



# 6865 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Cycle: 4, Proposal Category: GO

## INVESTIGATORS

<i>Name</i>	<i>Institution</i>
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Mr. Simon Toogood (CoI) (ESA Member)	University of Leicester
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## OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Jupiter Scan				
	1	LAT_N6	MIRI Medium Resolution Spectroscopy	(1) JUP_LAT_N6
	2	LAT_N5	MIRI Medium Resolution Spectroscopy	(2) JUP_LAT_N5
	3	LAT_N4	MIRI Medium Resolution Spectroscopy	(3) JUP_LAT_N4
	4	LAT_N3	MIRI Medium Resolution Spectroscopy	(4) JUP_LAT_N3

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
5		LAT_N2	MIRI Medium Resolution Spectroscopy	(5) JUP_LAT_N2
6		LAT_N1	MIRI Medium Resolution Spectroscopy	(6) JUP_LAT_N1
7		LAT_EQ	MIRI Medium Resolution Spectroscopy	(7) JUP_LAT_EQ
8		LAT_S1	MIRI Medium Resolution Spectroscopy	(8) JUP_LAT_S1
9		LAT_S2	MIRI Medium Resolution Spectroscopy	(9) JUP_LAT_S2
10		LAT_S3	MIRI Medium Resolution Spectroscopy	(10) JUP_LAT_S3
11		LAT_S4	MIRI Medium Resolution Spectroscopy	(11) JUP_LAT_S4
12		LAT_S5	MIRI Medium Resolution Spectroscopy	(12) JUP_LAT_S5
13		LAT_S6	MIRI Medium Resolution Spectroscopy	(13) JUP_LAT_S6

## ABSTRACT

Jupiter's banded structure has long been associated with atmospheric circulation patterns on the scale of the zonal wind jets, with a canonical picture of rising motions in cool, cloudy zones; and sinking in warm, cloud-free belts. However, direct evidence of vertical motions within these bands is scarce, particularly away from the equatorial region. Neither temperatures, nor clouds, are robust observables for vertical motions. The spatial distribution of gases, such as ammonia, phosphine, arsine, water and hydrocarbons, can serve as excellent tracers provided the sources and sinks are known. These are only accessible via mid-infrared spectroscopy with MIRI/MRS. Space-based mapping by the Cassini and Galileo missions lacked the spectral and spatial resolution to map these species on the scale of the bands. Juno microwave observations probe the correct scales, but a degeneracy between temperature and ammonia thwarts attempts to understand the vertical motions without a unambiguous measurement of temperature, which can be provided by MIRI/MRS. We will also characterize the present state of Jupiter's stratospheric circulation, from the equatorial oscillation to the cold polar vortices, to provide contemporary temperature context at all latitudes for radio occultation experiments on the Juno spacecraft, scheduled during Cycle 4. Both our tropospheric and stratospheric objectives require a central-meridian scan of Jupiter, using 13 separate pointings with MRS from pole to pole, to determine whether there is truly evidence of upwelling/downwelling on the scale of Jupiter's bands to set the paradigm for banded circulation on rapidly-rotating giant planets.

## OBSERVING DESCRIPTION

Jupiter's banded atmosphere will be investigated by moving the MIRI/MRS fields of view from the north to south across Jupiter as it rotates. Although JWST cannot produce a full zonal average without an enormous time request, we can achieve our scientific goals by sampling all the belts and zones, from the equator, to the mid-latitudes, and up to the polar domains. Jupiter will rotate approximately twice during these observations.

Starting from the north pole, we require 13 separate pointings with MIRI/MRS. Each footprint uses a 4-point dither optimised for extended sources,

## JWST Proposal 6865 (Created: Monday, February 9, 2026, 9:00:19AM Eastern Standard Time) - Overview

in order to remove artefacts such as striping and spaxel gain variations. All four channels and three gratings are required to construct a full spectrum, although we expect saturation in Channel 4. We use 5 groups (the minimum allowable) to reduce saturation, and intend to use desaturation techniques in Channel 3 near the strongest hydrocarbon features. Given Jupiter's high mid-IR brightness, no background frames are required.

As the required longitude is unconstrained for much of the observation, we use the torus definition to ensure pointing at the central-meridian longitude. The only exceptions are near the north pole (where we must avoid auroral contamination near 170W) and the southern tropics (where we must avoid the Great Red Spot). All other longitudes have the homogeneity required to achieve our goals and sample "background" belts and zones.

