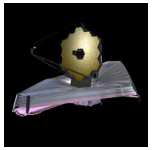

1183 - Coronagraphic Imaging of Scattered light Debris Disksnew version

Cycle: 1, Proposal Category: GTO

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
HD-10647				
	1	HD10647, Roll 1	NIRCam Coronagraphic Imaging	(3) HD-10647
	2	HD10647, Roll 2	NIRCam Coronagraphic Imaging	(3) HD-10647
	3	HD10647PSF	NIRCam Coronagraphic Imaging	(8) HD-10647-PSF
HD-107146				
	4	HD107146, Roll 1	NIRCam Coronagraphic Imaging	(2) HD-107146
	5	HD107146, Roll 2	NIRCam Coronagraphic Imaging	(2) HD-107146
	6	HD107146PSF	NIRCam Coronagraphic Imaging	(7) HD-107146-PSF
HD-181327				
	7	HD181327, Roll 1	NIRCam Coronagraphic Imaging	(1) HD-181327
	8	HD181327, Roll 2	NIRCam Coronagraphic Imaging	(1) HD-181327

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	9	HD181327PSF	NIRCam Coronagraphic Imaging	(6) HD-181327-PSF
HD-61005				
	10	HD61005, Roll 1	NIRCam Coronagraphic Imaging	(4) HD-61005
	11	HD61005, Roll 2	NIRCam Coronagraphic Imaging	(4) HD-61005
	12	HD61005PSF	NIRCam Coronagraphic Imaging	(9) HD-61005-PSF
HD-32297				
	13	HD 32297 - NIRSpec Fixed Slit G235/F170LP A	NIRSpec Fixed Slit Spectroscopy	(5) HD-32297
	15	HD32297, Roll 1	NIRCam Coronagraphic Imaging	(5) HD-32297
	16	HD32297, Roll 2	NIRCam Coronagraphic Imaging	(5) HD-32297
	17	HD32297PSF	NIRCam Coronagraphic Imaging	(10) HD-32297-PSF

ABSTRACT

Following the epoch of planetary system formation (1-10 Myr), the bodies that were not aggregated by the larger planets remain in orbit around the central star and undergo a long timescale collisional cascade. The systems are void of gas by this time and the collisional processing provides a continuous source of micron size dust particles. These disks of particles, ranging in size from microns to kilometers, are called debris disks. Models of the collisional processing of materials provides us with estimates of the dust size distributions and our understanding of the various forces acting on them (gravitational and radiative) predict their physical locations. Furthermore, debris disks are also ideal astrophysical laboratories, providing us ways to study the material composition of the solid materials in planetary systems around nearby stars, as the fine dust detected in scattered light are produced from the collisional grinding of the largest bodies.

The Near-Infrared Camera (NIRCam) onboard the James Webb Space Telescope (JWST) will provide us images of nearby debris disks at HST-like resolution at near-infrared wavelengths, with great sensitivity. The technological advancements enable us to study the composition of the solid particles dust in these systems. Multi-wavelength scattered light imaging will reveal the water-ice, carbon-dioxide ice and tholin composition of the dust. While water is necessary for life to emerge in other worlds, tholins have been shown to be common in the outer regions of the solar system. Assessing the similarities and dissimmilarities of materials between these systems and our solar system will help place our own world into context.

Within our program, we will observe the following previously well studied (at other wavelengths) systems: HD 181327, HD 107146, HD 10647, HD 61005, and HD 32297.

OBSERVING DESCRIPTION

We will obtain NIRCam PSF-template subtracted coronagraphic images of the debris disks of HD 181327, HD 107146, HD 10647, HD 32297, and HD 61005. We observe all of our targets with the same filter set using the same sequence of observations, only varying the number of integrations/groups on each source and the readout modes, which depend on the predicted surface brightness of the disks and coronagraphic residual stellar light. To cover the spectral absorption lines of the systems, we will use the F335M and F444W filters in Cycle 1. For each target, we also observe a nearby and color- and flux-matched PSF reference source, using contemporaneous and identically executed observation sequences. While exact color-matching is not necessary for the longer wavelength observations, it may be relevant up to 3 microns.

Each set of observations is as follows: 1) We observe each target at two orientations, offset by 10 deg. At each orientation, we sequence through the filter set taking a total of 1200 to 1800 s of data per orientation. 2) We then observe the PSF refence at an undefined position angle, at both filters, for around 2100 s per filter, employing a 5 point dither pattern.

