13035 - A unique opportunity to discover how energy is transported through Jupiter's magnetosphere

Cycle: 20, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) JUPITER-NORTH-1	STIS/FUV-MAMA	1	18-Dec-2013 21:01:37.0	yes
02	(2) JUPITER-NORTH-2	STIS/FUV-MAMA	1	18-Dec-2013 21:01:49.0	yes
03	(3) JUPITER-NORTH-3	STIS/FUV-MAMA	1	18-Dec-2013 21:01:59.0	yes
04	(4) JUPITER-NORTH-4	STIS/FUV-MAMA	1	18-Dec-2013 21:02:09.0	yes
05	(5) JUPITER-NORTH-5	STIS/FUV-MAMA	1	18-Dec-2013 21:02:18.0	yes
06	(6) JUPITER-NORTH-6	STIS/FUV-MAMA	1	18-Dec-2013 21:02:26.0	yes
07	(7) JUPITER-NORTH-7	STIS/FUV-MAMA	1	18-Dec-2013 21:02:35.0	yes
08	(8) JUPITER-NORTH-8	STIS/FUV-MAMA	1	18-Dec-2013 21:02:44.0	yes
09	(9) JUPITER-NORTH-9	STIS/FUV-MAMA	1	18-Dec-2013 21:02:53.0	yes
10	(10) JUPITER-NORTH-10	STIS/FUV-MAMA	1	18-Dec-2013 21:03:02.0	yes
11	(11) JUPITER-NORTH-11	STIS/FUV-MAMA	1	18-Dec-2013 21:03:14.0	yes
12	(12) JUPITER-NORTH-12	STIS/FUV-MAMA	1	18-Dec-2013 21:03:23.0	yes
13	(13) JUPITER-NORTH-13	STIS/FUV-MAMA	1	18-Dec-2013 21:03:31.0	yes
14	(14) JUPITER-NORTH-14	STIS/FUV-MAMA	1	18-Dec-2013 21:03:40.0	yes

14 Total Orbits Used

ABSTRACT

The Japanese Aerospace Exploration Agency (JAXA) EUV spectroscopic mission, EXCEED, will be launched to low-Earth orbit in August 2013. EXCEED's primary mission goal is to simultaneously observe the Jovian aurora and Io plasma torus (IPT) with unprecedented temporal resolution, quasi-continuously (50 min per 100 min orbit) for at least two full months. We propose a multi-wavelength campaign of coordinated observations using HST and NOAO facilities that, together with the observations by EXCEED, provide a unique opportunity to discover how energy is transferred throughout Jupiter's vast, dynamic magnetosphere and its interaction with the solar wind. EXCEED spectral imaging of ion emission lines will reveal temporal and spatial variations in the IPT, to diagnose the dynamics in the inner magnetosphere, and relate the dynamics to Jupiter's auroral intensity and spectra. These novel observations will reveal plasma heating and electron precipitation driven by both local and global disturbances.

Coordinated high spatial-resolution HST-STIS images of the UV aurora are essential to reveal the global morphology of the aurora, i.e. to pinpoint where the energy deposited in the upper atmosphere originates in the magnetosphere. Simultaneous visible wavelength observations of the IPT by WIYN will provide the low-energy component of the ion emission spectrum to identify heating and density fluctuations of the local plasma. Coordinated observations of the infrared (IR) aurora by Gemini will reveal the ionospheric heating and cooling in the corresponding auroral regions. These observations will provide a huge, novel science return for a small investment of HST and NOAO observation time.

OBSERVING DESCRIPTION

Observations of Jupiter's northern UV auroral emissions will be made over 14 days around Jupiter opposition (6 January 2014). 1 orbit per day over 14 days is required to capture the auroral signatures of solar wind activity and their time-development.

During each orbit, two STIS images and one spectrum will be acquired using the STIS/FUV-MAMA detector operating in time-tag mode (in the order image-spectrum-image).

The imaging observations are to be made with the SrF2 filter to reject geo-coronal contaminated Lyman-alpha.

Spectra will be obtained using the 52x0.5" slit and the G140L grating to produce FUV spectra over the range 1150-1700 A at ~12 A resolution.

The observations will focus on the northern auroral region. The field-of-view should be offset northwards to include the northern polar region and to limit the count rate from the planet's disk. The orientation values will be optimised within the available range for each orbit after the more precise orbit timings (and hence CML) are known so that the slit will lie across the auroral region.

The STIS images will reveal the auroral morphology on short timescales, while the spectra will be used to measure the colour ratio and derive the auroral electron energy.

REAL TIME JUSTIFICATION

Orbit requests are optimised for Jupiter CML and supporting Gemini observations, but other times are possible. These can be changed if necessary once HST orbit is better known (e.g. to avoid SAA orbits), through communication with the PC and CS.

Visit

Proposal 13035, Visit 01, scheduling Thu Dec 19 02:03:52 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 246D TO 247 D; BETWEEN 01-JAN-2014:02:30:00 AND 01-JAN-2014:03:30:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 filtered images and G140L, 52x0.5 spectra will be taken (image-spectrum-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled here. Final timing, position angle, and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 01) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

Solar System Targets

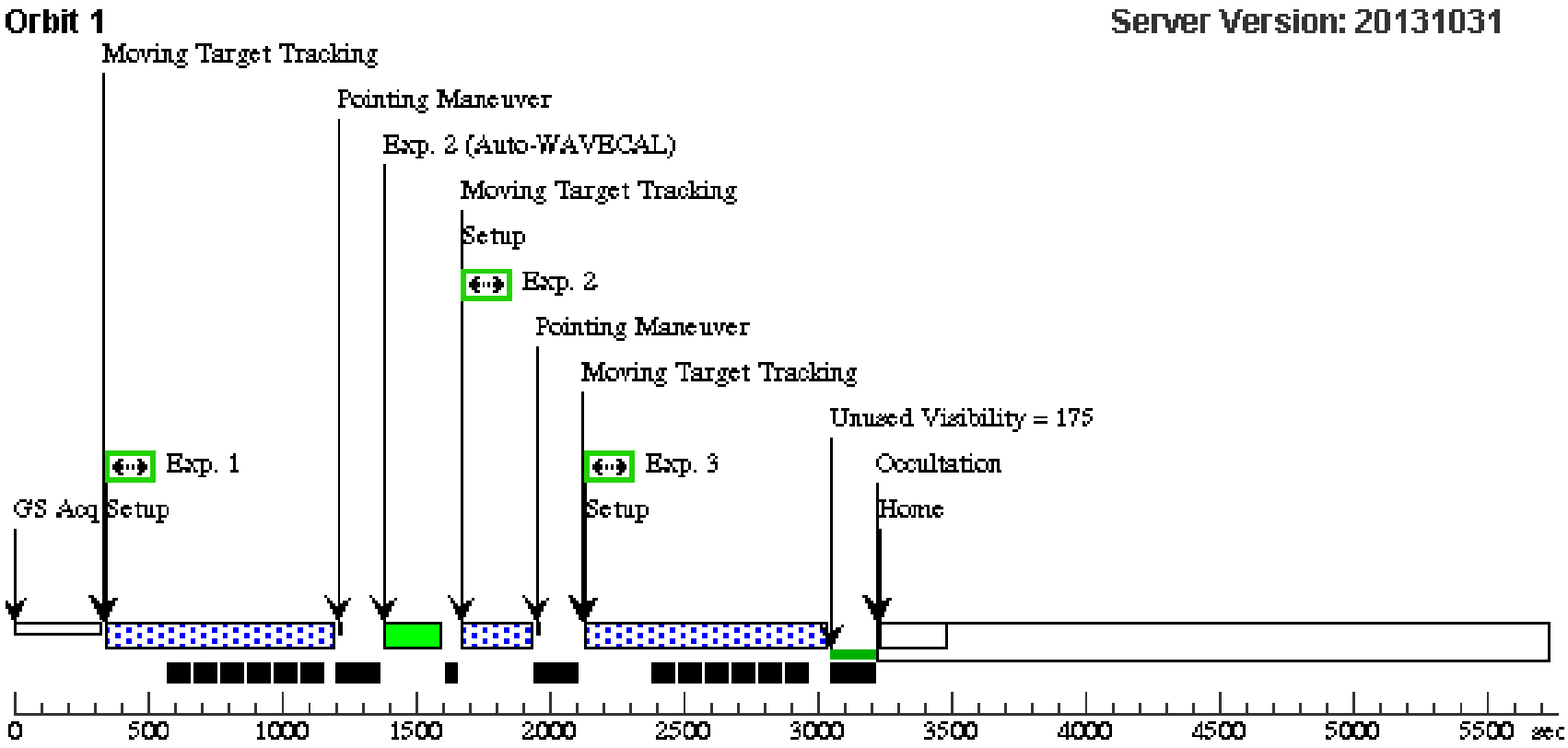
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(1)	JUPITER-NORTH-1	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(1) JUPITER-NORTH-1	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(1) JUPITER-NORTH-1	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(1) JUPITER-NORTH-1	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***

