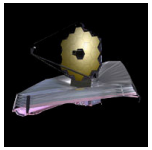

1618 - Searching Our Closest Stellar Neighbor for Planets and Zodiacal Emission

Cycle: 1, Proposal Category: GO

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Alpha Cen A				

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	1	eps Mus Position A. use offset star	MIRI Coronagraphic Imaging	(3) EPS-MUS-OFFSET4ARCSEC-BIN
	2	eps Mus Position A BACKGROUND	MIRI Coronagraphic Imaging	(2) EPS-MUS-BACKGROUND
	3	Alpha Cen A F1550	MIRI Coronagraphic Imaging	(4) ALPHACENOFFSET-5ARCSECBIN
	4	Alpha Cen A F1550 - BACKGROUND	MIRI Coronagraphic Imaging	(1) -ALF-CEN-BACKGROUND
	5	Alpha Cen A F1550	MIRI Coronagraphic Imaging	(4) ALPHACENOFFSET-5ARCSECBIN
	6	Alpha Cen A F1550 - BACKGROUND	MIRI Coronagraphic Imaging	(1) -ALF-CEN-BACKGROUND
	7	offset star for eps Mus. Position A. Obs 2	MIRI Coronagraphic Imaging	(3) EPS-MUS-OFFSET4ARCSEC-BIN
	8	offset star for eps Mus. BACKGROUND	MIRI Coronagraphic Imaging	(2) EPS-MUS-BACKGROUND
Test Observation Alpha Cen				
	10	eps mus TA	MIRI Imaging	(6) -eps-Mus-test
	50	eps mus TA	MIRI Imaging	(6) -eps-Mus-test
	11	alpha cen TA	MIRI Imaging	(5) -alf-Cen-test
March2024				
	52	eps Mus Position A. use offset star	MIRI Coronagraphic Imaging	(9) NEW-EPS-MUS-OFFSET4ARCSEC-BIN
	53	eps Mus Position A BACKGROUND	MIRI Coronagraphic Imaging	(8) NEW-EPS-MUS-BACKGROUND1
	54	Alpha Cen A F1550	MIRI Coronagraphic Imaging	(12) AlphaCen-Offset-StarG0
	55	Alpha Cen A F1550 - BACKGROUND	MIRI Coronagraphic Imaging	(14) Final_Acen_Bkgnd1
	56	Alpha Cen A F1550	MIRI Coronagraphic Imaging	(12) AlphaCen-Offset-StarG0
	57	Alpha Cen A F1550 - BACKGROUND	MIRI Coronagraphic Imaging	(15) Final_Acen_Bkgnd2
	58	offset star for eps Mus. Position A. Obs 2	MIRI Coronagraphic Imaging	(9) NEW-EPS-MUS-OFFSET4ARCSEC-BIN
	59	offset star for eps Mus. BACKGROUND	MIRI Coronagraphic Imaging	(8) NEW-EPS-MUS-BACKGROUND1
	60	alpha cen Background Check	MIRI Imaging	(7) NEW--ALF-CEN-BACKGROUND

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	65	Observe Eps Mus at position of AcenB for PSF reference	MIRI Coronagraphic Imaging	(9) NEW-EPS-MUS-OFFSET4ARCSEC-BIN
Test Obs				
	61	eps MusTA	MIRI Coronagraphic Imaging	(9) NEW-EPS-MUS-OFFSET4ARCSEC-BIN
	63	eps Mus Position A BACKGROUND	MIRI Coronagraphic Imaging	(8) NEW-EPS-MUS-BACKGROUND1
	62	ACen TA test	MIRI Coronagraphic Imaging	(16) Acen-Ofset--Star-G3
	64	Alpha Cen A F1550 - BACKGROUND	MIRI Coronagraphic Imaging	(14) Final_Acen_Bkgnd1

ABSTRACT

Alpha Centauri A is the closest solar-type star to the Sun and offers an unique opportunity to detect both a mature gas giant planet (consistent with existing radial velocity constraints) and a zodiacal dust cloud. A carefully planned observational sequence using the MIRI Coronagraph (F1550C) and innovative post-processing would be sensitive down to a radius limit of 0.5~0.7 R-Jupiter for planets within ~3 AU (~2.5") around alpha Cen A where models predict a region of stablity against disruption by alpha Cen B. These same observations would be sensitive to a level of zodiacal emission only a few times brighter than that of the Sun's, an unprecedented level not even achieved by ground based interferometers. The proposed observations would probe the limit of JWST high contrast imaging on a star that offers the best chance for the ultimate detection of Earth analogs by future ground and/or space based facilities. The experiment is admittedly high risk, but the prospect of directly imaging a planet around our closest stellar neighbor is an exciting one.

