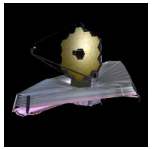

10716 - Examining the Composition of Jupiter's Inner Moons and Rings with MIRI and NIRSpec

Cycle: 5, Proposal Category: GO

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1	Ring NIRSpec	NIRSpec IFU Spectroscopy	(3) Ring
	2	Adrastea NIRSpec Leading	NIRSpec IFU Spectroscopy	(1) Adrastea
	3	Adrastea NIRSpec Trailing	NIRSpec IFU Spectroscopy	(1) Adrastea
	4	Metis NIRSpec Leading	NIRSpec IFU Spectroscopy	(2) Metis
	5	Metis NIRSpec Trialing	NIRSpec IFU Spectroscopy	(2) Metis

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	6	Amalthea NIRSpec Leading	NIRSpec IFU Spectroscopy	(4) Amalthea
	7	Amalthea NIRSpec Trailing	NIRSpec IFU Spectroscopy	(4) Amalthea
	8	Thebe NIRSpec Leading	NIRSpec IFU Spectroscopy	(5) Thebe
	9	Thebe NIRSpec Trailing	NIRSpec IFU Spectroscopy	(5) Thebe
	10	Amalthea MIRI Leading	MIRI Medium Resolution Spectroscopy	(4) Amalthea
	11	Amalthea MIRI Trailing	MIRI Medium Resolution Spectroscopy	(4) Amalthea
	12	Thebe MIRI Leading	MIRI Medium Resolution Spectroscopy	(5) Thebe
	13	Thebe MIRI Trailing	MIRI Medium Resolution Spectroscopy	(5) Thebe
	14	Metis MIRI Leading	MIRI Medium Resolution Spectroscopy	(2) Metis
	15	Metis MIRI Trailing	MIRI Medium Resolution Spectroscopy	(2) Metis

ABSTRACT

We propose to observe Jupiter's rings and inner small moons (Metis, Adrastea, Amalthea and Thebe) with the NIRSpec IFU and MIRI MRS IFU in order to determine their compositions, particularly the state of hydrated materials and silicate minerals on their surfaces. The inner moons and rings are probably composed of the same materials that formed the larger Galilean moons Io, Europa, Ganymede and Callisto. However, since the inner moons are much smaller than the Galilean satellites (and therefore have probably not undergone large-scale melting or differentiation), they are more likely to preserve ancient materials on their surfaces. Furthermore, these objects appear to have a variety of compositions that may reflect their different histories and environments. JWST spectra of these moons will therefore provide insights into the composition of Jupiter's early circumplanetary disk and the building blocks of the Galilean satellites.

OBSERVING DESCRIPTION

This program will observe the inner moons and rings of Jupiter using a combination of NIRSpec IFU and MIRI MRS IFU.

The brighter moons Amalthea and Thebe will each be observed using NIRSpec IFU in NRSIRS2RAPID mode using the G140/F100LP, G235M/F170LP and the G395/F290LP gratings with 6 groups per integration and a single integration in each of 4 dithers, for a total exposure time of 408 seconds with each grating. Amalthea and Thebe will also be observed with all channels of the MIRI MRS IFU ystem using 50 groups in a single

integration with 4 dithers, yielding a total exposure time of 555 seconds per channel.

The moon Metis will also be observed using both NIRSpec and MIRI. The NIRSpec IFU observation will again be in NRSIRS2RAPID mode using the G140M/F100LP, G235M/F170LP and the G395/F290LP filters. The G140M/F100LP observation will use 6 groups per integration and a single integration in each of 4 dithers, for a total exposure time of 408 seconds. However, the G235M/F170LP and the G395/F290LP gratings will use 12 groups per integration and a single integration in each of 4 dithers, for a total exposure time of 754 seconds. Metis will also be observed with all channels of the MIRI IFU MRS system using 50 groups in a single integration with 4 dithers, for a total exposure time of 555 seconds per channel.

