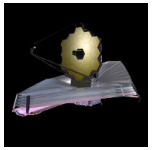

1535 - Internal Lamp Flat Field

Cycle: 1, Proposal Category: CAL/FGS

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Epoch 1				
	1	G1 full frame only	FGS Internal Flat	(1) FGS-LAMP-FLAT
	2	G2 full frame only	FGS Internal Flat	(1) FGS-LAMP-FLAT
Epoch 2				
	3	G1 full frame only	FGS Internal Flat	(1) FGS-LAMP-FLAT
	5	G1 full frame only	FGS Internal Flat	(2) FGS-LAMP-FLAT-A
	6	G1 full frame only	FGS Internal Flat	(3) FGS-LAMP-FLAT-B
	7	G2 full frame only	FGS Internal Flat	(2) FGS-LAMP-FLAT-A
	8	G2 full frame only	FGS Internal Flat	(3) FGS-LAMP-FLAT-B

ABSTRACT

This will monitor the flat field of the FGS channels. There is significant structure in the lamp flats, however, these lamp flat fields are good for monitoring trends in the response of the detector over time. The internal calibration lamp shall be used, so Fine Guiding will not be possible, hence ACS will be under coarse control. Exposures will use full frame images. Each exposure is repeated five times for cosmic ray rejection. After the full frame data are obtained, a 1 arcminute telescope offset is to be executed and the imaging sequence is to be repeated to allow for sky-source removal (the FGS has no shutter or opaque element). Epoch 1 observations should be done in July-August 2022 timeframe. Epoch 2 observations should be

done within the December 2022 - January 2023 timeframe.

This calibration program is provisional and may change in response to system developments and final science program.

OBSERVING DESCRIPTION

This activity corresponds to CAR FGS-010. The internal calibration lamp shall be used, so Fine Guiding will not be possible, hence ACS will be under coarse control.This will establish the initial state of the flat field of the FGS channels, but will not be used to actually calibrate the flat field since the lamp images contain significant structure. Exposures will use full frame images (no sub-arrays). Each exposure is repeated five times for cosmic ray rejection. After all the full frame data are obtained, a 1 arcminute telescope offset is to be executed and the entire imaging sequence are to be repeated to allow for sky-source removal (the FGS has no shutter or opaque element).

Since the FGS lacks a shutter, the images will be of lamp plus sky. Therefore it is important that the sky contribution can be removed so that the lamp data can be used to monitor FGS response over time. For this reason it is necessary and important to choose a "target" field that is sparsely populated with "external" sources, which implies a target field at high galactic latitude. Unfortunately, this precludes access to target fields near the JWST CVZ. Therefore the actual target field used will depend upon the date of the observations. The field specified in this proposal, FGS-LAMP-FLAT1, is therefore only a place holder.

TIMING CONSTRAINTS

Observations 1 & 2 should be done within July - August 2023.
Observations 1 & 2 are non-interruptible.
Observations 3 & 4 are non-interruptible.
Observations 3 & 4 should be done within December 2022 - January 2023.

UPDATE Feb 17, 2023:

- Due to a bug in OSS script that executes the LAMP exposures (lamps are turned off prior to a dither, but are not re-activated), we have modifed the exposures so that each Guider has two Observations w/o dithers, but on targetst separated by ~10. 16'. This results in the FGS FOV being placed at a different patch of sky to facilitate star rremoval, but causes two independent execution of the Lamp script w/o a dither, bypassing the OSS bug and

resulting in two exposures/FGS with LAMP=ON in both.

- With new targets, the FOR becomes scheduable March 8 through April 28. The exposures for G1 (OBS 5 &6) are constrained to execute non-interuptable, as are OBS 7&8 for G2.

Proposal 1535 - Targets - Internal Lamp Flat Field

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	FGS-LAMP-FLAT	RA: 02 32 11.8575 (38.0494062d) Dec: -11 57 39.90 (-11.96108d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Photometric]*				
(2)	FGS-LAMP-FLAT-A	RA: 08 31 50.4411 (127.9601713d) Dec: +29 57 56.49 (29.96569d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Photometric]*				
(3)	FGS-LAMP-FLAT-B	RA: 08 32 11.9030 (128.0495958d) Dec: +30 07 11.46 (30.11985d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Photometric]*				