As the GRS moves in time, the final longitudes and timings will be provided before execution. Although reasonable approximations for the GRS location can be provided more than a year in advance, subtle accelerations and decelerations are known to occur, and the GRS location for Cycle 4 would be best determined in 2025.

# Proposal 6865 - Targets - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

#	Name	Level 1	Level 2	Level 3
(1)	JUP_LAT_N6	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=88.9, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(2)	JUP_LAT_N5	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=56.2, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(3)	JUP_LAT_N4	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=41.4, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(4)	JUP_LAT_N3	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=29.9, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(5)	JUP_LAT_N2	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=19.8, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(6)	JUP_LAT_N1	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=10.4, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(7)	JUP_LAT_EQ	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=1.4, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(8)	JUP_LAT_S1	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=-7.5, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(9)	JUP_LAT_S2	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=-16.8, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(10)	JUP_LAT_S3	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=-26.9, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				
(11)	JUP_LAT_S4	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=-38.4, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0	
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i>				
<i>Extended=YES</i>				

Solar System Targets

## Proposal 6865 - Targets - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

(12)	JUP_LAT_S5	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=-53.1, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i> <i>Extended=YES</i>			
(13)	JUP_LAT_S6	STD=JUPITER	TYPE=TORUS, LONG=0, LAT=-87.8, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i> <i>Extended=YES</i>			

Proposal 6865 - Observation 1 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	<b>Proposal 6865, Observation 1: LAT_N6</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy <i>Comments: Longitude avoidance criterion added to avoid northern auroral oval (reaches lowest latitude at 170W).</i>												
	(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_N6 (Obs 1)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Diagnostics</b>													
<b>Solar System Targets</b>	#	Name	Level 1				Level 2				Level 3		
	(1)	JUP_LAT_N6	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=88.9, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0						
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude. Extended=YES</i>													
<b>Acquisition</b>	#											Target	
	1											NONE	
<b>Template</b>	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray		Grating Wheel Direction		
		All MRS				NO			FULL		Allow Auto Reorder		
<b>Dithers</b>	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 1 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

<b>Special Requirements</b>	Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00
	Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible
	DEFAULT WINDOW: NOT OCCULTATION OF JUP_LAT_N6 BY JUPITER FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_N6 BY IO FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_N6 BY EUROPA FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_N6 BY GANYMEDE FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_N6 BY CALLISTO FROM JWST
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_N6 IO FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_N6 EUROPA FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_N6 GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF JUP_LAT_N6 CALLISTO FROM JWST GREATER THAN 10"	
DEFAULT WINDOW: ANGULAR RATE JUP_LAT_N6 FROM JWST LESS THAN 0.075	
NOT CENTRAL MERIDIAN LONGITUDE OF JUPITER FROM JWST BETWEEN 260 80	

Proposal 6865 - Observation 2 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	<b>Proposal 6865, Observation 2: LAT_N5</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy <i>Comments: Longitude avoidance criterion added to avoid northern auroral oval (reaches lowest latitude at 170W).</i>												
	(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_N5 (Obs 2)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Diagnostics</b>													
<b>Solar System Targets</b>	<b>#</b>	<b>Name</b>	<b>Level 1</b>				<b>Level 2</b>				<b>Level 3</b>		
	(2)	JUP_LAT_N5	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=56.2, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0						
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i> Extended=YES													
<b>Acquisition</b>	<b>#</b>											<b>Target</b>	
	1											NONE	
<b>Template</b>	<b>AcqFilter</b>	<b>Primary Channel</b>				<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>		<b>Grating Wheel Direction</b>		
		All MRS				NO			FULL		Allow Auto Reorder		
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>				<b>Optimized For</b>				<b>Direction</b>			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>Optional ETC ID</b>
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 2 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

<b>Special Requirements</b>	Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00
	Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible
	DEFAULT WINDOW: NOT OCCULTATION OF JUP_LAT_N5 BY JUPITER FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_N5 BY IO FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_N5 BY EUROPA FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_N5 BY GANYMEDE FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_N5 BY CALLISTO FROM JWST
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_N5 IO FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_N5 EUROPA FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_N5 GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF JUP_LAT_N5 CALLISTO FROM JWST GREATER THAN 10"	
DEFAULT WINDOW: ANGULAR RATE JUP_LAT_N5 FROM JWST LESS THAN 0.075	
NOT CENTRAL MERIDIAN LONGITUDE OF JUPITER FROM JWST BETWEEN 80 260	

