdetcom = -4.6 V (+2.7 V bias)	MIRI Medium Resolution Spectroscopy	(3) LHA-120-N-133

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	14	Nominal Bias (+2.2 V bias)	MIRI Medium Resolution Spectroscopy	(3) LHA-120-N-133

ABSTRACT

These observations support the AR4593 root cause investigation, in particular the detector bias test specified in OSCR CR-3392.
These observations will be run with OSCR CR-3392. After each visit (except the last) there will be a stop after visit to allow the VDETCOM value to be changed.

In Part 1, there are 5 visits using the internal cal lamps corresponding to the different bias settings:- [-4.1 V (nom), -4.35 V, -4.6 V, -5.1 V, -4.1 V (nom)].

On completion CR-3329 will be used to re-set Vdetcom to the nominal -4.1 V then the OP for a MIRI, 3 detector anneal will be run.

In Part 2, the planetary nebula SMP LMC 058 (a standard MIRI target) will be observed to check the full spectral response at the proposed new bias voltage plus one higher bias to ensure that the bias behavior is fully as expected. Part 2 will not be executed until Part 1 is analyzed and root cause is confirmed.

OBSERVING DESCRIPTION

Cal source illuminated exposures to support the bias variation test as part of the AR4593 investigation.
These observations will be run with OSCR CR-3392. After each visit (except the last) there will be a STOP AFTER VISIT to allow the VDETCOM value to be changed before the next observation.

There are 5 visits in Part 1 corresponding to the different bias settings:-

- Obs 1 Nominal bias
Use CR-3329 to Change Vdetcom to -4.35 V
- re-start OP and run Obs 2
Use CR-3329 to Change Vdetcom to -4.6 V
- re-start OP and run Obs 3

Use CR-3329 to Change Vdetcom to -5.1 V
- re-start OP and run Obs 4
Use CR-3329 to Change Vdetcom back to -4.1 V
- re-start OP and run Obs 5

After Obs 5, the OP for a MIRI 3 detector anneal will be run.

There are 4 visits in Part 2 corresponding to the narrowed bias settings (to be set specifically after the results of Part 1 are analyzed):-

- Obs 11 Nominal bias
Use CR-3329 to Change Vdetcom to -4.35 V (TBR)
- re-start OP and run Obs 12
Use CR-3329 to Change Vdetcom to -4.6 V (TBR)
- re-start OP and run Obs 13
Use CR-3329 to Change Vdetcom back to -4.1 V
- re-start OP and run Obs 14

After Obs 14, the OP for a MIRI 3 detector anneal will be run.

Proposal 4560 - Targets - Exposures for detector bias test in support of AR-4593

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	NEP-blank	RA: 18 00 0.0000 (270.0000000d) Dec: +66 28 0.00 (66.46667d) Equinox: J2000	Epoch of Position: 2000	
Comments: Relatively blank patch of sky near the NEP. No known "interesting" objects in the field. *Category=Calibration* *Description=[Telescope/sky background]*				
(2)	SEP-blank	RA: 05 59 58.3550 (89.9931458d) Dec: -66 33 25.94 (-66.55721d) Equinox: J2000		
Comments: Relatively blank patch of sky near the SEP. No known "interesting" objects in the field. *Category=Calibration* *Description=[Telescope/sky background]*				
(3)	LHA-120-N-133	RA: 05 24 20.7467 (81.0864446d) Dec: -70 05 1.60 (-70.08378d) Equinox: J2000	Proper Motion RA: 1.767 mas/yr Proper Motion Dec: 0.245 mas/yr Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Calibration* *Description=[Planetary nebulae]*				

Observation

Proposal 4560, Observation 1: Nominal Bias (+2.2 V bias) Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI External Flat

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)	SEP-blank	RA: 05 59 58.3550 (89.9931458d) Dec: -66 33 25.94 (-66.55721d) Equinox: J2000		

Comments: Relatively blank patch of sky near the SEP. No known "interesting" objects in the field.
Category=Calibration
Description=[Telescope/sky background]

Template

Pointing Type	Detector	Dither	Lamp Use	Lamp On Time	Imager Subarray	Grating Wheel Direction
PRIME	ALL	false	ON ONLY	945	FULL	NEUTRAL

