14245 - The winds of the most Fe-poor massive stars of the Local Group: Sextans-A

Cycle: 23, Proposal Category: GO

(UV Initiative)

(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) STAR-J101053.81-044113.0	COS/FUV COS/NUV	3	05-Dec-2015 21:03:14.0	yes
02	(1) STAR-J101053.81-044113.0	COS/FUV COS/NUV	3	05-Dec-2015 21:03:17.0	yes
03	(1) STAR-J101053.81-044113.0	COS/FUV COS/NUV	3	05-Dec-2015 21:03:19.0	yes
04	(2) STAR-J101105.38-044240.1	COS/FUV COS/NUV	3	05-Dec-2015 21:03:21.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
05	(3) STAR-J101106.05-044211.4	COS/FUV COS/NUV	2	05-Dec-2015 21:03:22.0	yes
06	(3) STAR-J101106.05-044211.4	COS/FUV COS/NUV	2	05-Dec-2015 21:03:24.0	yes
07	(4) STAR-J101100.66-044044.3	COS/FUV COS/NUV	2	05-Dec-2015 21:03:25.0	yes
08	(4) STAR-J101100.66-044044.3	COS/FUV COS/NUV	2	05-Dec-2015 21:03:27.0	yes
09	(5) STAR-J101102.38-044014.6	COS/FUV COS/NUV	3	05-Dec-2015 21:03:28.0	yes
10	(5) STAR-J101102.38-044014.6	COS/FUV COS/NUV	3	05-Dec-2015 21:03:30.0	yes

26 Total Orbits Used

ABSTRACT

Radiation driven winds (RDWs) dominate the lives of massive stars and are a key ingredient of current calculations for their evolution and feedback. Their strong metallicity dependency has been positively tested with Milky Way, LMC and SMC stars. However, the 0.2Fe_sun frontier set by the SMC must be crossed before the theoretical prescriptions can be extrapolated to the early Universe. Recent studies that targeted Local Group oxygen-poor irregular galaxies to this aim were futile, as later on these systems were found to have an SMC-like content of iron. The outcome is that RDW theory is still to be tested in genuinely iron-poor environments.

We request low resolution COS FUV spectra of resolved OB stars in Sextans-A, the most iron-poor galaxy of the Local Group with 0.1Fe_sun or smaller. The resulting dataset will allow us to characterize the winds of truly iron-poor massive stars.

The crucial role of UV spectroscopy to characterize RDWs at low metallicity cannot be overstated: it is the best and in most cases only provider of diagnostics for the wind terminal velocity in the entire electromagnetic spectrum, and contains sensitive enough lines to constrain mass loss rates and iron content. This proposal builds on the team's previous experience on HST-COS observations of resolved OB stars beyond the SMC.

OBSERVING DESCRIPTION

General strategy

This proposal consists of COS/FUV spectroscopy of 4 O-stars and 1 early-B supergiant
in the dwarf irregular galaxy Sextans A (at ~1Mpc).
All targets are visited at least twice (except for target-2).
All visits consist of 2 or more orbits, to accumulate exposure time.

The configuration is COS/FUV, PSA, G140L, and central-lambda=1105, SEGMENT-A (B is off).
All FP-POS are used, but less Texp is given to FP-POS=1 since in this configuration
the blue edge of the P-Cygni of CIII1176 may be lost if the terminal velocity was high.

Acquisition strategy: ACQ/IMH
We checked that the sources are isolated in a radius of 2",
and are the expected brightest source at 1300\AA within a r=3" circle.

Phot. and astrometric catalogs:

Source for coordinates: Bellazzini+ 2014, A&A, 566, A44
They generated astrometry for Sextans A stars using 100 GSC2 stars in the field.
The rms of their solution is better than 0.3" for both RA and DEC.
For 2 targets (OB326, OB521) Bellazzini+ did not provide coordinates. We used coordinates from Massey et al. 2007
after checking the positive agreement (within 0.1") for the stars in both catalogs.

Source for optical photometry: Massey+ 2007, AJ, 133, 2393

Flux at 1300 Angstroems

The fluxes at 1300\AA were estimated with COS's ETC using:
- optical photometry (V-magnitude, and B-V colors for extinction)
- Castelli & Kurucz models of the appropriate spectral type
- LMC-2 supershell extinction law applied before normalization by V-magnitude

Orient angles:

When checking HST archival images, some stars seemed to show very-faint nearby sources, unresolved even for HST.
The ORIENT angles were set to prevent that the main and secondary sources were aligned in the dispersion direction:
The angle of alignment plus-minus 10 degrees was removed from the available orientations.
We checked that the visit schedulability was not altered by the Orient angles.

The alignment angles, measured from North to East with North being angle=0 are:
OB521, 267deg
OB523, 99 and 356 deg
OB622, 85.2deg

BOT checks:

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2 sets of modern UV observations are available for the target stars:
- GALEX fully covers the whole host galaxy Sextans-A
- Archival WFPC2-F170W images for part of the galaxy, from the treasury program HST-11079 (PI Bianchi).
Catalog of sources: J/AJ/143/74/table4. See Bianchi+ 2012, AJ, 143, 74

We ran APT's BOT tool, both with GSC2 and GALEX.
We checked that the GSC2-unknown targets are weak or no-show in GALEX or the archival WFPC2-F170W images.
BOT finds no unsafe objects except for target-3 ACQ/IMH, visits OB523-V1 and OB523-V2.

For target-3 ACQ/IMH, visits OB523-V1 and OB523-V2, there is 1 GALEX-unsafe object.
GALEX cannot resolve the area where the target is located, and encloses the whole OB association.
However, this area is resolved at the WFPC2-F170W images.
We registered the F225W magnitudes (F170W mags. not available) of stars in the r=22" circle enclosing Aladin-BOT checks,
and our target (which is safe according to the ETC) is the brightest source with F225W=17.18.
Note that we couldn't input these numbers into the ETC for checks, as the ETC does not ingest WFPC2 photometry.

We also checked with the ETC that nearby (within r=3.5") and program stars
do not exceed the safety limits with the used exposure times,
both for acquisition and spectroscopy,
in the worst-case-scenario:
. Kurucz of earliest spectral type O5V
. flux normalized to V-magnitudes
. *unreddened*
. maximum used Texp time (1410s for spectroscopy, and the appropriate one for acq)
There is an apparent offender for the visits on target-3, with V=18.771.
However, it has WFPC2-F225W=17.93, more than 0.7mags fainter than target-3 (which is safe).
This star does *not* coincide with the GALEX offender for target-3.

Visit

Proposal 14245, OB326-V1 (01), scheduled Sun Dec 06 02:03:33 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(OB326-V1 (01)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(OB326-V1 (01)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

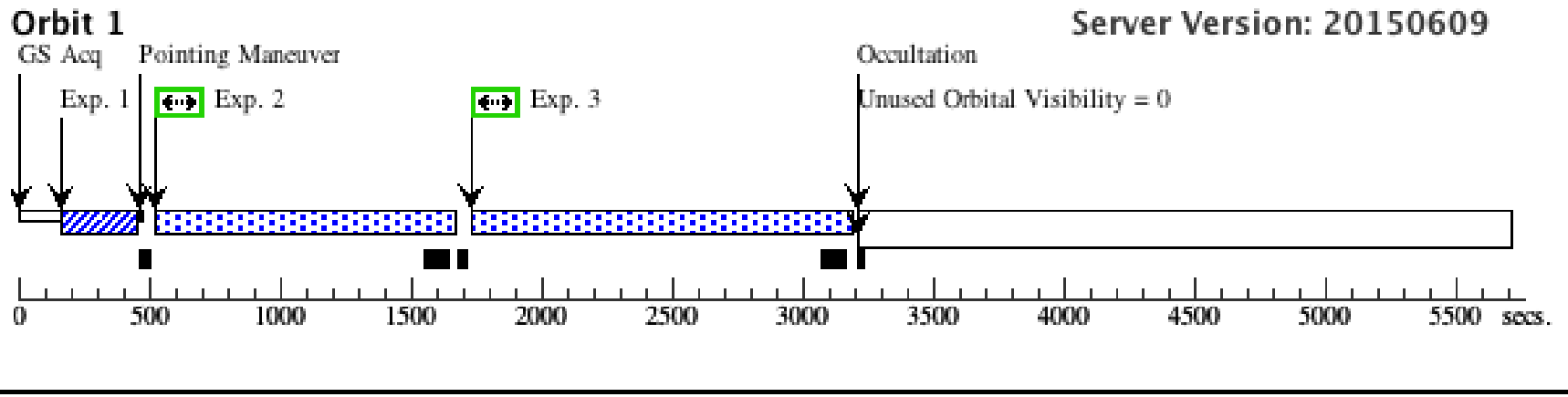
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	STAR-J101053.81-044113.0 Alt Name1: SEXTA-OB326	RA: 10 10 53.8100 (152.7242083d) Dec: -04 41 13.00 (-4.68694d) Equinox: J2000	Radial Velocity: 331 km/sec	V=20.688+/-0.014 *TYPE=O7.5III*, B-V = -0.265, E(B-V) = 0.06, F-CONT(1300) =1.2E-15	Reference Frame: ICRS