Proposal 6865 - Observation 3 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	Proposal 6865, Observation 3: LAT_N4 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_N4 (Obs 3)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Solar System Targets</b>	#	Name	Level 1				Level 2				Level 3		
	(3)	JUP_LAT_N4	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=41.4, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0						
Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude. Extended=YES													
<b>Acquisition</b>	#	Target											
	1	NONE											
<b>Template</b>	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray		Grating Wheel Direction		
		All MRS				NO			FULL		Allow Auto Reorder		
<b>Dithers</b>	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 3 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

### Special Requirements

Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00

Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible

DEFAULT WINDOW: NOT OCCULTATION OF JUP\_LAT\_N4 BY JUPITER FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N4 BY IO FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N4 BY EUROPA FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N4 BY GANYMEDE FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N4 BY CALLISTO FROM JWST  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N4 IO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N4 EUROPA FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N4 GANYMEDE FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N4 CALLISTO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: ANGULAR RATE JUP\_LAT\_N4 FROM JWST LESS THAN 0.075

Proposal 6865 - Observation 4 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	Proposal 6865, Observation 4: LAT_N3 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_N3 (Obs 4)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Solar System Targets</b>	#	Name	Level 1			Level 2			Level 3				
	(4)	JUP_LAT_N3	STD=JUPITER			TYPE=TORUS, LONG=0, LAT=29.9, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0			Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude. Extended=YES				
<b>Acquisition</b>	#	Target											
	1	NONE											
<b>Template</b>	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
		All MRS			NO			FULL		Allow Auto Reorder			
<b>Dithers</b>	#	Dither Type			Optimized For			Direction					
	1	4-Point			EXTENDED SOURCE			NEGATIVE					
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 4 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

### Special Requirements

Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00

Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible

DEFAULT WINDOW: NOT OCCULTATION OF JUP\_LAT\_N3 BY JUPITER FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N3 BY IO FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N3 BY EUROPA FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N3 BY GANYMEDE FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N3 BY CALLISTO FROM JWST  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N3 IO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N3 EUROPA FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N3 GANYMEDE FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N3 CALLISTO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: ANGULAR RATE JUP\_LAT\_N3 FROM JWST LESS THAN 0.075

Proposal 6865 - Observation 5 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	Proposal 6865, Observation 5: LAT_N2 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_N2 (Obs 5)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Solar System Targets</b>	#	Name	Level 1				Level 2				Level 3		
	(5)	JUP_LAT_N2	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=19.8, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0						
Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude. Extended=YES													
<b>Acquisition</b>	#	Target											
	1	NONE											
<b>Template</b>	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray		Grating Wheel Direction		
		All MRS				NO			FULL		Allow Auto Reorder		
<b>Dithers</b>	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 5 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

### Special Requirements

Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00

Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible

DEFAULT WINDOW: NOT OCCULTATION OF JUP\_LAT\_N2 BY JUPITER FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N2 BY IO FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N2 BY EUROPA FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N2 BY GANYMEDE FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N2 BY CALLISTO FROM JWST  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N2 IO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N2 EUROPA FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N2 GANYMEDE FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N2 CALLISTO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: ANGULAR RATE JUP\_LAT\_N2 FROM JWST LESS THAN 0.075

Proposal 6865 - Observation 6 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	Proposal 6865, Observation 6: LAT_N1 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_N1 (Obs 6)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Solar System Targets</b>	#	Name	Level 1				Level 2				Level 3		
	(6)	JUP_LAT_N1	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=10.4, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0						
Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude. Extended=YES													
<b>Acquisition</b>	#	Target											
	1	NONE											
<b>Template</b>	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
		All MRS			NO			FULL		Allow Auto Reorder			
<b>Dithers</b>	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 6 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

### Special Requirements

Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00

Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible

DEFAULT WINDOW: NOT OCCULTATION OF JUP\_LAT\_N1 BY JUPITER FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N1 BY IO FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N1 BY EUROPA FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N1 BY GANYMEDE FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_N1 BY CALLISTO FROM JWST  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N1 IO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N1 EUROPA FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N1 GANYMEDE FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_N1 CALLISTO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: ANGULAR RATE JUP\_LAT\_N1 FROM JWST LESS THAN 0.075