Orbit Structure



Visit

Proposal 13035, Visit 02, scheduling Thu Dec 19 02:03:55 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 246D TO 246 D; BETWEEN 02-JAN-2014:07:12:00 AND 02-JAN-2014:10:02:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 02) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

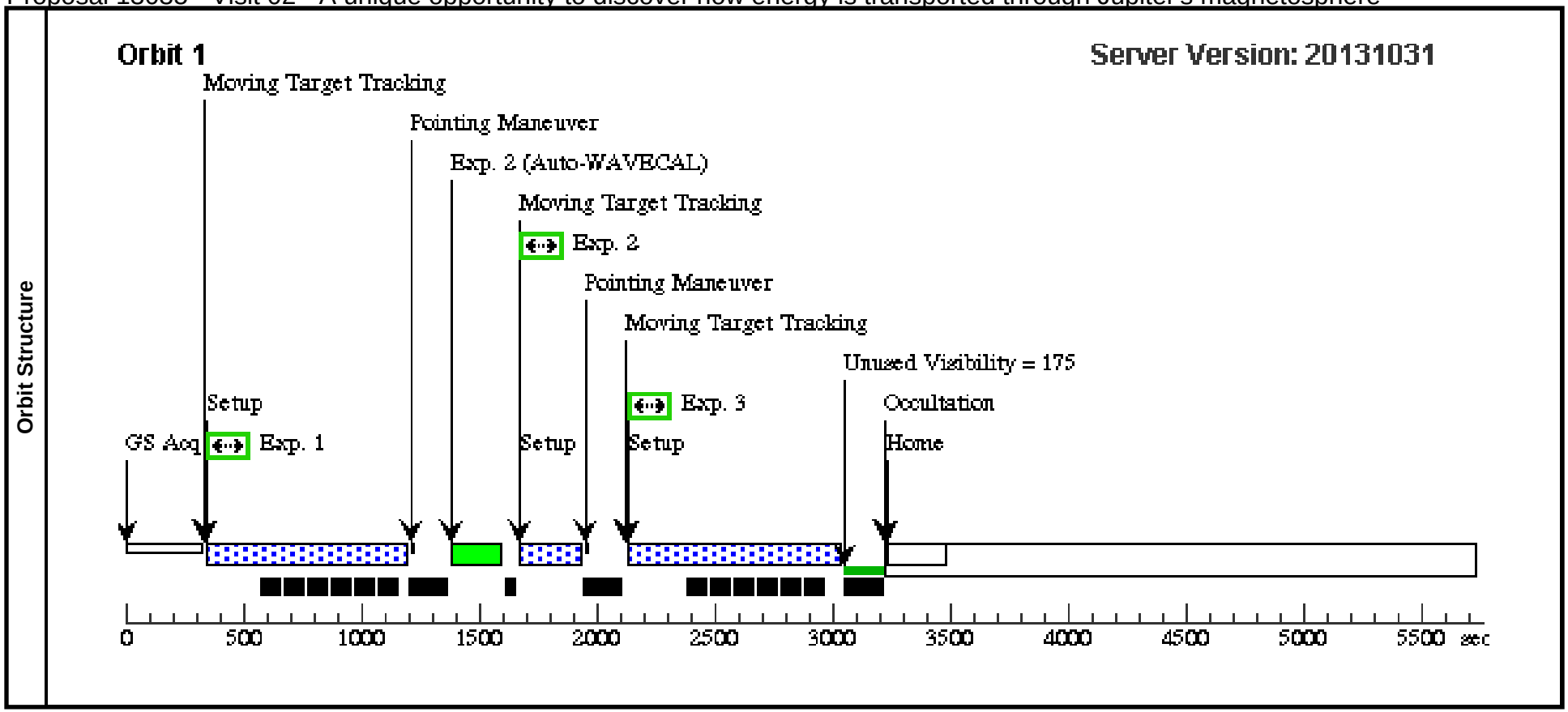
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(2)	JUPITER-NORTH-2	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(2) JUPITER-NORTH-2	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(2) JUPITER-NORTH-2	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(2) JUPITER-NORTH-2	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
Orbit 1
Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Setup
Exp. 3
Occultation
GS Acq
Exp. 1
Setup
Setup
Home
0
500
1000
1500
2000
2500
3000
3500
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4500
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Visit

Proposal 13035, Visit 03, scheduling Thu Dec 19 02:03:56 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 245D TO 246 D; BETWEEN 03-JAN-2014:23:00:00 AND 04-JAN-2014:00:30:00; BETWEEN 03-JAN-2014:04 AND 03-JAN-2014:05:30; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 03) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

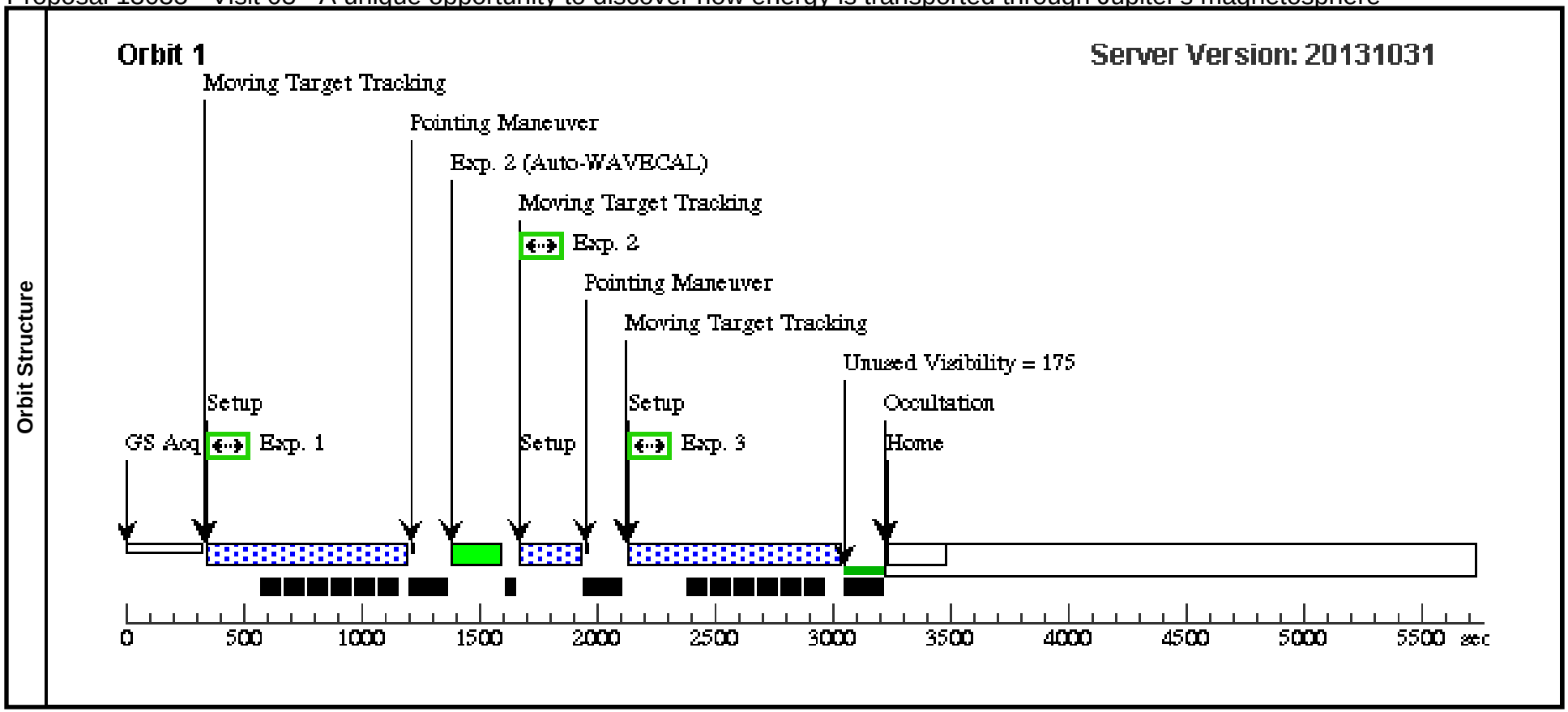
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(3)	JUPITER-NORTH-3	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(3) JUPITER-NORTH-3	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(3) JUPITER-NORTH-3	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(3) JUPITER-NORTH-3	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
Orbit 1
Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Setup
Occultation
GS Acq
Exp. 1
Setup
Exp. 3
Home
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5500
sec