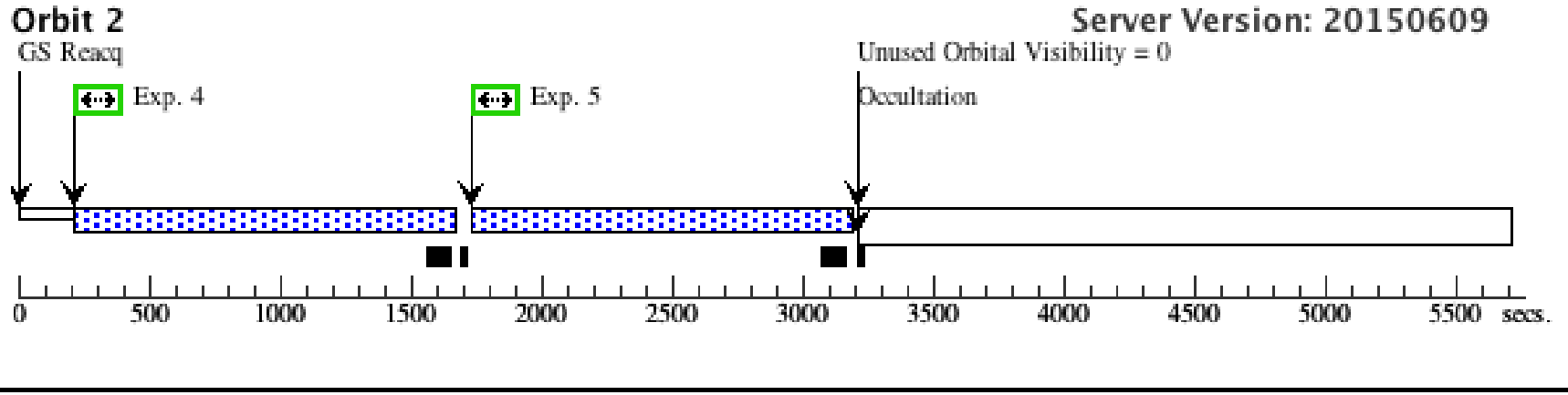
Comments: Extended=NO

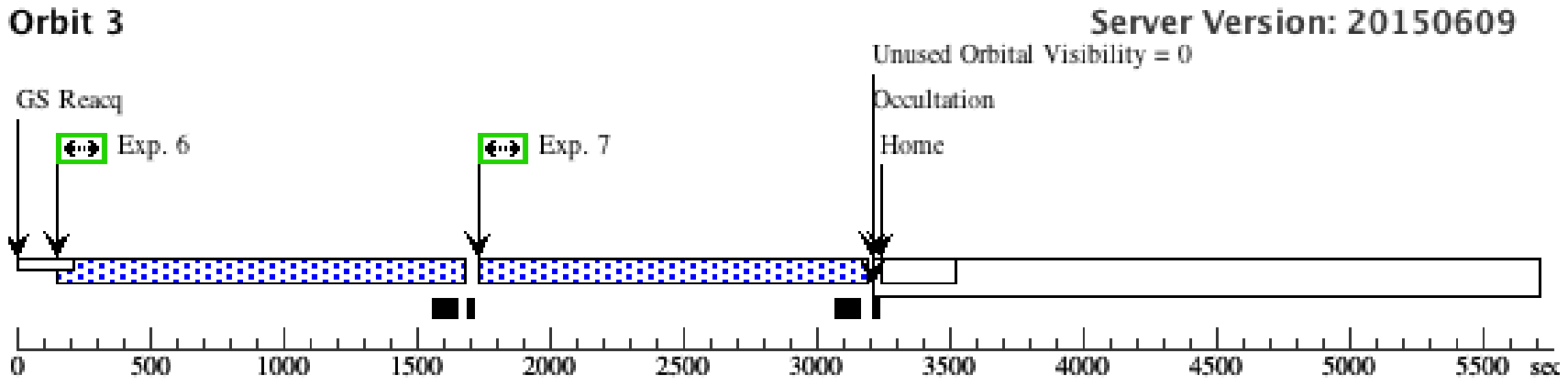
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB326-V1-ACQ/IMH (COS.ta.732630)	(1) STAR-J101053.81-044113.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30. Secs (30 Secs) *[==>]*	*[1]*
2	OB326-V1-FP1 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=866			966 Secs (966 Secs) *[==>]*	*[1]*
3	OB326-V1-FP2 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[1]*
4	OB326-V1-FP3 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309			1409. Secs (1409 Secs) *[==>]*	*[2]*
5	OB326-V1-FP4 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[2]*
6	OB326-V1-FP3 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309			1409. Secs (1409 Secs) *[==>]*	*[3]*
7	OB326-V1-FP4 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 14245, OB326-V2 (02), implementation Sun Dec 06 02:03:33 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: GROUP 02,03 WITHIN 100D

Diagnostics

(OB326-V2 (02)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(OB326-V2 (02)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

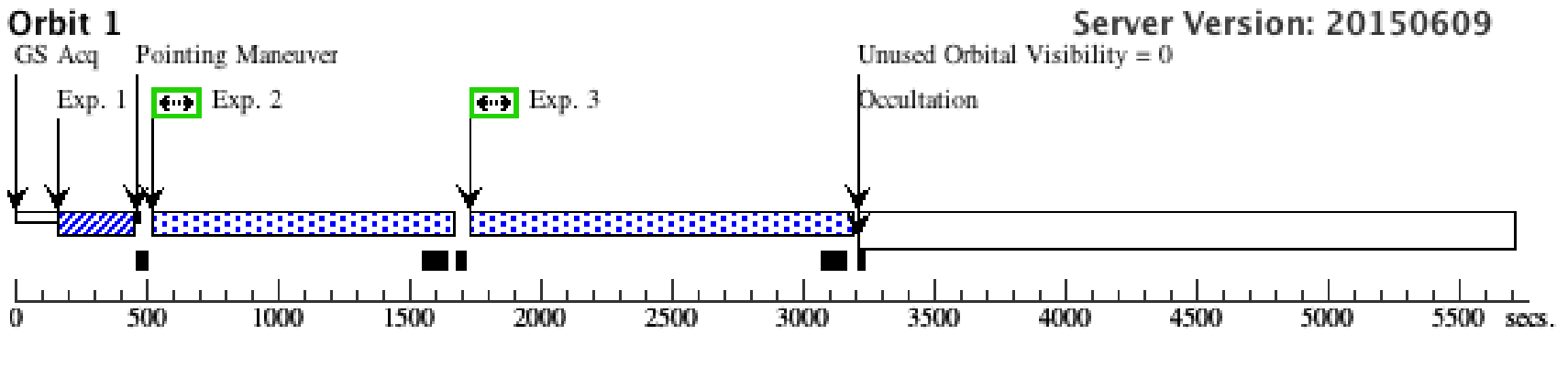
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	STAR-J101053.81-044113.0 Alt Name1: SEXTA-OB326	RA: 10 10 53.8100 (152.7242083d) Dec: -04 41 13.00 (-4.68694d) Equinox: J2000	Radial Velocity: 331 km/sec	V=20.688+/-0.014 *TYPE=O7.5III*, B-V = -0.265, E(B-V) = 0.06, F-CONT(1300) =1.2E-15	Reference Frame: ICRS

