17408 - Observing Jupiter's FUV auroras during the Juno Extended Mission

Cycle: 31, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*
Prof. Jonathan David Nichols (PI) (ESA Member) (Contact)	**University of Leicester**
Prof. John T. Clarke (CoI) (AdminUSPI)	Boston University
Prof. Denis C Grodent (CoI) (ESA Member)	Universite de Liege
Dr. Bertrand Bonfond (CoI) (ESA Member)	Universite de Liege
Prof. Stanley W. Cowley (CoI) (ESA Member)	University of Leicester
Dr. G. Randall Gladstone (CoI)	Southwest Research Institute
Dr. Fran Bagenal (CoI)	University of Colorado at Boulder
Dr. Glenn S. Orton (CoI)	Jet Propulsion Laboratory
Prof. Robert Lysak (CoI)	University of Minnesota - Twin Cities

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) JUPITER-AURORA-JUNOEM-1	STIS/FUV-MAMA	1	27-Oct-2025 14:00:15.0	yes
02	(2) JUPITER-AURORA-JUNOEM-2	STIS/FUV-MAMA	1	27-Oct-2025 14:00:16.0	yes
03	(3) JUPITER-AURORA-JUNOEM-3	STIS/FUV-MAMA	1	27-Oct-2025 14:00:16.0	yes
04	(4) JUPITER-AURORA-JUNOEM-4	STIS/FUV-MAMA	1	27-Oct-2025 14:00:17.0	yes
05	(5) JUPITER-AURORA-JUNOEM-5	STIS/FUV-MAMA	1	27-Oct-2025 14:00:17.0	yes
06	(6) JUPITER-AURORA-JUNOEM-6	STIS/FUV-MAMA	1	27-Oct-2025 14:00:18.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
07	(7) JUPITER-AURORA-JUNOEM-7	STIS/FUV-MAMA	1	27-Oct-2025 14:00:18.0	yes
08	(8) JUPITER-AURORA-JUNOEM-8	STIS/FUV-MAMA	1	27-Oct-2025 14:00:19.0	yes
09	(9) JUPITER-AURORA-JUNOEM-9	STIS/FUV-MAMA	1	27-Oct-2025 14:00:19.0	yes
10	(10) JUPITER-AURORA-JUNOEM-10	STIS/FUV-MAMA	1	27-Oct-2025 14:00:20.0	yes
A1	DARK	STIS/FUV-MAMA	1	27-Oct-2025 14:00:20.0	yes

11 Total Orbits Used

ABSTRACT

In September 2021, the highly successful NASA Juno spacecraft will begin its Extended Mission (EM). During the EM, Juno will cross the equatorial region inside of Ganymede's orbit providing an opportunity to obtain HST auroral images simultaneously with high-resolution in situ observations in the crucial inner equatorial region of Jupiter's magnetosphere, where the key dynamics that drive and shape the magnetosphere originate. The STIS/FUV imaging observations proposed here over Cycles 29-31 will answer a large number of outstanding scientific questions, including:

* Do magnetosphere-ionosphere coupling currents drive Jupiter's main auroral emission?
* What radial forces govern the structure of Jupiter's magnetosphere?
* What is the nature of the interaction between Jupiter and its satellites?
* How do Jovian plasma populations relate to low latitude auroral emissions?
* How does magnetospheric wave activity influence Jupiter's magnetosphere?
* What processes give rise to pulsating high-latitude emissions?

This program responds to the UV initiative and is only possible during the Juno EM. These observations cannot be made by Juno UVS and HST is the only observatory capable of making these FUV observations, which will yield high-impact results, and complement and extend the goals of the NASA Juno mission.