Visit

Proposal 13035, Visit 04, scheduling Thu Dec 19 02:03:57 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 245D TO 245 D; BETWEEN 04-JAN-2014:00:30:00 AND 04-JAN-2014:01:30:00; ON HOLD ; VISIBILITY INTERVAL 50 M

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 04) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

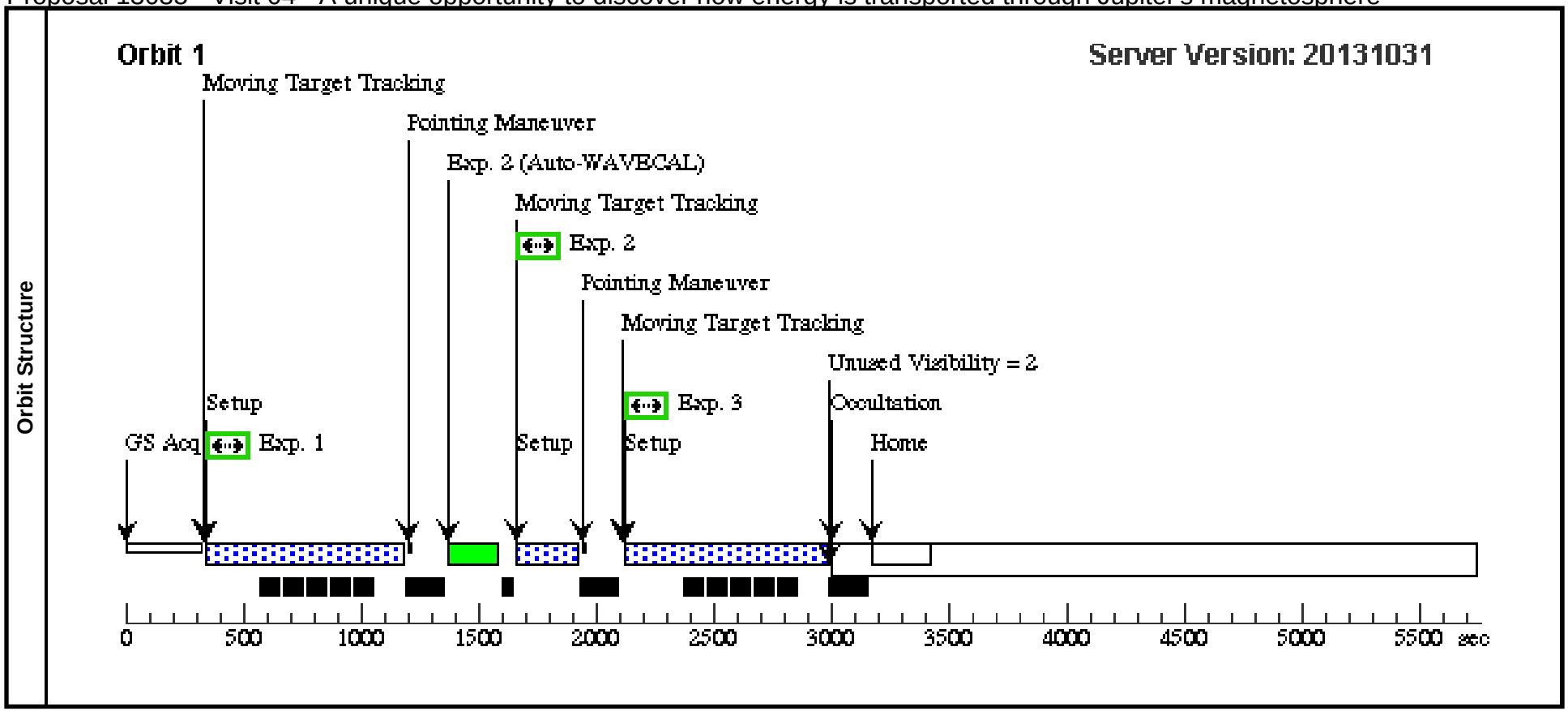
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(4)	JUPITER-NORTH-4	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 225, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(4) JUPITER-NORTH-4	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			690 Secs (690 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(4) JUPITER-NORTH-4	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(4) JUPITER-NORTH-4	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			690 Secs (690 Secs)	
								[==>]	***[1]***


Orbit Structure
Orbit 1
Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 2
Setup
Exp. 3
Occultation
GS Acq
Exp. 1
Setup
Setup
Home
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Proposal 13035 - Visit 05 - A unique opportunity to discover how energy is transported through Jupiter's magnetosphere

Visit

Proposal 13035, Visit 05, scheduling Thu Dec 19 02:03:58 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 244D TO 244 D; BETWEEN 05-JAN-2014:04:42:00 AND 05-JAN-2014:07:31:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 05) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

Solar System Targets

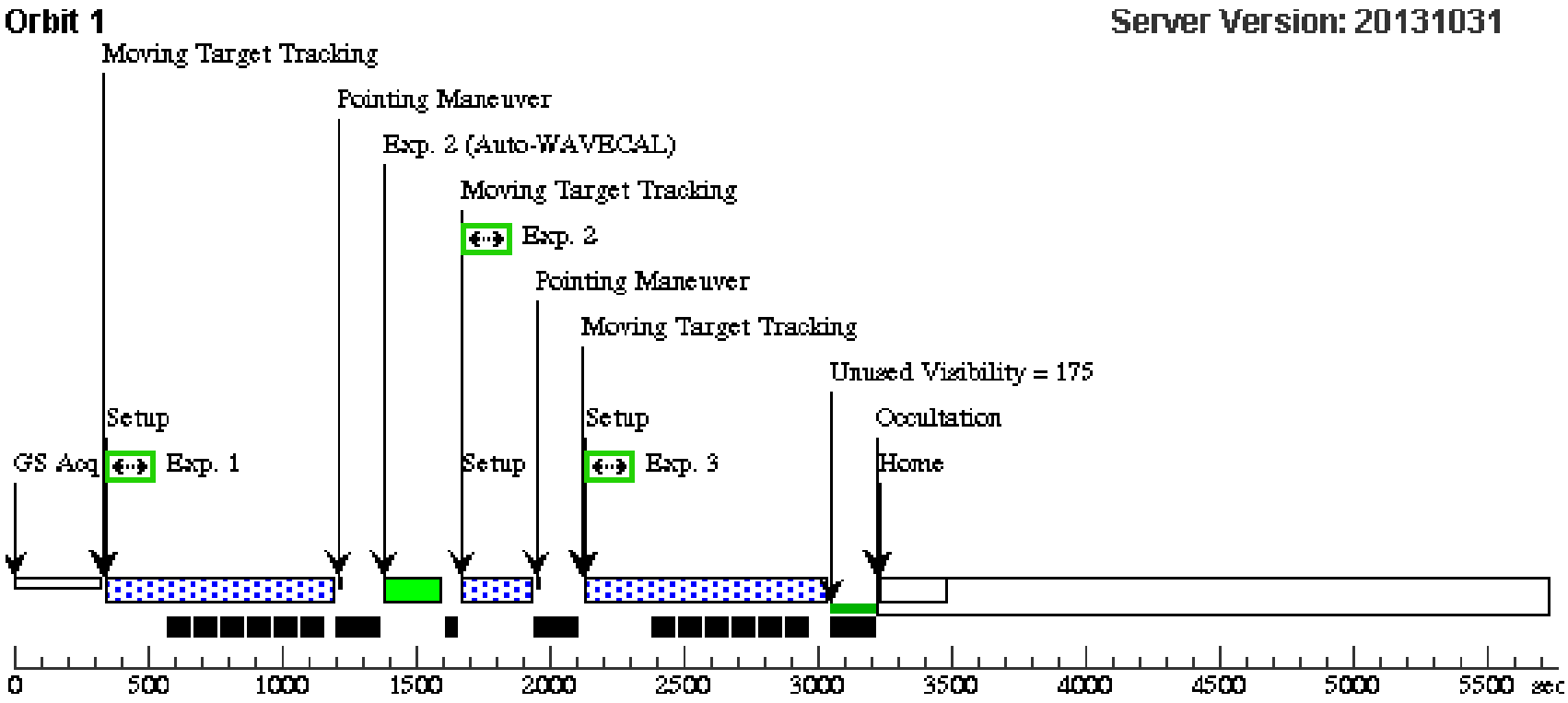
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(5)	JUPITER-NORTH-5	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 108 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(5) JUPITER-NORTH-5	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(5) JUPITER-NORTH-5	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(5) JUPITER-NORTH-5	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***