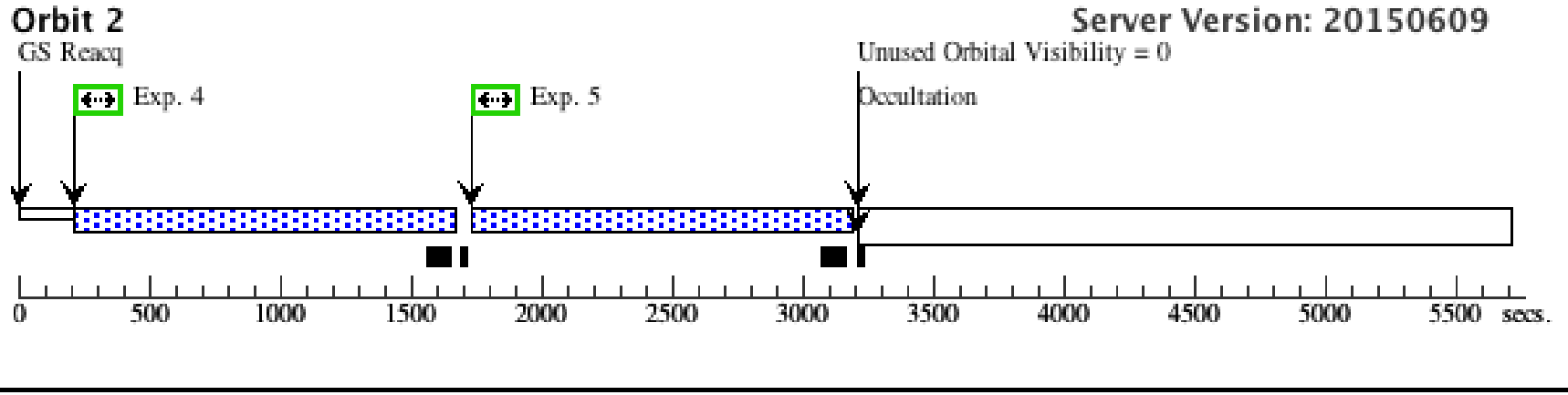
Comments: Extended=NO

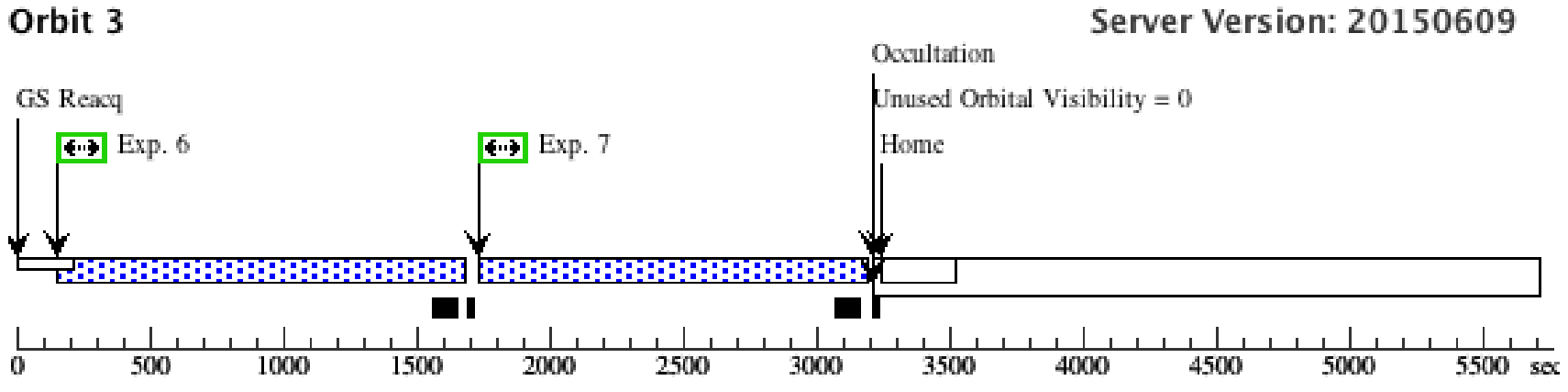
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB326-V2-ACQ/IMH (COS.ta.732630)	(1) STAR-J101053.81-044113.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30. Secs (30 Secs) *[==>]*	*[1]*
2	OB326-V2-FP1 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=866			966 Secs (966 Secs) *[==>]*	*[1]*
3	OB326-V2-FP2 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[1]*
4	OB326-V2-FP3 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309			1409. Secs (1409 Secs) *[==>]*	*[2]*
5	OB326-V2-FP4 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[2]*
6	OB326-V2-FP3 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309			1409. Secs (1409 Secs) *[==>]*	*[3]*
7	OB326-V2-FP4 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 14245, OB326-V3 (03), implementation Sun Dec 06 02:03:33 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(OB326-V3 (03)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

(OB326-V3 (03)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

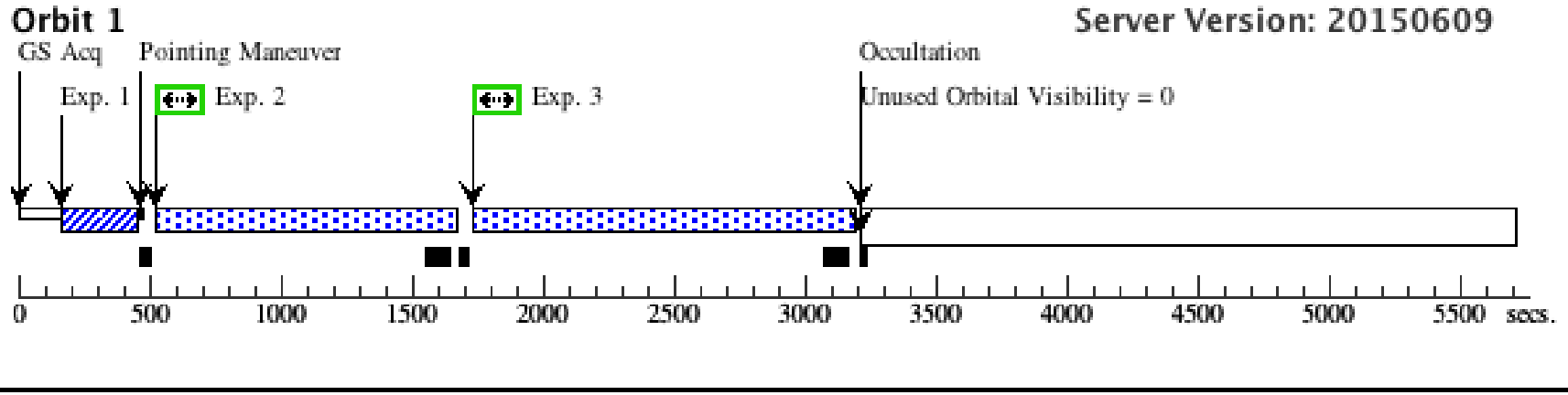
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	STAR-J101053.81-044113.0 Alt Name1: SEXTA-OB326	RA: 10 10 53.8100 (152.7242083d) Dec: -04 41 13.00 (-4.68694d) Equinox: J2000	Radial Velocity: 331 km/sec	V=20.688+/-0.014 *TYPE=O7.5III*, B-V = -0.265, E(B-V) = 0.06, F-CONT(1300) =1.2E-15	Reference Frame: ICRS

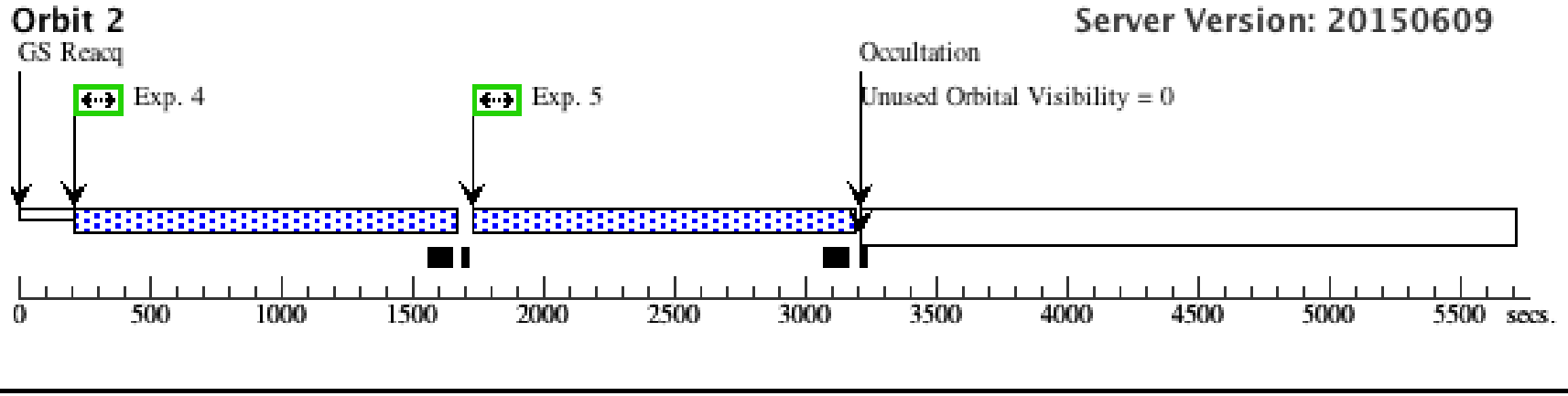
Comments: Extended=NO

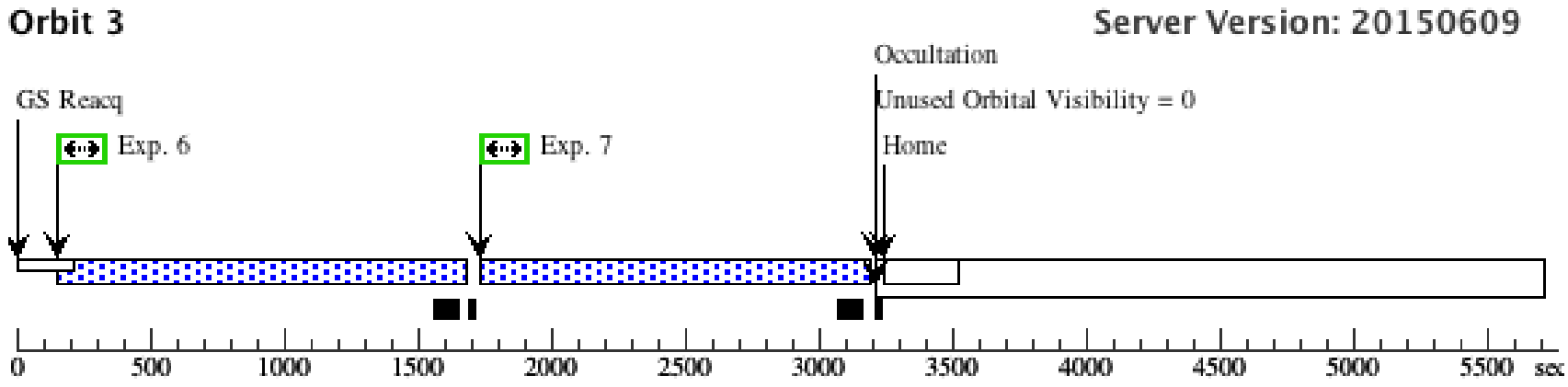
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB326-V3-ACQ/IMH (COS.ta.732630)	(1) STAR-J101053.81-044113.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30. Secs (30 Secs) *[==>]*	*[1]*
2	OB326-V3-FP1 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=866			966 Secs (966 Secs) *[==>]*	*[1]*
3	OB326-V3-FP2 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[1]*
4	OB326-V3-FP3 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309			1409. Secs (1409 Secs) *[==>]*	*[2]*
5	OB326-V3-FP4 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[2]*
6	OB326-V3-FP3 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309			1409. Secs (1409 Secs) *[==>]*	*[3]*
7	OB326-V3-FP4 (COS.sp.732360)	(1) STAR-J101053.81-044113.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 14245, OB521-V1 (04), scheduling Sun Dec 06 02:03:33 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: ORIENT 142D TO 302 D; ORIENT 322D TO 122 D