Observation

Proposal 1535, Observation 1: G1 full frame only Fri Feb 17 22:00:26 GMT 2023

Diagnostic Status: Warning

Observing Template: FGS Internal Flat

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	FGS-LAMP-FLAT	RA: 02 32 11.8575 (38.0494062d) Dec: -11 57 39.90 (-11.96108d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Photometric]

Template

Detector	Calibration Type
GUIDER1	FULLONLY

Dithers

#	Primary Dithers	Subpixel Positions
1	2	1

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FGSRAPID	10	5	2	10	1181.045	

Special Requirements

Between Dates 01-JUL-2022 and 30-AUG-2022
No Parallel Attachments

Group Observations 1, 2, Non-interruptible

Observation

Proposal 1535, Observation 2: G2 full frame only Fri Feb 17 22:00:26 GMT 2023

Diagnostic Status: Warning

Observing Template: FGS Internal Flat

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	FGS-LAMP-FLAT	RA: 02 32 11.8575 (38.0494062d) Dec: -11 57 39.90 (-11.96108d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Photometric]

Template

Detector	Calibration Type
GUIDER2	FULLONLY

Dithers

#	Primary Dithers	Subpixel Positions
1	2	1

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FGSRAPID	10	5	2	10	1181.045	

Special Requirements

No Parallel Attachments

Group Observations 1, 2, Non-interruptible

Observation

Proposal 1535, Observation 3: G1 full frame only Fri Feb 17 22:00:26 GMT 2023

Diagnostic Status: Warning

Observing Template: FGS Internal Flat

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	FGS-LAMP-FLAT	RA: 02 32 11.8575 (38.0494062d) Dec: -11 57 39.90 (-11.96108d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Photometric]

Template

Detector	Calibration Type
GUIDER1	FULLONLY

Dithers

#	Primary Dithers	Subpixel Positions
1	2	1

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FGSRAPID	10	5	2	10	1181.045	

Special Requirements

Between Dates 01-DEC-2022 and 30-JAN-2023
No Parallel Attachments

Observation

Proposal 1535, Observation 5: G1 full frame only Fri Feb 17 22:00:26 GMT 2023

Diagnostic Status: Warning

Observing Template: FGS Internal Flat

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	FGS-LAMP-FLAT-A	RA: 08 31 50.4411 (127.9601713d) Dec: +29 57 56.49 (29.96569d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Photometric]

Template

Detector	Calibration Type
GUIDER1	FULLONLY

Dithers

#	Primary Dithers	Subpixel Positions
1	1	1

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FGSRAPID	10	5	1	5	590.522	

Special Requirements

No Parallel Attachments

Group Observations 5, 6, Non-interruptible

Observation

Proposal 1535, Observation 6: G1 full frame only

Fri Feb 17 22:00:26 GMT 2023

Diagnostic Status: Warning

Observing Template: FGS Internal Flat

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
(3)	FGS-LAMP-FLAT-B	RA: 08 32 11.9030 (128.0495958d) Dec: +30 07 11.46 (30.11985d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Photometric]

Template

Detector	Calibration Type
GUIDER1	FULLONLY

Dithers

#	Primary Dithers	Subpixel Positions
1	1	1

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FGSRAPID	10	5	1	5	590.522	

Special Requirements

No Parallel Attachments

Group Observations 5, 6, Non-interruptible

Observation

Proposal 1535, Observation 7: G2 full frame only Fri Feb 17 22:00:26 GMT 2023

Diagnostic Status: Warning

Observing Template: FGS Internal Flat

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	FGS-LAMP-FLAT-A	RA: 08 31 50.4411 (127.9601713d) Dec: +29 57 56.49 (29.96569d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Photometric]

Template

Detector	Calibration Type
GUIDER2	FULLONLY

Dithers

#	Primary Dithers	Subpixel Positions
1	1	1

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FGSRAPID	10	5	1	5	590.522	

Special Requirements

No Parallel Attachments

Group Observations 7, 8, Non-interruptible

Observation

Proposal 1535, Observation 8: G2 full frame only Fri Feb 17 22:00:26 GMT 2023

Diagnostic Status: Warning

Observing Template: FGS Internal Flat

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	FGS-LAMP-FLAT-B	RA: 08 32 11.9030 (128.0495958d) Dec: +30 07 11.46 (30.11985d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Photometric]

Template

Detector	Calibration Type
GUIDER2	FULLONLY

Dithers

#	Primary Dithers	Subpixel Positions
1	1	1

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FGSRAPID	10	5	1	5	590.522	

Special Requirements

No Parallel Attachments

Group Observations 7, 8, Non-interruptible