Orbit Structure



Visit

Proposal 13035, Visit 06, scheduling Thu Dec 19 02:03:59 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 70D TO 70 D; BETWEEN 06-JAN-2014:02:00:00 AND 06-JAN-2014:03:30:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 06) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

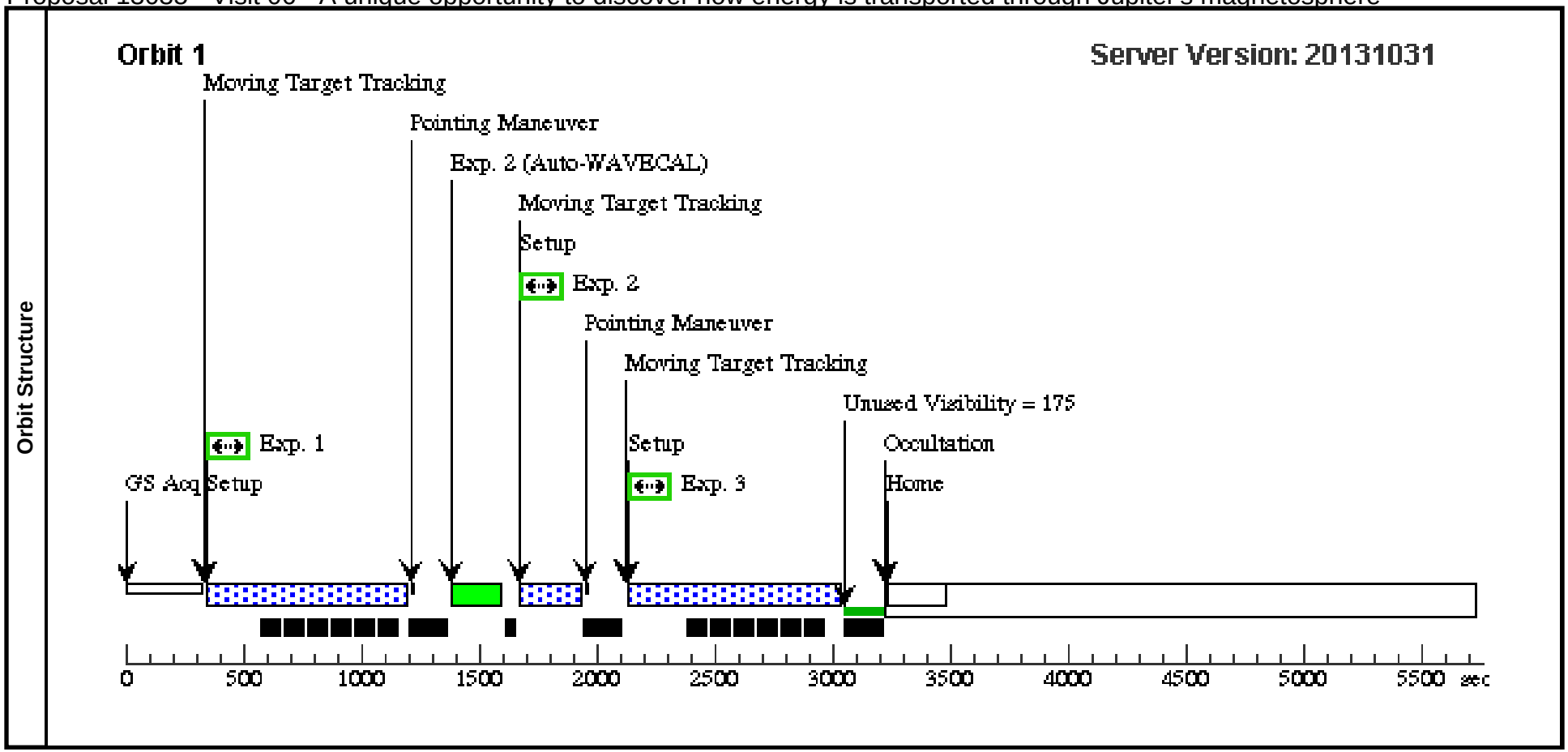
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(6)	JUPITER-NORTH-6	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(6) JUPITER-NORTH-6	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(6) JUPITER-NORTH-6	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(6) JUPITER-NORTH-6	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
Orbit 1
Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Setup
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Exp. 1
Setup
Occultation
GS Acq Setup
Exp. 3
Home
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Visit

Proposal 13035, Visit 07, scheduling Thu Dec 19 02:03:59 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 70D TO 70 D; BETWEEN 07-JAN-2014:06:19:00 AND 07-JAN-2014:09:09:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 07) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

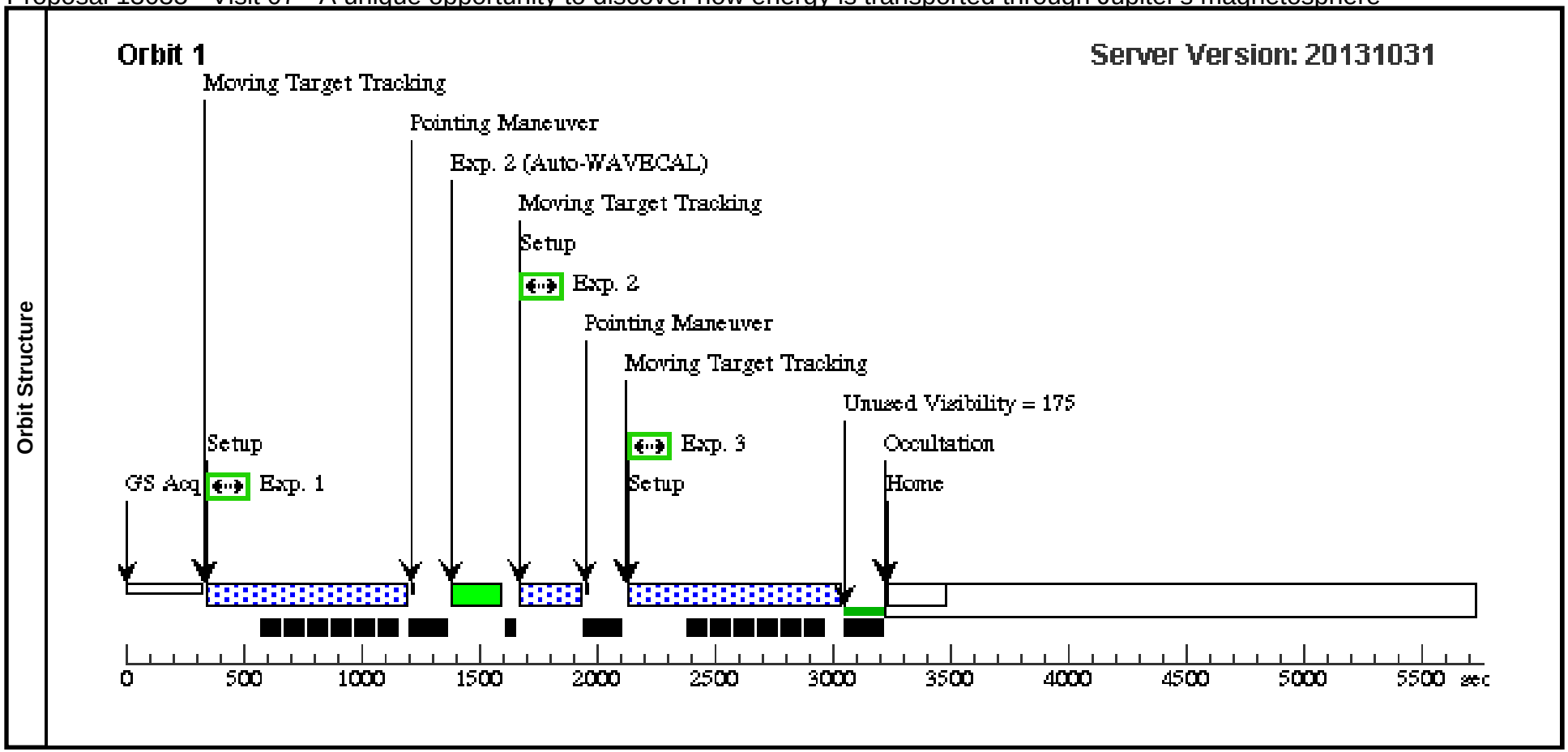
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(7)	JUPITER-NORTH-7	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(7) JUPITER-NORTH-7	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(7) JUPITER-NORTH-7	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(7) JUPITER-NORTH-7	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
Orbit 1
Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Setup
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Setup
Exp. 3
Occultation
GS Acq
Exp. 1
Setup
Home
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Visit

