14080 - LyC, Ly-alpha, and Low Ions in Green Peas: Diagnostics of Optical Depth, Geometry, and Outflows

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) J173501	COS/FUV COS/NUV	2	11-Sep-2015 21:15:57.0	yes
02	(2) J144805	COS/FUV COS/NUV	2	11-Sep-2015 21:15:59.0	yes
03	(3) J021307	COS/FUV COS/NUV	2	11-Sep-2015 21:16:01.0	yes
04	(4) J120016	COS/FUV COS/NUV	2	11-Sep-2015 21:16:03.0	yes
05	(5) J150934	COS/FUV COS/NUV	3	11-Sep-2015 21:16:04.0	yes
06	(6) J080841	COS/FUV COS/NUV	2	11-Sep-2015 21:16:05.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
07	(6) J080841	COS/FUV COS/NUV	2	11-Sep-2015 21:16:07.0	yes
08	(7) J133538	COS/FUV COS/NUV	4	11-Sep-2015 21:16:08.0	yes
09	(8) J230210	COS/FUV COS/NUV	4	11-Sep-2015 21:16:10.0	yes
10	(9) J131131	COS/FUV COS/NUV	2	11-Sep-2015 21:16:11.0	yes
11	(9) J131131	COS/FUV COS/NUV	2	11-Sep-2015 21:16:12.0	yes
12	(10) J024052	COS/FUV COS/NUV	2	11-Sep-2015 21:16:13.0	yes
13	(10) J024052	COS/FUV COS/NUV	2	11-Sep-2015 21:16:14.0	yes
14	(11) J122612	COS/FUV COS/NUV	3	11-Sep-2015 21:16:16.0	yes
15	(11) J122612	COS/FUV COS/NUV	2	11-Sep-2015 21:16:17.0	yes
16	(12) J085116	COS/FUV COS/NUV	3	11-Sep-2015 21:16:18.0	yes
17	(12) J085116	COS/FUV COS/NUV	2	11-Sep-2015 21:16:20.0	yes
18	(13) J160810	COS/FUV COS/NUV	5	11-Sep-2015 21:16:21.0	yes
19	(13) J160810	COS/FUV COS/NUV	4	11-Sep-2015 21:16:23.0	yes

50 Total Orbits Used

ABSTRACT

The "Green Peas" are extreme, low-redshift starbursts that are under intense scrutiny as a possible class of Lyman continuum (LyC) emitting galaxies. Their extreme [O III]/[O II] ratios resemble those of z>2 Ly-alpha emitters (LAEs) and suggest conditions conducive to high LyC escape fractions. Our initial COS study of four extreme GPs demonstrated the diagnostic power of Ly-alpha emission plus low-ionization absorption and emission lines to simultaneously relate optical depth, neutral gas geometry, and Ly-alpha radiative transfer. We now propose to test this understanding by confirming these relationships and trends: we will combine these data with new COS spectra of 13 of the most extreme GPs, extending our analysis to a statistically significant sample. One of the targets has the highest [O III]/[O II] ratio in the entire SDSS survey. The combined 17 total spectra of these rare, highly ionized starbursts will provide the first statistics on optical depth and Ly-alpha emission within this key, extraordinary galaxy population. The proposed COS observations will confirm whether galaxies with extreme [O III]/[O II] are indeed often optically thin and will likely lead to revealing the Ly-alpha profiles characteristic of LyC-emitting galaxies. By linking optical depth, outflow geometry, and Ly-alpha profiles, these observations will provide a vital basis for interpreting high-redshift LAE spectra.

OBSERVING DESCRIPTION

For our exposure calculations, we follow the same procedure as our existing Cycle 21 observations (GO-13293). In selecting our sample, we chose 13 star-forming galaxies from SDSS with high [O III]/[O II] ratios and reliable spectra. We then selected galaxies whose GALEX FUV magnitudes allow COS spectra with a S/N>4 in the continuum to be obtained in five orbits or fewer. This S/N is comparable to previous C II absorption studies (e.g., Heckman et al. 2011) and existing Green Pea (GP) observations (Jaskot & Oey 2013). We also include the fainter, remarkable starburst J160810 due to its extraordinary [O III]/[O II].