OBSERVING DESCRIPTION

The timescale of the observations required to address the science goals is governed by the orbit of Juno in the EM and covers HST Cycles 29-31; hence our proposal is for a Long Term program of observations. The EM begins in July 2021 and is scheduled nominally to last until August 2025. The availability of Jupiter from HST during Cycles 29-31 is 1 Oct 2021 - 25 Dec 2021; 18 May 2022 - 31 Jan 23; 25 Jun 2023 - 7 March 2024; and 2 Aug 2024 - 30 Sept 2024, where the last date is the assumed end of Cycle 31. Our observations will be clustered around the perijoves, when Juno is in the critical regions of the magnetosphere as described above. Orbit requests are 18 (Cycle 29), 12 (Cycle 30) and 10 (Cycle 31). The orbit request is governed as follows: the science lies in the temporal domain, i.e. variations in the auroral morphology are compared with changes in the in situ field and plasma observations. It is critical that such variation is captured in order to correlate the multiple data sets, and to determine the response to dynamical processes such as solar wind compression events and changing mass loading rates. We hence will use multiple observations for each science goal to capture the key variability that reveals the dynamics of the system. The timescales are: there are typically two ~3- day solar wind compressions per solar rotation (25 days), so the duty cycle for "disturbed" conditions is around 1/4. Thus observing 8 epochs will yield ~2 disturbed intervals, the minimum required to establish repeatable effects. Changes typically take place over a few days. We hence will observe for 2-4 orbits per interval to determine the short-timescale dynamics and to cover both north and south auroras in order to capture the important physics along the entire flux tube. The exact numbers for each interval have been determined by examination of the number of favourable viewing windows for each of the science goals during the 2-3-day intervals surrounding each perijove. We note that there are ~5 SAA-free orbits per day, such that it is possible to observe at least once per day, as has been done successfully previously. For the flybys we will observe as close as possible to the events within the limits of the SAA.These observations will be obtained using the STIS/FUV-MAMA instrument. Auroral images will be obtained using the F25SRF2 filter, in order to observe the H2 Lyman and Werner emission whilst removing contamination from the geocoronal Lyman-alpha. We will observe both northern and southern auroras; the priority will be observing whilst Juno is in the critical regions, rather than focusing on one hemisphere. Jupiter will be positioned using POS_ANGLE (i.e. RAD and ANG) such that only the auroral region and nearby disc will be in the 25x25" field of view, and thus <1/4 of the detector is filled with the planet. This limits the count rates to ~20,000 counts/s, well within the limit of 200,000 counts/s. Observations will be taken in ~3000 s time-tagged exposures, from which images integrated over smaller intervals (e.g. 10-100 s) will be extracted. This setup has been successfully used to observe Jupiter's auroras previously. In the event of STIS not being available, these observations will be obtained with the Solar Blind Channel of the Advanced Camera for Surveys, which in practice yields lower signal to noise than STIS owing to its red leak. In the past, Jupiter observations have been successfully obtained in both 2-gyro and 3-gyro mode. In 2-gyro mode we would remove any roll constraints and we would request our orbit during the interval when Jupiter is available.

Visit

Proposal 17408, Visit 01, completed Mon Oct 27 18:00:20 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 24-NOV-2024:07:27:00 AND 24-NOV-2024:08:27:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Diagnostics

(Visit 01) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 01)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Visit 01) 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
(1)	JUPITER-AURORA-JUNOEM-1	STD=JUPITER	TYPE=POS_ANGLE,RAD=25,ANG=10,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 115 220, NOT OCC OF JUPITER-AURORA-JUNOEM-1 BY JUPITER FROM EARTH	EARTH

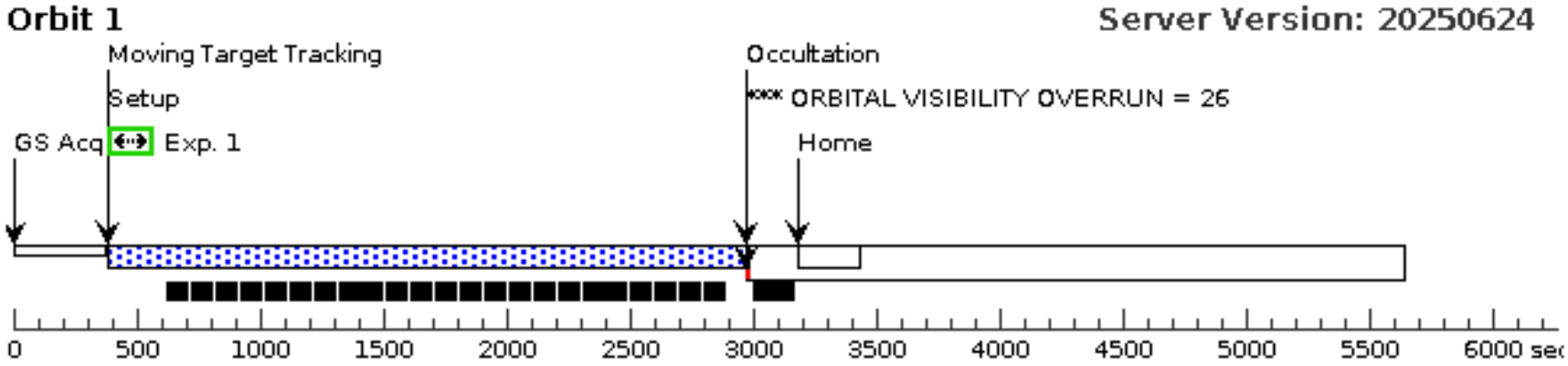
Comments: Unless stated, values are for the northern hemisphere.