Proposal 13035, Visit 08, implementation Thu Dec 19 02:04:00 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 67D TO 69 D; BETWEEN 13-JAN-2014:22 AND 16-JAN-2014; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 08) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

Solar System Targets

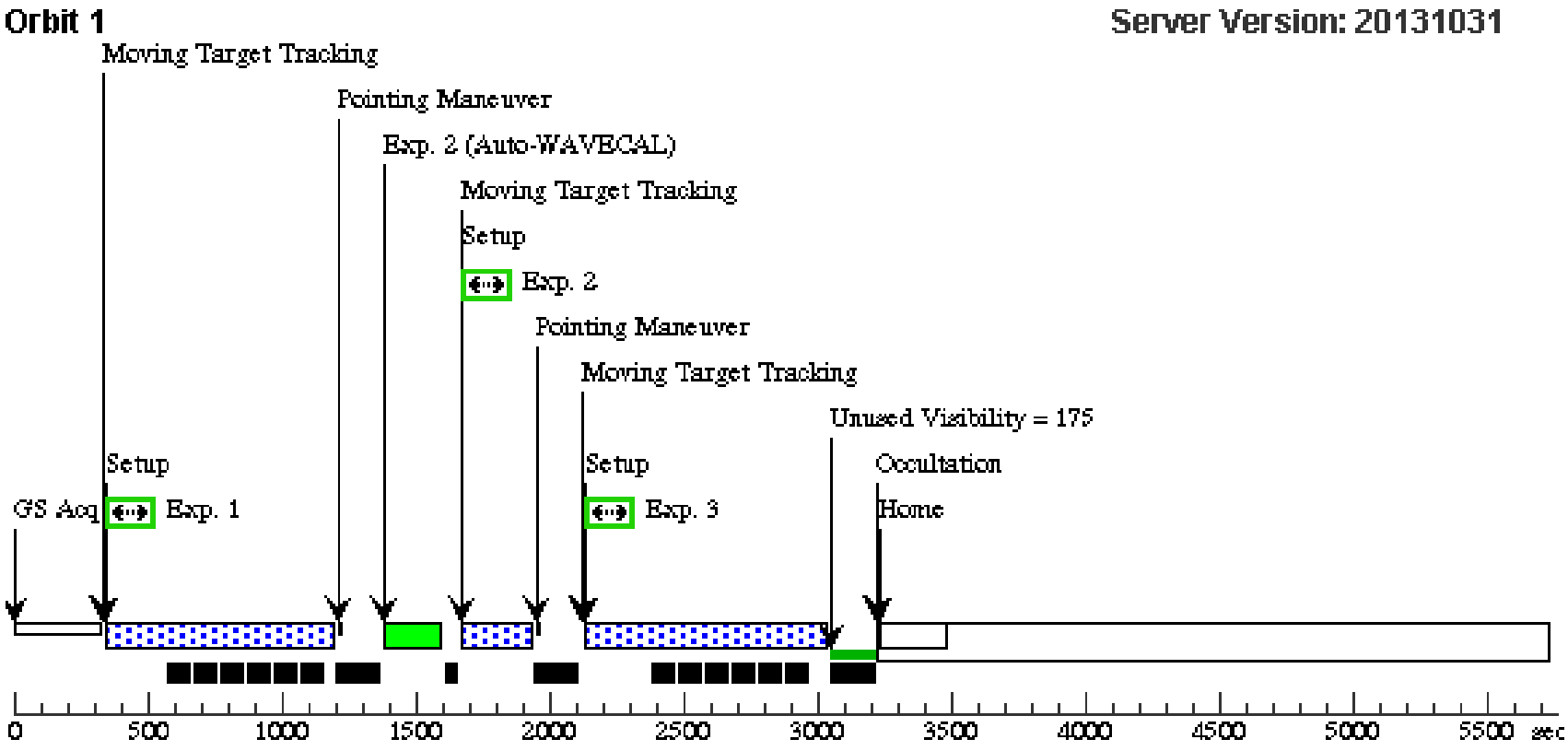
#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(8)	JUPITER-NORTH-8	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(8) JUPITER-NORTH-8	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(8) JUPITER-NORTH-8	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(8) JUPITER-NORTH-8	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***

Orbit Structure



Visit

Proposal 13035, Visit 09, scheduling Thu Dec 19 02:04:01 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 73D TO 73 D; BETWEEN 10-JAN-2014:03:30:00 AND 10-JAN-2014:04:30:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 09) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

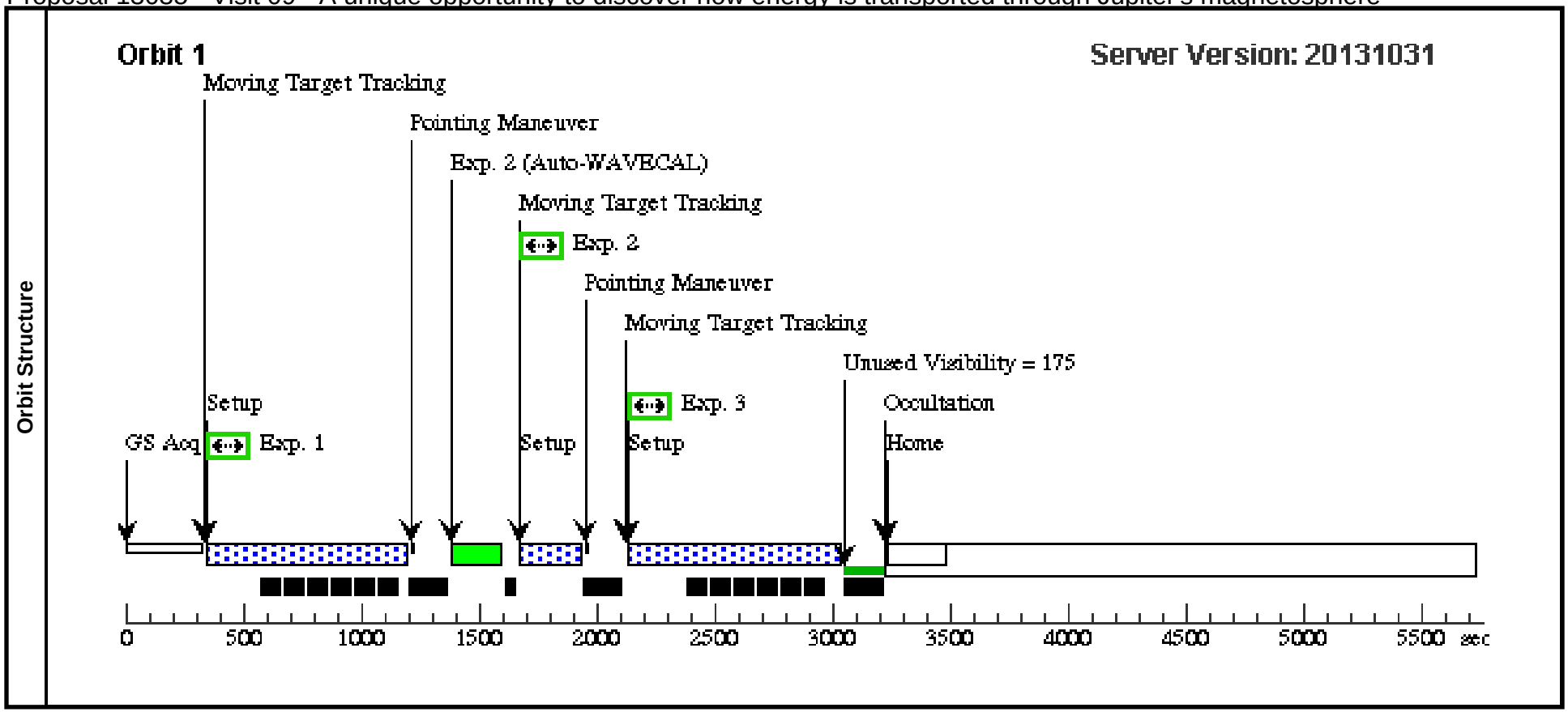
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(9)	JUPITER-NORTH-9	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 110 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(9) JUPITER-NORTH-9	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(9) JUPITER-NORTH-9	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(9) JUPITER-NORTH-9	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
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Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Setup
Exp. 3
Occultation
GS Acq
Exp. 1
Setup
Setup
Home
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5500
sec

