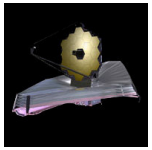

4443 - NIRCam and NIRISS Sky Flats

Cycle: 2, Proposal Category: CAL/NIRCAM

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1	Monitor w/ NIRISS	NIRCam Imaging	(9) ECLIPTIC-RA160
	2	Monitor w/ NIRISS	NIRCam Imaging	(11) ECLIPTIC-RA200
	3	Monitor w/ NIRISS	NIRCam Imaging	(1) ECLIPTIC-RA00
	4	Monitor w/ NIRISS	NIRCam Imaging	(3) ECLIPTIC-RA40
	5	Monitor w/ NIRISS	NIRCam Imaging	(5) ECLIPTIC-RA80
	6	Monitor w/ NIRISS	NIRCam Imaging	(7) ECLIPTIC-RA120

ABSTRACT

Instead of taking dedicated sky flats during Cycle 2, we will use the deep field GTO data to reconstruct P-flats in a subset of filters. Since we cannot control when the GTO data are obtained, we will also monitor the stability of the sky flats with the F070W and F277W filter pair. We will obtain 6 epochs, which are scheduled in parallel with NIRISS sky flats. Large scale frequency variations in the NIRCam illumination pattern (L-flats) will be measured in CAL-NIRCAM-203, in combination with the data from this program and GTO data.

This calibration program may change in response to system developments and the final Cycle 2 science program.

OBSERVING DESCRIPTION

CAL-NIRCAM-202: NIRCam Sky Flat Field Monitor

Baseline sky flats will be constructed from GTO data of deep fields. This program will monitor the stability of the sky flats in the F070W and F277W filters over 6 epochs throughout Cycle 2. Each epoch uses the DEEP8 pattern with NGROUP=4 and a 17-point INTRASCA dither, for a total exposure time of ~12,500s. This provides roughly 5000 e-/pix in F090W and 34,000 e-/pix in F444W, assuming a high-background region near the ecliptic plane.

NIRISS flats are taken in parallel -- two epochs in F200W, and one epoch each for F090W, F115W, F150W, and F444W.

A Special Requirement is set to space the epochs throughout Cycle 2.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ECLIPTIC-RA00	RA: 00 37 22.6530 (9.3443875d) Dec: +01 25 50.53 (1.43070d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[External flat field]*				
(2)	ECLIPTIC-RA20	RA: 01 50 36.5120 (27.6521333d) Dec: +11 32 18.10 (11.53836d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[External flat field]*				
(3)	ECLIPTIC-RA40	RA: 03 56 13.5780 (59.0565750d) Dec: -09 17 39.52 (-9.29431d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[External flat field]*				
(4)	ECLIPTIC-RA60	RA: 07 07 38.0400 (106.9085000d) Dec: +27 33 47.11 (27.56309d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[External flat field]*				
(5)	ECLIPTIC-RA80	RA: 08 16 26.3285 (124.1097021d) Dec: +19 11 28.72 (19.19131d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[External flat field]*				
(6)	ECLIPTIC-RA10	RA: 10 11 30.0400 (152.8751667d) Dec: +11 42 6.11 (11.70170d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[External flat field]*				
(7)	ECLIPTIC-RA120	RA: 12 03 47.2300 (180.9467917d) Dec: +04 45 23.79 (4.75661d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[External flat field]*				
(8)	ECLIPTIC-RA140	RA: 14 02 31.5220 (210.6313417d) Dec: -04 30 44.15 (-4.51226d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[External flat field]*				

(9)	ECLIPTIC-RA160	RA: 16 00 23.4186 (240.0975775d) Dec: -11 38 58.56 (-11.64960d) Equinox: J2000
Comments: *Category=Calibration* *Description=[External flat field]*		
(10)	ECLIPTIC-RA180	RA: 18 59 29.4100 (284.8725417d) Dec: -43 53 21.12 (-43.88920d) Equinox: J2000
Comments: *Category=Calibration* *Description=[External flat field]*		
(11)	ECLIPTIC-RA200	RA: 20 15 21.9600 (303.8415000d) Dec: -26 49 59.90 (-26.83331d) Equinox: J2000
Comments: *Category=Calibration* *Description=[External flat field]*		
(12)	ECLIPTIC-RA220	RA: 22 04 31.9200 (331.1330000d) Dec: -11 49 18.90 (-11.82192d) Equinox: J2000
Comments: *Category=Calibration* *Description=[External flat field]*		

Observation

Proposal 4443, Observation 1: Monitor w/ NIRISS Thu Aug 03 18:01:11 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Coordinated Parallel Template(s): NIRISS Imaging

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(9)	ECLIPTIC-RA160	RA: 16 00 23.4186 (240.0975775d) Dec: -11 38 58.56 (-11.64960d) Equinox: J2000		

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

Template

NIRCam Imaging	NIRISS Imaging
Module: ALL	
Subarray: FULL	
Target Placement: Module Gap	

Dithers

#	Primary Dither Type	Primary Dithers	Dither Size	Subpixel Positions	Coordinated Parallel Subpixel Selector	Dither Direct Images Primes
1	INTRASCA	17	16" (MEDIUM)	1	NIRCam Only	NO_DITHERING

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F070W	F277W	DEEP8	4	1	17	17	12411.706	

Spectral Elements

NIRISS Imaging	Filter	Grism	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F200W		NIS	16	1	17	17	11864.131	

Special Requirements	
	Between Dates 01-JUL-2023:00:00:00 and 15-AUG-2023:00:00:00 No Parallel Attachments 2 After 1 by 50 Days to 70 Days

Observation

Proposal 4443, Observation 2: Monitor w/ NIRISS Thu Aug 03 18:01:11 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Coordinated Parallel Template(s): NIRISS Imaging

