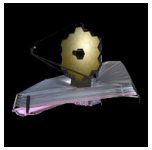

6609 - CAL-FGS-201 Internal Lamp Flat Field

Cycle: 3, Proposal Category: CAL/FGS

INVESTIGATORS

Name	*Institution*
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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Epoch 1				
	1	G1 full frame only	FGS Internal Flat	(1) Northern-FGS-Lamp-field
	2	G1 full frame only	FGS Internal Flat	(1) Northern-FGS-Lamp-field
	3	G2 full frame only	FGS Internal Flat	(1) Northern-FGS-Lamp-field
	4	G2 full frame only	FGS Internal Flat	(1) Northern-FGS-Lamp-field

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). There will be only one epoch of observations for Cycle 3; this is nominally scheduled for the Sep-Dec 2024 timeframe.

This calibration program may change in response to system developments and final Cycle 3 science program.

OBSERVING DESCRIPTION

This will monitor the 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. 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 without dithers, but on targets separated by (x,y) = (30"30"). This results in the FGS FOV being placed at a different patch of sky to facilitate star removal, but causes two independent execution of the Lamp script without a dither, bypassing the OSS bug and resulting in two exposures/FGS with LAMP=ON in both. This offset will 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" source. An additional constraint is to satisfy the MAZ requirement. The "target" (or more appropriately, the "pointing direction") selected here ("Northern-FGS_Lamp-Field") at ecliptic coordinates = (80.196, +57.42) is a sparse field. Adjustments to the target(s) will be made if necessary to satisfy the MAZ constraints for the selected ranges of dates specified for the execution of the exposures.

The nominal dates for executing the observations are Sep-Dec 2024.

TIMING CONSTRAINTS

Observations 1, 2, 3, 4 should be done within Sep-Dec 2024.

Observations (1&2) and ((3&4) are non-interruptible.

Proposal 6609 - Targets - CAL-FGS-201 Internal Lamp Flat Field

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	Northern-FGS-Lamp-field	RA: 03 55 19.8930 (58.8328875d) Dec: +79 47 48.78 (79.79688d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]

Observation

Proposal 6609, Observation 1: G1 full frame only

Thu Mar 28 22:01:02 GMT 2024

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)	Northern-FGS-Lamp-field	RA: 03 55 19.8930 (58.8328875d) Dec: +79 47 48.78 (79.79688d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]

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

Between Dates 01-JAN-2024 and 30-DEC-2024
No Parallel Attachments

Group Observations 1, 2, Non-interruptible

Observation

Proposal 6609, Observation 2: G1 full frame only Thu Mar 28 22:01:02 GMT 2024

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)	Northern-FGS-Lamp-field	RA: 03 55 19.8930 (58.8328875d) Dec: +79 47 48.78 (79.79688d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]

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

Offset 30.0 arcsec, 30.0 arcsec
No Parallel Attachments

Group Observations 1, 2, Non-interruptible

Observation

Proposal 6609, Observation 3: G2 full frame only

Thu Mar 28 22:01:02 GMT 2024

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)	Northern-FGS-Lamp-field	RA: 03 55 19.8930 (58.8328875d) Dec: +79 47 48.78 (79.79688d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]

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

Between Dates 01-JAN-2024 and 30-DEC-2024
No Parallel Attachments

Group Observations 3, 4, Non-interruptible

Observation

Proposal 6609, Observation 4: G2 full frame only Thu Mar 28 22:01:02 GMT 2024

Diagnostic Status: Warning

Observing Template: FGS Internal Flat

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	Northern-FGS-Lamp-field	RA: 03 55 19.8930 (58.8328875d) Dec: +79 47 48.78 (79.79688d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]

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

Offset 30.0 arcsec, 30.0 arcsec
No Parallel Attachments

Group Observations 3, 4, Non-interruptible