Was RAD=23.5 ANG=350
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) JUPITER-AURORA-JUNOEM-1	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2574 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Visit 02, completed Mon Oct 27 18:00:20 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 2025.290:01:44:00 AND 2025.290:02:44:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Diagnostics

(Visit 02) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 02)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Visit 02) 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
(2)	JUPITER-AURORA-JUNOEM-2	STD=JUPITER	TYPE=POS_ANGLE,RAD=22,ANG=20,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 115 220, NOT OCC OF JUPITER-AURORA-JUNOEM-2 BY JUPITER FROM EARTH	EARTH

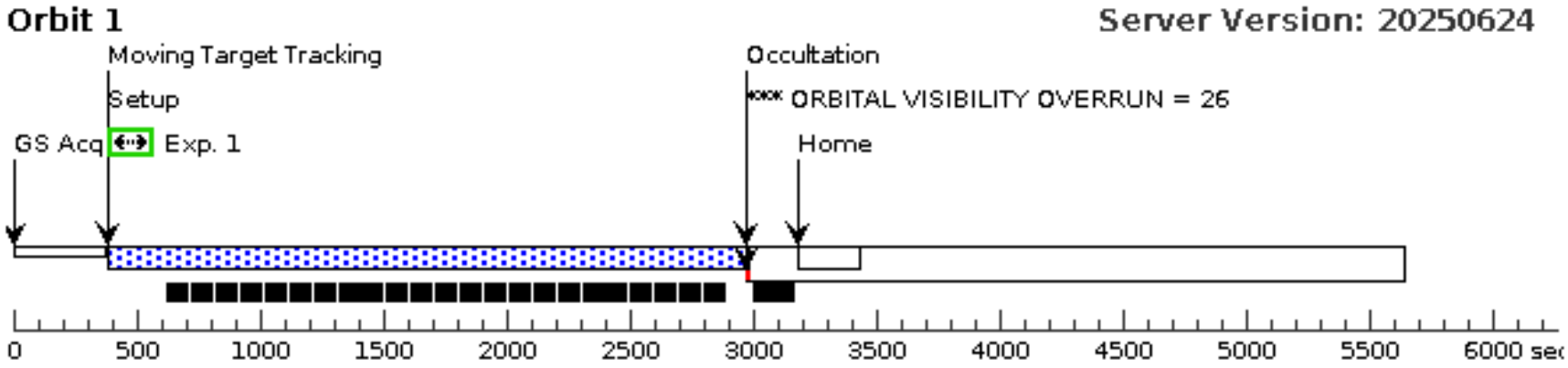
Comments: Unless stated, values are for the northern hemisphere.

Was RAD=23.5 ANG=350
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) JUPITER-AURORA-JUNOEM-2	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2574 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Visit 03, completed Mon Oct 27 18:00:20 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 2025.290:03:19:00 AND 2025.290:04:19:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Comments: Middle magnetosphere inbound

Diagnostics

(Visit 03) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 03)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Visit 03) 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
(3)	JUPITER-AURORA-JUNOEM-3	STD=JUPITER	TYPE=POS_ANGLE,RAD=22,ANG=0,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 115 220, NOT OCC OF JUPITER-AURORA-JUNOEM-3 BY JUPITER FROM EARTH	EARTH