Diagnostics

(OB521-V1 (04)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(OB521-V1 (04)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

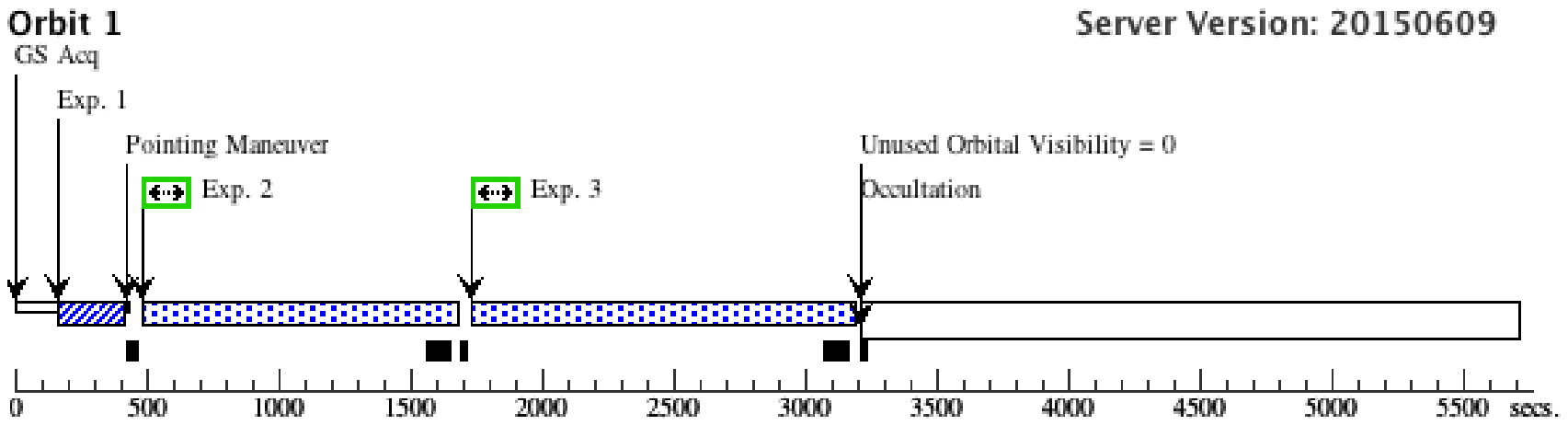
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	STAR-J101105.38-044240.1 Alt Name1: SEXTA-OB521	RA: 10 11 5.3800 (152.7724167d) Dec: -04 42 40.10 (-4.71114d) Equinox: J2000	Radial Velocity: 343 km/sec	V=19.459+/-0.008 *TYPE=O9.5III*, B-V = -0.259, E(B-V) = 0.05, F-CONT(1300) =4.0E-15	Reference Frame: ICRS

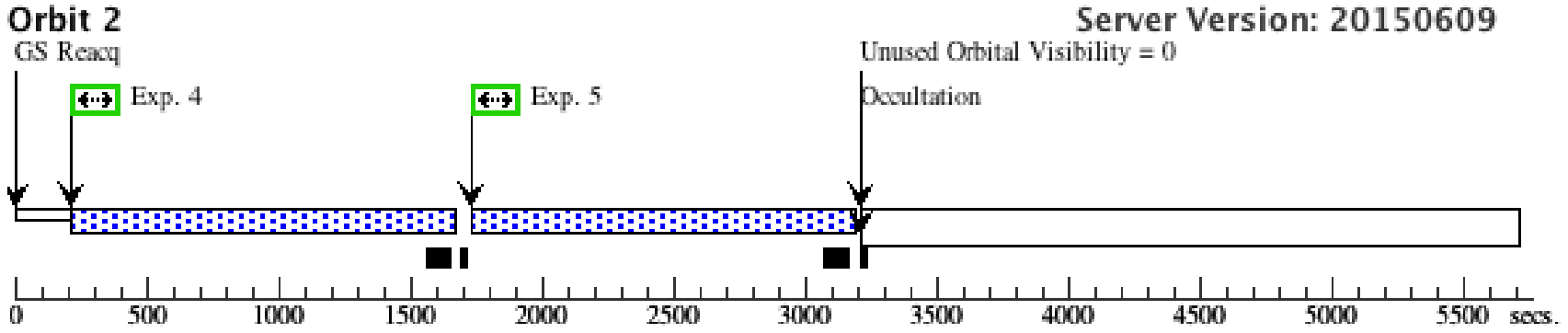
Comments: Extended=NO

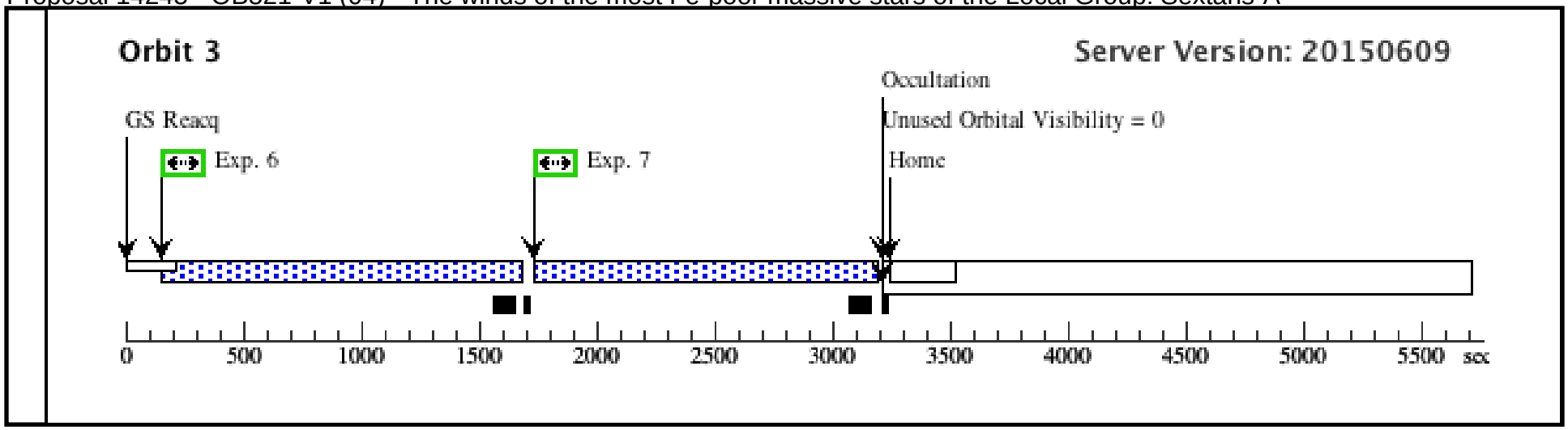
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB521-ACQ/IMH (COS.ta.732631)	(2) STAR-J101105.38-044240.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				10. Secs (10 Secs) *[==>]*	*[1]*
2	OB521-FP1 (COS.sp.732378)	(2) STAR-J101105.38-044240.1	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=916.			1016. Secs (1016 Secs) *[==>]*	*[1]*
3	OB521-FP2 (COS.sp.732378)	(2) STAR-J101105.38-044240.1	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[1]*
4	OB521-FP3 (COS.sp.732378)	(2) STAR-J101105.38-044240.1	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	*[2]*
5	OB521-FP4 (COS.sp.732378)	(2) STAR-J101105.38-044240.1	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[2]*
6	OB521-FP3 (COS.sp.732378)	(2) STAR-J101105.38-044240.1	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	*[3]*
7	OB521-FP4 (COS.sp.732378)	(2) STAR-J101105.38-044240.1	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20150609
Occultation
GS Reacq
Unused Orbital Visibility = 0
Exp. 6
Exp. 7
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14245, OB523-V1 (05), implementation Sun Dec 06 02:03:33 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: ORIENT 51D TO 134 D; ORIENT 154D TO 211 D; ORIENT 231D TO 314 D; ORIENT 334D TO 31 D; GROUP 05,06 WITHIN 100D