OBSERVING DESCRIPTION

The proposed scenario brackets the observations of alpha Cen with observations of a PSF reference star, eps Muscae, of comparable brightness to alpha Cen A. The date of the observation has been selected with a window of a few days to minimize the change in pitch angle (solar offset) between the target and reference star so as to minimize changes in telescope's thermal environment.

Eps Mus will be observed with a 9 point dither pattern at the position of alpha Cen A behind the coronagraphic mask to increase the image diversity for improved PSF reconstruction. Our simulations ahve shown tht the diversity in the reference star PSF was of higher priority than eliminating the low level of residual speckles from alpha Cen B. The observation of alpha Cen is split to avoid the limit of 10,000 seconds for an individual observation.

Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen A is changing by 10 mas per day due to its combined proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial targets to be followed by an offset to the desired science or reference target. Offsets are given after rotation into the camera coordinate system using the SIAF tool. To make the rotation calculation fully deterministic we have specified a desired roll angle. However, we note that the angle itself and the exact timing of the observatiosn are somehwat arbitrary. We just need to know the values in enough time to be able to calculate the requisite offsets. The Gaia stars and eps Mus have highly precise Gaia positions and proper motions. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) along with the results of an approved ALMA DDT proposal to update the position of alpha Cen about 6 weeks before the scheduled observation. We will update the offsets once the exact date of the observation is known..

The offset star for alpha Cen A is a Gaia star located (13") away in (2023) away with an inferred K magnitude (from Gaia colors) of K=13.6. It is observed in TA for FQPM/F1550 mode with F560W and achieves SNR~140 in 15 sec. The offset star for eps Mus is a Gaia star located 25" away with an inferred K magnitude (from Gaia colors) of K=11.4. It is observed in TA for FQPM/F1550 mode with F560W and achieves SNR~32 in 8 sec.

A number of interloper stars will appraoch alpha Cen A during the next few years due to alpha Cen's large proper motion. One is quite faint (S2) and is a minor issue in 2022-23. A second (S5) is significantly brighter and becomes a more serious issue in 2026 and beyond. For this reason we want to schedule the observations as early as possible to ensure the maximum areal coverage for exoplanet discovery and the potential for future follow-up observations.

We have elected to use two roll angles as recommended for MIRI coronography.

**5/31/2023. uPDATED ROLL ANGLES AND v3 AS REQUETED. OBSERVATOIN DATE ASSUMED TO START AT 7/28/2023 00:00:00

6/29/2023:
1) Set roll angle at 8 degrees. Observatoins assumed to start at 7/26/2023 at 0800 UT
2) Selected guide stars based on F1000W test frames for both eps Mus
3) Incorporated ALMA positions for alpha cen using parallax correction appropriate for JWST whose positoin is taken frm Horizons database
4) Set PA for BACKGROUND observations to be the same as primary science observations.

5) removed offsets from eps ms bkgnd observatsoin (in error)

7/25/2024

Numerous updates due to rescheduling.

1) offset strategy validated during test observations #61 and #62

2) selected Gaia stars based on avoidance of dffraction spikes for gven roll angles

3) extended date of obervation by 27 hours to enable roll angle V3=112.7d which brings in 2 guide stars for obervation #56

4) dropped from 5pt to 9pt dither for second eps Mus observatoin to allow time to put eps Mus at position of AcenB for better PSF rejection.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	-ALF-CEN-BACKGROUND	RA: 14 39 49.5000 (219.9562500d) Dec: -60 53 54.00 (-60.89833d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Coronagraphic]*				
(2)	EPS-MUS-BACKGROUND	RA: 12 16 56.5000 (184.2354167d) Dec: -68 11 45.00 (-68.19583d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Coronagraphic]*				
(3)	EPS-MUS-OFFSET4ARCSEC-BIN	RA: 12 17 34.6045 (184.3941854d) Dec: -67 57 13.07 (-67.95363d) Equinox: J2000	Proper Motion RA: -7.114 mas/yr Proper Motion Dec: 0.4336 mas/yr Parallax: 0.0001446" Epoch of Position: 2016	
Comments: *Category=Calibration* *Description=[Target acquisition test]* *Extended=NO*				
(4)	ALPHACENOFFSET-5ARCSECBIN	RA: 14 39 30.6305 (219.8776271d) Dec: -60 49 42.18 (-60.82838d) Equinox: J2000	Proper Motion RA: -3.7897 mas/yr Proper Motion Dec: -1.0139 mas/yr Parallax: 0.000320" Epoch of Position: 2016	
Comments: *Category=Calibration* *Description=[Target acquisition test]* *Extended=NO*				
(5)	-alf-Cen-test	RA: 14 39 26.1413 (219.8589221d) Dec: -60 49 53.88 (-60.83163d) Equinox: J2000	Proper Motion RA: -3640.0 mas/yr Proper Motion Dec: 700.4 mas/yr Parallax: 0.750" Epoch of Position: 2019.5	
Comments: This object was generated by the targetselecto and updated by positions in Akeson et al 2020 *Category=Calibration* *Description=[Target acquisition test]* *Extended=NO*				
(6)	-eps-Mus-test	RA: 12 17 33.6409 (184.3901704d) Dec: -67 57 39.06 (-67.96085d) Equinox: J2000	Proper Motion RA: -0.04104750101727305 sec of time/yr Proper Motion Dec: -0.02638999997088831 arcsec/yr Epoch of Position: 2015.5	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Calibration* *Description=[Target acquisition test]* *Extended=NO*				
(7)	NEW--ALF-CEN-BACKGROUND	RA: 14 46 10.7000 (221.5445833d) Dec: -62 37 56.00 (-62.63222d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Coronagraphic]*				

