



## 4466 - NIRSpec Wheel Characterization

Cycle: 2, Proposal Category: CAL/NIRSPEC

### 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		NIRSpec Filter/Grating Wheel Test	NONE
	2		NIRSpec Filter/Grating Wheel Test	NONE
	3		NIRSpec Filter/Grating Wheel Test	NONE

### ABSTRACT

This activity is needed to verify and trend the behavior of the two NIRSpec wheel mechanisms (FWA and GWA). Pending any unexpected behavior, the GWA characterization will be done twice during Cycle 2 (in August and in October) in order to maintain the agreed bi-weekly cadence. The FWA characterization will only be done once (in October). The procedure collects NIRSpec-focused telemetry data in the HC buffer at each commanded wheel position, and sends them to the ground for inspection after the procedure is completed. A series of mechanism move commands will be issued to step the FWA/GWA one position at a time through all 8 wheel positions, in both the forward and reverse directions. At each position, the HC buffer is armed before a move and then dumped after the move. The procedure acquires internal calibrations with NIRSpec as the prime instrument, and takes approximately 1 hour to execute for each mechanism.

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

## **OBSERVING DESCRIPTION**

This activity is needed to verify and trend the behavior of the two NIRSpec wheel mechanisms (FWA and GWA). Pending any unexpected behavior, the GWA characterization will be done twice during Cycle 2 (in August and in October) in order to maintain the agreed bi-weekly cadence. The FWA characterization will only be done once (in October). The procedure collects NIRSpec-focused telemetry data in the HC buffer at each commanded wheel position, and sends them to the ground for inspection after the procedure is completed. A series of mechanism move commands will be issued to step the FWA/GWA one position at a time through all 8 wheel positions, in both the forward and reverse directions. At each position, the HC buffer is armed before a move and then dumped after the move. The procedure acquires internal calibrations with NIRSpec as the prime instrument, and takes approximately 1 hour to execute for each mechanism.

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

# Proposal 4466 - Observation 1 - NIRSpec Wheel Characterization

Fri May 12 00:01:27 GMT 2023

<b>Observation</b>	<p><b>Proposal 4466, Observation 1</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: NIRSpec Filter/Grating Wheel Test</p> <p><i>Comments: the expected duration (incl. slew and all overheads) is ~1h for two full rotations of the mechanism (one in each direction, i.e 2x8 positions)</i></p>								
<b>Diagnostics</b>	<p>(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>								
<b>Template</b>	<table border="1"> <thead> <tr> <th>Wheel Test Type</th> <th>Wheel Direction</th> <th>Mechanism</th> <th>Number of Rotations</th> </tr> </thead> <tbody> <tr> <td>CHARACTERIZE</td> <td>BOTH</td> <td>GRATING</td> <td></td> </tr> </tbody> </table>	Wheel Test Type	Wheel Direction	Mechanism	Number of Rotations	CHARACTERIZE	BOTH	GRATING	
Wheel Test Type	Wheel Direction	Mechanism	Number of Rotations						
CHARACTERIZE	BOTH	GRATING							
<b>Special Requirements</b>	<p>Between Dates 01-AUG-2023:00:00:00 and 31-AUG-2023:00:00:00</p> <p>No Parallel Attachments</p>								

# Proposal 4466 - Observation 2 - NIRSpec Wheel Characterization

Fri May 12 00:01:27 GMT 2023

<b>Observation</b>	<p><b>Proposal 4466, Observation 2</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: NIRSpec Filter/Grating Wheel Test</p> <p><i>Comments: the expected duration (incl. slew and all overheads) is ~1h for two full rotations of the mechanism (one in each direction, i.e 2x8 positions)</i></p>											
<b>Diagnostics</b>	(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.											
<b>Template</b>	<table border="1"> <thead> <tr> <th>Wheel Test Type</th> <th>Wheel Direction</th> <th>Mechanism</th> <th>Number of Rotations</th> </tr> </thead> <tbody> <tr> <td>CHARACTERIZE</td> <td>BOTH</td> <td>GRATING</td> <td></td> </tr> </tbody> </table>	Wheel Test Type	Wheel Direction	Mechanism	Number of Rotations	CHARACTERIZE	BOTH	GRATING				
Wheel Test Type	Wheel Direction	Mechanism	Number of Rotations									
CHARACTERIZE	BOTH	GRATING										
<b>Special Requirements</b>	<p>Between Dates 01-OCT-2023:00:00:00 and 31-OCT-2023:00:00:00</p> <p>No Parallel Attachments</p>											

# Proposal 4466 - Observation 3 - NIRSpec Wheel Characterization

Fri May 12 00:01:27 GMT 2023

<b>Observation</b>	<p><b>Proposal 4466, Observation 3</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: NIRSpec Filter/Grating Wheel Test</p> <p><i>Comments: the expected duration (incl. slew and all overheads) is ~1h for two full rotations of the mechanism (one in each direction, i.e 2x8 positions)</i></p>								
<b>Diagnostics</b>	<p>(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>								
<b>Template</b>	<table border="1"> <thead> <tr> <th>Wheel Test Type</th> <th>Wheel Direction</th> <th>Mechanism</th> <th>Number of Rotations</th> </tr> </thead> <tbody> <tr> <td>CHARACTERIZE</td> <td>BOTH</td> <td>FILTER</td> <td></td> </tr> </tbody> </table>	Wheel Test Type	Wheel Direction	Mechanism	Number of Rotations	CHARACTERIZE	BOTH	FILTER	
Wheel Test Type	Wheel Direction	Mechanism	Number of Rotations						
CHARACTERIZE	BOTH	FILTER							
<b>Special Requirements</b>	<p>Between Dates 01-OCT-2023:00:00:00 and 31-OCT-2023:00:00:00</p> <p>No Parallel Attachments</p>								