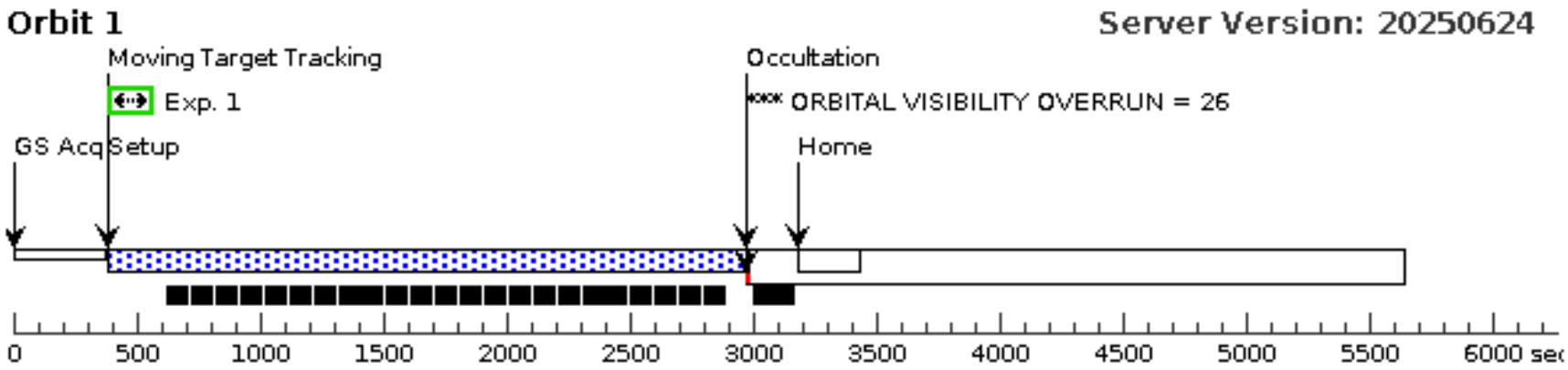
Comments: Unless stated, values are for the northern hemisphere.

Was RAD=23.5 ANG=350
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(3) JUPITER-AURORA-JUNOEM-3	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2523 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Visit 04, implementation Mon Oct 27 18:00:20 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 2025.321:11:27:00 AND 2025.321:12:27:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Comments: Middle magnetosphere inbound

Diagnostics

(Visit 04) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 04)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Visit 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-JUNOEM-4	STD=JUPITER	TYPE=POS_ANGLE,RAD=22,ANG=20,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 115 220, NOT OCC OF JUPITER-AURORA-JUNOEM-4 BY JUPITER FROM EARTH	EARTH

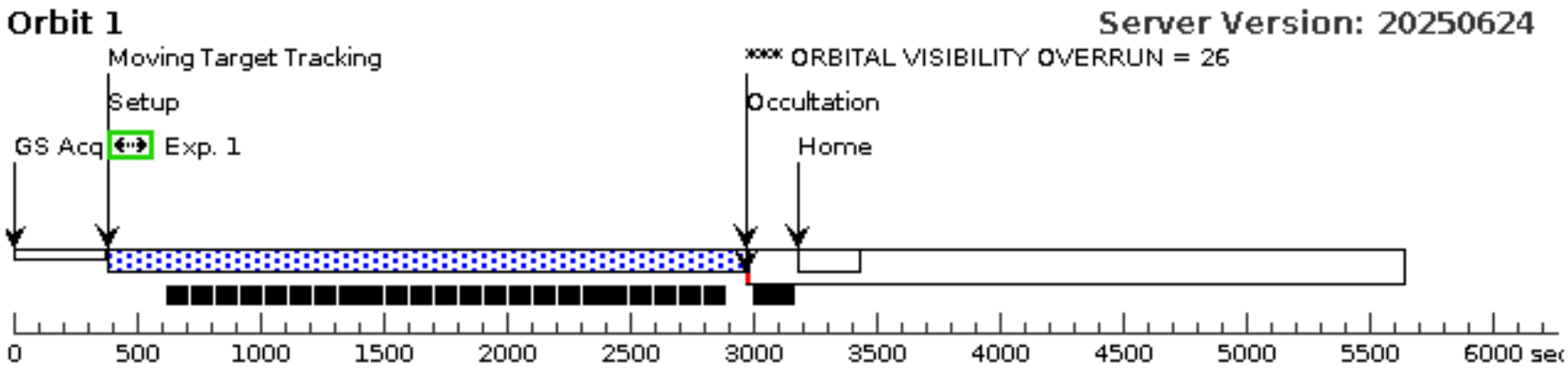
Comments: Unless stated, values are for the northern hemisphere.