(8)	NEW-EPS-MUS-BACKGROUND1	RA: 12 16 54.1500 (184.2256250d) Dec: -68 12 6.10 (-68.20169d) Equinox: J2000	
Comments: *Category=Calibration* *Description=[Coronagraphic, External flat field]*			
(9)	NEW-EPS-MUS-OFFSET4ARCSEC-BIN	RA: 12 17 26.1870 (184.3591125d) Dec: -67 58 6.07 (-67.96835d) Equinox: J2000	Proper Motion RA: -6.0517 mas/yr Proper Motion Dec: -0.49837 mas/yr Parallax: 0.000180" Epoch of Position: 2016
Comments: *Category=Calibration* *Description=[Target acquisition test]* *Extended=NO*			
(12)	AlphaCen-Offset-StarG0	RA: 14 39 30.6305 (219.8776271d) Dec: -60 49 42.18 (-60.82838d) Equinox: J2000	Proper Motion RA: -3.7898 mas/yr Proper Motion Dec: -1.0139 mas/yr Parallax: 0.0003202" Epoch of Position: 2016
Comments: *Category=Calibration* *Description=[Target acquisition test]* *Extended=NO*			
(13)	AlphaCen-Offset-StarG7	RA: 14 39 21.1066 (219.8379442d) Dec: -60 50 22.28 (-60.83952d) Equinox: J2000	Proper Motion RA: -5.2596 mas/yr Proper Motion Dec: -5.4394 mas/yr Parallax: 0.0005615" Epoch of Position: 2016
Comments: *Category=Calibration* *Description=[Target acquisition test]* *Extended=NO*			
(14)	Final_Acen_Bkgnd1	RA: 14 46 12.5300 (221.5522083d) Dec: -62 37 38.75 (-62.62743d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0.0" Epoch of Position: 2024.2
Comments: *Category=Calibration* *Description=[Coronagraphic, External flat field]* *Extended=YES*			
(15)	Final_Acen_Bkgnd2	RA: 14 46 11.5000 (221.5479167d) Dec: -62 37 22.00 (-62.62278d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0.0" Epoch of Position: 2024.2
Comments: *Category=Calibration* *Description=[Coronagraphic, External flat field]* *Extended=YES*			

	(16)	Acen-Ofset--Star-G3	RA: 14 39 20.1323 (219.8338846d) Dec: -60 50 15.47 (-60.83763d) Equinox: J2000	Proper Motion RA: -4.4592 mas/yr Proper Motion Dec: -2.9465 mas/yr Parallax: 0.0003997" Epoch of Position: 2016
	Comments: *Category=Calibration* *Description=[Coronagraphic]* *Extended=NO*			

Observation

Proposal 1618, Observation 1: eps Mus Position A. use offset star Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[eps Mus Position A BACKGROUND (Obs 2), offset star for eps Mus. Position A. Obs 2 (Obs 7), offset star for eps Mus. BACKGROUND (Obs 8)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(eps Mus Position A. use offset star (Obs 1)) Error (Form): Permission has not been granted for this program to use Special Requirement 'Guide Star in Guider 1'.

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	EPS-MUS-OFFSET4ARCSEC-BIN	RA: 12 17 34.6045 (184.3941854d) Dec: -67 57 13.07 (-67.95363d) Equinox: J2000	Proper Motion RA: -7.114 mas/yr Proper Motion Dec: 0.4336 mas/yr Parallax: 0.0001446" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1000W	1	FASTGRPAVG8	8	1	1	15.34	59296.14

Template

Repeat observation
NO

Dithers

#	Dither Type
1	9-POINT-SMALL-GRID

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	400	1	9	3600	26746.131	59296.4

PSF References	PSF Reference: true
Special Requirements	Between Dates 26-JUL-2023:08:00:00 and 29-JUL-2023:00:00:00 Aperture PA Range 127.99544897 to 127.99544897 Degrees (V3 123.16 to 123.16) Offset -25.1001073 arcsec, 10.4206918 arcsec No Parallel Attachments Guide Star in Guider 1 Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Observation

Proposal 1618, Observation 2: eps Mus Position A BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: [eps Mus Position A. use offset star (Obs 1), offset star for eps Mus. Position A. Obs 2 (Obs 7)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(eps Mus Position A BACKGROUND (Obs 2)) Error (Form): Permission has not been granted for this program to use Special Requirement 'Guide Star in Guider 1'.