Visit

Proposal 13035, Visit 10, scheduling Thu Dec 19 02:04:02 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 68D TO 69 D; BETWEEN 11-JAN-2014 AND 11-JAN-2014:01:30; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 10) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

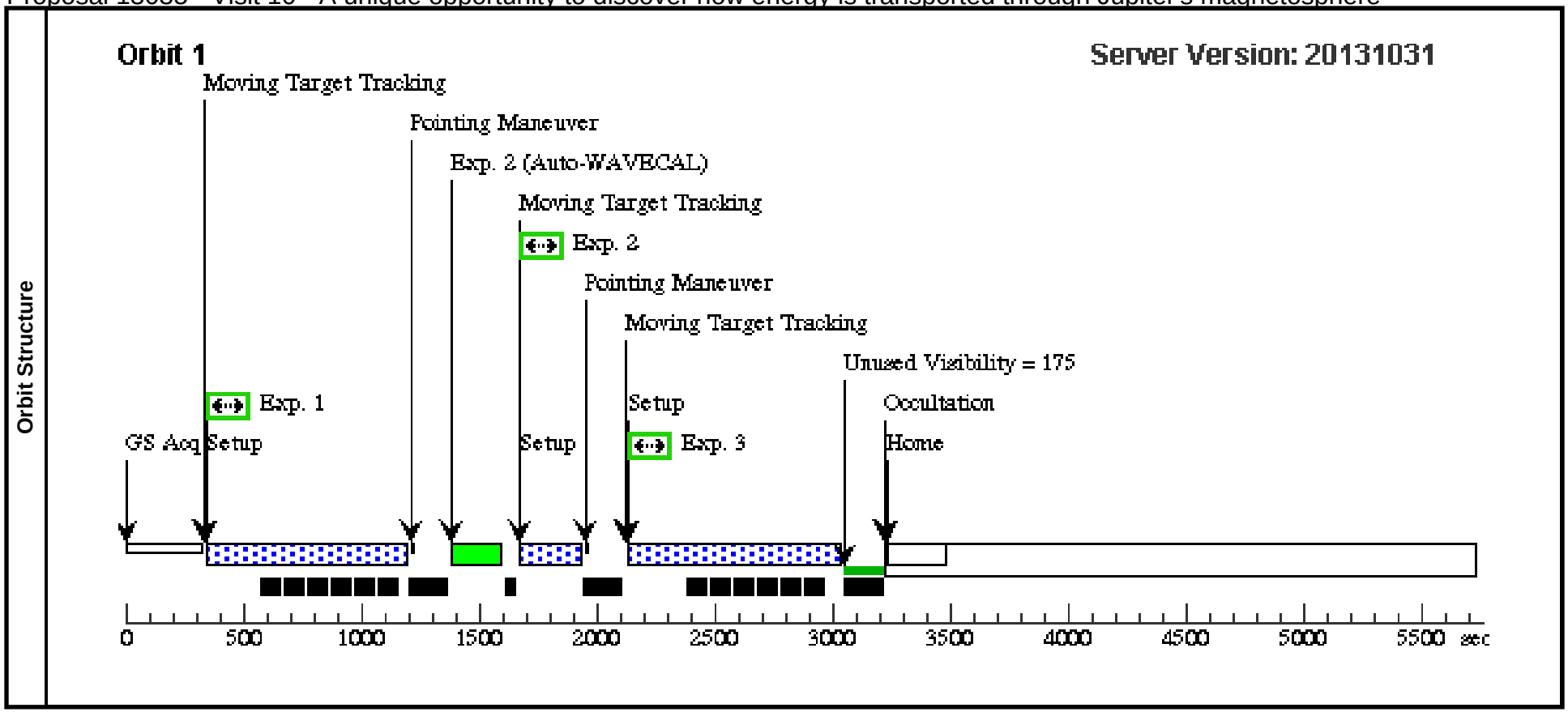
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(10)	JUPITER-NORTH-10	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(10) JUPITER-NORTH-10	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(10) JUPITER-NORTH-10	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(10) JUPITER-NORTH-10	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
Orbit 1
Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Exp. 1
Setup
Occultation
GS Acq
Setup
Setup
Exp. 3
Home
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5500
sec

Visit

Proposal 13035, Visit 11, scheduling Thu Dec 19 02:04:02 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 72D TO 74 D; BETWEEN 11-JAN-2014:19:00:00 AND 11-JAN-2014:20:30:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 11) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

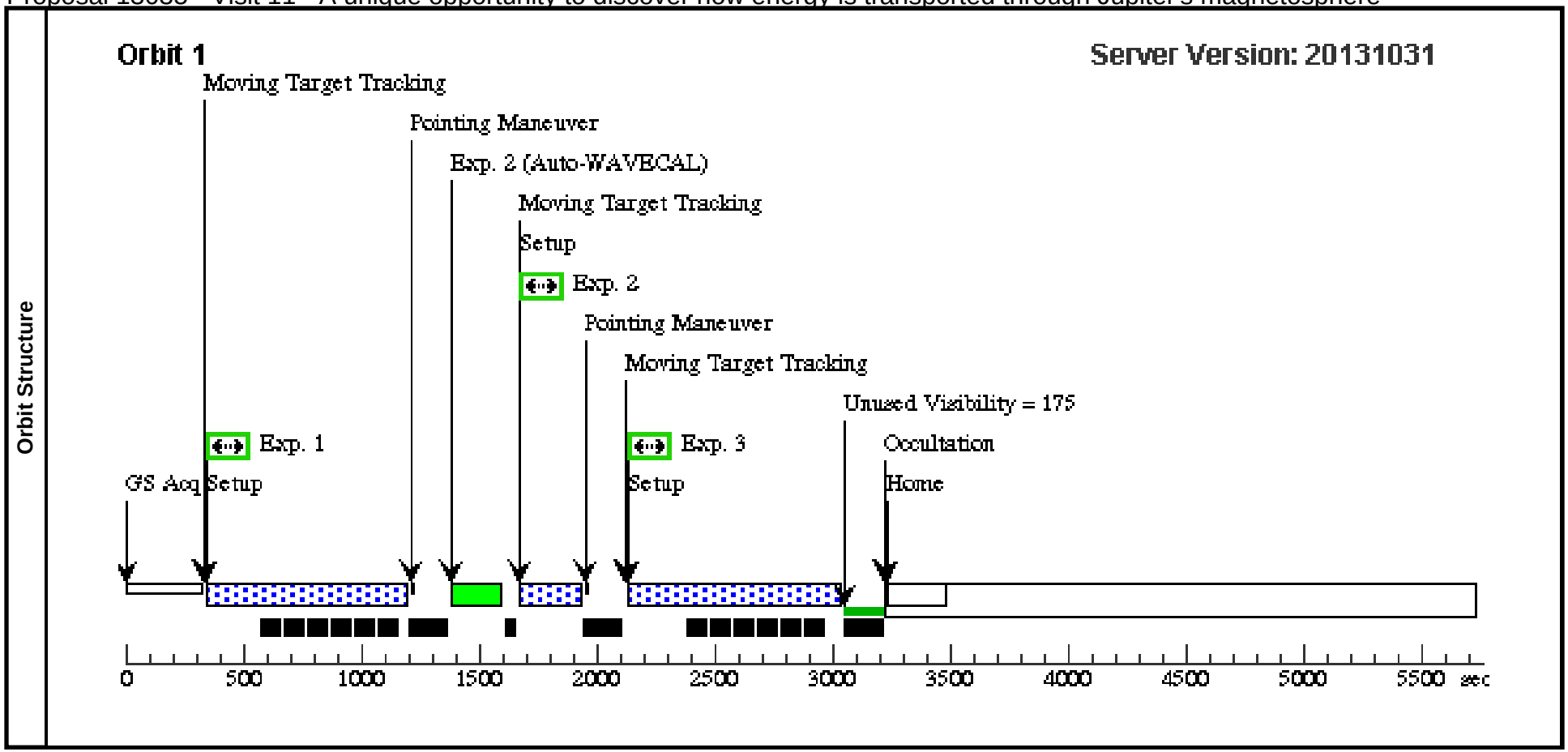
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(11)	JUPITER-NORTH-11	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(11) JUPITER-NORTH-11	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(11) JUPITER-NORTH-11	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(11) JUPITER-NORTH-11	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
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Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Setup
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Exp. 1
Exp. 3
Occultation
GS Acq Setup
Setup
Home
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sec