Was RAD=23.5 ANG=350
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(4) JUPITER-AURORA-JUNOEM-4	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2523 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Visit 05, completed Mon Oct 27 18:00:20 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 23-NOV-2024:07:38:00 AND 23-NOV-2024:08:38:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Comments: South, to coincide with Io flyby

Diagnostics

(Visit 05) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 05)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Visit 05) 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
(5)	JUPITER-AURORA-JUNOEM-5	STD=JUPITER	TYPE=POS_ANGLE,RAD=25,ANG=169,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310, NOT OCC OF JUPITER-AURORA-JUNOEM-5 BY JUPITER FROM EARTH	EARTH

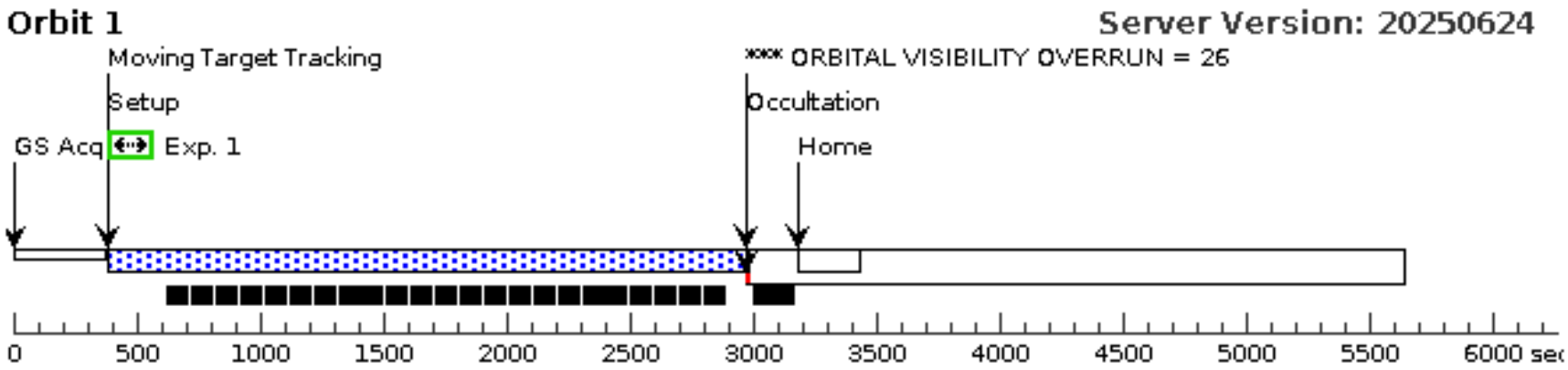
Comments: This target is for imaging Jupiter's south auroras.

Was RAD= 23 ANG= 159
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(5) JUPITER-AURORA-JUNOEM-5	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2523 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Visit 06, completed Mon Oct 27 18:00:21 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 40%; BETWEEN 03-FEB-2024:10:28:00 AND 03-FEB-2024:11:28:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Comments: North, to coincide with north polar pass

Diagnostics

(Visit 06) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE

(Exposure 1 (Visit 06)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Exposure 1 (Visit 06) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.

(Visit 06) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

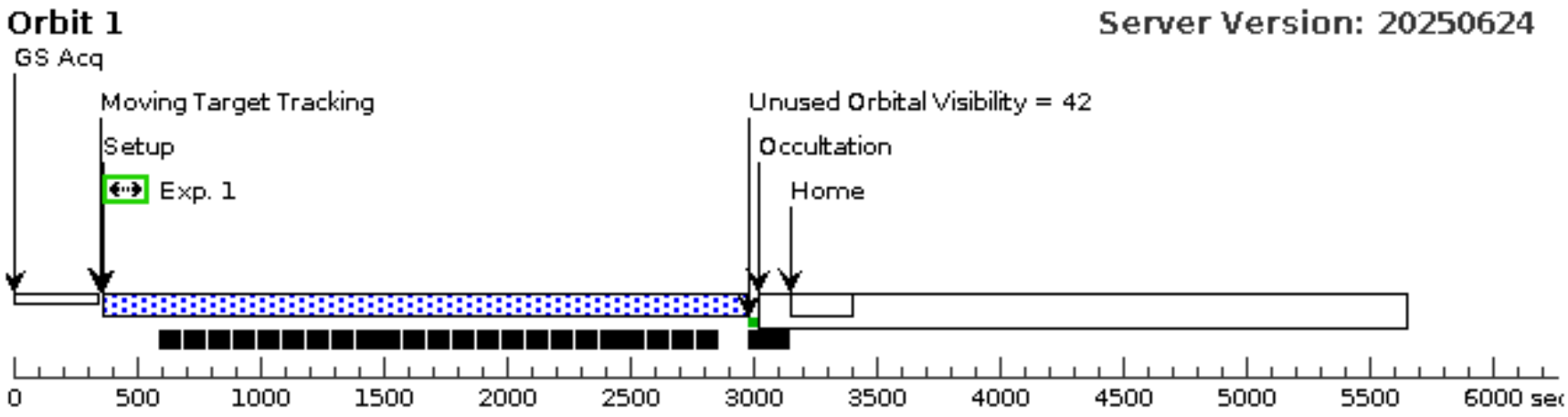
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(6)	JUPITER-AURORA-JUNOEM-6	STD=JUPITER	TYPE=POS_ANGLE,RAD=22,ANG=352,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 110 220, NOT OCC OF JUPITER-AURORA-JUNOEM-6 BY JUPITER FROM EARTH	EARTH