(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)	EPS-MUS-BACKGROUND	RA: 12 16 56.5000 (184.2354167d) Dec: -68 11 45.00 (-68.19583d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Coronagraphic]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	YES	1

Dithers

#	Dither Type
1	BACKGROUND

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	400	1	2	800	5943.585	59296.4

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments Guide Star in Guider 1 Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Observation

Proposal 1618, Observation 3: Alpha Cen A F1550 Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[Alpha Cen A F1550 - BACKGROUND (Obs 4), Alpha Cen A F1550 (Obs 5), Alpha Cen A F1550 - BACKGROUND (Obs 6)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Alpha Cen A F1550 (Obs 3)) Error (Form): Permission has not been granted for this program to use Special Requirement 'Guide Star in Guider 1'.

(Alpha Cen A F1550 (Obs 3)) Warning (Form): Science observations should be linked to at least one other compatible science observation by an Aperture PA Offset of 1-14 degrees

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(4)	ALPHACENOFFSET-5ARCSECBIN	RA: 14 39 30.6305 (219.8776271d) Dec: -60 49 42.18 (-60.82838d) Equinox: J2000	Proper Motion RA: -3.7897 mas/yr Proper Motion Dec: -1.0139 mas/yr Parallax: 0.000320" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1000W	1	FASTGRPAVG8	8	1	1	15.34	59296.13

Template

Repeat observation
NO

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	1	1250	9287.36	59296.2

PSF References	eps Mus Position A. use offset star (Obs 1) (PSF Reference; Filters [F1550C]) offset star for eps Mus. Position A. Obs 2 (Obs 7) (PSF Reference; Filters [F1550C]) Additional Justification: false
Special Requirements	Aperture PA Range 105.08544897 to 105.08544897 Degrees (V3 100.25 to 100.25) Offset -24.578211 arcsec, -43.717067 arcsec No Parallel Attachments Guide Star in Guider 1 Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Observation

Proposal 1618, Observation 4: Alpha Cen A F1550 - BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: [Alpha Cen A F1550 (Obs 3), Alpha Cen A F1550 (Obs 5)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Alpha Cen A F1550 - BACKGROUND (Obs 4)) Error (Form): Permission has not been granted for this program to use Special Requirement 'Guide Star in Guider 1'.

(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	-ALF-CEN-BACKGROUND	RA: 14 39 49.5000 (219.9562500d) Dec: -60 53 54.00 (-60.89833d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Coronagraphic]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	YES	1

Dithers

#	Dither Type
1	BACKGROUND

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	2	2500	18574.721	59296.2

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments Guide Star in Guider 1 Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Observation

Proposal 1618, Observation 5: Alpha Cen A F1550 Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[Alpha Cen A F1550 (Obs 3), Alpha Cen A F1550 - BACKGROUND (Obs 4), Alpha Cen A F1550 - BACKGROUND (Obs 6)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Alpha Cen A F1550 (Obs 5)) Error (Form): Permission has not been granted for this program to use Special Requirement 'Guide Star in Guider 1'.

(Alpha Cen A F1550 (Obs 5)) Warning (Form): Science observations should be linked to at least one other compatible science observation by an Aperture PA Offset of 1-14 degrees

(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)	ALPHACENOFFSET-5ARCSECBIN	RA: 14 39 30.6305 (219.8776271d) Dec: -60 49 42.18 (-60.82838d) Equinox: J2000	Proper Motion RA: -3.7897 mas/yr Proper Motion Dec: -1.0139 mas/yr Parallax: 0.000320" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1000W	1	FASTGRPAVG8	8	1	1	15.34	59296.13

Template

Repeat observation
NO

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	1	1250	9287.36	59296.2

PSF References	offset star for eps Mus. Position A. Obs 2 (Obs 7) (PSF Reference; Filters [F1550C]) Additional Justification: false
Special Requirements	Aperture PA Range 99.58544897 to 99.58544897 Degrees (V3 94.75 to 94.75) Offset -20.27146122 arcsec, -45.8774117 arcsec No Parallel Attachments Guide Star in Guider 1 Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Observation

Proposal 1618, Observation 6: Alpha Cen A F1550 - BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: [Alpha Cen A F1550 (Obs 3), Alpha Cen A F1550 (Obs 5)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Alpha Cen A F1550 - BACKGROUND (Obs 6)) Error (Form): Permission has not been granted for this program to use Special Requirement 'Guide Star in Guider 1'.