We join our NIRCam program with the NIRSpec program of Christine Chen (a contact Co-I on the proposal) on the source HD 32297. The basic NIRCam program, taking images at 2 wavelength bands for 5 sources, totals 28.83 hours, while the standalone NIRSpec program would be 3.00 hours. Our joined program is 31.33 hours, instead of 53.34, thereby saving 0.5 hours for the two programs, which we divide up evenly between the GTO programs.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	HD-181327	RA: 19 22 58.9430 (290.7455958d) Dec: -54 32 16.97 (-54.53805d) Equinox: J2000	Proper Motion RA: 23.99 mas/yr Proper Motion Dec: -81.82 mas/yr Parallax: 0.0193" Epoch of Position: 2000	
Comments: K = 5.9; sptype = F6V *1.82 mu: 3.69 Jy* *2.10 mu: 3.00 Jy* *2.50 mu: 2.24 Jy* *3.00 mu: 1.63 Jy* *3.35 mu: 1.33 Jy* *4.44 mu: 0.78 Jy* *Category=Star* *Description=[Debris disks, F stars]*				
(2)	HD-107146	RA: 12 19 6.5020 (184.7770917d) Dec: +16 32 53.86 (16.54829d) Equinox: J2000	Proper Motion RA: -174.725 mas/yr Proper Motion Dec: -148.786 mas/yr Parallax: 0.03641" Epoch of Position: 2000	
Comments: K = 5.54; sptype = G2V *1.82 mu: 5.26 Jy* *2.10 mu: 4.24 Jy* *2.50 mu: 3.14 Jy* *3.00 mu: 2.32 Jy* *3.35 mu: 1.91 Jy* *4.44 mu: 1.07 Jy* *Category=Star* *Description=[Debris disks, G stars]*				
(3)	HD-10647	RA: 01 42 29.3147 (25.6221446d) Dec: -53 44 26.99 (-53.74083d) Equinox: J2000	Proper Motion RA: 165.947 mas/yr Proper Motion Dec: -105.446 mas/yr Parallax: 0.05736" Epoch of Position: 2000	
Comments: K = 4.3; sptype = F9V *1.82 mu: 17.51 Jy* *2.10 mu: 14.21 Jy* *2.50 mu: 10.55 Jy* *3.00 mu: 7.69 Jy* *3.35 mu: 6.31 Jy* *4.44 mu: 3.69 Jy* *Category=Star* *Description=[Debris disks, F stars]*				
(4)	HD-61005	RA: 07 35 47.4619 (113.9477579d) Dec: -32 12 14.04 (-32.20390d) Equinox: J2000	Proper Motion RA: -55.061 mas/yr Proper Motion Dec: 74.336 mas/yr Parallax: 0.02722" Epoch of Position: 2000	
Comments: K = 6.458; sptype = G8V *1.82 mu: 2.24 Jy* *2.10 mu: 1.78 Jy* *2.50 mu: 1.32 Jy* *3.00 mu: 0.98 Jy* *3.35 mu: 0.80 Jy* *4.44 mu: 0.45 Jy* *Category=Star* *Description=[Debris disks, G stars]*				

(5)	HD-32297	RA: 05 02 27.4364 (75.6143183d) Dec: +07 27 39.68 (7.46102d) Equinox: J2000	Proper Motion RA: 5.599 mas/yr Proper Motion Dec: -23.53 mas/yr Parallax: 0.00734" Epoch of Position: 2000

Comments: K = 7.594; sptype = A0V

1.82 mu: 0.79 Jy
2.10 mu: 0.63 Jy
2.50 mu: 0.46 Jy
3.00 mu: 0.33 Jy
3.35 mu: 0.28 Jy
4.44 mu: 0.16 Jy
Category=Star
Description=[A stars, Debris disks]

(6)	HD-181327-PSF	RA: 19 18 9.7805 (289.5407521d) Dec: -53 23 13.51 (-53.38709d) Equinox: J2000	Proper Motion RA: 24.19 mas/yr Proper Motion Dec: -81.90 mas/yr Parallax: 0.02219" Epoch of Position: 2000