Diagnostics

(OB523-V1 (05)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

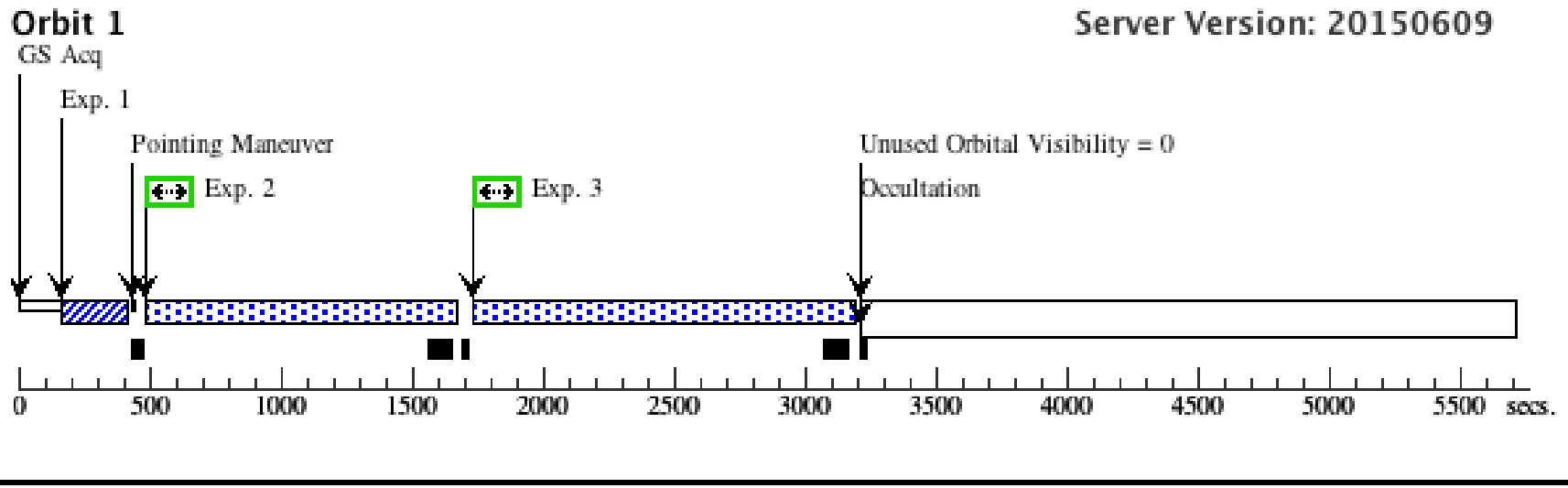
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	STAR-J101106.05-044211.4 Alt Name1: SEXTA-OB523	RA: 10 11 6.0469 (152.7751954d) Dec: -04 42 11.37 (-4.70316d) Equinox: J2000	Radial Velocity: 442 km/sec	V=19.492+/-0.007 *TYPE=O9.5I*, B-V = -0.231, E(B-V) = 0.10, F-CONT(1300) =2.5E-15	Reference Frame: ICRS

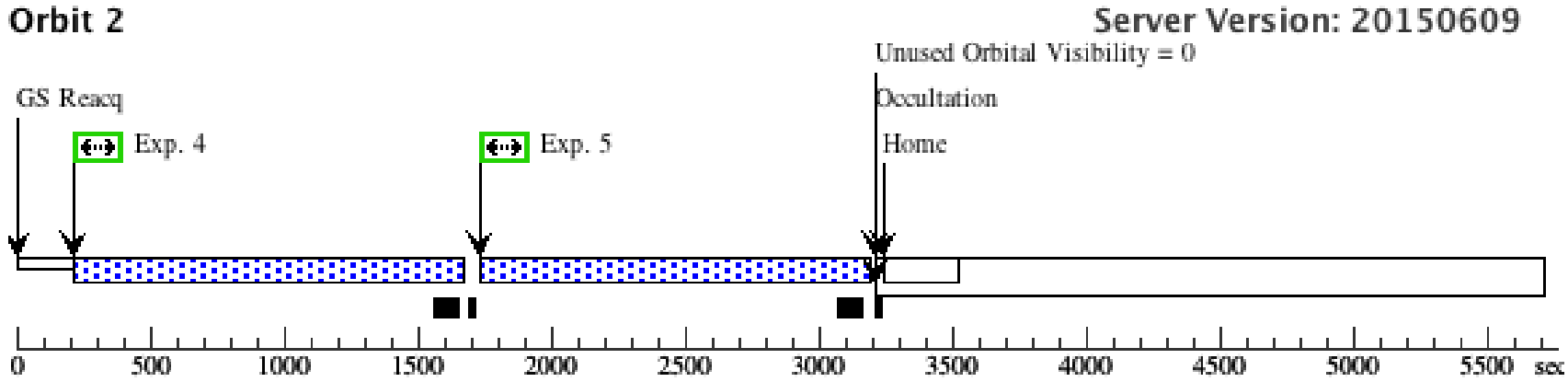
Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB523-V1-ACQ/IMH (COS.ta.732632)	(3) STAR-J101106.05-044211.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				14. Secs (14 Secs) *[==>]*	***[1]***
2	OB523-V1-FP1 (COS.sp.732382)	(3) STAR-J101106.05-044211.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=908			1008. Secs (1008 Secs) *[==>]*	***[1]***
3	OB523-V1-FP2 (COS.sp.732382)	(3) STAR-J101106.05-044211.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	***[1]***
4	OB523-V1-FP3 (COS.sp.732382)	(3) STAR-J101106.05-044211.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	***[2]***
5	OB523-V1-FP4 (COS.sp.732382)	(3) STAR-J101106.05-044211.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	***[2]***

Orbit Structure





Visit

Proposal 14245, OB523-V2 (06), implementation Sun Dec 06 02:03:33 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SAME ORIENT AS 05

Diagnostics

(OB523-V2 (06)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

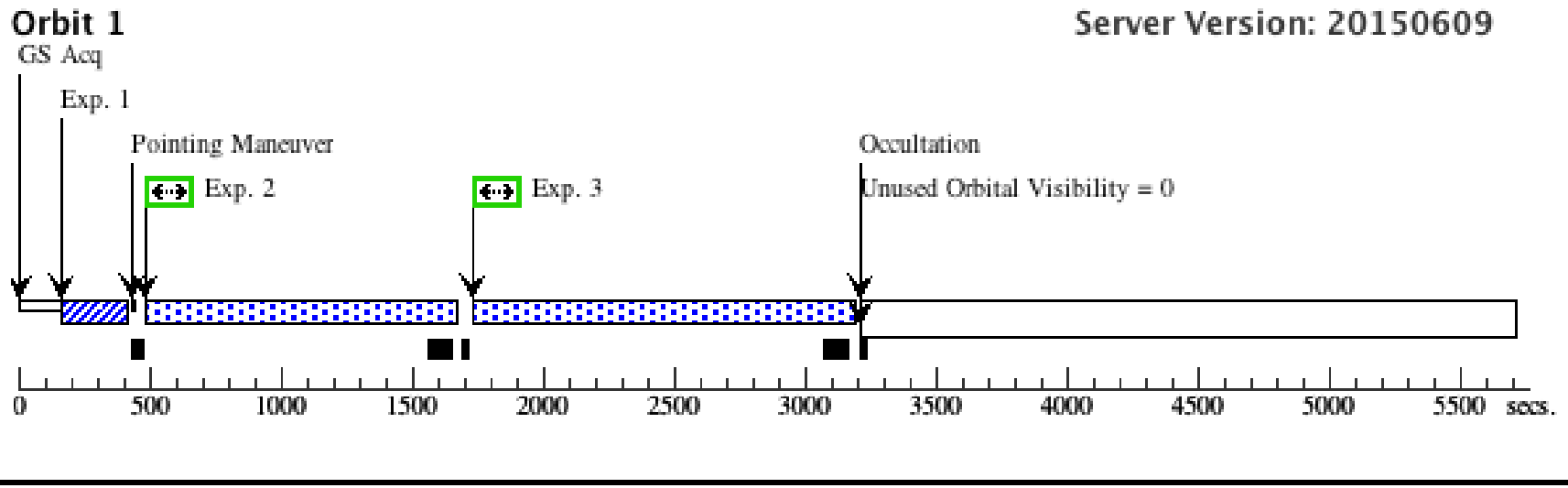
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	STAR-J101106.05-044211.4 Alt Name1: SEXTA-OB523	RA: 10 11 6.0469 (152.7751954d) Dec: -04 42 11.37 (-4.70316d) Equinox: J2000	Radial Velocity: 442 km/sec	V=19.492+/-0.007 *TYPE=O9.5I*, B-V = -0.231, E(B-V) = 0.10, F-CONT(1300) =2.5E-15	Reference Frame: ICRS