(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	-ALF-CEN-BACKGROUND	RA: 14 39 49.5000 (219.9562500d) Dec: -60 53 54.00 (-60.89833d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Coronagraphic]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	YES	1

Dithers

#	Dither Type
1	BACKGROUND

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	2	2500	18574.721	59296.2

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments Guide Star in Guider 1 Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Observation

Proposal 1618, Observation 7: offset star for eps Mus. Position A. Obs 2 Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[eps Mus Position A. use offset star (Obs 1), eps Mus Position A BACKGROUND (Obs 2), offset star for eps Mus. BACKGROUND (Obs 8)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(offset star for eps Mus. Position A. Obs 2 (Obs 7)) Error (Form): Permission has not been granted for this program to use Special Requirement 'Guide Star in Guider 1'.

(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	EPS-MUS-OFFSET4ARCSEC-BIN	RA: 12 17 34.6045 (184.3941854d) Dec: -67 57 13.07 (-67.95363d) Equinox: J2000	Proper Motion RA: -7.114 mas/yr Proper Motion Dec: 0.4336 mas/yr Parallax: 0.0001446" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1000W	1	FASTGRPAVG8	8	1	1	15.34	59296.14

Template

Repeat observation
NO

Dithers

#	Dither Type
1	9-POINT-SMALL-GRID

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	400	1	9	3600	26746.131	59296.4

PSF References	PSF Reference: true
Special Requirements	Aperture PA Range 127.99544897 to 127.99544897 Degrees (V3 123.16 to 123.16) Offset -25.10068935028 arcsec, 10.42010570854 arcsec No Parallel Attachments Guide Star in Guider 1 Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Observation

Proposal 1618, Observation 8: offset star for eps Mus. BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: [eps Mus Position A. use offset star (Obs 1), offset star for eps Mus. Position A. Obs 2 (Obs 7)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(offset star for eps Mus. BACKGROUND (Obs 8)) Error (Form): Permission has not been granted for this program to use Special Requirement 'Guide Star in Guider 1'.

(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)	EPS-MUS-BACKGROUND	RA: 12 16 56.5000 (184.2354167d) Dec: -68 11 45.00 (-68.19583d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Coronagraphic]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	YES	1

Dithers

#	Dither Type
1	BACKGROUND

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	400	1	2	800	5943.585	59296.4

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments Guide Star in Guider 1 Sequence Observations 1, 2, 3, 4, 5, 6, 7, 8, Non-interruptible

Observation

Proposal 1618, Observation 10: eps mus TA

Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Diagnostics

(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(6)	-eps-Mus-test	RA: 12 17 33.6409 (184.3901704d) Dec: -67 57 39.06 (-67.96085d) Equinox: J2000	Proper Motion RA: -0.04104750101727305 sec of time/yr Proper Motion Dec: -0.02638999997088831 arcsec/yr Epoch of Position: 2015.5	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Template

Subarray
FULL

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	4-Point-Sets				5	1	POINT SOURCE	POSITIVE	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	F1000W	FASTR1	60	1	1	Dither 1	4	4	666.01	153514

Observation

Proposal 1618, Observation 50: eps mus TA Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Comments: This observation is a duplicate of observation 10 which was skipped by the observatory.

Diagnostics

(Visit 50:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(6)	-eps-Mus-test	RA: 12 17 33.6409 (184.3901704d) Dec: -67 57 39.06 (-67.96085d) Equinox: J2000	Proper Motion RA: -0.04104750101727305 sec of time/yr Proper Motion Dec: -0.02638999997088831 arcsec/yr Epoch of Position: 2015.5	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Template

Subarray
FULL

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	4-Point-Sets				5	1	POINT SOURCE	POSITIVE	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	F1000W	FASTR1	60	1	1	Dither 1	4	4	666.01	153514

Observation

Proposal 1618, Observation 11: alpha cen TA

Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(5)	-alf-Cen-test	RA: 14 39 26.1413 (219.8589221d) Dec: -60 49 53.88 (-60.83163d) Equinox: J2000	Proper Motion RA: -3640.0 mas/yr Proper Motion Dec: 700.4 mas/yr Parallax: 0.750" Epoch of Position: 2019.5	

Comments: This object was generated by the targetselecto and updated by positions in Akeson et al 2020
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Template

Subarray
FULL

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	4-Point-Sets				5	1	POINT SOURCE	POSITIVE	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	F1000W	FASTR1	60	1	1	Dither 1	4	4	666.01	153514

Observation

Proposal 1618, Observation 52: eps Mus Position A. use offset star Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(eps Mus Position A. use offset star (Obs 52)) Error (Form): This target requires similar background exposures that are linked in a non-interruptible group/sequence.

