



18045 - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Cycle: 33, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>
Prof. Jonathan David Nichols (PI) (ESA Member) (Contact)	University of Leicester
Prof. John T. Clarke (CoI) (AdminUSPI)	Boston University
Dr. Luke Moore (CoI)	Boston University
Dr. Oliver King (CoI) (ESA Member)	University of Leicester
Prof. Leigh Fletcher (CoI) (ESA Member)	University of Leicester
Dr. Chihiro Tao (CoI)	National Institute of Information and Com. Technology (NICT)
Dr. Henrik Melin (CoI) (ESA Member)	Northumbria University
Dr. Tom Stallard (CoI) (ESA Member)	Northumbria University
Dr. Glenn S. Orton (CoI)	Jet Propulsion Laboratory

VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) JUPITER-AURORA-SOUTH1	STIS/FUV-MAMA	1	28-Apr-2026 14:00:39.0	yes
02	(23) JUPITER-AURORA-SOUTH2	STIS/FUV-MAMA	1	28-Apr-2026 14:00:39.0	yes
03	(3) JUPITER-AURORA-NORTH-SPEC	STIS/FUV-MAMA	1	28-Apr-2026 14:00:39.0	yes
04	(4) JUPITER-AURORA-IFP1	STIS/FUV-MAMA	1	28-Apr-2026 14:00:40.0	yes
05	(21) JUPITER-AURORA-IFP2	STIS/FUV-MAMA	1	28-Apr-2026 14:00:40.0	yes
06	(22) JUPITER-AURORA-IFP3	STIS/FUV-MAMA	1	28-Apr-2026 14:00:41.0	yes

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
07	(7) JUPITER-AURORA-SOUTH-SW1	STIS/FUV-MAMA	1	28-Apr-2026 14:00:41.0	yes
08	(24) JUPITER-AURORA-SOUTH-SW2	STIS/FUV-MAMA	1	28-Apr-2026 14:00:41.0	yes
09	(25) JUPITER-AURORA-SOUTH-SW3	STIS/FUV-MAMA	1	28-Apr-2026 14:00:42.0	yes
10	(26) JUPITER-AURORA-SOUTH-SW4	STIS/FUV-MAMA	1	28-Apr-2026 14:00:42.0	yes
11	(27) JUPITER-AURORA-SOUTH-SW5	STIS/FUV-MAMA	1	28-Apr-2026 14:00:43.0	yes
12	(28) JUPITER-AURORA-SOUTH-SW6	STIS/FUV-MAMA	1	28-Apr-2026 14:00:43.0	yes
13	(14) JUPITER-AURORA-NORTH-SW1	STIS/FUV-MAMA	1	28-Apr-2026 14:00:44.0	yes
14	(29) JUPITER-AURORA-NORTH-SW2	STIS/FUV-MAMA	1	28-Apr-2026 14:00:44.0	yes
15	(30) JUPITER-AURORA-NORTH-SW3	STIS/FUV-MAMA	1	28-Apr-2026 14:00:45.0	yes
16	(31) JUPITER-AURORA-NORTH-SW4	STIS/FUV-MAMA	1	28-Apr-2026 14:00:45.0	yes
17	(32) JUPITER-AURORA-NORTH-SW5	STIS/FUV-MAMA	1	28-Apr-2026 14:00:45.0	yes
18	(33) JUPITER-AURORA-NORTH-SW6	STIS/FUV-MAMA	1	28-Apr-2026 14:00:46.0	yes

18 Total Orbits Used

ABSTRACT

Jupiter's auroras are the brightest in the solar system, revealing where charged particles, energized in the magnetosphere, deposit vast quantities of energy into the atmosphere. Jupiter's auroras in particular are the foundation of our understanding of similar emission from more distant astrophysical objects. However, a pilot program of simultaneous HST and JWST observations of Jupiter's auroras has recently revealed fundamental gaps in our understanding of how such emissions are generated, demonstrating the power of joint observations to yield new insights into this system. Together with the evolving Juno mission, Cycle 33 presents a golden opportunity to answer the questions raised and piece together the energy flow from magnetosphere to aurora. These observations will answer the following science questions:

1. Are the brightest H β emissions in the solar system driven by low energy electrons?
2. Are the satellite footprint emissions driven by Alfvén waves?
3. Are polar auroral flares driven by the solar wind?