Proposal 6865 - Observation 7 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	Proposal 6865, Observation 7: LAT_EQ Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_EQ (Obs 7)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Solar System Targets</b>	#	Name	Level 1			Level 2			Level 3				
	(7)	JUP_LAT_EQ	STD=JUPITER			TYPE=TORUS, LONG=0, LAT=1.4, RAD=69911, POL E_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0							
Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude. Extended=YES													
<b>Acquisition</b>	#	Target											
	1	NONE											
<b>Template</b>	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
		All MRS			NO			FULL		Allow Auto Reorder			
<b>Dithers</b>	#	Dither Type			Optimized For			Direction					
	1	4-Point			EXTENDED SOURCE			NEGATIVE					
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 7 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

### Special Requirements

Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00

Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible

DEFAULT WINDOW: NOT OCCULTATION OF JUP\_LAT\_EQ BY JUPITER FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_EQ BY IO FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_EQ BY EUROPA FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_EQ BY GANYMEDE FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_EQ BY CALLISTO FROM JWST  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_EQ IO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_EQ EUROPA FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_EQ GANYMEDE FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_EQ CALLISTO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: ANGULAR RATE JUP\_LAT\_EQ FROM JWST LESS THAN 0.075

Proposal 6865 - Observation 8 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	<p><b>Proposal 6865, Observation 8: LAT_S1</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Medium Resolution Spectroscopy</p> <p><i>Comments: FoR1 (Oct-Nov'25): Need to avoid GRS between 308-324W, so longitudes from 250W to 70W have been omitted.</i></p> <p><i>FoR2 (Feb-Apr'26): Need to avoid GRS between 350-7W, so longitudes from 250W to 70W have been omitted.</i></p>												
<b>Diagnostics</b>	<p>(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(LAT_S1 (Obs 8)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.</p>												
<b>Solar System Targets</b>	#	Name	Level 1				Level 2				Level 3		
(8)	JUP_LAT_S1	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=-7.5, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0							
<p><i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i></p> <p><i>Extended=YES</i></p>													
<b>Acquisition</b>	#											Target	
1											NONE		
<b>Template</b>	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray		Grating Wheel Direction		
		All MRS				NO			FULL		Allow Auto Reorder		
<b>Dithers</b>	#	Dither Type				Optimized For				Direction			
1	4-Point				EXTENDED SOURCE				NEGATIVE				
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 8 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

<b>Special Requirements</b>	Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00
	Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible
	DEFAULT WINDOW: NOT OCCULTATION OF JUP_LAT_S1 BY JUPITER FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S1 BY IO FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S1 BY EUROPA FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S1 BY GANYMEDE FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S1 BY CALLISTO FROM JWST
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S1 IO FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S1 EUROPA FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S1 GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF JUP_LAT_S1 CALLISTO FROM JWST GREATER THAN 10"	
DEFAULT WINDOW: ANGULAR RATE JUP_LAT_S1 FROM JWST LESS THAN 0.075	
NOT CENTRAL MERIDIAN LONGITUDE OF JUPITER FROM JWST BETWEEN 250 70	

Proposal 6865 - Observation 9 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	<p><b>Proposal 6865, Observation 9: LAT_S2</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Medium Resolution Spectroscopy</p> <p><i>Comments: FoR1 (Oct-Nov'25): Need to avoid GRS between 308-324W, so longitudes from 250W to 70W have been omitted.</i></p> <p><i>FoR2 (Feb-Apr'26): Need to avoid GRS between 350-7W, so longitudes from 250W to 70W have been omitted.</i></p>												
<b>Diagnostics</b>	<p>(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(LAT_S2 (Obs 9)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.</p>												
<b>Solar System Targets</b>	#	Name	Level 1				Level 2				Level 3		
(9)	JUP_LAT_S2	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=-16.8, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0							
<p><i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i></p> <p><i>Extended=YES</i></p>													
<b>Acquisition</b>	#	Target											
1	NONE												
<b>Template</b>	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
	All MRS	NO			FULL		Allow Auto Reorder						
<b>Dithers</b>	#	Dither Type				Optimized For				Direction			
1	4-Point				EXTENDED SOURCE				NEGATIVE				
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 9 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