Spectral Elements

#	Detector	Filter	Wavelength 1 & 4	Wavelength 2 & 3	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	IMAGER	F1500W			FASTR1	30	1	1	1	1	83.251	
1	MRSLONG		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	
1	MRSSHORT		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	
2	IMAGER	F2550W			FASTR1	30	1	1	1	1	83.251	
2	MRSLONG		LONG(C)	LONG(C)	FASTR1	30	1	1	1	1	83.251	
2	MRSSHORT		LONG(C)	LONG(C)	FASTR1	30	1	1	1	1	83.251	

Special Requirements

No Parallel Attachments

Observation

Proposal 4560, Observation 2: Vdetcom = -4.35 V (+2.45 V bias) Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI External Flat

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)	SEP-blank	RA: 05 59 58.3550 (89.9931458d) Dec: -66 33 25.94 (-66.55721d) Equinox: J2000		

Comments: Relatively blank patch of sky near the SEP. No known "interesting" objects in the field.
Category=Calibration
Description=[Telescope/sky background]

Template

Pointing Type	Detector	Dither	Lamp Use	Lamp On Time	Imager Subarray	Grating Wheel Direction
PRIME	ALL	false	ON ONLY	484	FULL	NEUTRAL

Spectral Elements

#	Detector	Filter	Wavelength 1 & 4	Wavelength 2 & 3	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	IMAGER	F1500W			FASTR1	30	1	1	1	1	83.251	
1	MRSLONG		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	
1	MRSSHORT		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	

Special Requirements

No Parallel Attachments

Observation

Proposal 4560, Observation 3: Vdetcom = -4.6 V (+2.7 V bias) Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI External Flat

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
(2)	SEP-blank	RA: 05 59 58.3550 (89.9931458d) Dec: -66 33 25.94 (-66.55721d) Equinox: J2000		

Comments: Relatively blank patch of sky near the SEP. No known "interesting" objects in the field.
Category=Calibration
Description=[Telescope/sky background]

Template

Pointing Type	Detector	Dither	Lamp Use	Lamp On Time	Imager Subarray	Grating Wheel Direction
PRIME	ALL	false	ON ONLY	945	FULL	NEUTRAL

Spectral Elements

#	Detector	Filter	Wavelength 1 & 4	Wavelength 2 & 3	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	IMAGER	F1500W			FASTR1	30	1	1	1	1	83.251	
1	MRSLONG		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	
1	MRSSHORT		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	
2	IMAGER	F2550W			FASTR1	30	1	1	1	1	83.251	
2	MRSLONG		LONG(C)	LONG(C)	FASTR1	30	1	1	1	1	83.251	
2	MRSSHORT		LONG(C)	LONG(C)	FASTR1	30	1	1	1	1	83.251	

Special Requirements

No Parallel Attachments

Observation

Proposal 4560, Observation 4: Vdetcom = -5.1 V (+3.2 V bias) Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI External Flat

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)	SEP-blank	RA: 05 59 58.3550 (89.9931458d) Dec: -66 33 25.94 (-66.55721d) Equinox: J2000		

Comments: Relatively blank patch of sky near the SEP. No known "interesting" objects in the field.
Category=Calibration
Description=[Telescope/sky background]

Template

Pointing Type	Detector	Dither	Lamp Use	Lamp On Time	Imager Subarray	Grating Wheel Direction
PRIME	ALL	false	ON ONLY	484	FULL	NEUTRAL

Spectral Elements

#	Detector	Filter	Wavelength 1 & 4	Wavelength 2 & 3	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	IMAGER	F1500W			FASTR1	30	1	1	1	1	83.251	
1	MRSLONG		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	
1	MRSSHORT		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	

Special Requirements

No Parallel Attachments

Observation

Proposal 4560, Observation 5: Nominal Bias (+2.2 V bias)

Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI External Flat

Diagnostics

(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	SEP-blank	RA: 05 59 58.3550 (89.9931458d) Dec: -66 33 25.94 (-66.55721d) Equinox: J2000		

Comments: Relatively blank patch of sky near the SEP. No known "interesting" objects in the field.
Category=Calibration
Description=[Telescope/sky background]

Template

Pointing Type	Detector	Dither	Lamp Use	Lamp On Time	Imager Subarray	Grating Wheel Direction
PRIME	ALL	false	ON ONLY	484	FULL	NEUTRAL

Spectral Elements

#	Detector	Filter	Wavelength 1 & 4	Wavelength 2 & 3	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	IMAGER	F1500W			FASTR1	30	1	1	1	1	83.251	
1	MRSLONG		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	
1	MRSSHORT		MEDIUM(B)	MEDIUM(B)	FASTR1	30	1	1	1	1	83.251	

Special Requirements

No Parallel Attachments

Observation

Proposal 4560, Observation 11: Nominal Bias (+2.2 V bias) Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Nominal Bias (+2.2 V bias) (Obs 11)) Warning (Form): Imager Filter overlap.