Only simultaneous observation with HST, JWST and Juno can answer these questions.

OBSERVING DESCRIPTION

The HST observations will be obtained using STIS/FUV-MAMA (or the ACS/SBC if STIS is not operational). Images will be obtained using the F25SRF2 filter to observe the H β Lyman and Werner emission whilst removing geocoronal contamination. Jupiter will be positioned using PosAngle such that only the auroral region and nearby disc will be in the 25x25deg field of view, and thus $<1/4$ of the detector is filled with the planet. This limits the count rates to $\sim 20,000$ counts/s, well within the 200,000 counts/s limit. We will work with the PC to specify these once the orbit of HST is known. We will obtain ~ 2100 s time-tagged exposures, from which images integrated over smaller intervals (e.g. 30 s) will be extracted. The STIS FUV spectroscopy will be obtained with the G140L grating and the 52X0.5 aperture. The aperture will be scanned across the auroral region throughout the exposure;

Proposal 18045 - JUPITER-AURORA-SOUTH1 (01) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:46 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-SOUTH1 (01), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Southern aurora. RAD and ANG are placeholders, will be updated once the orbit is known. Should execute simultaneously with JWST observation JUPITER-SOUTH-1</i>									
	(Exposure 1 (JUPITER-AURORA-SOUTH1 (01))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-SOUTH1 (01)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(1)	JUPITER-AURORA-SOUTH1	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=190,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) JUPITER-AURO RA-SOUTH1	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2424 Secs (2424 Secs) [==>]	[1]
Orbit Structure	Orbit 1 Server Version: 20250929 Moving Target Tracking GS Acq Setup Exp. 1 Occultation Home Unused Orbital Visibility = 0									

Proposal 18045 - JUPITER-AURORA-SOUTH2 (02) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:46 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-SOUTH2 (02), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Southern aurora. RAD and ANG are placeholders, will be updated once the orbit is known. Should execute simultaneously with JWST observation JUPITER-SOUTH-2</i>									
	(Exposure 1 (JUPITER-AURORA-SOUTH2 (02))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-SOUTH2 (02)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(23)	JUPITER-AURORA-SOUTH2	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=190,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(23) JUPITER-AURORA-SOUTH2	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									

Proposal 18045 - JUPITER-AURORA-NORTH-SPEC (03) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