Comments: K = 5.1; sptype = F7V

rho Tel may be good too,

1.82 mu: 7.78 Jy
2.10 mu: 6.26 Jy
2.50 mu: 4.74 Jy
3.00 mu: 3.45 Jy
3.35 mu: 2.82 Jy
4.44 mu: 1.64 Jy
Category=Calibration
Description=[Point spread function]

(7)	HD-107146-PSF	RA: 12 48 52.4213 (192.2184221d) Dec: +12 05 46.95 (12.09638d) Equinox: J2000	Proper Motion RA: 233.135 mas/yr Proper Motion Dec: -139.532 mas/yr Parallax: 0.02645" Epoch of Position: 2000

Comments: K = 5.534; sptype = G5V

1.82 mu: 5.57 Jy
2.10 mu: 4.48 Jy
2.50 mu: 3.29 Jy
3.00 mu: 2.45 Jy
3.35 mu: 2.02 Jy
4.44 mu: 1.12 Jy
Category=Calibration
Description=[Point spread function]

(8)	HD-10647-PSF	RA: 02 42 33.4666 (40.6394442d) Dec: -50 48 1.06 (-50.80029d) Equinox: J2000	Proper Motion RA: 333.81 mas/yr Proper Motion Dec: 219.500 mas/yr Parallax: 0.05825" Epoch of Position: 2000

Comments: K = 4.138; sptype = F8V

1.82 mu: 19.89 Jy
2.10 mu: 16.02 Jy
2.50 mu: 12.01 Jy
3.00 mu: 8.77 Jy
3.35 mu: 7.16 Jy
4.44 mu: 4.13 Jy
Category=Calibration
Description=[Point spread function]

(9)	HD-61005-PSF	RA: 07 14 36.7033 (108.6529304d) Dec: -30 39 17.69 (-30.65491d) Equinox: J2000	Proper Motion RA: -84.937 mas/yr Proper Motion Dec: 49.431 mas/yr Parallax: 0.00697" Epoch of Position: 2000

Comments: K = 4.912; sptype = G5IV

1.82 mu: 9.55 Jy
2.10 mu: 7.69 Jy
2.50 mu: 5.53 Jy
3.00 mu: 4.21 Jy
3.35 mu: 3.46 Jy
4.44 mu: 1.84 Jy
Category=Calibration
Description=[Point spread function]

(10)	HD-32297-PSF	RA: 04 55 58.3523 (73.9931346d) Dec: +05 23 56.48 (5.39902d) Equinox: J2000	Proper Motion RA: -16.802 mas/yr Proper Motion Dec: -14.486 mas/yr Parallax: 0.0076" Epoch of Position: 2000

Comments: K = 6.417; sptype = A0V

1.82 mu: 2.30 Jy
2.10 mu: 1.88 Jy
2.50 mu: 1.36 Jy
3.00 mu: 1.00 Jy
3.35 mu: 0.82 Jy
4.44 mu: 0.49 Jy
Category=Calibration
Description=[Point spread function]

(11)	GAIA3289902892417327104	RA: 05 02 26.2500 (75.6093750d) Dec: +07 27 54.70 (7.46519d) Equinox: J2000	Epoch of Position: 2000

Comments: This object is in a number of catalogs and has the following measured positions and brightnesses
(1) GSC2.3 N9M6017569
RA=075.609369, Dec=07.465135
V=17.84, N=16.86
(2) 2MASS 05022626+0727541
RA=075.609430, Dec=+07.465045
J=16.596, H=16.453, K~16.048
(3) GAIA 3289902892417327104
RA=75.6093767236697, Dec=7.465195401991364
g=17.51599975453032
Category=Calibration
Description=[Astrometric]
Extended=NO

Observation

Proposal 1183, Observation 1: HD10647, Roll 1 Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Comments: ETC says TA may fail with groups=9. SNR at only 24.99. Need min 17 groups according to ETC.

Original PA constraint of 0-25 degrees to place disk diagonally.
Additional PA of 0-11 constraint to maximize solar elongation.

Diagnostics

(HD10647, Roll 1 (Obs 1)) Warning (Form): The order of link [PA Offset 1 from 2] combined with the order of the SEQ NON-INT reduces scheduling flexibility.