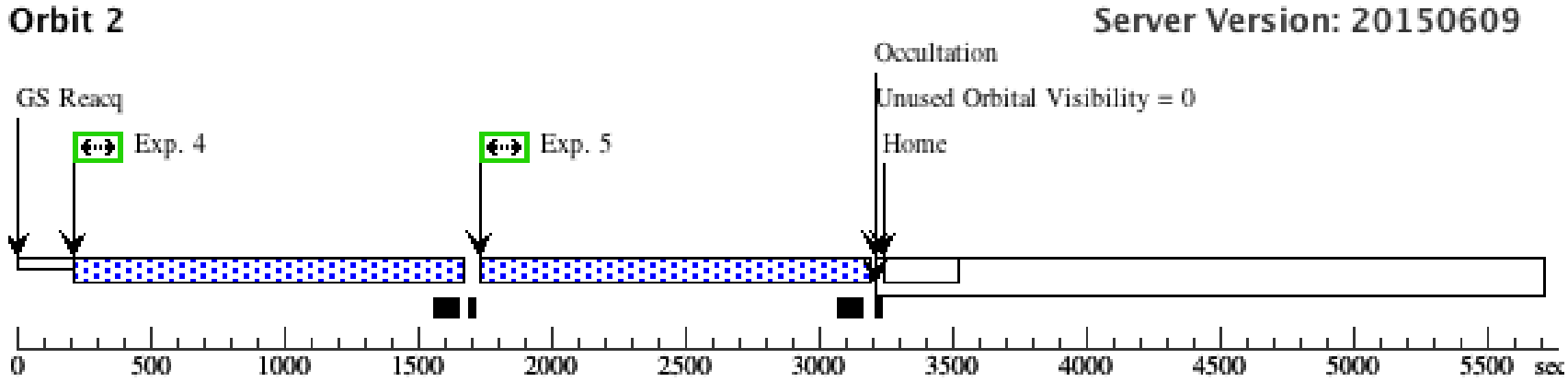
Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB523-V2-ACQ/IMH (COS.ta.732632)	(3) STAR-J101106.05-044211.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				14. Secs (14 Secs) *[==>]*	***[1]***
2	OB523-V2-FP1 (COS.sp.732382)	(3) STAR-J101106.05-044211.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=908			1008. Secs (1008 Secs) *[==>]*	***[1]***
3	OB523-V2-FP2 (COS.sp.732382)	(3) STAR-J101106.05-044211.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	***[1]***
4	OB523-V2-FP3 (COS.sp.732382)	(3) STAR-J101106.05-044211.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	***[2]***
5	OB523-V2-FP4 (COS.sp.732382)	(3) STAR-J101106.05-044211.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	***[2]***

Orbit Structure





Visit

Proposal 14245, OB321-V1 (07), implementation Sun Dec 06 02:03:33 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: GROUP 07,08 WITHIN 100D

Diagnostics

(OB321-V1 (07)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

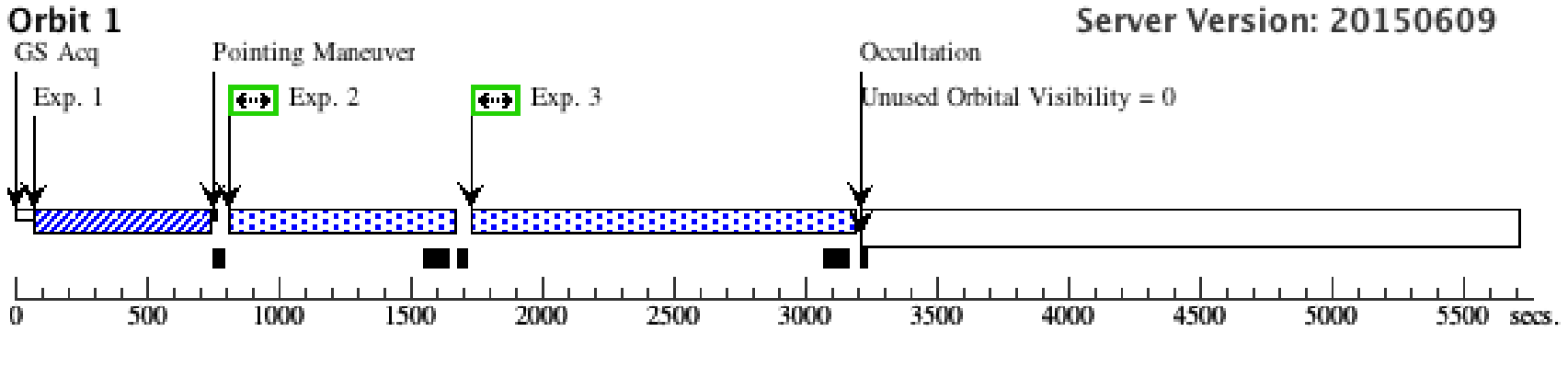
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	STAR-J101100.66-044044.3 Alt Name1: SEXTA-OB321	RA: 10 11 0.6603 (152.7527513d) Dec: -04 40 44.30 (-4.67897d) Equinox: J2000	Radial Velocity: 327 km/sec	V=19.609+/-0.005 *TYPE=O9.7I*, B-V = -0.248, E(B-V) = 0.06, F-CONT(1300) =3.0E-15	Reference Frame: ICRS

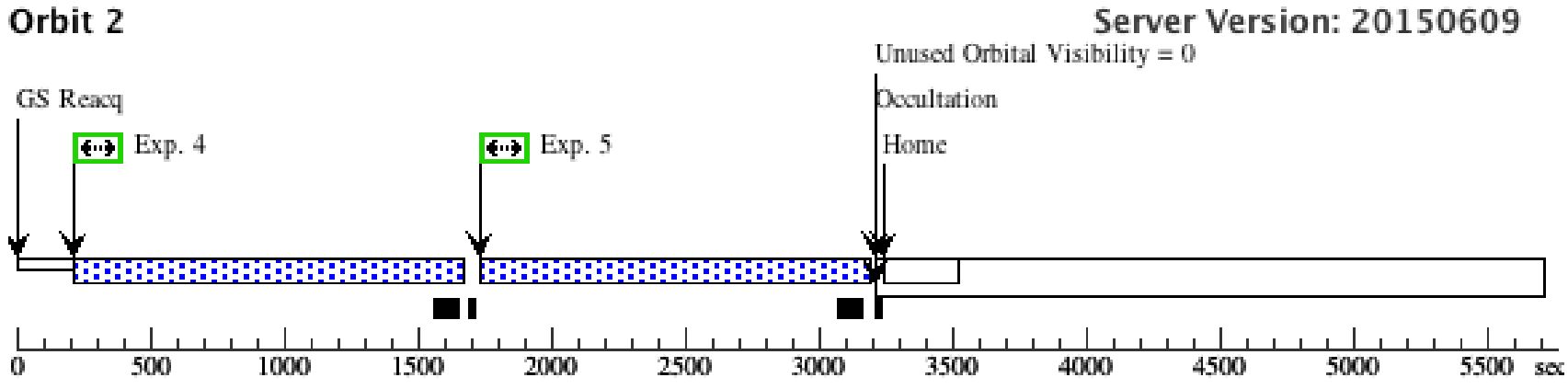
Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB321-V1-ACQ/IMH (COS.ta.747769)	(4) STAR-J101100.66-044044.3	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				175. Secs (175 Secs) *[==>]*	***[1]***
2	OB321-V1-FP1 (COS.sp.732387)	(4) STAR-J101100.66-044044.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=576.			676. Secs (676 Secs) *[==>]*	***[1]***
3	OB321-V1-FP2 (COS.sp.732387)	(4) STAR-J101100.66-044044.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	***[1]***
4	OB321-V1-FP3 (COS.sp.732387)	(4) STAR-J101100.66-044044.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	***[2]***
5	OB321-V1-FP4 (COS.sp.732387)	(4) STAR-J101100.66-044044.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	***[2]***

Orbit Structure





Visit

Proposal 14245, OB321-V2 (08), implementation Sun Dec 06 02:03:33 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(OB321-V2 (08)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

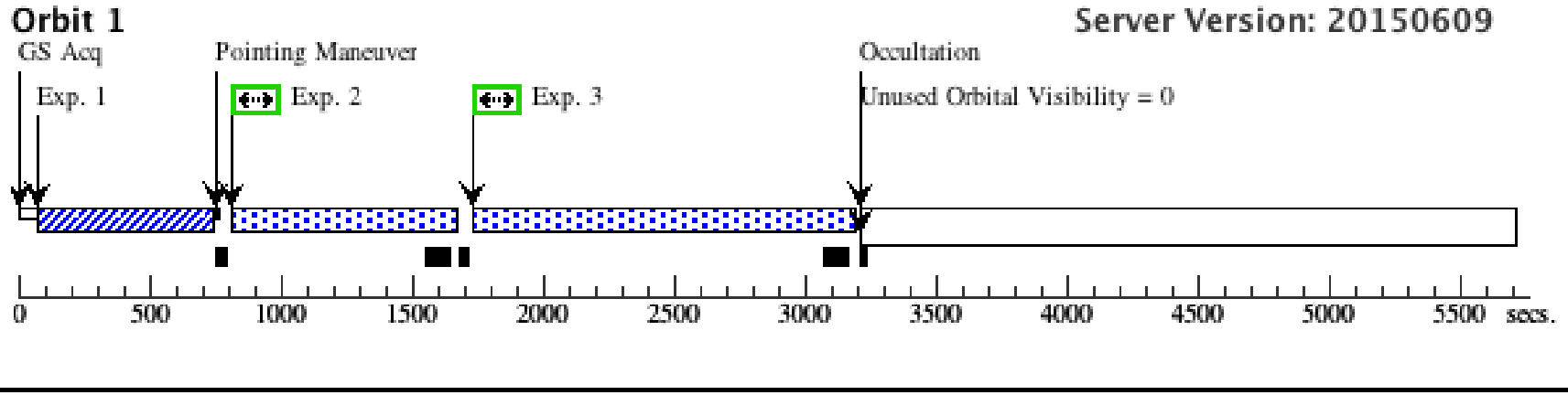
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	STAR-J101100.66-044044.3 Alt Name1: SEXTA-OB321	RA: 10 11 0.6603 (152.7527513d) Dec: -04 40 44.30 (-4.67897d) Equinox: J2000	Radial Velocity: 327 km/sec	V=19.609+/-0.005 *TYPE=O9.7I*, B-V = -0.248, E(B-V) = 0.06, F-CONT(1300) =3.0E-15	Reference Frame: ICRS