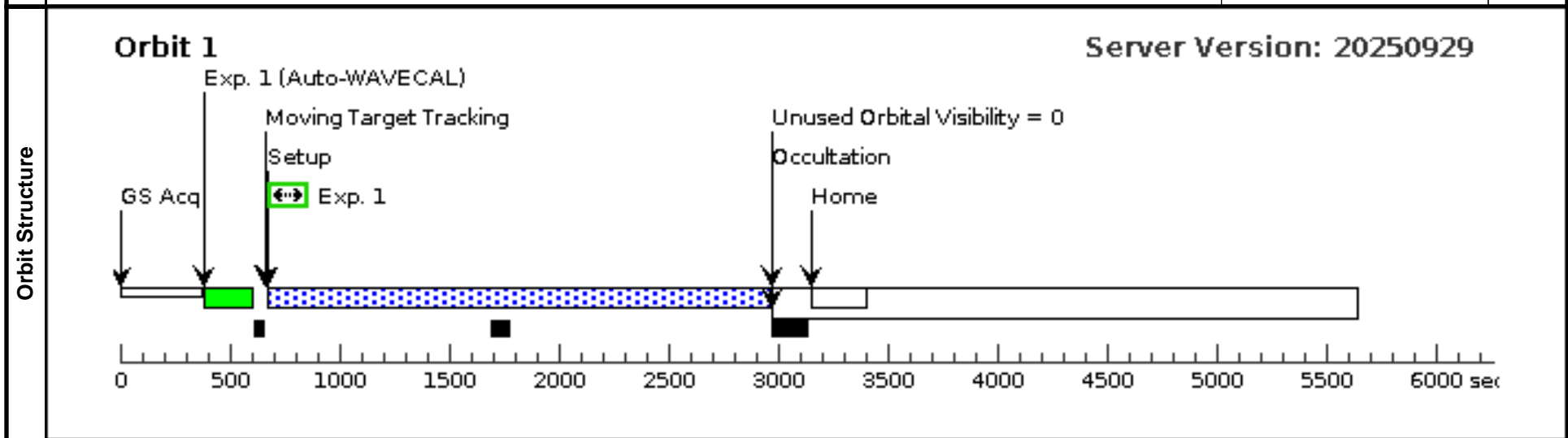
Tue Apr 28 18:00:46 GMT 2026

Visit	<p>Proposal 18045, JUPITER-AURORA-NORTH-SPEC (03), implementation</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: STIS/FUV-MAMA</p> <p>Special Requirements: (none)</p> <p><i>Comments: Spectral scan of the northern aurora. RAD and ANG are placeholders, will be updated once the orbit is known. Should execute simultaneously with JWST observation JUPITER-NORTH-DAR</i></p>
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Diagnostics	<p>(Exposure 1 (JUPITER-AURORA-NORTH-SPEC (03))) Warning (Form): Sensitive exposures should have an ETC run number provided.</p> <p>(JUPITER-AURORA-NORTH-SPEC (03)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.</p>
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Solar System Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Level 1</th> <th>Level 2</th> <th>Level 3</th> <th>Window</th> <th>Ephem Center</th> </tr> </thead> <tbody> <tr> <td>(3)</td> <td>JUPITER-AURORA-NORTH-SPEC</td> <td>STD=JUPITER</td> <td>TYPE=POS_ANGLE,RAD=20.3,ANG=339,REF=NORTH,R_RAD=-130,R_ANG=130,EPOCH=24-NOV-2026:14:55:21,EpochTimeScale=UTC</td> <td></td> <td>CML OF JUPITER FROM EARTH BETWEEN 120 220</td> <td>EARTH</td> </tr> </tbody> </table> <p><i>Comments: Description=JUPITER</i></p>	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center	(3)	JUPITER-AURORA-NORTH-SPEC	STD=JUPITER	TYPE=POS_ANGLE,RAD=20.3,ANG=339,REF=NORTH,R_RAD=-130,R_ANG=130,EPOCH=24-NOV-2026:14:55:21,EpochTimeScale=UTC		CML OF JUPITER FROM EARTH BETWEEN 120 220	EARTH
	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center								
(3)	JUPITER-AURORA-NORTH-SPEC	STD=JUPITER	TYPE=POS_ANGLE,RAD=20.3,ANG=339,REF=NORTH,R_RAD=-130,R_ANG=130,EPOCH=24-NOV-2026:14:55:21,EpochTimeScale=UTC		CML OF JUPITER FROM EARTH BETWEEN 120 220	EARTH									

Exposures	<table border="1"> <thead> <tr> <th>#</th> <th>Label</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time (Total)/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>(3) JUPITER-AURO RA-NORTH-SPEC</td> <td>STIS/FUV-MAMA, TIME-TAG, F25SRF2</td> <td>G140L 1425 A</td> <td>BUFFER-TIME=10 00</td> <td></td> <td></td> <td>2253 Secs (2253 Secs) [==>]</td> <td>[1]</td> </tr> </tbody> </table>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	1		(3) JUPITER-AURO RA-NORTH-SPEC	STIS/FUV-MAMA, TIME-TAG, F25SRF2	G140L 1425 A	BUFFER-TIME=10 00			2253 Secs (2253 Secs) [==>]	[1]
	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit											
1		(3) JUPITER-AURO RA-NORTH-SPEC	STIS/FUV-MAMA, TIME-TAG, F25SRF2	G140L 1425 A	BUFFER-TIME=10 00			2253 Secs (2253 Secs) [==>]	[1]												