(Visit 52:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(9)	NEW-EPS-MUS-OFFSET4ARCSEC-BIN	RA: 12 17 26.1870 (184.3591125d) Dec: -67 58 6.07 (-67.96835d) Equinox: J2000	Proper Motion RA: -6.0517 mas/yr Proper Motion Dec: -0.49837 mas/yr Parallax: 0.000180" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	FND	1	FASTGRPAVG8	44	1	1	84.367	198489

Template

Repeat observation
NO

Dithers

#	Dither Type
1	9-POINT-SMALL-GRID

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	400	1	9	3600	26746.131	59296.4

PSF References	PSF Reference: true
Special Requirements	Between Dates 11-AUG-2024:13:00:00 and 11-AUG-2024:14:00:00 Aperture PA Range 139.83544897 to 139.83544897 Degrees (V3 135.0 to 135.0) Offset -47.75843602 arcsec, -5.27324744 arcsec No Parallel Attachments Same Aperture PA 52, 58 Same Aperture PA 52, 65

Observation

Proposal 1618, Observation 53: eps Mus Position A BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: []

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(Visit 53:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(8)	NEW-EPS-MUS-BACKGROUND1	RA: 12 16 54.1500 (184.2256250d) Dec: -68 12 6.10 (-68.20169d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Coronagraphic, External flat field]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	NO	1

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	400	1	1	400	2971.792	59296.4

PSF References	Additional Justification: false
Special Requirements	Aperture PA Range 142.93618397 to 142.93618397 Degrees (V3 138.100735 to 138.100735) No Parallel Attachments

Observation

Proposal 1618, Observation 54: Alpha Cen A F1550 Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Alpha Cen A F1550 (Obs 54)) Error (Form): This target requires similar background exposures that are linked in a non-interruptible group/sequence.

(Alpha Cen A F1550 (Obs 54)) Warning (Form): Coronagraphic Science and PSF Reference observations should be executed contiguously via a Group/Sequence Observations Link.

(Alpha Cen A F1550 (Obs 54)) Warning (Form): Science observations should be linked to at least one other compatible science observation by an Aperture PA Offset of 1-14 degrees

(Visit 54:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(12)	AlphaCen-Offset-StarG0	RA: 14 39 30.6305 (219.8776271d) Dec: -60 49 42.18 (-60.82838d) Equinox: J2000	Proper Motion RA: -3.7898 mas/yr Proper Motion Dec: -1.0139 mas/yr Parallax: 0.0003202" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1000W	1	FASTGRPAVG8	22	1	1	42.184	180933.1

Template

Repeat observation
NO

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	1	1250	9287.36	59296.2

PSF References	eps Mus Position A. use offset star (Obs 52) (PSF Reference; Filters [F1550C]) offset star for eps Mus. Position A. Obs 2 (Obs 58) (PSF Reference; Filters [F1550C]) Additional Justification: false
Special Requirements	After Date 11-AUG-2024:22:00:00 Aperture PA Range 107.83544897 to 107.83544897 Degrees (V3 103.0 to 103.0) Offset 27.313742 arcsec, 46.5400439 arcsec No Parallel Attachments

Observation

Proposal 1618, Observation 55: Alpha Cen A F1550 - BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: []

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Visit 55:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(14)	Final_Acen_Bkgnd1	RA: 14 46 12.5300 (221.5522083d) Dec: -62 37 38.75 (-62.62743d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0.0" Epoch of Position: 2024.2	

Comments:
Category=Calibration
Description=[Coronagraphic, External flat field]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	NO	1

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	1	1250	9287.36	59296.2

PSF References	Additional Justification: false
Special Requirements	Aperture PA Range 109.86273897 to 109.86273897 Degrees (V3 105.02729 to 105.02729) No Parallel Attachments

Observation

Proposal 1618, Observation 56: Alpha Cen A F1550 Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Alpha Cen A F1550 (Obs 56)) Error (Form): This target requires similar background exposures that are linked in a non-interruptible group/sequence.

(Alpha Cen A F1550 (Obs 56)) Warning (Form): Coronagraphic Science and PSF Reference observations should be executed contiguously via a Group/Sequence Observations Link.

