



## 6656 - CAL-NIS-305: NIRISS Astrometric Calibration

Cycle: 3, Proposal Category: CAL/NIRISS

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>
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### OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Observation Folder				
	1	Filter Sequence	NIRISS External Calibration	(1) LMC-NIRISS-FGS-ALIGNMENT

### ABSTRACT

A re-measurement of the NIRISS distortion and offset from the Guider is requested for trending of any possible changes in the astrometric distortion with time. A single epoch observation will be made in all the NIRISS imaging filters using the same pointing in the Large Magelanic Cloud astrometric field as was used for this purpose in commissioning and in both cycle 1 calibration and cycle 2 calibration.

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

### OBSERVING DESCRIPTION

The program carries out an astrometric calibration of NIRISS using the same method as what was done during commissioning. It is a continuation of cycle 1 program 1501 and cycle 2 program 4471.

## JWST Proposal 6656 (Created: Thursday, May 2, 2024 at 1:00:57 PM Eastern Standard Time) - Overview

The target field is always visible and there are currently no constraints on when in cycle 3 the observations should be taken.

The program here is based on CAR 1087, the initial NIRISS astrometric calibration.

Proposal 6656 - Targets - CAL-NIS-305: NIRISS Astrometric Calibration

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)  <i>Comments:</i> Category=Calibration Description=[Astrometric] Extended=NO	LMC-NIRISS-FGS-ALIGNMENT	RA: 05 21 57.3030 (80.4887625d) Dec: -69 29 57.90 (-69.49942d) Equinox: J2000		

Proposal 6656 - Observation 1 - CAL-NIS-305: NIRISS Astrometric Calibration

Thu May 02 18:00:57 GMT 2024

<b>Observation</b>	<b>Proposal 6656, Observation 1: Filter Sequence</b> <b>Diagnostic Status: Warning</b> Observing Template: NIRISS External Calibration Coordinated Parallel Template(s): FGS External Calibration					
<b>Diagnostics</b>	(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.					
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Miscellaneous</b>	
	(1)	LMC-NIRISS-FGS-ALIGNMENT	RA: 05 21 57.3030 (80.4887625d) Dec: -69 29 57.90 (-69.49942d) Equinox: J2000			
	<i>Comments:</i> Category=Calibration Description=[Astrometric] Extended=NO					
<b>Acquisition</b>	<b>NIRISS External Calibration</b>			<b>Target</b>		
	1			NONE		
<b>Template</b>	<b>NIRISS External Calibration</b>			<b>FGS External Calibration</b>		
	Pointing Type: PRIME			Target type: IMAGE		
	AcqTarget: NONE			Detector: GUIDER2		
	Acquisition Mode: null					
	AcqFilter: F480M					
<b>Dithers</b>	<b>#</b>	<b>Pattern Type</b>	<b>Image Dithers</b>	<b>Primary Dithers</b>	<b>Subpixel Positions</b>	<b>Pattern Size</b>
	1	IMAGING	4			

Proposal 6656 - Observation 1 - CAL-NIS-305: NIRISS Astrometric Calibration

Spectral Elements	NIRISS External Calibration	Subarray	Aperture	Filter Wheel	Pupil Wheel	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	FULL	DEFAULT APERTURE	F277W	CLEARP	NISRAPID	10	3	4	12	1417.254	
	2	FULL	DEFAULT APERTURE	F444W	CLEARP	NISRAPID	10	3	4	12	1417.254	
	3	FULL	DEFAULT APERTURE	F356W	CLEARP	NISRAPID	10	3	4	12	1417.254	
	4	FULL	DEFAULT APERTURE	F430M	CLEARP	NIS	12	3	4	12	6313.221	
	5	FULL	DEFAULT APERTURE	F380M	CLEARP	NISRAPID	15	6	4	24	4122.92	
	6	FULL	DEFAULT APERTURE	F480M	CLEARP	NIS	15	3	4	12	7859.316	
	7	FULL	DEFAULT APERTURE	CLEAR	F090W	NISRAPID	5	3	4	12	773.047	
	8	FULL	DEFAULT APERTURE	CLEAR	F115W	NISRAPID	5	3	4	12	773.047	
	9	FULL	DEFAULT APERTURE	CLEAR	F158M	NISRAPID	5	6	4	24	1546.095	
	10	FULL	DEFAULT APERTURE	CLEAR	F140M	NISRAPID	5	6	4	24	1546.095	
	11	FULL	DEFAULT APERTURE	CLEAR	F150W	NISRAPID	5	3	4	12	773.047	
	12	FULL	DEFAULT APERTURE	CLEAR	F200W	NISRAPID	5	3	4	12	773.047	
Spectral Elements	FGS External Calibration	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID				
	1	FGSRAPID	4	6	4	24	1288.412					
	2	FGSRAPID	4	6	4	24	1288.412					
	3	FGSRAPID	4	6	4	24	1288.412					
	4	FGSRAPID	6	6	4	24	1803.777					
	5	FGSRAPID	6	6	4	24	1803.777					
	6	FGSRAPID	4	6	4	24	1288.412					
	7	FGSRAPID	3	3	4	12	515.365					
	8	FGSRAPID	3	3	4	12	515.365					
	9	FGSRAPID	4	3	4	12	644.206					
	10	FGSRAPID	4	3	4	12	644.206					
	11	FGSRAPID	3	3	4	12	515.365					
	12	FGSRAPID	3	3	4	12	515.365					

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Special Requirements

No Parallel Attachments  
Guide Star in Guider 1