Proposal 18045 - JUPITER-AURORA-IFP1 (04) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:46 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-IFP1 (04), implementation									
	Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Northern aurora for Io footprint. RAD and ANG are placeholders, will be updated once the orbit is known. Visits 4-6 should execute simultaneously with JWST observation JUPITER-NORTH-IFP</i>									
Diagnostics	(Exposure 1 (JUPITER-AURORA-IFP1 (04))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-IFP1 (04)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(4)	JUPITER-AURORA-IFP1	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 110 230, OLG OF IO BETWEEN 100 220	EARTH			
<i>Comments: Slightly wider CML range to accomodate 3 consecutive orbits. Can be widened a litte further if necessary.</i> Description=JUPITER										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) JUPITER-AURO RA-IFP1	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2424 Secs (2424 Secs) [==>]	[1]
Orbit Structure	Orbit 1 Server Version: 20250929									

Proposal 18045 - JUPITER-AURORA-IFP2 (05) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:46 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-IFP2 (05), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: AFTER 04 BY 0 Orbits TO 1 Orbits <i>Comments: Northern aurora for Io footprint. RAD and ANG are placeholders, will be updated once the orbit is known. Visits 4-6 should execute simultaneously with JWST observation JUPITER-NORTH-IFP</i>																										
	(Exposure 1 (JUPITER-AURORA-IFP2 (05))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-IFP2 (05)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.																										
Diagnostics																											
Solar System Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Level 1</th> <th>Level 2</th> <th>Level 3</th> <th>Window</th> <th>Ephem Center</th> </tr> </thead> <tbody> <tr> <td>(21)</td> <td>JUPITER-AURORA-IFP2</td> <td>STD=JUPITER</td> <td>TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH</td> <td></td> <td>CML OF JUPITER FROM EARTH BETWEEN 110 230, OLG OF IO BETWEEN 100 220</td> <td>EARTH</td> </tr> </tbody> </table>	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center	(21)	JUPITER-AURORA-IFP2	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 110 230, OLG OF IO BETWEEN 100 220	EARTH	<i>Comments: Slightly wider CML range to accomodate 3 consecutive orbits. Can be widened a litte further if necessary.</i> Description=JUPITER											
	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center																				
(21)	JUPITER-AURORA-IFP2	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 110 230, OLG OF IO BETWEEN 100 220	EARTH																					
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	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																	
1		(21) JUPITER-AURORA-IFP2	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2424 Secs (2424 Secs)																			
[1]																											
Orbit Structure	<p>Orbit 1 Server Version: 20250929</p>																										

Proposal 18045 - JUPITER-AURORA-IFP3 (06) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:46 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-IFP3 (06), implementation									
	Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: AFTER 05 BY 0 Orbits TO 1 Orbits <i>Comments: Northern aurora for Io footprint. RAD and ANG are placeholders, will be updated once the orbit is known. Visits 4-6 should execute simultaneously with JWST observation JUPITER-NORTH-IFP</i>									
Diagnostics	(Exposure 1 (JUPITER-AURORA-IFP3 (06))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-IFP3 (06)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(22)	JUPITER-AURORA-IFP3	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 110 230, OLG OF IO BETWEEN 100 220	EARTH			
<i>Comments: Slightly wider CML range to accomodate 3 consecutive orbits. Can be widened a litte further if necessary.</i> Description=JUPITER										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(22) JUPITER-AURORA-IFP3	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2424 Secs (2424 Secs)	[1]
[==>]										
Orbit Structure	Orbit 1									
	Server Version: 20250929									