(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)	HD-10647	RA: 01 42 29.3147 (25.6221446d)	Proper Motion RA: 165.947 mas/yr	
		Dec: -53 44 26.99 (-53.74083d)	Proper Motion Dec: -105.446 mas/yr	
		Equinox: J2000	Parallax: 0.05736"	
			Epoch of Position: 2000	

Comments: K = 4.3; sptype = F9V

1.82 mu: 17.51 Jy
2.10 mu: 14.21 Jy
2.50 mu: 10.55 Jy
3.00 mu: 7.69 Jy
3.35 mu: 6.31 Jy
4.44 mu: 3.69 Jy
Category=Star
Description=[Debris disks, F stars]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12269.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	true	SUB320A335R	NONE

Confirmation

#	Conf. Readout Pattern	Conf. Groups/Int	Conf. Integrations/Exp	Conf. Total Integrations	Conf. Total Exposure Time	Conf. Total Dithers
1	RAPID	3	3	3	118.104	1

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	8	21	1	21	1773.967	12269.1
2	F444W	MEDIUM8	8	21	1	21	1773.967	12269.3

PSF References

HD10647PSF (Obs 3) (PSF Reference; Filters [F444W, F300M])

Additional Justification: false

Special Requirements

Aperture PA Range 0 to 11 Degrees (V3 359.94571388 to 10.94571388)
No Parallel Attachments

Sequence Observations 1, 2, 3, Non-interruptible
Aperture PA Offset 1 from 2 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 2: HD10647, Roll 2 Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Comments: ETC says TA may fail with groups=9. SNR at only 24.99. Need min 17 groups according to ETC.

Diagnostics

(HD10647, Roll 2 (Obs 2)) Warning (Form): The order of link [PA Offset 1 from 2] combined with the order of the SEQ NON-INT reduces scheduling flexibility.

(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	HD-10647	RA: 01 42 29.3147 (25.6221446d) Dec: -53 44 26.99 (-53.74083d) Equinox: J2000	Proper Motion RA: 165.947 mas/yr Proper Motion Dec: -105.446 mas/yr Parallax: 0.05736" Epoch of Position: 2000	

Comments: K = 4.3; sptype = F9V

1.82 mu: 17.51 Jy
2.10 mu: 14.21 Jy
2.50 mu: 10.55 Jy
3.00 mu: 7.69 Jy
3.35 mu: 6.31 Jy
4.44 mu: 3.69 Jy
Category=Star
Description=[Debris disks, F stars]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12269.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	NONE

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	8	21	1	21	1773.967	12269.1
2	F444W	MEDIUM8	8	21	1	21	1773.967	12269.3

PSF References	HD10647PSF (Obs 3) (PSF Reference; Filters [F444W, F300M]) Additional Justification: false
Special Requirements	No Parallel Attachments Sequence Observations 1, 2, 3, Non-interruptible Aperture PA Offset 1 from 2 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 3: HD10647PSF Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

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
(8)	HD-10647-PSF	RA: 02 42 33.4666 (40.6394442d) Dec: -50 48 1.06 (-50.80029d) Equinox: J2000	Proper Motion RA: 333.81 mas/yr Proper Motion Dec: 219.500 mas/yr Parallax: 0.05825" Epoch of Position: 2000	

Comments: K = 4.138; sptype = F8V

1.82 mu: 19.89 Jy
2.10 mu: 16.02 Jy
2.50 mu: 12.01 Jy
3.00 mu: 8.77 Jy
3.35 mu: 7.16 Jy
4.44 mu: 4.13 Jy
Category=Calibration
Description=[Point spread function]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12269.4

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	5-POINT-DIAMOND

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	8	4	5	20	1689.493	12269.5
2	F444W	MEDIUM8	8	4	5	20	1689.493	12269.6

PSF References	PSF Reference: true
Special Requirements	No Parallel Attachments Sequence Observations 1, 2, 3, Non-interruptible

Observation

Proposal 1183, Observation 4: HD107146, Roll 1 Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

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)	HD-107146	RA: 12 19 6.5020 (184.7770917d) Dec: +16 32 53.86 (16.54829d) Equinox: J2000	Proper Motion RA: -174.725 mas/yr Proper Motion Dec: -148.786 mas/yr Parallax: 0.03641" Epoch of Position: 2000	

Comments: K = 5.54; sptype = G2V

1.82 mu: 5.26 Jy
2.10 mu: 4.24 Jy
2.50 mu: 3.14 Jy
3.00 mu: 2.32 Jy
3.35 mu: 1.91 Jy
4.44 mu: 1.07 Jy
Category=Star
Description=[Debris disks, G stars]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12320.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	true	SUB320A335R	NONE