<b>Special Requirements</b>	Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00
	Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible
	DEFAULT WINDOW: NOT OCCULTATION OF JUP_LAT_S2 BY JUPITER FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S2 BY IO FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S2 BY EUROPA FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S2 BY GANYMEDE FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S2 BY CALLISTO FROM JWST
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S2 IO FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S2 EUROPA FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S2 GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF JUP_LAT_S2 CALLISTO FROM JWST GREATER THAN 10"	
DEFAULT WINDOW: ANGULAR RATE JUP_LAT_S2 FROM JWST LESS THAN 0.075	
NOT CENTRAL MERIDIAN LONGITUDE OF JUPITER FROM JWST BETWEEN 250 70	

Proposal 6865 - Observation 10 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	<p><b>Proposal 6865, Observation 10: LAT_S3</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Medium Resolution Spectroscopy</p> <p><i>Comments: FoR1 (Oct-Nov'25): Need to avoid GRS between 308-324W, and Oval BA 236-223W, so longitudes from 190W to 10W have been omitted.</i></p> <p><i>FoR2 (Feb-Apr'26): Need to avoid GRS between 350-7W, and Oval BA 202-189W, so longitudes from 190W to 10W have been omitted.</i></p>												
<b>Diagnostics</b>	<p>(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(LAT_S3 (Obs 10)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.</p>												
<b>Solar System Targets</b>	#	Name	Level 1			Level 2			Level 3				
(10)	JUP_LAT_S3	STD=JUPITER			TYPE=TORUS, LONG=0, LAT=-26.9, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0								
<p><i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i></p> <p><i>Extended=YES</i></p>													
<b>Acquisition</b>	#	Target											
1	NONE												
<b>Template</b>	AcqFilter	Primary Channel			Simultaneous Imaging		Imager Subarray		Grating Wheel Direction				
	All MRS			NO		FULL		Allow Auto Reorder					
<b>Dithers</b>	#	Dither Type			Optimized For			Direction					
1	4-Point			EXTENDED SOURCE			NEGATIVE						
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 10 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

<b>Special Requirements</b>	Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00
	Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible
	DEFAULT WINDOW: NOT OCCULTATION OF JUP_LAT_S3 BY JUPITER FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S3 BY IO FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S3 BY EUROPA FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S3 BY GANYMEDE FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S3 BY CALLISTO FROM JWST
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S3 IO FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S3 EUROPA FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S3 GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF JUP_LAT_S3 CALLISTO FROM JWST GREATER THAN 10"	
DEFAULT WINDOW: ANGULAR RATE JUP_LAT_S3 FROM JWST LESS THAN 0.075	
NOT CENTRAL MERIDIAN LONGITUDE OF JUPITER FROM JWST BETWEEN 190 10	

Proposal 6865 - Observation 11 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	Proposal 6865, Observation 11: LAT_S4 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_S4 (Obs 11)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Diagnosics</b>													
<b>Solar System Targets</b>	#	Name	Level 1				Level 2				Level 3		
	(11)	JUP_LAT_S4	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=-38.4, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0						
Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude. Extended=YES													
<b>Acquisition</b>	#	Target											
	1	NONE											
<b>Template</b>	AcqFilter	Primary Channel				Simultaneous Imaging			Imager Subarray		Grating Wheel Direction		
		All MRS				NO			FULL		Allow Auto Reorder		
<b>Dithers</b>	#	Dither Type				Optimized For				Direction			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 11 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

### Special Requirements

Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00

Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible

DEFAULT WINDOW: NOT OCCULTATION OF JUP\_LAT\_S4 BY JUPITER FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_S4 BY IO FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_S4 BY EUROPA FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_S4 BY GANYMEDE FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_S4 BY CALLISTO FROM JWST  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_S4 IO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_S4 EUROPA FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_S4 GANYMEDE FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_S4 CALLISTO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: ANGULAR RATE JUP\_LAT\_S4 FROM JWST LESS THAN 0.075