Due to its much lower brightness, the smallest moon Adrastea will be observed with only NIRSpec in NRSIRS2RAPID mode using the PRISM/CLEAR settings and 12 groups per integration and a single integration for each of 4 dithers, yielding a total exposure time of 704 seconds.

Each moon will be observed on both sides of the planet in order to obtain data on the leading and trailing side of each moon. Each of these observations will occur when the moons are near one ansa of their orbits in order to minimize contamination from Jupiter.

Finally, one ansa of the rings will be observed with NIRSpec IFU in NRSIRS2 mode using the PRISM/CLEAR settings and 10 groups per integration and a single integration for each of 4 dithers in order to acheive a total exposure time of 1720 seconds. This observation will be taken when bright moons are not passing in front of the rings, and should observe the ansa that minimizes MSA contamination from the planet.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(1)	Adrastea	STD=JUPITER	STD=ADRASTEA	
Comments: Extended=Unknown				
(2)	Metis	STD=JUPITER	STD=METIS	
Comments: Extended=Unknown				
(3)	Ring	STD=JUPITER	TYPE=TORUS,LONG=270,LAT=0,RAD=127000,POLE_LAT=90	
Comments: Extended=Unknown				
(4)	Amalthea	STD=JUPITER	STD=AMALTHEA	
Comments: Extended=Unknown				
(5)	Thebe	STD=JUPITER	STD=THEBE	
Comments: Extended=Unknown				

Observation

Proposal 10716, Observation 1: Ring NIRSpec

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

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

(Ring NIRSpec (Obs 1)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(3)	Ring	STD=JUPITER	TYPE=TORUS,LONG=270,LAT=0,RAD=127000,POLE_LAT=90	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	PRISM/CLEAR	NRSIRS2	6	1	false	true	NONE	4	4	1809.022	

Special Requirements	
	After Date 2027.030:00:00:00 SEPARATION OF Ring Adrastea FROM JWST GREATER THAN 10" SEPARATION OF Ring Metis FROM JWST GREATER THAN 10" SEPARATION OF Ring Amalthea FROM JWST GREATER THAN 10" SEPARATION OF Ring Thebe FROM JWST GREATER THAN 10" DEFAULT WINDOW: NOT OCCULTATION OF Ring BY JUPITER FROM JWST DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF Ring BY IO FROM JWST DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF Ring BY EUROPA FROM JWST DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF Ring BY GANYMEDE FROM JWST DEFAULT WINDOW: NOT ECLIPSE PENUMBRAL PARTIAL OF Ring BY CALLISTO FROM JWST DEFAULT WINDOW: SEPARATION OF Ring IO FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Ring EUROPA FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Ring GANYMEDE FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Ring CALLISTO FROM JWST GREATER THAN 10" DEFAULT WINDOW: ANGULAR RATE Ring FROM JWST LESS THAN 0.075

Observation

Proposal 10716, Observation 2: Adrastea NIRSpec Leading

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Adrastea NIRSpec Leading (Obs 2)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(1)	Adrastea	STD=JUPITER	STD=ADRASTEA	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	PRISM/CLEAR	NRSIRS2RAPID	12	1	false	true	NONE	4	4	758.622	

Special Requirements

After Date 2027.030:00:00:00

DEFAULT WINDOW: NOT OCCULTATION OF Adrastea BY JUPITER FROM JWST
DEFAULT WINDOW: SEPARATION OF Adrastea IO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Adrastea EUROPA FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Adrastea GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Adrastea CALLISTO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: ANGULAR RATE ADRASTEA FROM JWST LESS THAN 0.075
SEPARATION OF Adrastea JUPITER FROM JWST LOCAL MAXIMUM 10"
ORBITAL LONGITUDE OF Adrastea FROM JWST BETWEEN 0 180
SEPARATION OF Adrastea Metis FROM JWST GREATER THAN 5"
SEPARATION OF Adrastea Amalthea FROM JWST GREATER THAN 5"
SEPARATION OF Adrastea Thebe FROM JWST GREATER THAN 5"