Confirmation

#	Conf. Readout Pattern	Conf. Groups/Int	Conf. Integrations/Exp	Conf. Total Integrations	Conf. Total Exposure Time	Conf. Total Dithers
1	RAPID	3	3	3	118.104	1

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	17	1	17	1799.542	12320.1
2	F444W	MEDIUM8	10	17	1	17	1799.542	12320.3

PSF References

HD107146PSF (Obs 6) (PSF Reference; Filters [F444W, F300M])

Additional Justification: false

Special Requirements

Aperture PA Range 127 to 131 Degrees (V3 126.94571388 to 130.94571388)
Aperture PA Range 276 to 282 Degrees (V3 275.94571388 to 281.94571388)
No Parallel Attachments

Sequence Observations 4, 5, 6, Non-interruptible
Aperture PA Offset 4 from 5 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 5: HD107146, Roll 2 Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

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)	HD-107146	RA: 12 19 6.5020 (184.7770917d) Dec: +16 32 53.86 (16.54829d) Equinox: J2000	Proper Motion RA: -174.725 mas/yr Proper Motion Dec: -148.786 mas/yr Parallax: 0.03641" Epoch of Position: 2000	

Comments: K = 5.54; sptype = G2V

1.82 mu: 5.26 Jy
2.10 mu: 4.24 Jy
2.50 mu: 3.14 Jy
3.00 mu: 2.32 Jy
3.35 mu: 1.91 Jy
4.44 mu: 1.07 Jy
Category=Star
Description=[Debris disks, G stars]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12320.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	NONE

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	17	1	17	1799.542	12320.1
2	F444W	MEDIUM8	10	17	1	17	1799.542	12320.3

PSF References	HD107146PSF (Obs 6) (PSF Reference; Filters [F444W, F300M]) Additional Justification: false
Special Requirements	No Parallel Attachments Sequence Observations 4, 5, 6, Non-interruptible Aperture PA Offset 4 from 5 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 6: HD107146PSF Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(7)	HD-107146-PSF	RA: 12 48 52.4213 (192.2184221d) Dec: +12 05 46.95 (12.09638d) Equinox: J2000	Proper Motion RA: 233.135 mas/yr Proper Motion Dec: -139.532 mas/yr Parallax: 0.02645" Epoch of Position: 2000	

Comments: K = 5.534; sptype = G5V

1.82 mu: 5.57 Jy
2.10 mu: 4.48 Jy
2.50 mu: 3.29 Jy
3.00 mu: 2.45 Jy
3.35 mu: 2.02 Jy
4.44 mu: 1.12 Jy
Category=Calibration
Description=[Point spread function]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12320

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	5-POINT-DIAMOND

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	3	5	15	1587.832	12320
2	F444W	MEDIUM8	10	3	5	15	1587.832	12320

PSF References	PSF Reference: true
Special Requirements	No Parallel Attachments Sequence Observations 4, 5, 6, Non-interruptible

Observation

Proposal 1183, Observation 7: HD181327, Roll 1 Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

(HD181327, Roll 1 (Obs 7)) Warning (Form): The order of link [PA Offset 7 from 8] combined with the order of the SEQ NON-INT reduces scheduling flexibility.

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

(Visit 7:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	HD-181327	RA: 19 22 58.9430 (290.7455958d) Dec: -54 32 16.97 (-54.53805d) Equinox: J2000	Proper Motion RA: 23.99 mas/yr Proper Motion Dec: -81.82 mas/yr Parallax: 0.0193" Epoch of Position: 2000	

Comments: K = 5.9; sptype = F6V

1.82 mu: 3.69 Jy
2.10 mu: 3.00 Jy
2.50 mu: 2.24 Jy
3.00 mu: 1.63 Jy
3.35 mu: 1.33 Jy
4.44 mu: 0.78 Jy
Category=Star
Description=[Debris disks, F stars]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12326.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	true	SUB320A335R	NONE

Confirmation

#	Conf. Readout Pattern	Conf. Groups/Int	Conf. Integrations/Exp	Conf. Total Integrations	Conf. Total Exposure Time	Conf. Total Dithers
1	RAPID	3	3	3	118.104	1

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	11	1	11	1164.41	12326.1
2	F444W	MEDIUM8	10	11	1	11	1164.41	12326.3

PSF References

HD181327PSF (Obs 9) (PSF Reference; Filters [F444W, F300M])

Additional Justification: false

Special Requirements

Aperture PA Range 41 to 54 Degrees (V3 40.94571388 to 53.94571388)
Aperture PA Range 289 to 310 Degrees (V3 288.94571388 to 309.94571388)
No Parallel Attachments

Sequence Observations 7, 8, 9, Non-interruptible
Aperture PA Offset 7 from 8 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 8: HD181327, Roll 2

Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

(HD181327, Roll 2 (Obs 8)) Warning (Form): The order of link [PA Offset 7 from 8] combined with the order of the SEQ NON-INT reduces scheduling flexibility.