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(11)	ECLIPTIC-RA200	RA: 20 15 21.9600 (303.8415000d) Dec: -26 49 59.90 (-26.83331d) Equinox: J2000		

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

Template

NIRCam Imaging	NIRISS Imaging
Module: ALL	
Subarray: FULL	
Target Placement: Module Gap	

Dithers

#	Primary Dither Type	Primary Dithers	Dither Size	Subpixel Positions	Coordinated Parallel Subpixel Selector	Dither Direct Images Primes
1	INTRASCA	17	16" (MEDIUM)	1	NIRCam Only	NO_DITHERING

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F070W	F277W	DEEP8	4	1	17	17	12411.706	

Spectral Elements

NIRISS Imaging	Filter	Grism	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F200W		NIS	16	1	17	17	11864.131	

Special Requirements	
	No Parallel Attachments 2 After 1 by 50 Days to 70 Days 3 After 2 by 50 Days to 70 Days

Observation

Proposal 4443, Observation 3: Monitor w/ NIRISS Thu Aug 03 18:01:11 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Coordinated Parallel Template(s): NIRISS Imaging

Diagnostics

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 3:2) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 3:3) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 3:4) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 3:5) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 3:6) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ECLIPTIC-RA00	RA: 00 37 22.6530 (9.3443875d) Dec: +01 25 50.53 (1.43070d) Equinox: J2000		

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

Template

NIRCam Imaging	NIRISS Imaging
Module: ALL	
Subarray: FULL	
Target Placement: Module Gap	

Dithers

#	Primary Dither Type	Primary Dithers	Dither Size	Subpixel Positions	Coordinated Parallel Subpixel Selector	Dither Direct Images Primes
1	INTRASCA	17	16" (MEDIUM)	1	NIRCam Only	NO_DITHERING

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F070W	F277W	DEEP8	4	1	17	17	12411.706	

Spectral Elements

NIRISS Imaging	Filter	Grism	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F277W		NIS	16	1	17	17	11864.131	

Special Requirements	
	Sequence Visits within 53.0 Days Visits Same PA No Parallel Attachments 3 After 2 by 50 Days to 70 Days 4 After 3 by 50 Days to 70 Days

Observation

Proposal 4443, Observation 4: Monitor w/ NIRISS Thu Aug 03 18:01:11 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Coordinated Parallel Template(s): NIRISS 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
(3)	ECLIPTIC-RA40	RA: 03 56 13.5780 (59.0565750d) Dec: -09 17 39.52 (-9.29431d) Equinox: J2000		

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

Template

NIRCam Imaging **NIRISS Imaging**

Module: ALL

Subarray: FULL

Target Placement: Module Gap

Dithers

#	Primary Dither Type	Primary Dithers	Dither Size	Subpixel Positions	Coordinated Parallel Subpixel Selector	Dither Direct Images Primes
1	INTRASCA	17	16" (MEDIUM)	1	NIRCam Only	NO_DITHERING

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F070W	F277W	DEEP8	4	1	17	17	12411.706	

Spectral Elements

NIRISS Imaging	Filter	Grism	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F356W		NIS	16	1	17	17	11864.131	

Special Requirements	
	No Parallel Attachments 4 After 3 by 50 Days to 70 Days 5 After 4 by 50 Days to 70 Days

Observation

Proposal 4443, Observation 5: Monitor w/ NIRISS Thu Aug 03 18:01:11 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Coordinated Parallel Template(s): NIRISS 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
(5)	ECLIPTIC-RA80	RA: 08 16 26.3285 (124.1097021d) Dec: +19 11 28.72 (19.19131d) Equinox: J2000		

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

Template

NIRCam Imaging	NIRISS Imaging
Module: ALL	
Subarray: FULL	
Target Placement: Module Gap	

Dithers

#	Primary Dither Type	Primary Dithers	Dither Size	Subpixel Positions	Coordinated Parallel Subpixel Selector	Dither Direct Images Primes
1	INTRASCA	17	16" (MEDIUM)	1	NIRCam Only	NO_DITHERING

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F070W	F277W	DEEP8	4	1	17	17	12411.706	

Spectral Elements

NIRISS Imaging	Filter	Grism	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F480M		NIS	16	1	17	17	11864.131	

Special Requirements	
	No Parallel Attachments 5 After 4 by 50 Days to 70 Days 6 After 5 by 50 Days to 70 Days

Observation

Proposal 4443, Observation 6: Monitor w/ NIRISS Thu Aug 03 18:01:11 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Coordinated Parallel Template(s): NIRISS Imaging

Diagnostics

(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 6:2) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 6:3) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 6:4) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 6:5) Warning (Form): Overheads are provisional until the Visit Planner has been run.
(Visit 6:6) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(7)	ECLIPTIC-RA120	RA: 12 03 47.2300 (180.9467917d) Dec: +04 45 23.79 (4.75661d) Equinox: J2000		

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

Template

NIRCam Imaging	NIRISS Imaging
Module: ALL	
Subarray: FULL	
Target Placement: Module Gap	

Dithers

#	Primary Dither Type	Primary Dithers	Dither Size	Subpixel Positions	Coordinated Parallel Subpixel Selector	Dither Direct Images Primes
1	INTRASCA	17	16" (MEDIUM)	1	NIRCam Only	NO_DITHERING

Spectral Elements

NIRCam Imaging	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F070W	F277W	DEEP8	4	1	17	17	12411.706	

Spectral Elements

NIRISS Imaging	Filter	Grism	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F480M		NIS	16	1	17	17	11864.131	

Special Requirements	
	Sequence Visits within 53.0 Days Visits Same PA No Parallel Attachments 6 After 5 by 50 Days to 70 Days