Observation

Proposal 10716, Observation 3: Adrastea NIRSpec Trailing

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Adrastea NIRSpec Trailing (Obs 3)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

(Visit 3:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(1)	Adrastea	STD=JUPITER	STD=ADRASTEA	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	PRISM/CLEAR	NRSIRS2RAPID	12	1	false	true	NONE	4	4	758.622	

Special Requirements

Before Date 2027.030:00:00:00

DEFAULT WINDOW: NOT OCCULTATION OF Adrastea BY JUPITER FROM JWST
DEFAULT WINDOW: SEPARATION OF Adrastea IO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Adrastea EUROPA FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Adrastea GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Adrastea CALLISTO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: ANGULAR RATE ADRASTEA FROM JWST LESS THAN 0.075
SEPARATION OF Adrastea JUPITER FROM JWST LOCAL MAXIMUM 10"
ORBITAL LONGITUDE OF Adrastea FROM JWST BETWEEN 180 360
SEPARATION OF Adrastea Metis FROM JWST GREATER THAN 5"
SEPARATION OF Adrastea Amalthea FROM JWST GREATER THAN 5"
SEPARATION OF Adrastea Thebe FROM JWST GREATER THAN 5"

Observation

Proposal 10716, Observation 4: Metis NIRSpec Leading

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

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

(Metis NIRSpec Leading (Obs 4)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(2)	Metis	STD=JUPITER	STD=METIS	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G235M/F170LP	NRSIRS2RAPID	12	1	false	true	NONE	4	4	758.622	
2	G395M/F290LP	NRSIRS2RAPID	12	1	false	true	NONE	4	4	758.622	
3	G140M/F100LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	

Special Requirements

After Date 2027.030:00:00:00

DEFAULT WINDOW: NOT OCCULTATION OF Metis BY JUPITER FROM JWST
DEFAULT WINDOW: SEPARATION OF Metis IO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Metis EUROPA FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Metis GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Metis CALLISTO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: ANGULAR RATE METIS FROM JWST LESS THAN 0.075
SEPARATION OF Metis JUPITER FROM JWST LOCAL MAXIMUM 10"
ORBITAL LONGITUDE OF Metis FROM JWST BETWEEN 0 180
SEPARATION OF Metis AMALTHEA FROM JWST GREATER THAN 1"
SEPARATION OF Metis THEBE FROM JWST GREATER THAN 1"
SEPARATION OF Metis ADRASTEA FROM JWST GREATER THAN 1"

Observation

Proposal 10716, Observation 5: Metis NIRSpec Trialing

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Metis NIRSpec Trialing (Obs 5)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

(Visit 5:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(2)	Metis	STD=JUPITER	STD=METIS	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G235M/F170LP	NRSIRS2RAPID	12	1	false	true	NONE	4	4	758.622	
2	G395M/F290LP	NRSIRS2RAPID	12	1	false	true	NONE	4	4	758.622	
3	G140M/F100LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	

Special Requirements

Before Date 2027.030:00:00:00

DEFAULT WINDOW: NOT OCCULTATION OF Metis BY JUPITER FROM JWST
DEFAULT WINDOW: SEPARATION OF Metis IO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Metis EUROPA FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Metis GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Metis CALLISTO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: ANGULAR RATE METIS FROM JWST LESS THAN 0.075
SEPARATION OF Metis JUPITER FROM JWST LOCAL MAXIMUM 10"
ORBITAL LONGITUDE OF Metis FROM JWST BETWEEN 180 360
SEPARATION OF Metis AMALTHEA FROM JWST GREATER THAN 1"
SEPARATION OF Metis THEBE FROM JWST GREATER THAN 1"
SEPARATION OF Metis ADRASTEA FROM JWST GREATER THAN 1"