(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Visit 8:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	HD-181327	RA: 19 22 58.9430 (290.7455958d) Dec: -54 32 16.97 (-54.53805d) Equinox: J2000	Proper Motion RA: 23.99 mas/yr Proper Motion Dec: -81.82 mas/yr Parallax: 0.0193" Epoch of Position: 2000	

Comments: K = 5.9; sptype = F6V

1.82 mu: 3.69 Jy
2.10 mu: 3.00 Jy
2.50 mu: 2.24 Jy
3.00 mu: 1.63 Jy
3.35 mu: 1.33 Jy
4.44 mu: 0.78 Jy
Category=Star
Description=[Debris disks, F stars]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12326.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	NONE

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	11	1	11	1164.41	12326.1
2	F444W	MEDIUM8	10	11	1	11	1164.41	12326.3

PSF References	HD181327PSF (Obs 9) (PSF Reference; Filters [F444W, F300M]) Additional Justification: false
Special Requirements	No Parallel Attachments Sequence Observations 7, 8, 9, Non-interruptible Aperture PA Offset 7 from 8 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 9: HD181327PSF Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(6)	HD-181327-PSF	RA: 19 18 9.7805 (289.5407521d) Dec: -53 23 13.51 (-53.38709d) Equinox: J2000	Proper Motion RA: 24.19 mas/yr Proper Motion Dec: -81.90 mas/yr Parallax: 0.02219" Epoch of Position: 2000	

Comments: K = 5.1; sptype = F7V

rho Tel may be good too,

1.82 mu: 7.78 Jy
2.10 mu: 6.26 Jy
2.50 mu: 4.74 Jy
3.00 mu: 3.45 Jy
3.35 mu: 2.82 Jy
4.44 mu: 1.64 Jy
Category=Calibration
Description=[Point spread function]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12326.4

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	5-POINT-DIAMOND

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	3	5	15	1587.832	12326.5
2	F444W	MEDIUM8	10	3	5	15	1587.832	12326.6

PSF References	PSF Reference: true
Special Requirements	No Parallel Attachments Sequence Observations 7, 8, 9, Non-interruptible

Observation

Proposal 1183, Observation 10: HD61005, Roll 1 Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

(HD61005, Roll 1 (Obs 10)) Warning (Form): The order of link [PA Offset 10 from 11] combined with the order of the SEQ NON-INT reduces scheduling flexibility.

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(4)	HD-61005	RA: 07 35 47.4619 (113.9477579d) Dec: -32 12 14.04 (-32.20390d) Equinox: J2000	Proper Motion RA: -55.061 mas/yr Proper Motion Dec: 74.336 mas/yr Parallax: 0.02722" Epoch of Position: 2000	

Comments: K = 6.458; sptype = G8V

1.82 mu: 2.24 Jy
2.10 mu: 1.78 Jy
2.50 mu: 1.32 Jy
3.00 mu: 0.98 Jy
3.35 mu: 0.80 Jy
4.44 mu: 0.45 Jy
Category=Star
Description=[Debris disks, G stars]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12346.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	true	SUB320A335R	NONE

Confirmation

#	Conf. Readout Pattern	Conf. Groups/Int	Conf. Integrations/Exp	Conf. Total Integrations	Conf. Total Exposure Time	Conf. Total Dithers
1	RAPID	3	3	3	118.104	1

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	14	1	14	1481.976	12346.1
2	F444W	MEDIUM8	10	14	1	14	1481.976	12346.3

PSF References

HD61005PSF (Obs 12) (PSF Reference; Filters [F444W, F300M])

Additional Justification: false

Special Requirements

Aperture PA Range 328 to 72 Degrees (V3 327.94571388 to 71.94571388)
No Parallel Attachments

Sequence Observations 10, 11, 12, Non-interruptible
Aperture PA Offset 10 from 11 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 11: HD61005, Roll 2

Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

(HD61005, Roll 2 (Obs 11)) Warning (Form): The order of link [PA Offset 10 from 11] combined with the order of the SEQ NON-INT reduces scheduling flexibility.

