



4535 - follow-up Observations of NIRCAm Sources in the planetary system HR8799

Cycle: 3, Proposal Category: GTO

INVESTIGATORS

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William Balmer (CoI)	Space Telescope Science Institute

OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
HR8799 roll 1				
	1	Roll 1	NIRCcam Coronagraphic Imaging	(1) HD-218396
	2	Roll 2	NIRCcam Coronagraphic Imaging	(1) HD-218396
HR8799 Repeat				
	3	Roll 1	NIRCcam Coronagraphic Imaging	(1) HD-218396
	4	Roll 2	NIRCcam Coronagraphic Imaging	(1) HD-218396

ABSTRACT

Cycle 1 observations of the planetary system HR8799 revealed a exoplanet candidate in addition to the four previously known planets. This new object is located approximately 5" South of HR8799, well outside the 1" orbits of the known systems but within the extended disk seen at longer wavelengths. The goal of this program is to determine whether this new source is associated with HR8799 or is a distant background object. If associated with HR8799, the new source will share HR8799's proper motion of approximately 100 mas/year. Relative to Cycle 1 observations

obtained on November 27, 2022, we expect at least 200 mas of motion in Cycle 3 which will be easily detectable.

OBSERVING DESCRIPTION

tbd

Proposal 4535 - Targets - follow-up Observations of NIRCAm Sources in the planetary system HR8799

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)	HD-218396	RA: 23 07 28.7157 (346.8696488d) Dec: +21 08 3.31 (21.13425d) Equinox: J2000	Proper Motion RA: 108.284 mas/yr Proper Motion Dec: -50.039 mas/yr Parallax: 0.02446" Epoch of Position: 2000	
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[Exoplanet Systems] Extended=NO					

Proposal 4535 - Observation 1 - follow-up Observations of NIRCAM Sources in the planetary system HR8799

Tue Feb 11 18:00:09 GMT 2025

Observation	<p>Proposal 4535, Observation 1: Roll 1</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCAM Coronagraphic Imaging</p>									
	<p>(Roll 1 (Obs 1)) Warning (Form): By checking 'Additional justification', this observation is identified as part of a self reference survey. Remember to provide justification for this in the technical description text of your PDF attachment.</p> <p>(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Roll 1 (Obs 1)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.</p>									
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections			Miscellaneous		
	(1)	HD-218396	RA: 23 07 28.7157 (346.8696488d) Dec: +21 08 3.31 (21.13425d) Equinox: J2000		Proper Motion RA: 108.284 mas/yr Proper Motion Dec: -50.039 mas/yr Parallax: 0.02446" Epoch of Position: 2000					
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Acquisition	#	Target	Filter	Target Brightness	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SAME	F335M	BRIGHT (ND Square)	SHALLOW2	65	1	1	16.204	157479
Template	Module		Occulting Mask		Obtain Astrometric Confirmation Images?		Subarray	Dither Pattern		
	A		MASK335R		true		SUB320A335R	NONE		
Confirmation	#	Conf. Readout Pattern		Conf. Groups/Int	Conf. Integrations/Exp		Conf. Total Integrations	Conf. Total Exposure Time	Conf. Total Dithers	
	1	RAPID		4	1		1	42.947	1	
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F200W	F444W	MEDIUM8	10	15	1	15	1587.832	157479
	2	F200W	F356W	MEDIUM8	10	15	1	15	1587.832	157479

Proposal 4535 - Observation 1 - follow-up Observations of NIRCAm Sources in the planetary system HR8799

PSF References	Roll 2 (Obs 2) (Filters [F200W/F356W, F200W/F444W]) Additional Justification: true
Special Requirements	Offset -0.006 arcsec, -0.012 arcsec No Parallel Attachments Group Observations 1, 2, Non-interruptible Aperture PA Offset 2 from 1 by 7 to 14 Degrees (Same offsets in V3)

Proposal 4535 - Observation 2 - follow-up Observations of NIRCAM Sources in the planetary system HR8799

Tue Feb 11 18:00:09 GMT 2025

Observation	<p>Proposal 4535, Observation 2: Roll 2</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCAM Coronagraphic Imaging</p>									
Diagnostics	<p>(Roll 2 (Obs 2)) Warning (Form): By checking 'Additional justification', this observation is identified as part of a self reference survey. Remember to provide justification for this in the technical description text of your PDF attachment.</p> <p>(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Roll 2 (Obs 2)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.</p>									
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Template	Module		Occulting Mask		Obtain Astrometric Confirmation Images?		Subarray	Dither Pattern		
	A		MASK335R		false		SUB320A335R	NONE		
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PSF References	<p>Roll 1 (Obs 1) (Filters [F200W/F356W, F200W/F444W])</p> <p>Additional Justification: true</p>									

Proposal 4535 - Observation 2 - follow-up Observations of NIRCAm Sources in the planetary system HR8799

Special Requirements

Offset -0.006 arcsec, -0.012 arcsec

Group Observations 1, 2, Non-interruptible

Aperture PA Offset 2 from 1 by 7 to 14 Degrees (Same offsets in V3)

Proposal 4535 - Observation 3 - follow-up Observations of NIRCAM Sources in the planetary system HR8799

Tue Feb 11 18:00:09 GMT 2025

Observation	Proposal 4535, Observation 3: Roll 1 Diagnostic Status: Warning Observing Template: NIRCAM Coronagraphic Imaging																																							
	(Roll 1 (Obs 3)) Warning (Form): By checking 'Additional justification', this observation is identified as part of a self reference survey. Remember to provide justification for this in the technical description text of your PDF attachment. (Roll 1 (Obs 3)) Warning (Form): Science observations should be linked to at least one other compatible science observation by an Aperture PA Offset of 1-14 degrees (Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.																																							
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Proposal 4535 - Observation 3 - follow-up Observations of NIRCAm Sources in the planetary system HR8799

PSF References	Roll 2 (Obs 4) (Filters [F200W/F356W, F200W/F444W]) Additional Justification: true
Special Requirements	Offset -0.01 arcsec, -0.015 arcsec No Parallel Attachments Sequence Observations 3, 4, Non-interruptible

Proposal 4535 - Observation 4 - follow-up Observations of NIRCAM Sources in the planetary system HR8799

Tue Feb 11 18:00:09 GMT 2025

Observation	<p>Proposal 4535, Observation 4: Roll 2</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCAM Coronagraphic Imaging</p>									
Diagnostics	<p>(Roll 2 (Obs 4)) Warning (Form): By checking 'Additional justification', this observation is identified as part of a self reference survey. Remember to provide justification for this in the technical description text of your PDF attachment.</p> <p>(Roll 2 (Obs 4)) Warning (Form): Science observations should be linked to at least one other compatible science observation by an Aperture PA Offset of 1-14 degrees</p> <p>(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>									
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PSF References	<p>Roll 1 (Obs 3) (Filters [F200W/F356W, F200W/F444W])</p> <p>Additional Justification: true</p>									

Proposal 4535 - Observation 4 - follow-up Observations of NIRCAm Sources in the planetary system HR8799

Special Requirements

Offset -0.01 arcsec, -0.015 arcsec

Sequence Observations 3, 4, Non-interruptible