Visit

Proposal 13035, Visit 12, implementation Thu Dec 19 02:04:03 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 67D TO 68 D; BETWEEN 14-JAN-2014 AND 16-JAN-2014:02; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 12) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

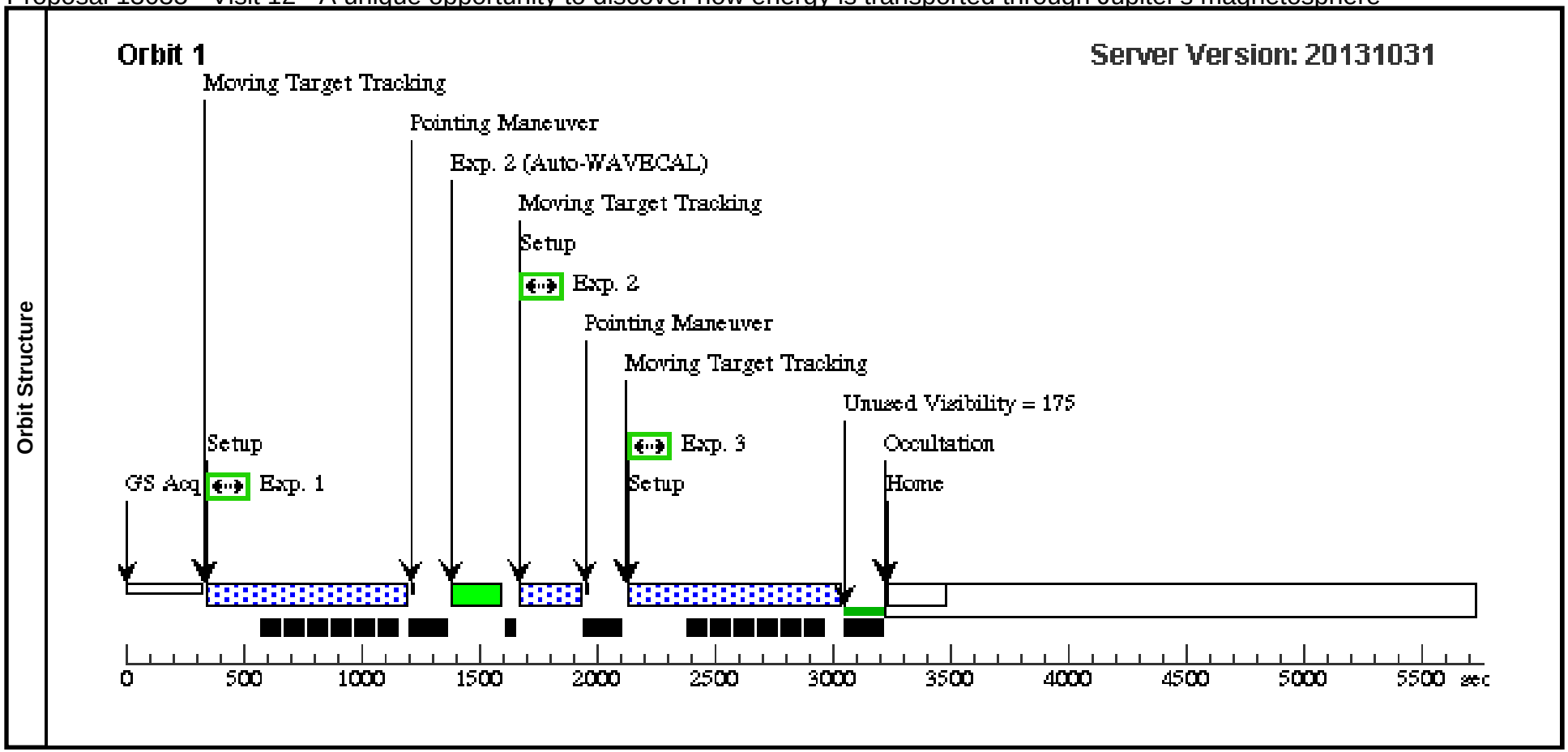
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(12)	JUPITER-NORTH-12	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(12) JUPITER-NORTH-12	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(12) JUPITER-NORTH-12	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(12) JUPITER-NORTH-12	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
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Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Setup
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Setup
Exp. 3
Occultation
GS Acq
Exp. 1
Setup
Home
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5500
sec

Visit

Proposal 13035, Visit 13, scheduling Thu Dec 19 02:04:04 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 68D TO 68 D; BETWEEN 13-JAN-2014:01:30:00 AND 13-JAN-2014:03:00:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 13) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