Comments: This target is for imaging Jupiter's northern auroras.
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(6) JUPITER-AURORA-JUNOEM-6	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99	GS ACQ SCENARIO ONEB1BR		2523 Secs (2455 Secs) *[==>2455.0 Secs]*	 ***[1]***

Orbit Structure



Visit

Proposal 17408, Visit 07, completed Mon Oct 27 18:00:21 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 18-AUG-2024:00:00:00 AND 19-AUG-2024:06:00:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Comments: South, middle magnetosphere inbound

Diagnostics

(Visit 07) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 07)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Visit 07) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

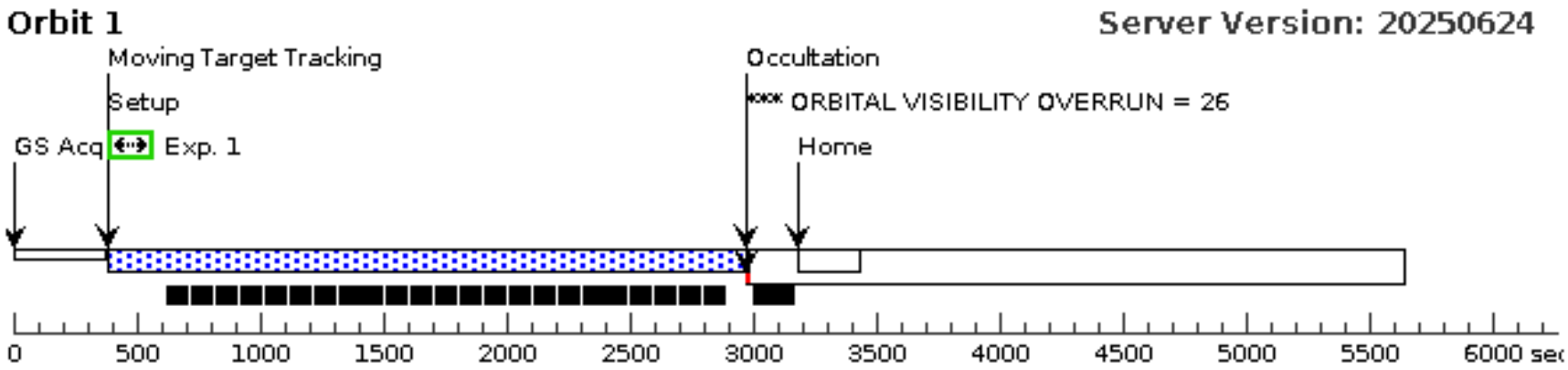
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(7)	JUPITER-AURORA-JUNOEM-7	STD=JUPITER	TYPE=POS_ANGLE,RAD=23,ANG=175,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310, NOT OCC OF JUPITER-AURORA-JUNOEM-7 BY JUPITER FROM EARTH	EARTH

Comments: This target is for imaging Jupiter's southern auroras.
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(7) JUPITER-AURORA-JUNOEM-7	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2523 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Visit 08, completed Mon Oct 27 18:00:21 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 18-AUG-2024:06:00:00 AND 19-AUG-2024:00:00:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Comments: South, to coincide with Io flyby

Diagnostics

(Visit 08) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 08)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Visit 08) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