Each COS spectrum will cover Ly-alpha and one or more of the Si II 1260 or C II 1334 doublets. We have confirmed that no Milky Way absorption lines coincide with our wavelengths of interest. The observations will use the primary science aperture, all four FP-POS positions, and the G130M grating. We require the higher resolution G130M grating to separate the closely spaced C II 1334.5,1335.7 lines and resolve the velocity structure of the Ly-alpha, C II, and Si II line profiles. We choose the central wavelength of the grating to capture all the required lines with one setting.

We calculated exposure times for the COS observations with the Spectroscopic Exposure Time Calculator (ETC) using the GALEX FUV magnitudes. In most cases, we adopt a 3 kpc diameter for each galaxy, consistent with the optical HST GP images presented in Cardamone et al. (2009). These estimates are conservative; our existing GP observations show that the NUV-emitting regions are more compact than the full optical

extent of the galaxies. The assumed 3 kpc diameters are consistent with SDSS images of the galaxies, most of which are unresolved. In five cases, however, the SDSS images show that the starburst region is more compact than 3 kpc. In these cases, we assume that half of the FUV flux is contained within the SDSS g-band half-light radius. For the lowest redshift object, 1" corresponds to ~0.5 kpc, comparable to the UV half-light radii of our existing high [O III]/[O II] GP observations. We therefore expect the COS aperture to easily encompass the majority of the UV emission from these compact starbursts.

We follow the COS handbook guidelines to determine the buffer times. We first calculate the buffer time with the spectroscopic ETC and multiply by 2/3. For all our targets, this re-scaled buffer time is longer than an individual exposure and longer than 110 seconds. As recommended by the COS handbook, we therefore adopt the ETC buffer time multiplied by 2/3.

The existing COS acquisition images for four extreme GPs show that the brightest NUV emission originates from extremely compact star clusters, with FWHM of ~0.3 kpc. At the redshifts of our targets, this physical scale corresponds to FWHM < 0.6". Nevertheless, given the uncertainty in the targets' geometry and the possible presence of multiple star-forming regions, we have marked the extended flag for the targets.

Since the targets' SDSS coordinates have the required accuracy, we will obtain acquisition images in the ACQ/IMAGE mode with Mirror A. We calculated the acquisition exposure times with the ETC for a S/N of 40 and assuming a point-like source. Since the GPs may be more extended, to be conservative, we assume that this source contains only 10% of the total NUV flux. As we plan to use the NUV imaging to identify the major star-forming regions in the galaxies, we then double the required acquisition exposure times to allow us to detect fainter emission. These exposure times are similar to the acquisition exposures for the existing GP observations.

We use the acquisition imaging ETC to verify that the expected imaging count rates are below the bright object limit. Even if we assume a point source containing 100% of the NUV flux and adopt the brightest NUV magnitude within the GALEX error bars, the acquisition image count rates do not exceed the bright object limit. We have also used the bright object tool and checked the GALEX images to verify that there are no UV-bright objects within a 30" radius of our targets.

Visit

Proposal 14080, J173501 (01), implementation Sat Sep 12 01:16:25 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(Sci Exp. (01.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

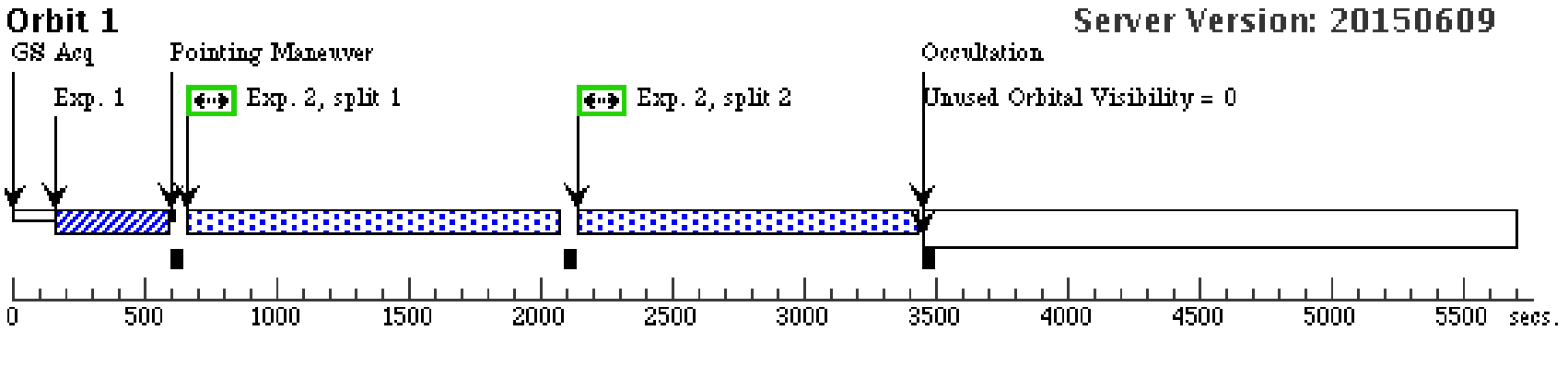
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	J173501	RA: 17 35 1.2500 (263.7552083d) Dec: +57 03 8.57 (57.05238d) Equinox: J2000	Redshift: 0.04722	V=16.60 GALEX FUV = 18.0, NUV = 17.8	Reference Frame: ICRS