Proposal 18045 - JUPITER-AURORA-SOUTH-SW1 (07) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:46 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-SOUTH-SW1 (07), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: GROUP 07,13 WITHIN 1D; GROUP 07,08,09,10,11,12,13,14,15,16,17,18 WITHIN 14D <i>Comments: Southern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-SOUTH-SW1 (07))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-SOUTH-SW1 (07)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(7)	JUPITER-AURORA-SOUTH-SW1	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=185,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) JUPITER-AURO RA-SOUTH-SW1	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	<p>Orbit 1 Server Version: 20250929</p> <p>Timeline labels: GS Acq Setup, Moving Target Tracking, Exp. 1, Occultation, Unused Orbital Visibility = 0, Home.</p> <p>X-axis: 0, 500, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 sec</p>									

Proposal 18045 - JUPITER-AURORA-SOUTH-SW2 (08) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:46 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-SOUTH-SW2 (08), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: GROUP 08,14 WITHIN 1D <i>Comments: Southern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-SOUTH-SW2 (08))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-SOUTH-SW2 (08)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(24)	JUPITER-AURORA-SOUTH-SW2	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=185,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(24) JUPITER-AURORA-SOUTH-SW2	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	<p>Orbit 1 Server Version: 20250929</p>									
	<p>Timeline labels: GS Acq Setup, Moving Target Tracking, Exp. 1, Occultation, Unused Orbital Visibility = 0, Home.</p> <p>X-axis: 0, 500, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 sec</p>									

Proposal 18045 - JUPITER-AURORA-SOUTH-SW3 (09) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-SOUTH-SW3 (09), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: GROUP 09,15 WITHIN 1D <i>Comments: Southern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-SOUTH-SW3 (09))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-SOUTH-SW3 (09)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(25)	JUPITER-AURORA-SOUTH-SW3	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=185,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(25) JUPITER-AURORA-SOUTH-SW3	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									

Proposal 18045 - JUPITER-AURORA-SOUTH-SW4 (10) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-SOUTH-SW4 (10), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: GROUP 10,16 WITHIN 1D <i>Comments: Southern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-SOUTH-SW4 (10))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-SOUTH-SW4 (10)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(26)	JUPITER-AURORA-SOUTH-SW4	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=185,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(26) JUPITER-AURORA-SOUTH-SW4	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									

Proposal 18045 - JUPITER-AURORA-SOUTH-SW5 (11) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-SOUTH-SW5 (11), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: GROUP 11,17 WITHIN 1D <i>Comments: Southern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-SOUTH-SW5 (11))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-SOUTH-SW5 (11)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(27)	JUPITER-AURORA-SOUTH-SW5	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=185,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(27) JUPITER-AURORA-SOUTH-SW5	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									
	<p>The diagram illustrates the timing of the observation sequence. It starts with 'GS Acq' at approximately 200 seconds, followed by 'Setup' at 400 seconds. The main exposure, 'Exp. 1', is highlighted in a green box and spans from 400 seconds to 3000 seconds. At 3000 seconds, an 'Occultation' occurs, and the system returns to 'Home' at approximately 3200 seconds. The period from 3000 seconds to 5500 seconds is labeled as 'Unused Orbital Visibility = 0'. A blue checkered bar indicates the duration of the exposure, and a black bar below it shows the occultation period.</p>									

Proposal 18045 - JUPITER-AURORA-SOUTH-SW6 (12) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-SOUTH-SW6 (12), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: GROUP 12,18 WITHIN 1D <i>Comments: Southern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-SOUTH-SW6 (12))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-SOUTH-SW6 (12)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(28)	JUPITER-AURORA-SOUTH-SW6	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=185,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(28) JUPITER-AURORA-SOUTH-SW6	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	<p>Orbit 1 Server Version: 20250929</p>									
	<p>Timeline labels: GS Acq Setup, Moving Target Tracking, Exp. 1, Occultation, Unused Orbital Visibility = 0, Home.</p> <p>X-axis: 0, 500, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 sec</p>									