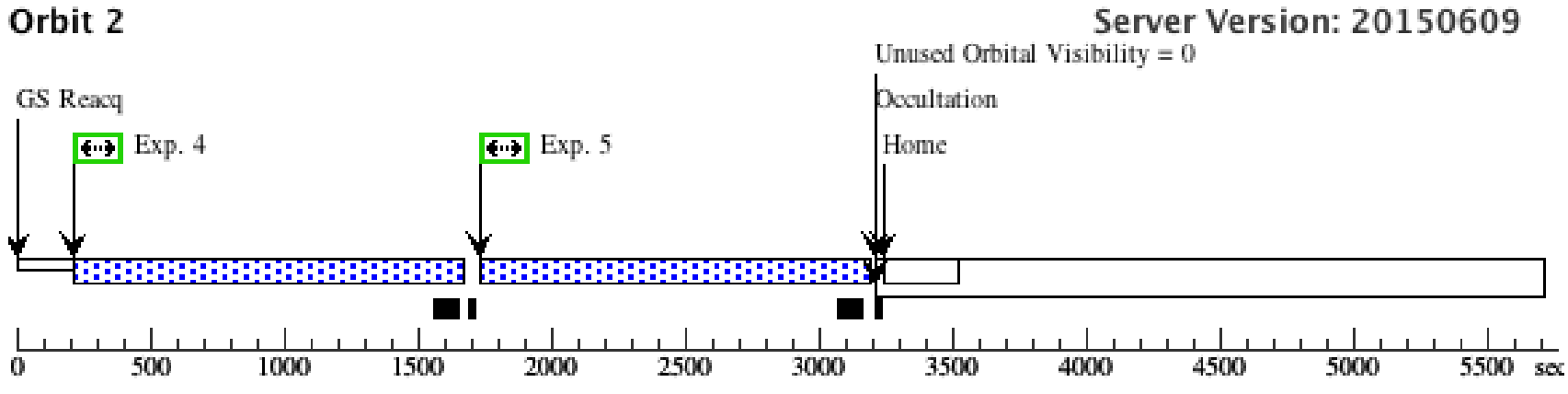
Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB321-V2-ACQ/IMH (COS.ta.747769)	(4) STAR-J101100.66-044044.3	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				175. Secs (175 Secs) *[==>]*	***[1]***
2	OB321-V2-FP1 (COS.sp.732387)	(4) STAR-J101100.66-044044.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=576.			676. Secs (676 Secs) *[==>]*	***[1]***
3	OB321-V2-FP2 (COS.sp.732387)	(4) STAR-J101100.66-044044.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	***[1]***
4	OB321-V2-FP3 (COS.sp.732387)	(4) STAR-J101100.66-044044.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	***[2]***
5	OB321-V2-FP4 (COS.sp.732387)	(4) STAR-J101100.66-044044.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	***[2]***

Orbit Structure





Visit

Proposal 14245, OB622-V1 (09), implementation Sun Dec 06 02:03:34 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: ORIENT 140.2D TO 300.2 D; ORIENT 320.2D TO 120.2 D; GROUP 09,10 WITHIN 100D

Diagnostics

(OB622-V1 (09)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(OB622-V1 (09)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

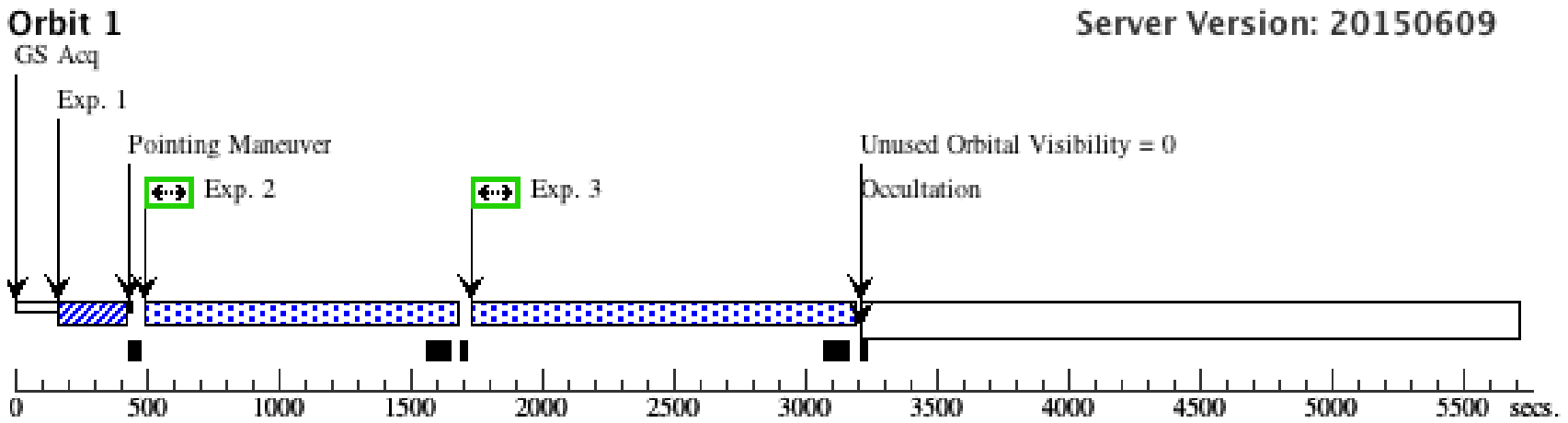
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	STAR-J101102.38-044014.6 Alt Name1: SEXTA-OB622	RA: 10 11 2.3764 (152.7599017d) Dec: -04 40 14.61 (-4.67073d) Equinox: J2000	Radial Velocity: 313 km/sec	V=19.581+/-0.011 *TYPE=B0I*, B-V = -0.099, E(B-V) = 0.12, F-CONT(1300) =1.7E-15	Reference Frame: ICRS

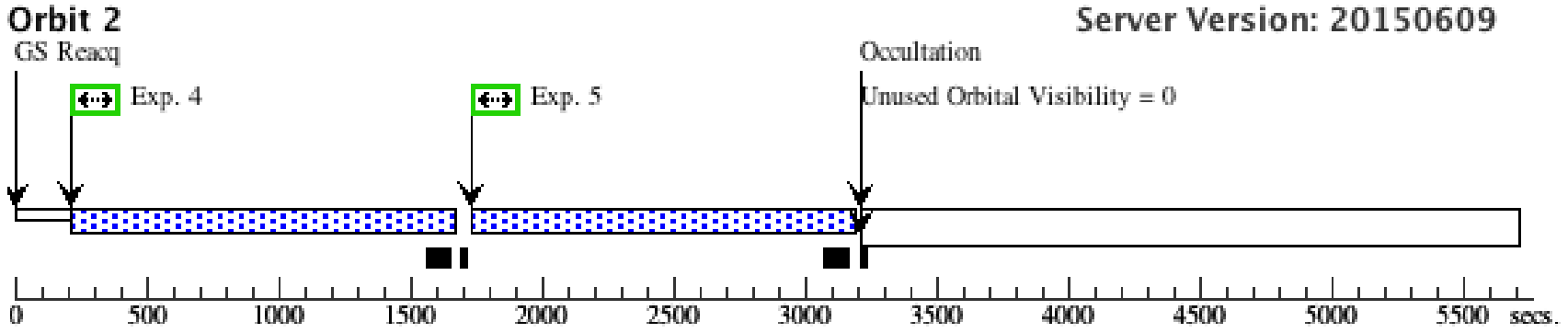
Comments: Extended=NO

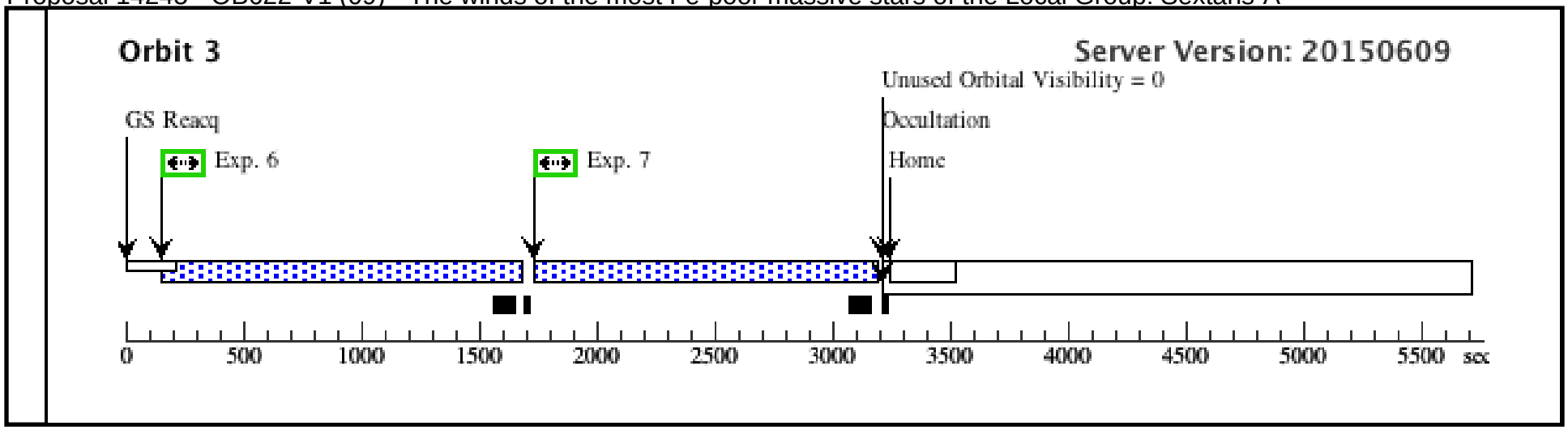
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB622-V1-ACQ/IMH (COS.ta.732634)	(5) STAR-J101102.38-044014.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				17. Secs (17 Secs) *[==>]*	*[1]*
2	OB622-V1-FP1 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=902.			1002 Secs (1002 Secs) *[==>]*	*[1]*
3	OB622-V1-FP2 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[1]*
4	OB622-V1-FP3 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	*[2]*
5	OB622-V1-FP4 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[2]*
6	OB622-V1-FP3 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	*[3]*
7	OB622-V1-FP4 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20150609
Unused Orbital Visibility = 0
GS Reacq
Occultation
Exp. 6
Exp. 7
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14245, OB622-V2 (10), implementation Sun Dec 06 02:03:34 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SAME ORIENT AS 09