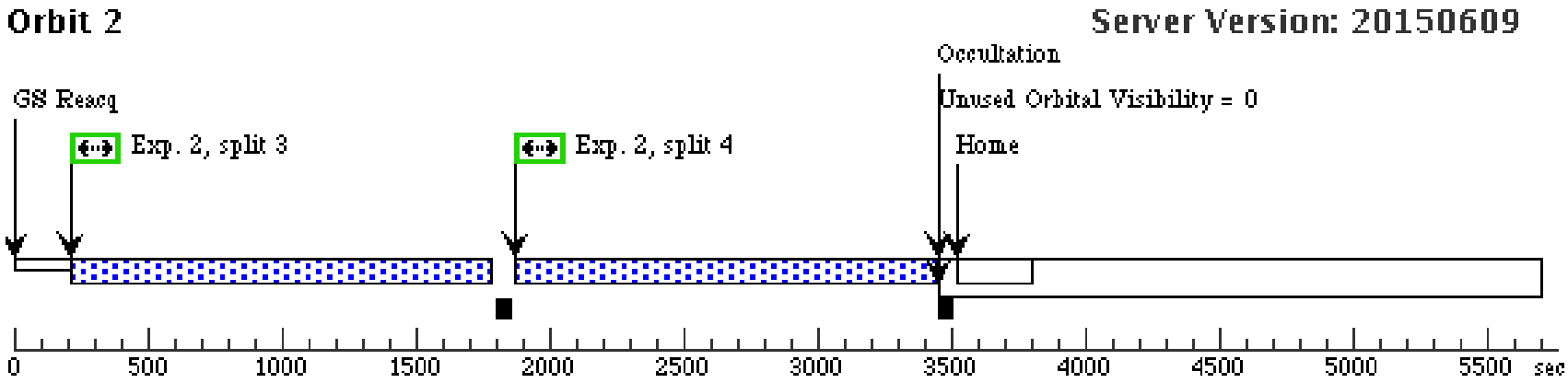
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719771)	(1) J173501	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				100 Secs (100 Secs) *[==>]*	 ***[1]***
2	Sci Exp. (COS.sp.719614)	(1) J173501	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=3908; FLASH=YES; FP-POS=ALL; SEGMENT=BOTH			4640 Secs (5519 Secs) *[==>1241.0 Secs (Split 1)]* *[==>1242.0 Secs (Split 2)]* *[==>1518.0 Secs (Split 3)]* *[==>1518.0 Secs (Split 4)]*	 ***[1]*** ***[2]***

Orbit Structure





Visit

Proposal 14080, J144805 (02), implementation Sat Sep 12 01:16:25 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(Sci Exp. (02.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