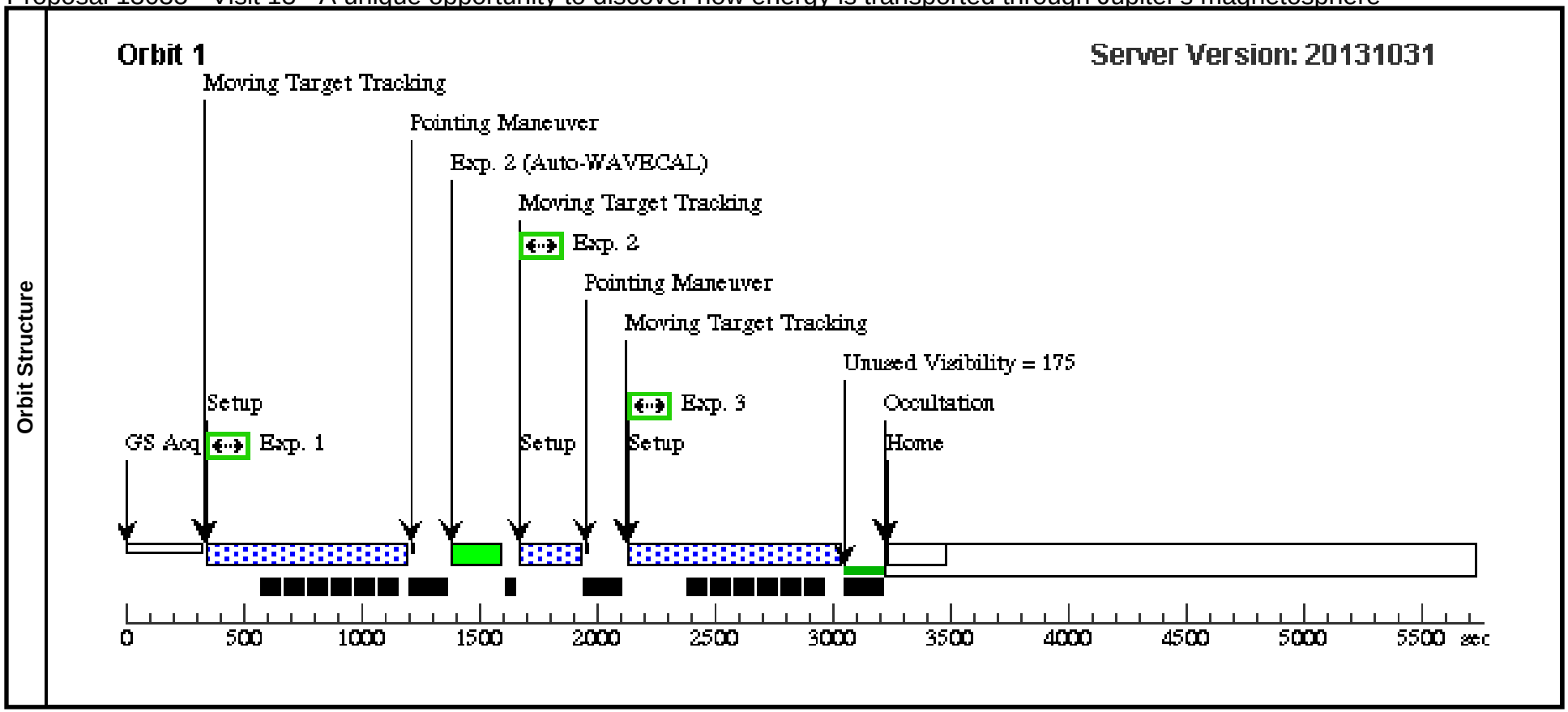
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(13)	JUPITER-NORTH-13	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 120 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(13) JUPITER-NORTH-13	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(13) JUPITER-NORTH-13	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(13) JUPITER-NORTH-13	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
Orbit 1
Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
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Exp. 3
Occultation
GS Acq
Exp. 1
Setup
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Home
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5500
sec

Visit

Proposal 13035, Visit 14, scheduling Thu Dec 19 02:04:05 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: STIS/FUV-MAMA

Special Requirements: ORIENT 67D TO 69 D; BETWEEN 13-JAN-2014:20:30:00 AND 13-JAN-2014:21:30:00; ON HOLD

Comments: Observations of Jupiter's northern UV aurora. On each orbit timetag SrF2 images and G140L, 52x0.5 spectra will be taken (image-spectra-image). Timings are restricted by Jupiter CML and optimised for simultaneous GEMINI observations. Other timings are possible if HST orbits cannot be scheduled. Final timing and orientation to be determined with PC/CS once HST orbit is known.

On Hold Comments: Activation of the HST observations requires a successful launch and acquisition of data from the JAXA mission EXCEED.

Diagnostics

(Visit 14) Warning (Form): A target acquisition should probably be performed before doing spectroscopy or coronography with STIS or COS.

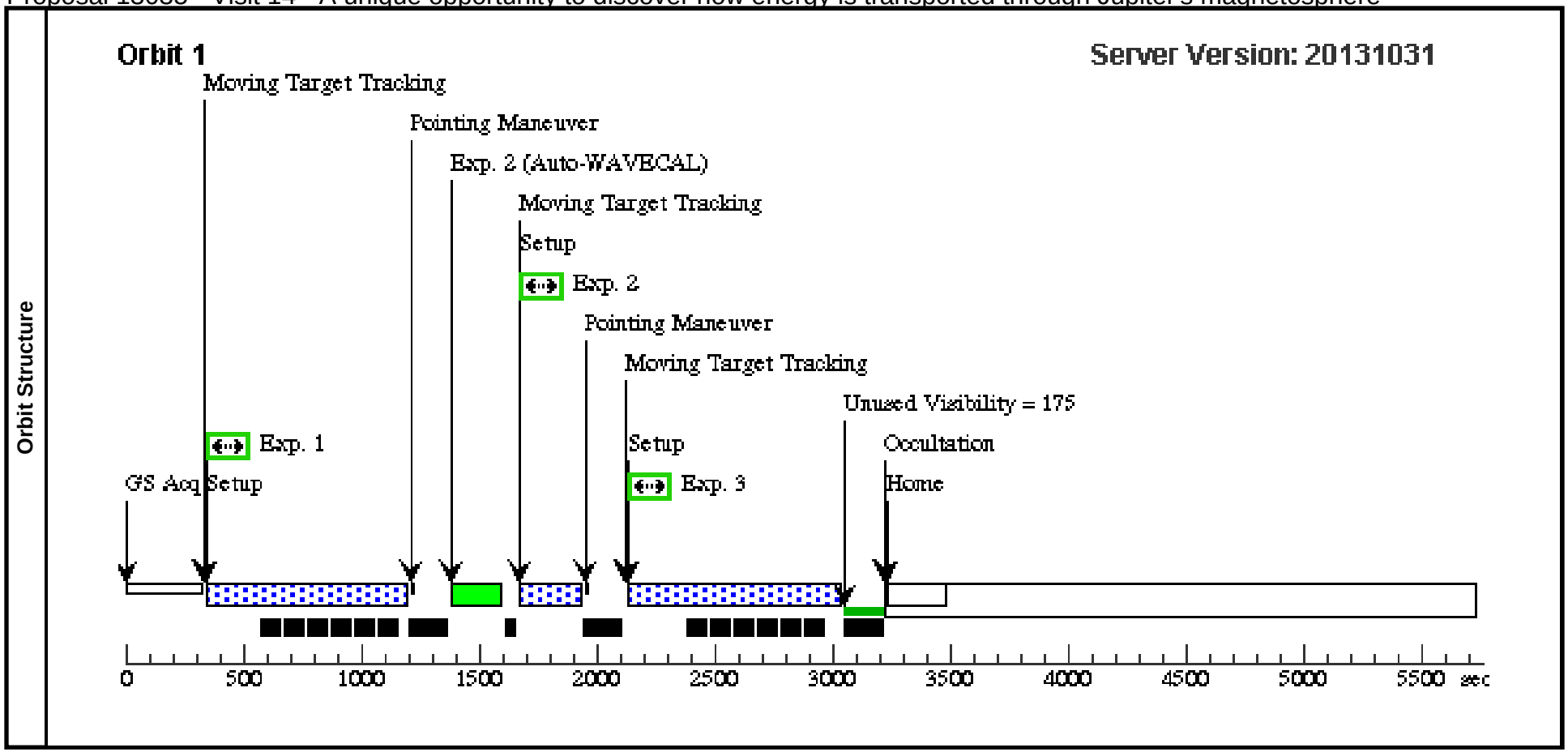
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window	Ephem Center
(14)	JUPITER-NORTH-14	STD=JUPITER	TYPE=POS_ANGLE,RAD=26,ANG=8,REF=NORTH		CML OF JUPITER FROM EARTH BETWEEN 110 220, NOT OLG OF JUPITER FROM EARTH BETWEEN 15 345	EARTH

Comments: FOV offset towards north pole so slit (centre of FOV) will be aligned on auroral region, and disk emission limited.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.im.415966)	(14) JUPITER-NORTH-14	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			700 Secs (700 Secs)	
								[==>]	***[1]***
2	(STIS.im.415966)	(14) JUPITER-NORTH-14	STIS/FUV-MAMA, TIME-TAG, 52X0.5	G140L 1425 A	BUFFER-TIME=1500			200 Secs (200 Secs)	
								[==>]	***[1]***
3	(STIS.im.415966)	(14) JUPITER-NORTH-14	STIS/FUV-MAMA, TIME-TAG, F25SRF2	MIRROR	BUFFER-TIME=99			736 Secs (736 Secs)	
								[==>]	***[1]***


Orbit Structure
Orbit 1
Server Version: 20131031
Moving Target Tracking
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Moving Target Tracking
Setup
Exp. 2
Pointing Maneuver
Moving Target Tracking
Unused Visibility = 175
Exp. 1
Setup
Occultation
GS Acq Setup
Exp. 3
Home
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