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(4)	HD-61005	RA: 07 35 47.4619 (113.9477579d) Dec: -32 12 14.04 (-32.20390d) Equinox: J2000	Proper Motion RA: -55.061 mas/yr Proper Motion Dec: 74.336 mas/yr Parallax: 0.02722" Epoch of Position: 2000	

Comments: K = 6.458; sptype = G8V

1.82 mu: 2.24 Jy
2.10 mu: 1.78 Jy
2.50 mu: 1.32 Jy
3.00 mu: 0.98 Jy
3.35 mu: 0.80 Jy
4.44 mu: 0.45 Jy
Category=Star
Description=[Debris disks, G stars]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12346.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	NONE

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	14	1	14	1481.976	12346.1
2	F444W	MEDIUM8	10	14	1	14	1481.976	12346.3

PSF References	HD61005PSF (Obs 12) (PSF Reference; Filters [F444W, F300M]) Additional Justification: false
Special Requirements	No Parallel Attachments Sequence Observations 10, 11, 12, Non-interruptible Aperture PA Offset 10 from 11 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 12: HD61005PSF

Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(9)	HD-61005-PSF	RA: 07 14 36.7033 (108.6529304d) Dec: -30 39 17.69 (-30.65491d) Equinox: J2000	Proper Motion RA: -84.937 mas/yr Proper Motion Dec: 49.431 mas/yr Parallax: 0.00697" Epoch of Position: 2000	

Comments: K = 4.912; sptype = G5IV

1.82 mu: 9.55 Jy
2.10 mu: 7.69 Jy
2.50 mu: 5.53 Jy
3.00 mu: 4.21 Jy
3.35 mu: 3.46 Jy
4.44 mu: 1.84 Jy
Category=Calibration
Description=[Point spread function]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	BRIGHT (ND Square)	RAPID	65	1	1	3.313	12346.4

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	5-POINT-DIAMOND

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	3	5	15	1587.832	12346.5
2	F444W	MEDIUM8	10	3	5	15	1587.832	12346.6

PSF References	PSF Reference: true
Special Requirements	No Parallel Attachments Sequence Observations 10, 11, 12, Non-interruptible

Observation

Proposal 1183, Observation 13: HD 32297 - NIRSpec Fixed Slit G235/F170LP A Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRSpec Fixed Slit Spectroscopy

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(5)	HD-32297	RA: 05 02 27.4364 (75.6143183d) Dec: +07 27 39.68 (7.46102d) Equinox: J2000	Proper Motion RA: 5.599 mas/yr Proper Motion Dec: -23.53 mas/yr Parallax: 0.00734" Epoch of Position: 2000	

Comments: K = 7.594; sptype = A0V

1.82 mu: 0.79 Jy
2.10 mu: 0.63 Jy
2.50 mu: 0.46 Jy
3.00 mu: 0.33 Jy
3.35 mu: 0.28 Jy
4.44 mu: 0.16 Jy
Category=Star
Description=[A stars, Debris disks]

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	11 GAIA3289902892417327104	WATA	SUB32	CLEAR	NRSRAPIDD6	3	1	1	0.26	82312.8

Template

Slit	Subarray
S200A1	SUBS200A1

Dithers

#	Primary Dither Positions	Sub-Pixel Pattern
1	3	BOTH

Spectral Elements

#	Grating/Filter	Slit	Readout Pattern	Groups/Int	Integrations/Exp	#	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	G395H/F290LP	S200A1	NRSRAPID	6	5	1	NONE	12	60	655.589	

Special Requirements	Sequence Observations 13, 15, 16, 17, Non-interruptible

Observation

Proposal 1183, Observation 15: HD32297, Roll 1 Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

(HD32297, Roll 1 (Obs 15)) Warning (Form): The order of link [PA Offset 15 from 16] combined with the order of the SEQ NON-INT reduces scheduling flexibility.