Proposal 18045 - JUPITER-AURORA-NORTH-SW1 (13) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-NORTH-SW1 (13), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Northern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-NORTH-SW1 (13))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-NORTH-SW1 (13)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(14)	JUPITER-AURORA-NORTH-SW1	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(14) JUPITER-AURORA-NORTH-SW1	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									

Proposal 18045 - JUPITER-AURORA-NORTH-SW2 (14) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-NORTH-SW2 (14), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Northern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-NORTH-SW2 (14))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-NORTH-SW2 (14)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(29)	JUPITER-AURORA-NORTH-SW2	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(29) JUPITER-AURORA-NORTH-SW2	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									
	<p>The diagram illustrates the timeline for Orbit 1. It starts with GS Acq at approximately 200 seconds. Moving Target Tracking Setup occurs at 400 seconds, followed by the start of Exposure 1 (Exp. 1) at 450 seconds, which is highlighted with a green box. The observation period, indicated by a blue checkered bar, continues until 3000 seconds. At 3000 seconds, an Occultation begins, shown as a black bar, and ends at 3200 seconds when the instrument returns Home. The period from 3200 seconds to 5500 seconds is labeled as 'Unused Orbital Visibility = 0'. The x-axis represents time in seconds, ranging from 0 to 6000 with major ticks every 500 seconds.</p>									

Proposal 18045 - JUPITER-AURORA-NORTH-SW3 (15) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-NORTH-SW3 (15), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Northern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-NORTH-SW3 (15))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-NORTH-SW3 (15)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(30)	JUPITER-AURORA-NORTH-SW3	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(30) JUPITER-AURORA-NORTH-SW3	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									

Proposal 18045 - JUPITER-AURORA-NORTH-SW4 (16) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-NORTH-SW4 (16), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Northern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-NORTH-SW4 (16))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-NORTH-SW4 (16)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(31)	JUPITER-AURORA-NORTH-SW4	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(31) JUPITER-AURORA-NORTH-SW4	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	<p>Orbit 1 Server Version: 20250929</p>									
	<p>Timeline labels: GS Acq, Moving Target Tracking Setup, Exp. 1, Occultation, Unused Orbital Visibility = 0, Home.</p> <p>X-axis: 0, 500, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 sec</p>									

Proposal 18045 - JUPITER-AURORA-NORTH-SW5 (17) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-NORTH-SW5 (17), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Northern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-NORTH-SW5 (17))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-NORTH-SW5 (17)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(32)	JUPITER-AURORA-NORTH-SW5	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(32) JUPITER-AURORA-NORTH-SW5	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									

Proposal 18045 - JUPITER-AURORA-NORTH-SW6 (18) - Unveiling the energy flow from Jupiter's magnetosphere to aurora

Tue Apr 28 18:00:47 GMT 2026

Visit	Proposal 18045, JUPITER-AURORA-NORTH-SW6 (18), implementation Diagnostic Status: Warning Scientific Instruments: STIS/FUV-MAMA Special Requirements: (none) <i>Comments: Northern aurora for solar wind comparison. RAD and ANG are placeholders, will be updated once the orbit is known.</i>									
	(Exposure 1 (JUPITER-AURORA-NORTH-SW6 (18))) Warning (Form): Sensitive exposures should have an ETC run number provided. (JUPITER-AURORA-NORTH-SW6 (18)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.									
Diagnostics										
Solar System Targets	#	Name	Level 1	Level 2	Level 3	Window	Ephem Center			
	(33)	JUPITER-AURORA-NORTH-SW6	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220	EARTH			
<i>Comments: Description=JUPITER</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(33) JUPITER-AURORA-NORTH-SW6	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99				2424 Secs (2424 Secs) [==>]
Orbit Structure	Orbit 1 Server Version: 20250929									