(Nominal Bias (+2.2 V bias) (Obs 11)) Warning (Form): Imager Filter overlap.

(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	LHA-120-N-133	RA: 05 24 20.7467 (81.0864446d)	Proper Motion RA: 1.767 mas/yr	
		Dec: -70 05 1.60 (-70.08378d)	Proper Motion Dec: 0.245 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Calibration
Description=[Planetary nebulae]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	POINT 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	50	1	1	Dither 1	2	2	277.504	
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	
2		IMAGER	F1500W	FASTR1	50	1	1	Dither 1	2	2	277.504	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	
3		IMAGER	F2550W	FASTR1	24	2	1	Dither 1	2	4	271.954	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	

Proposal 4560 - Observation 11 - Exposures for detector bias test in support of AR-4593

Special Requirements	Sequence Observations 11, 12, 13, 14 within 1 Days

Observation

Proposal 4560, Observation 12: Vdetcom = -4.35 V (+2.45 V bias) Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Vdetcom = -4.35 V (+2.45 V bias) (Obs 12)) Warning (Form): Imager Filter overlap.

(Vdetcom = -4.35 V (+2.45 V bias) (Obs 12)) Warning (Form): Imager Filter overlap.

(Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	LHA-120-N-133	RA: 05 24 20.7467 (81.0864446d)	Proper Motion RA: 1.767 mas/yr	
		Dec: -70 05 1.60 (-70.08378d)	Proper Motion Dec: 0.245 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Calibration
Description=[Planetary nebulae]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	POINT 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	50	1	1	Dither 1	2	2	277.504	
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	
2		IMAGER	F1500W	FASTR1	50	1	1	Dither 1	2	2	277.504	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	
3		IMAGER	F2550W	FASTR1	24	2	1	Dither 1	2	4	271.954	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	

Proposal 4560 - Observation 12 - Exposures for detector bias test in support of AR-4593

Special Requirements	Sequence Observations 11, 12, 13, 14 within 1 Days

Observation

Proposal 4560, Observation 13: Vdetcom = -4.6 V (+2.7 V bias) Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Vdetcom = -4.6 V (+2.7 V bias) (Obs 13)) Warning (Form): Imager Filter overlap.

(Vdetcom = -4.6 V (+2.7 V bias) (Obs 13)) Warning (Form): Imager Filter overlap.

(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	LHA-120-N-133	RA: 05 24 20.7467 (81.0864446d)	Proper Motion RA: 1.767 mas/yr	
		Dec: -70 05 1.60 (-70.08378d)	Proper Motion Dec: 0.245 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Calibration
Description=[Planetary nebulae]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	POINT 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	50	1	1	Dither 1	2	2	277.504	
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	
2		IMAGER	F1500W	FASTR1	50	1	1	Dither 1	2	2	277.504	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	
3		IMAGER	F2550W	FASTR1	24	2	1	Dither 1	2	4	271.954	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	

Proposal 4560 - Observation 13 - Exposures for detector bias test in support of AR-4593

Special Requirements	Sequence Observations 11, 12, 13, 14 within 1 Days

Observation

Proposal 4560, Observation 14: Nominal Bias (+2.2 V bias) Mon Oct 02 18:00:11 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Nominal Bias (+2.2 V bias) (Obs 14)) Warning (Form): Imager Filter overlap.

(Nominal Bias (+2.2 V bias) (Obs 14)) Warning (Form): Imager Filter overlap.

(Visit 14:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	LHA-120-N-133	RA: 05 24 20.7467 (81.0864446d)	Proper Motion RA: 1.767 mas/yr	
		Dec: -70 05 1.60 (-70.08378d)	Proper Motion Dec: 0.245 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Calibration
Description=[Planetary nebulae]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	POINT 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	50	1	1	Dither 1	2	2	277.504	
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	
2		IMAGER	F1500W	FASTR1	50	1	1	Dither 1	2	2	277.504	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	
3		IMAGER	F2550W	FASTR1	24	2	1	Dither 1	2	4	271.954	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	2	2	277.504	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	2	2	277.504	

Proposal 4560 - Observation 14 - Exposures for detector bias test in support of AR-4593

Special Requirements	Sequence Observations 11, 12, 13, 14 within 1 Days