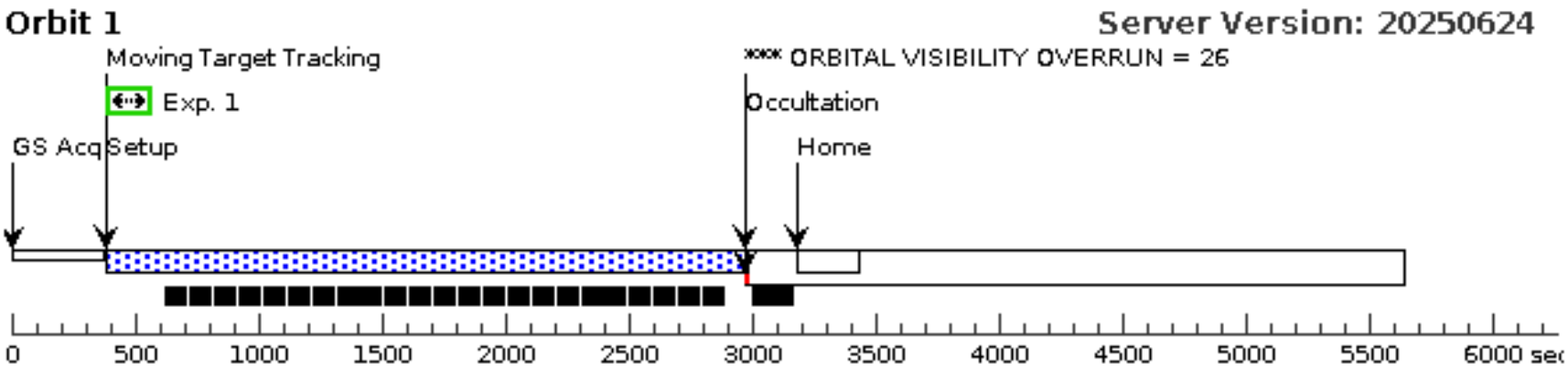
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(8)	JUPITER-AURORA-JUNOEM-8	STD=JUPITER	TYPE=POS_ANGLE,RAD=21,ANG=355,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OCC OF JUPITER-AURORA-JUNOEM-8 BY JUPITER FROM EARTH	EARTH

Comments: This target is for imaging Jupiter's northern auroras.
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(8) JUPITER-AURORA-JUNOEM-8	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2523 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Visit 09, completed Mon Oct 27 18:00:21 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 20-SEP-2024:17:10:00 AND 20-SEP-2024:18:10:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Comments: South, to coincide with Io flyby

Diagnostics

(Visit 09) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 09)) Warning (Form): Sensitive exposures should have an ETC run number provided.

(Visit 09) Informational (Form): The Visit Planner and Spike may produce different schedulability results.

Solar System Targets

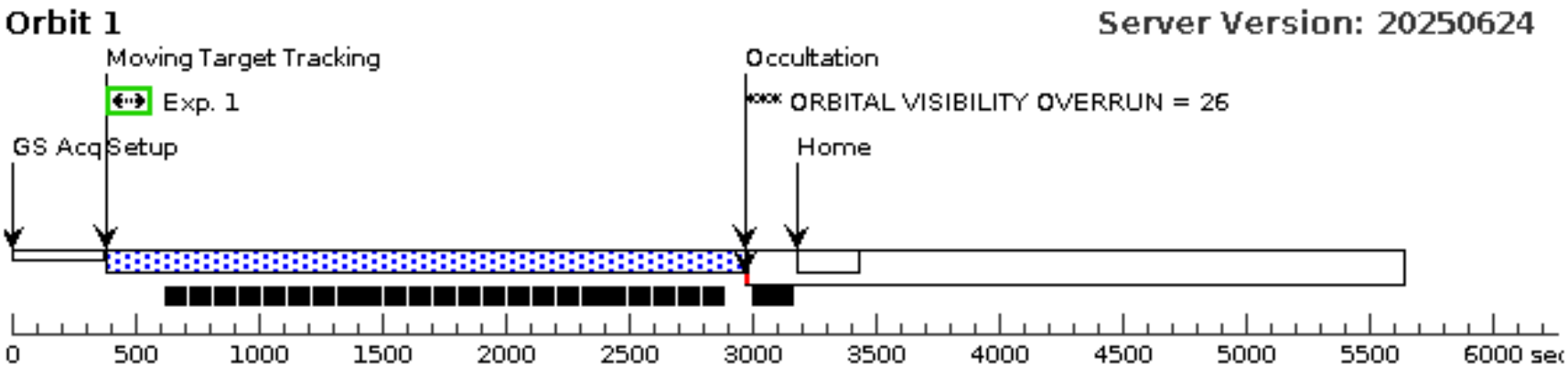
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(9)	JUPITER-AURORA-JUNOEM-9	STD=JUPITER	TYPE=POS_ANGLE,RAD=22,ANG=169,REF=NORTH		NOT CML OF JUPITER FROM EARTH BETWEEN 100 310, NOT OCC OF JUPITER-AURORA-JUNOEM-9 BY JUPITER FROM EARTH	EARTH

Comments: This target is for imaging Jupiter's southern auroras.
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(9) JUPITER-AURORA-JUNOEM-9	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2523 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Visit 10, implementation Mon Oct 27 18:00:21 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: SCHED 70%; BETWEEN 2025.323:04:16:00 AND 2025.323:05:16:00; VISIBILITY INTERVAL NO GYRO BIAS UPDATE ON MOVING TARGET

Comments: South, to coincide with Io flyby

Diagnostics

(Visit 10) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Exposure 1 (Visit 10)) Warning (Form): Sensitive exposures should have an ETC run number provided.