(Alpha Cen A F1550 (Obs 56)) Warning (Form): Science observations should be linked to at least one other compatible science observation by an Aperture PA Offset of 1-14 degrees

(Visit 56:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(12)	AlphaCen-Offset-StarG0	RA: 14 39 30.6305 (219.8776271d) Dec: -60 49 42.18 (-60.82838d) Equinox: J2000	Proper Motion RA: -3.7898 mas/yr Proper Motion Dec: -1.0139 mas/yr Parallax: 0.0003202" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1000W	1	FASTGRPAVG8	22	1	1	42.184	180933.1

Template

Repeat observation
NO

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	1	1250	9287.36	59296.2

PSF References	eps Mus Position A. use offset star (Obs 52) (PSF Reference; Filters [F1550C]) offset star for eps Mus. Position A. Obs 2 (Obs 58) (PSF Reference; Filters [F1550C]) Additional Justification: false
Special Requirements	After Date 12-AUG-2024:04:50:00 Aperture PA Range 117.53544897 to 117.53544897 Degrees (V3 112.7 to 112.7) Offset 34.7635678 arcsec, 41.275884 arcsec No Parallel Attachments

Observation

Proposal 1618, Observation 57: Alpha Cen A F1550 - BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: []

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Visit 57:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(15)	Final_Acen_Bkgnd2	RA: 14 46 11.5000 (221.5479167d) Dec: -62 37 22.00 (-62.62278d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0.0" Epoch of Position: 2024.2	

Comments:
Category=Calibration
Description=[Coronagraphic, External flat field]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	NO	1

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	1	1250	9287.36	59296.2

PSF References	Additional Justification: false
Special Requirements	Aperture PA Range 110.04065897 to 110.04065897 Degrees (V3 105.20521 to 105.20521) No Parallel Attachments

Observation

Proposal 1618, Observation 58: offset star for eps Mus. Position A. Obs 2 Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(offset star for eps Mus. Position A. Obs 2 (Obs 58)) Error (Form): This target requires similar background exposures that are linked in a non-interruptible group/sequence.

(Visit 58:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(9)	NEW-EPS-MUS-OFFSET4ARCSEC-BIN	RA: 12 17 26.1870 (184.3591125d) Dec: -67 58 6.07 (-67.96835d) Equinox: J2000	Proper Motion RA: -6.0517 mas/yr Proper Motion Dec: -0.49837 mas/yr Parallax: 0.000180" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	FND	1	FASTGRPAVG8	44	1	1	84.367	198489

Template

Repeat observation
NO

Dithers

#	Dither Type
1	5-POINT-SMALL-GRID

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	400	1	5	2000	14858.962	59296.4

PSF References	PSF Reference: true
Special Requirements	Offset -47.757993 arcsec, -5.27295 arcsec No Parallel Attachments Same Aperture PA 52, 58

Observation

Proposal 1618, Observation 59: offset star for eps Mus. BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: []

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(Visit 59:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(8)	NEW-EPS-MUS-BACKGROUND1	RA: 12 16 54.1500 (184.2256250d) Dec: -68 12 6.10 (-68.20169d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Coronagraphic, External flat field]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	NO	1

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	400	1	1	400	2971.792	59296.4

PSF References	Additional Justification: false
Special Requirements	Aperture PA Range 143.67301997 to 143.67301997 Degrees (V3 138.837571 to 138.837571) Offset 7.0 arcsec, 7.0 arcsec No Parallel Attachments

Observation

Proposal 1618, Observation 60: alpha cen Background Check Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Diagnostics

(Visit 60:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(7)	NEW--ALF-CEN-BACKGROUND	RA: 14 46 10.7000 (221.5445833d) Dec: -62 37 56.00 (-62.63222d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Coronagraphic]

Template

Subarray
FULL

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	4-Point-Sets				5	1	POINT SOURCE	POSITIVE	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	F1500W	FASTR1	60	1	1	Dither 1	4	4	666.01	153514

Special Requirements

Between Dates 01-FEB-2024 and 15-FEB-2024

Observation

Proposal 1618, Observation 65: Observe Eps Mus at position of AcenB for PSF reference Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Error

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[]

Diagnostics

(Observe Eps Mus at position of AcenB for PSF reference (Obs 65)) Error (Form): This target requires similar background exposures that are linked in a non-interruptible group/sequence.

(Visit 65:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(9)	NEW-EPS-MUS-OFFSET4ARCSEC-BIN	RA: 12 17 26.1870 (184.3591125d) Dec: -67 58 6.07 (-67.96835d) Equinox: J2000	Proper Motion RA: -6.0517 mas/yr Proper Motion Dec: -0.49837 mas/yr Parallax: 0.000180" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	9 NEW-EPS-MUS-OFFSET4ARCSEC-BIN	FND	1	FASTGRPAVG8	44	1	1	84.367	198489

Template

Repeat observation
NO

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	1250	1	1	1250	9287.36	

PSF References	PSF Reference: true
Special Requirements	Offset -39.37182 arcsec, -8.1042498685 arcsec No Parallel Attachments Same Aperture PA 52, 65

Observation

Proposal 1618, Observation 61: eps MusTA Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Coronagraphic Imaging

Background Observations:[eps Mus Position A BACKGROUND (Obs 63)]