Diagnostics

(OB622-V2 (10)) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(OB622-V2 (10)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

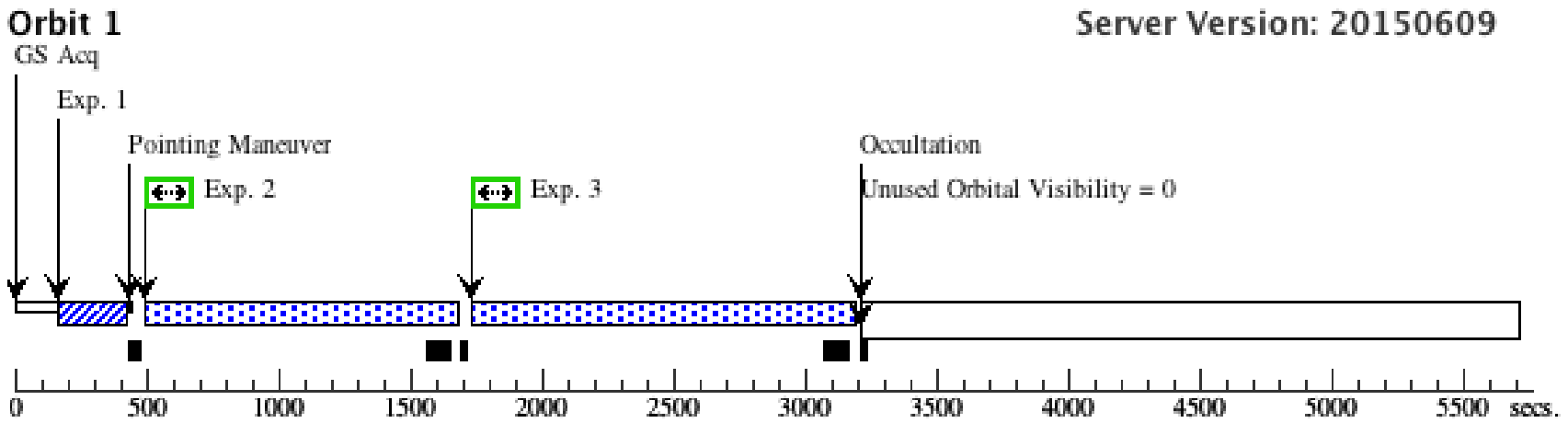
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	STAR-J101102.38-044014.6 Alt Name1: SEXTA-OB622	RA: 10 11 2.3764 (152.7599017d) Dec: -04 40 14.61 (-4.67073d) Equinox: J2000	Radial Velocity: 313 km/sec	V=19.581+/-0.011 *TYPE=B0I*, B-V = -0.099, E(B-V) = 0.12, F-CONT(1300) =1.7E-15	Reference Frame: ICRS

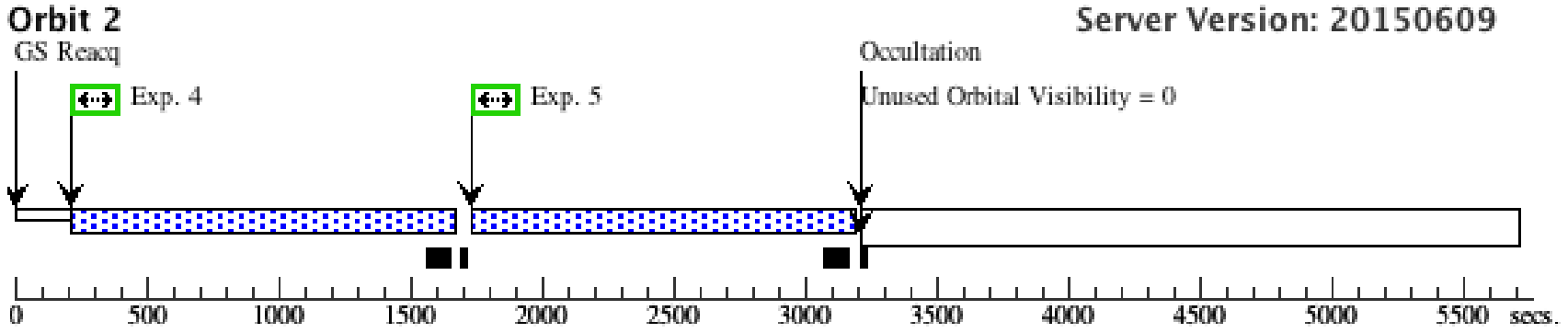
Comments: Extended=NO

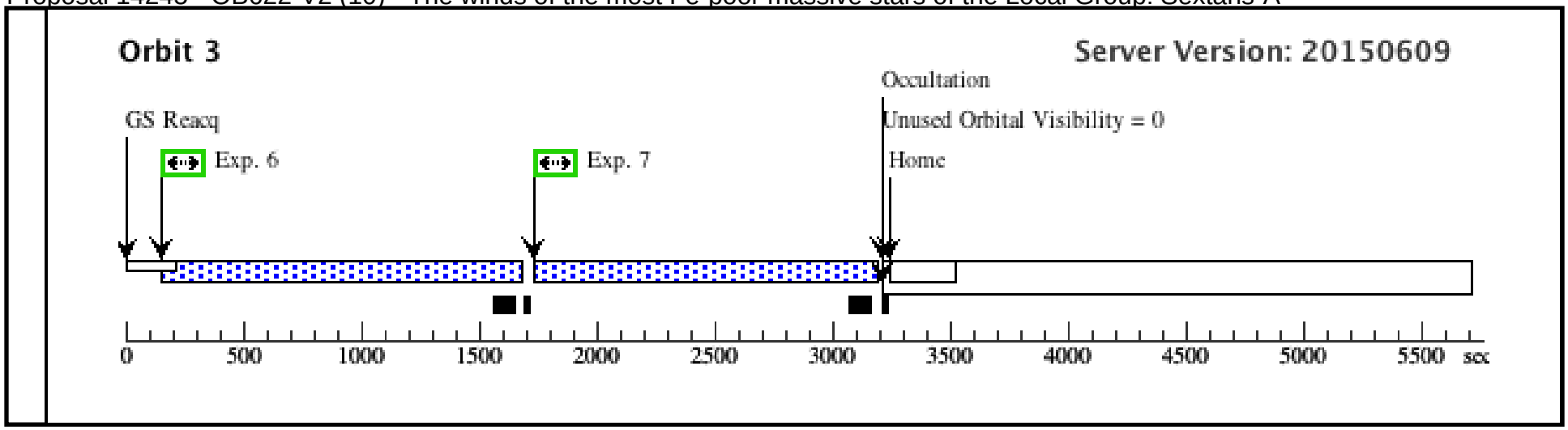
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	OB622-V2-ACQ/IMH (COS.ta.732634)	(5) STAR-J101102.38-044014.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				17. Secs (17 Secs) *[==>]*	*[1]*
2	OB622-V2-FP1 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=1; FLASH=YES; BUFFER-TIME=902.			1002 Secs (1002 Secs) *[==>]*	*[1]*
3	OB622-V2-FP2 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=2; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[1]*
4	OB622-V2-FP3 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	*[2]*
5	OB622-V2-FP4 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[2]*
6	OB622-V2-FP3 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=3; FLASH=YES; BUFFER-TIME=1309.			1409. Secs (1409 Secs) *[==>]*	*[3]*
7	OB622-V2-FP4 (COS.sp.732388)	(5) STAR-J101102.38-044014.6	COS/FUV, TIME-TAG, PSA	G140L 1105 A	SEGMENT=A; FP-POS=4; FLASH=YES; BUFFER-TIME=1310.			1410. Secs (1410 Secs) *[==>]*	*[3]*

Orbit Structure






Orbit 3
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Occultation
GS Reacq
Unused Orbital Visibility = 0
Exp. 6
Exp. 7
Home
0
500
1000
1500
2000
2500
3000
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4000
4500
5000
5500
sec