Proposal 6865 - Observation 12 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	Proposal 6865, Observation 12: LAT_S5 Diagnostic Status: Warning Observing Template: MIRI Medium Resolution Spectroscopy												
	(Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_S5 (Obs 12)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Diagnosics</b>													
<b>Solar System Targets</b>	#	Name	Level 1			Level 2			Level 3				
	(12)	JUP_LAT_S5	STD=JUPITER			TYPE=TORUS, LONG=0, LAT=-53.1, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0							
Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude. Extended=YES													
<b>Acquisition</b>	#	Target											
	1	NONE											
<b>Template</b>	AcqFilter	Primary Channel			Simultaneous Imaging			Imager Subarray		Grating Wheel Direction			
		All MRS			NO			FULL		Allow Auto Reorder			
<b>Dithers</b>	#	Dither Type			Optimized For			Direction					
	1	4-Point			EXTENDED SOURCE			NEGATIVE					
<b>Spectral Elements</b>	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 12 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

### Special Requirements

Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00

Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible

DEFAULT WINDOW: NOT OCCULTATION OF JUP\_LAT\_S5 BY JUPITER FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_S5 BY IO FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_S5 BY EUROPA FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_S5 BY GANYMEDE FROM JWST  
DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP\_LAT\_S5 BY CALLISTO FROM JWST  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_S5 IO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_S5 EUROPA FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_S5 GANYMEDE FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: SEPARATION OF JUP\_LAT\_S5 CALLISTO FROM JWST GREATER THAN 10"  
DEFAULT WINDOW: ANGULAR RATE JUP\_LAT\_S5 FROM JWST LESS THAN 0.075

Proposal 6865 - Observation 13 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

Mon Feb 09 14:00:19 GMT 2026

<b>Observation</b>	<b>Proposal 6865, Observation 13: LAT_S6</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy <i>Comments: Longitude avoidance criterion added to avoid southern auroral oval (reaches lowest latitude at 60W).</i>												
	(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (LAT_S6 (Obs 13)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.												
<b>Diagnostics</b>													
<b>Solar System Targets</b>	<b>#</b>	<b>Name</b>	<b>Level 1</b>				<b>Level 2</b>				<b>Level 3</b>		
	(13)	JUP_LAT_S6	STD=JUPITER				TYPE=TORUS, LONG=0, LAT=-87.8, RAD=69911, POLE_LONG=0, POLE_LAT=90, O_LONG=0, O_LAT=0, O_RAD=0						
<i>Comments: Observation at the central meridian longitude, so we have used the torus definition with a specific latitude and the radius of Jupiter at that latitude.</i> Extended=YES													
<b>Acquisition</b>	<b>#</b>											<b>Target</b>	
	1											NONE	
<b>Template</b>	<b>AcqFilter</b>	<b>Primary Channel</b>				<b>Simultaneous Imaging</b>			<b>Imager Subarray</b>		<b>Grating Wheel Direction</b>		
		All MRS				NO			FULL		Allow Auto Reorder		
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>				<b>Optimized For</b>				<b>Direction</b>			
	1	4-Point				EXTENDED SOURCE				NEGATIVE			
<b>Spectral Elements</b>	<b>#</b>	<b>Wavelength Range</b>	<b>Detector</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Exposures/Dith</b>	<b>Dither</b>	<b>Total Dithers</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>Optional ETC ID</b>
	1	LONG(C)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	1	LONG(C)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	
	2	MEDIUM(B)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	
	3	SHORT(A)	MRSLONG		FASTR1	5	8	1	Dither 1	4	32	521.708	37287
	3	SHORT(A)	MRSSHORT		FASTR1	5	8	1	Dither 1	4	32	521.708	

## Proposal 6865 - Observation 13 - Jupiter's Stripes: Testing the Canonical View of Banded Circulation Patterns on Giant Planets

<b>Special Requirements</b>	Between Dates 20-FEB-2026:00:00:00 and 07-MAR-2026:00:00:00
	Group Observations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Non-interruptible
	DEFAULT WINDOW: NOT OCCULTATION OF JUP_LAT_S6 BY JUPITER FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S6 BY IO FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S6 BY EUROPA FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S6 BY GANYMEDE FROM JWST
	DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF JUP_LAT_S6 BY CALLISTO FROM JWST
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S6 IO FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S6 EUROPA FROM JWST GREATER THAN 10"
	DEFAULT WINDOW: SEPARATION OF JUP_LAT_S6 GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF JUP_LAT_S6 CALLISTO FROM JWST GREATER THAN 10"	
DEFAULT WINDOW: ANGULAR RATE JUP_LAT_S6 FROM JWST LESS THAN 0.075	
NOT CENTRAL MERIDIAN LONGITUDE OF JUPITER FROM JWST BETWEEN 330 150	