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

Solar System Targets

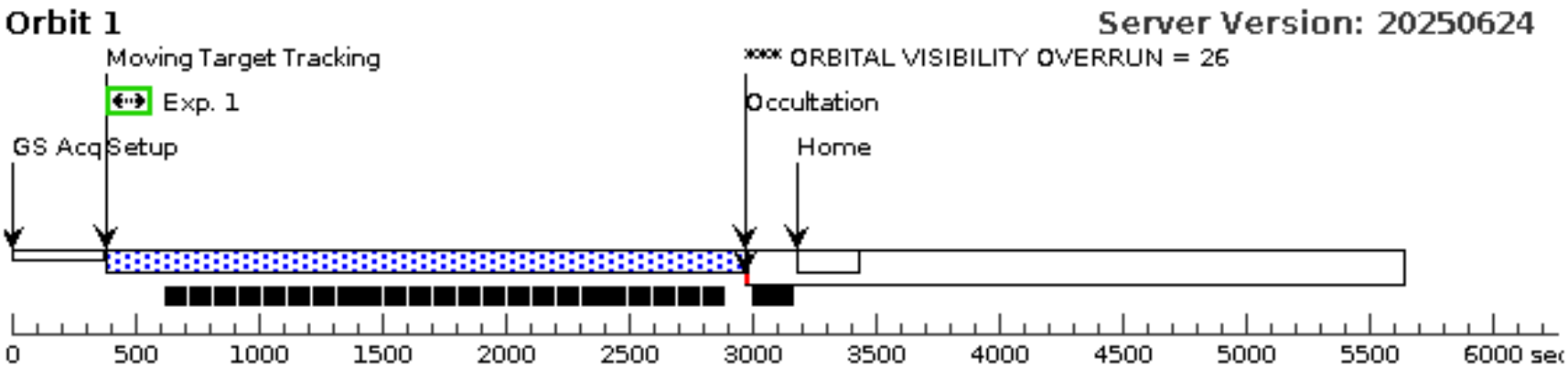
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(10)	JUPITER-AURORA-JUNOEM-10	STD=JUPITER	TYPE=POS_ANGLE,RAD=22,ANG=5,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OCC OF JUPITER-AURORA-JUNOEM-10 BY JUPITER FROM EARTH	EARTH

Comments: This target is for imaging Jupiter's northern auroras.
Description=PLANET JUPITER
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(10) JUPITER-AURORA-JUNOEM-10	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			2523 Secs (2450 Secs) *[==>2450.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17408, Dark to turn on HV (A1), completed Mon Oct 27 18:00:21 GMT 2025

Diagnostic Status: Informational

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: BETWEEN 2024.264:15:00:00 AND 2024.264:17:30:00

Comments: This dark visit is being used to turn on the MAMA detector prior to visit 17408 09.

Diagnostics

(Exposure 1 (Dark to turn on HV (A1))) Informational (Form): DEF is not a valid selection.

(Exposure 1 (Dark to turn on HV (A1))) Informational (Form): Illegal selection: DEF.

(Exposure 1 (Dark to turn on HV (A1))) Informational (Form): Target DARK is no longer a valid selection

(Exposure 1 (Dark to turn on HV (A1))) Informational (Form): This attribute is not allowed to have this value: Aperture = DEF
It is an Available option and cannot normally be used in a GO proposal.

(Exposure 1 (Dark to turn on HV (A1))) Informational (Form): This attribute is not allowed to have this value: Calibration_Target = DARK
It is a Restricted option and can only be used in an engineering proposal.

(Exposure 1 (Dark to turn on HV (A1))) Informational (Form): This attribute is not allowed to have this value: Spectral_Element = DEF
It is an Available option and cannot normally be used in a GO proposal.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		DARK	STIS/FUV-MAMA, TIME-TAG, DEF	DEF	BUFFER-TIME=650			1300 Secs (1300 Secs) *[==>]*	*[1]*

Orbit Structure