(Visit 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(5)	HD-32297	RA: 05 02 27.4364 (75.6143183d) Dec: +07 27 39.68 (7.46102d) Equinox: J2000	Proper Motion RA: 5.599 mas/yr Proper Motion Dec: -23.53 mas/yr Parallax: 0.00734" Epoch of Position: 2000	

Comments: K = 7.594; sptype = A0V

1.82 mu: 0.79 Jy
2.10 mu: 0.63 Jy
2.50 mu: 0.46 Jy
3.00 mu: 0.33 Jy
3.35 mu: 0.28 Jy
4.44 mu: 0.16 Jy
Category=Star
Description=[A stars, Debris disks]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	FAINT	RAPID	5	1	1	0.304	12350.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	true	SUB320A335R	NONE

Confirmation

#	Conf. Readout Pattern	Conf. Groups/Int	Conf. Integrations/Exp	Conf. Total Integrations	Conf. Total Exposure Time	Conf. Total Dithers
1	RAPID	3	3	3	118.104	1

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	15	1	15	1587.832	12350.1
2	F444W	MEDIUM8	10	15	1	15	1587.832	12350.3

PSF References

HD32297PSF (Obs 17) (PSF Reference; Filters [F444W, F300M])

Additional Justification: false

Special Requirements

Aperture PA Range 67 to 77 Degrees (V3 66.94571388 to 76.94571388)
Aperture PA Range 279 to 300 Degrees (V3 278.94571388 to 299.94571388)
No Parallel Attachments

Sequence Observations 13, 15, 16, 17, Non-interruptible
Aperture PA Offset 15 from 16 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 16: HD32297, Roll 2 Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

(HD32297, Roll 2 (Obs 16)) Warning (Form): The order of link [PA Offset 15 from 16] combined with the order of the SEQ NON-INT reduces scheduling flexibility.

(Visit 16:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(5)	HD-32297	RA: 05 02 27.4364 (75.6143183d) Dec: +07 27 39.68 (7.46102d) Equinox: J2000	Proper Motion RA: 5.599 mas/yr Proper Motion Dec: -23.53 mas/yr Parallax: 0.00734" Epoch of Position: 2000	

Comments: K = 7.594; sptype = A0V

1.82 mu: 0.79 Jy
2.10 mu: 0.63 Jy
2.50 mu: 0.46 Jy
3.00 mu: 0.33 Jy
3.35 mu: 0.28 Jy
4.44 mu: 0.16 Jy
Category=Star
Description=[A stars, Debris disks]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	FAINT	RAPID	5	1	1	0.304	12350.2

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	NONE

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	15	1	15	1587.832	12350.1
2	F444W	MEDIUM8	10	15	1	15	1587.832	12350.3

PSF References	HD32297PSF (Obs 17) (PSF Reference; Filters [F444W, F300M]) Additional Justification: false
Special Requirements	No Parallel Attachments Sequence Observations 13, 15, 16, 17, Non-interruptible Aperture PA Offset 15 from 16 by 10 to 10 Degrees (Same offsets in V3)

Observation

Proposal 1183, Observation 17: HD32297PSF Sun Nov 20 17:00:32 GMT 2022

Diagnostic Status: Warning

Observing Template: NIRCam Coronagraphic Imaging

Diagnostics

(Visit 17:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(10)	HD-32297-PSF	RA: 04 55 58.3523 (73.9931346d) Dec: +05 23 56.48 (5.39902d) Equinox: J2000	Proper Motion RA: -16.802 mas/yr Proper Motion Dec: -14.486 mas/yr Parallax: 0.0076" Epoch of Position: 2000	

Comments: K = 6.417; sptype = A0V

1.82 mu: 2.30 Jy
2.10 mu: 1.88 Jy
2.50 mu: 1.36 Jy
3.00 mu: 1.00 Jy
3.35 mu: 0.82 Jy
4.44 mu: 0.49 Jy
Category=Calibration
Description=[Point spread function]

Acquisition

#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F335M	FAINT	RAPID	5	1	1	0.304	12350.4

Template

Module	Coronagraphic Mask	Obtain Astrometric Confirmation Images?	Subarray	Dither Pattern
A	MASK335R	false	SUB320A335R	5-POINT-DIAMOND

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F300M	MEDIUM8	10	3	5	15	1587.832	12350.5
2	F444W	MEDIUM8	10	3	5	15	1587.832	12350.6

PSF References	PSF Reference: true
Special Requirements	No Parallel Attachments Sequence Observations 13, 15, 16, 17, Non-interruptible