Observation

Proposal 10716, Observation 6: Amalthea NIRSpec Leading

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Amalthea NIRSpec Leading (Obs 6)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(4)	Amalthea	STD=JUPITER	STD=AMALTHEA	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G235M/F170LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	
2	G395M/F290LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	
3	G140M/F100LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	

Special Requirements

After Date 2027.030:00:00:00

DEFAULT WINDOW: NOT OCCULTATION OF Amalthea BY JUPITER FROM JWST
DEFAULT WINDOW: SEPARATION OF Amalthea IO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Amalthea EUROPA FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Amalthea GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Amalthea CALLISTO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: ANGULAR RATE AMALTHEA FROM JWST LESS THAN 0.075
SEPARATION OF Amalthea JUPITER FROM JWST LOCAL MAXIMUM 10"
ORBITAL LONGITUDE OF Amalthea FROM JWST BETWEEN 0 180
SEPARATION OF Amalthea Adrastea FROM JWST GREATER THAN 2"
SEPARATION OF Amalthea Metis FROM JWST GREATER THAN 2"
SEPARATION OF Amalthea Thebe FROM JWST GREATER THAN 2"

Observation

Proposal 10716, Observation 7: Amalthea NIRSpec Trailing Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Amalthea NIRSpec Trailing (Obs 7)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

(Visit 7:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(4)	Amalthea	STD=JUPITER	STD=AMALTHEA	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G235M/F170LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	
2	G395M/F290LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	
3	G140M/F100LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	

Special Requirements

Before Date 2027.030:00:00:00

DEFAULT WINDOW: NOT OCCULTATION OF Amalthea BY JUPITER FROM JWST
DEFAULT WINDOW: SEPARATION OF Amalthea IO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Amalthea EUROPA FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Amalthea GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Amalthea CALLISTO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: ANGULAR RATE AMALTHEA FROM JWST LESS THAN 0.075
SEPARATION OF Amalthea JUPITER FROM JWST LOCAL MAXIMUM 10"
ORBITAL LONGITUDE OF Amalthea FROM JWST BETWEEN 180 360
SEPARATION OF Amalthea Adrastea FROM JWST GREATER THAN 2"
SEPARATION OF Amalthea Metis FROM JWST GREATER THAN 2"
SEPARATION OF Amalthea Thebe FROM JWST GREATER THAN 2"

Observation

Proposal 10716, Observation 8: Thebe NIRSpec Leading

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Thebe NIRSpec Leading (Obs 8)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(5)	Thebe	STD=JUPITER	STD=THEBE	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G235M/F170LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	
2	G395M/F290LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	
3	G140M/F100LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	

Special Requirements

After Date 2027.030:00:00:00

DEFAULT WINDOW: NOT OCCULTATION OF Thebe BY JUPITER FROM JWST
DEFAULT WINDOW: SEPARATION OF Thebe IO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Thebe EUROPA FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Thebe GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Thebe CALLISTO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: ANGULAR RATE THEBE FROM JWST LESS THAN 0.075
SEPARATION OF Thebe JUPITER FROM JWST LOCAL MAXIMUM 10"
ORBITAL LONGITUDE OF Thebe BETWEEN 0 180
SEPARATION OF Thebe Amalthea FROM JWST GREATER THAN 2"
SEPARATION OF Thebe Metis FROM JWST GREATER THAN 2"
SEPARATION OF Thebe Adrastea FROM JWST GREATER THAN 2"

Observation

Proposal 10716, Observation 9: Thebe NIRSpec Trailing Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Thebe NIRSpec Trailing (Obs 9)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

(Visit 9:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(5)	Thebe	STD=JUPITER	STD=THEBE	

Comments: Extended=Unknown

Template

TA Method	HFF Readout Mode
NONE	false

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-DITHER				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	G235M/F170LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	
2	G395M/F290LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	
3	G140M/F100LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	