Diagnostics

(Visit 61:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(9)	NEW-EPS-MUS-OFFSET4ARCSEC-BIN	RA: 12 17 26.1870 (184.3591125d) Dec: -67 58 6.07 (-67.96835d) Equinox: J2000	Proper Motion RA: -6.0517 mas/yr Proper Motion Dec: -0.49837 mas/yr Parallax: 0.000180" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Target acquisition test]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	9 NEW-EPS-MUS-OFFSET4ARCSEC-BIN	FND	1	FASTGRPAVG8	22	1	1	42.184	198489

Template

Repeat observation
NO

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	20	1	1	20	148.362	

PSF References	PSF Reference: true
Special Requirements	Between Dates 08-JUL-2024:00:00:00 and 08-JUL-2024:00:30:00 Aperture PA Range 111.83544897 to 111.83544897 Degrees (V3 107.0 to 107.0) Offset -39.69796378 arcsec, -27.0953544 arcsec No Parallel Attachments Sequence Observations 61, 62, 63, 64, Non-interruptible

Observation

Proposal 1618, Observation 63: eps Mus Position A BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: [eps MusTA (Obs 61)]

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

This TA positions eps mus behind the coronagrphic mask

Diagnostics

(Visit 63:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(8)	NEW-EPS-MUS-BACKGROUND1	RA: 12 16 54.1500 (184.2256250d) Dec: -68 12 6.10 (-68.20169d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Coronagraphic, External flat field]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	NO	1

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	20	1	1	20	148.362	59296.4

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments Sequence Observations 61, 62, 63, 64, Non-interruptible

Observation

Proposal 1618, Observation 62: ACen TA test

Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Coronagraphic Imaging

Diagnostics

(ACen TA test (Obs 62)) Warning (Form): Science observations should be linked to at least one other compatible science observation by an Aperture PA Offset of 1-14 degrees

(Visit 62:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(16)	Acen-Ofset--Star-G3	RA: 14 39 20.1323 (219.8338846d) Dec: -60 50 15.47 (-60.83763d) Equinox: J2000	Proper Motion RA: -4.4592 mas/yr Proper Motion Dec: -2.9465 mas/yr Parallax: 0.0003997" Epoch of Position: 2016	

Comments:
Category=Calibration
Description=[Coronagraphic]
Extended=NO

Acquisition

#	Target	Filter	Quadrant	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	16 Acen-Ofset--Star-G3	F1000W	1	FASTGRPAVG8	22	1	1	42.184	204513.1

Template

Repeat observation
NO

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	20	1	1	20	148.362	

PSF References	eps MusTA (Obs 61) (PSF Reference; Filters [F1550C]) Additional Justification: false
Special Requirements	After Date 08-JUL-2024:02:00:00 Aperture PA Range 82.83544897 to 82.83544897 Degrees (V3 78.0 to 78.0) Offset -17.9827178 arcsec, -26.97689 arcsec No Parallel Attachments Sequence Observations 61, 62, 63, 64, Non-interruptible

Observation

Proposal 1618, Observation 64: Alpha Cen A F1550 - BACKGROUND Thu Aug 01 17:00:15 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Coronagraphic Imaging

Background Observation For: []

Comments: Target acquisition (TA) for both alpha Cen and the PSF reference star eps Mus will be challenging due to two factors: 1) both stars are extremely bright and would saturate during the TA process; 2) the position of alpha Cen is changing by up to 10 mas per day due to its proper motion, parallax and orbital motion. We address the first point for both stars by using nearby Gaia stars as the initial target to be followed by an offset to the desired science target. Offsets are given in the sense (alpha CenRA/DEC-OffsetStarRA/DEC) after rotation into the camera coordinate system. The Gaia stars and eps Mus have highly precise Gaia positions and proper motion values. We will address the evolving position of alpha Cen A using the ALMA astrometry obtained by Akeson et al (2020) and update the offsets once the exact date of the observation. It may eventually prove necessary to treat alpha Cen as a moving target so as to mitigate its motion during the 5 hours of its observation.

Diagnostics

(Visit 64:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(14)	Final_Acen_Bkgnd1	RA: 14 46 12.5300 (221.5522083d) Dec: -62 37 38.75 (-62.62743d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Parallax: 0.0" Epoch of Position: 2024.2	

Comments:
Category=Calibration
Description=[Coronagraphic, External flat field]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Repeat observation	Background Quadrant
F560W	NO	1

Dithers

#	Dither Type
1	NONE

Spectral Elements

#	Coron Mask/Filter	Subarray	Mask	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	4QPM/F1550C	MASK1550	4QPM	F1550C	FASTR1	30	20	1	1	20	148.362	59296.2

PSF References	Additional Justification: false
Special Requirements	No Parallel Attachments Sequence Observations 61, 62, 63, 64, Non-interruptible