Special Requirements

Before Date 2027.030:00:00:00

DEFAULT WINDOW: NOT OCCULTATION OF Thebe BY JUPITER FROM JWST
DEFAULT WINDOW: SEPARATION OF Thebe IO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Thebe EUROPA FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Thebe GANYMEDE FROM JWST GREATER THAN 10"
DEFAULT WINDOW: SEPARATION OF Thebe CALLISTO FROM JWST GREATER THAN 10"
DEFAULT WINDOW: ANGULAR RATE THEBE FROM JWST LESS THAN 0.075
SEPARATION OF Thebe JUPITER FROM JWST LOCAL MAXIMUM 10"
ORBITAL LONGITUDE OF Thebe BETWEEN 180 360
SEPARATION OF Thebe Amalthea FROM JWST GREATER THAN 2"
SEPARATION OF Thebe Metis FROM JWST GREATER THAN 2"
SEPARATION OF Thebe Adrastea FROM JWST GREATER THAN 2"

Observation

Proposal 10716, Observation 10: Amalthea MIRI Leading

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Amalthea MIRI Leading (Obs 10)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(4)	Amalthea	STD=JUPITER	STD=AMALTHEA	

Comments: Extended=Unknown

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	

Special Requirements	
	DEFAULT WINDOW: NOT OCCULTATION OF Amalthea BY JUPITER FROM JWST DEFAULT WINDOW: SEPARATION OF Amalthea IO FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Amalthea EUROPA FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Amalthea GANYMEDE FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Amalthea CALLISTO FROM JWST GREATER THAN 10" DEFAULT WINDOW: ANGULAR RATE AMALTHEA FROM JWST LESS THAN 0.075 ORBITAL LONGITUDE OF Amalthea BETWEEN 0 180 SEPARATION OF Amalthea JUPITER FROM JWST LOCAL MAXIMUM 10" SEPARATION OF Amalthea Thebe FROM JWST GREATER THAN 5" SEPARATION OF Amalthea Metis FROM JWST GREATER THAN 5" SEPARATION OF Amalthea Adrastea FROM JWST GREATER THAN 5"

Observation

Proposal 10716, Observation 11: Amalthea MIRI Trailing

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Amalthea MIRI Trailing (Obs 11)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(4)	Amalthea	STD=JUPITER	STD=AMALTHEA	

Comments: Extended=Unknown

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	

Special Requirements	
	DEFAULT WINDOW: NOT OCCULTATION OF Amalthea BY JUPITER FROM JWST DEFAULT WINDOW: SEPARATION OF Amalthea IO FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Amalthea EUROPA FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Amalthea GANYMEDE FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Amalthea CALLISTO FROM JWST GREATER THAN 10" DEFAULT WINDOW: ANGULAR RATE AMALTHEA FROM JWST LESS THAN 0.075 ORBITAL LONGITUDE OF Amalthea BETWEEN 180 360 SEPARATION OF Amalthea JUPITER FROM JWST LOCAL MAXIMUM 10" SEPARATION OF Amalthea Thebe FROM JWST GREATER THAN 5" SEPARATION OF Amalthea Metis FROM JWST GREATER THAN 5" SEPARATION OF Amalthea Adrastea FROM JWST GREATER THAN 5"

Observation

Proposal 10716, Observation 12: Thebe MIRI Leading

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Thebe MIRI Leading (Obs 12)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(5)	Thebe	STD=JUPITER	STD=THEBE	

Comments: Extended=Unknown

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	

Special Requirements	
	DEFAULT WINDOW: NOT OCCULTATION OF Thebe BY JUPITER FROM JWST DEFAULT WINDOW: SEPARATION OF Thebe IO FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Thebe EUROPA FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Thebe GANYMEDE FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Thebe CALLISTO FROM JWST GREATER THAN 10" DEFAULT WINDOW: ANGULAR RATE THEBE FROM JWST LESS THAN 0.075 SEPARATION OF Thebe JUPITER FROM JWST LOCAL MAXIMUM 10" ORBITAL LONGITUDE OF Thebe BETWEEN 0 180 SEPARATION OF Thebe Amalthea FROM JWST GREATER THAN 5" SEPARATION OF Thebe Metis FROM JWST GREATER THAN 5" SEPARATION OF Thebe Adrastea FROM JWST GREATER THAN 5"

Observation

Proposal 10716, Observation 13: Thebe MIRI Trailing Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Thebe MIRI Trailing (Obs 13)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(5)	Thebe	STD=JUPITER	STD=THEBE	

Comments: Extended=Unknown

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	

Special Requirements	
	DEFAULT WINDOW: NOT OCCULTATION OF Thebe BY JUPITER FROM JWST DEFAULT WINDOW: SEPARATION OF Thebe IO FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Thebe EUROPA FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Thebe GANYMEDE FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Thebe CALLISTO FROM JWST GREATER THAN 10" DEFAULT WINDOW: ANGULAR RATE THEBE FROM JWST LESS THAN 0.075 SEPARATION OF Thebe JUPITER FROM JWST LOCAL MAXIMUM 10" ORBITAL LONGITUDE OF Thebe BETWEEN 180 360 SEPARATION OF Thebe Amalthea FROM JWST GREATER THAN 5" SEPARATION OF Thebe Metis FROM JWST GREATER THAN 5" SEPARATION OF Thebe Adrastea FROM JWST GREATER THAN 5"

Observation

Proposal 10716, Observation 14: Metis MIRI Leading

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Visit 14:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Metis MIRI Leading (Obs 14)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(2)	Metis	STD=JUPITER	STD=METIS	

Comments: Extended=Unknown

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	

Special Requirements	
	DEFAULT WINDOW: NOT OCCULTATION OF Metis BY JUPITER FROM JWST DEFAULT WINDOW: SEPARATION OF Metis IO FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Metis EUROPA FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Metis GANYMEDE FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Metis CALLISTO FROM JWST GREATER THAN 10" DEFAULT WINDOW: ANGULAR RATE METIS FROM JWST LESS THAN 0.075 SEPARATION OF Metis JUPITER FROM JWST LOCAL MAXIMUM 10" ORBITAL LONGITUDE OF Metis BETWEEN 0 180 SEPARATION OF Metis AMALTHEA FROM JWST GREATER THAN 2" SEPARATION OF Metis THEBE FROM JWST GREATER THAN 2" SEPARATION OF Metis ADRASTEA FROM JWST GREATER THAN 2"

Observation

Proposal 10716, Observation 15: Metis MIRI Trailing

Tue May 26 17:00:20 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Visit 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Metis MIRI Trailing (Obs 15)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

#	Name	Level 1	Level 2	Level 3
(2)	Metis	STD=JUPITER	STD=METIS	

Comments: Extended=Unknown

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
	All MRS	NO	FULL	Allow Auto Reorder

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	SHORT(A)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
1	SHORT(A)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSLONG		FASTR1	50	1	1	Dither 1	4	4	555.008	
3	LONG(C)	MRSSHORT		FASTR1	50	1	1	Dither 1	4	4	555.008	

Special Requirements	
	DEFAULT WINDOW: NOT OCCULTATION OF Metis BY JUPITER FROM JWST DEFAULT WINDOW: SEPARATION OF Metis IO FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Metis EUROPA FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Metis GANYMEDE FROM JWST GREATER THAN 10" DEFAULT WINDOW: SEPARATION OF Metis CALLISTO FROM JWST GREATER THAN 10" DEFAULT WINDOW: ANGULAR RATE METIS FROM JWST LESS THAN 0.075 SEPARATION OF Metis JUPITER FROM JWST LOCAL MAXIMUM 10" ORBITAL LONGITUDE OF Metis BETWEEN 180 360 SEPARATION OF Metis AMALTHEA FROM JWST GREATER THAN 2" SEPARATION OF Metis THEBE FROM JWST GREATER THAN 2" SEPARATION OF Metis ADRASTEA FROM JWST GREATER THAN 2"