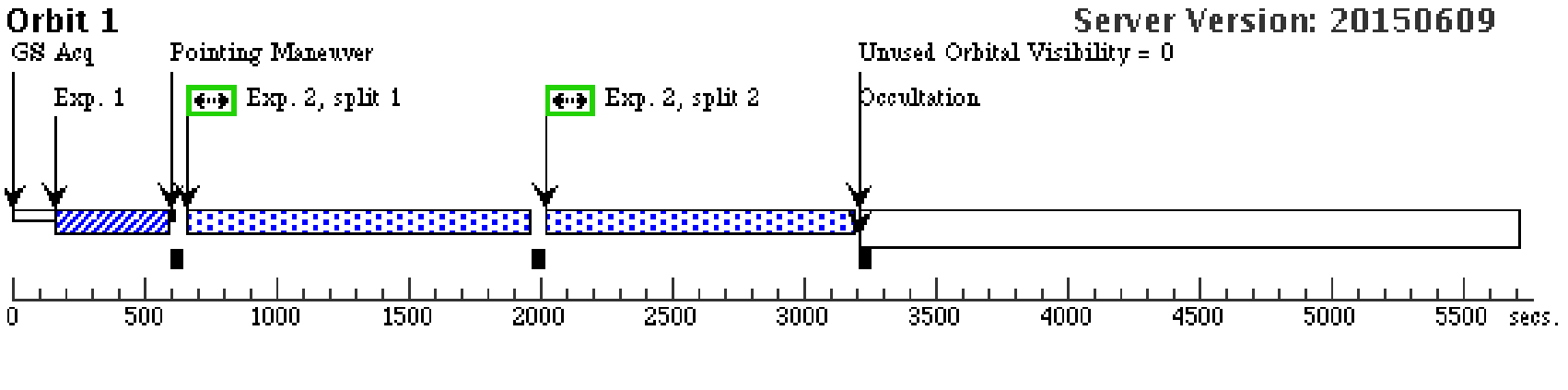
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	J144805	RA: 14 48 5.3800 (222.0224167d) Dec: -01 10 57.68 (-1.18269d) Equinox: J2000	Redshift: 0.02742	V=16.44 GALEX FUV = 18.2, NUV = 17.8	Reference Frame: ICRS

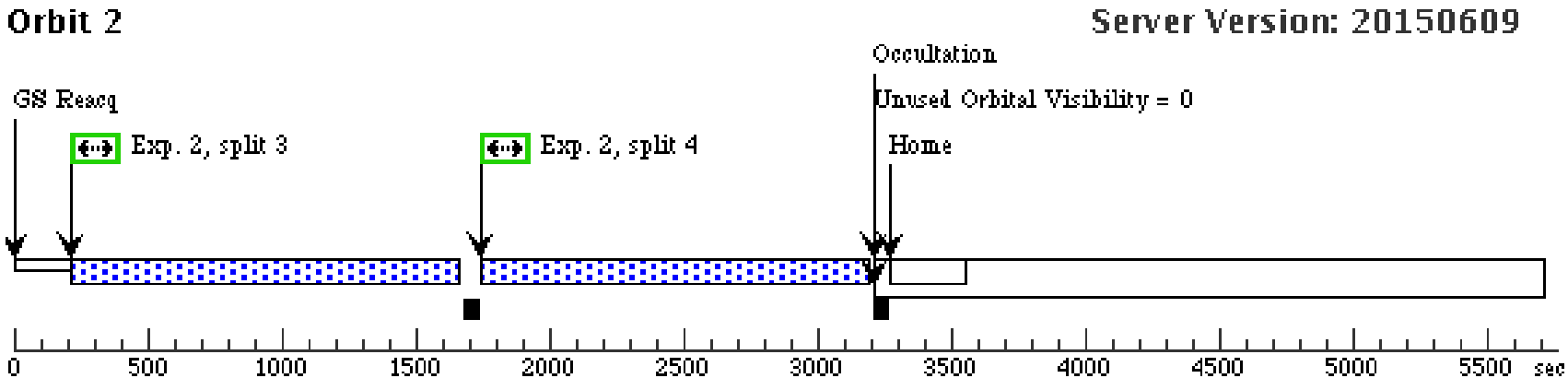
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719771)	(2) J144805	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				100 Secs (100 Secs) *[==>]*	 ***[1]***
2	Sci Exp. (COS.sp.719615)	(2) J144805	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=3861; FLASH=YES; FP-POS=ALL; SEGMENT=BOTH			4640 Secs (5020 Secs) *[==>1115.0 Secs (Split 1)]* *[==>1115.0 Secs (Split 2)]* *[==>1395.0 Secs (Split 3)]* *[==>1395.0 Secs (Split 4)]*	 ***[1]*** ***[2]***

Orbit Structure





Visit

Proposal 14080, J021307 (03), implementation Sat Sep 12 01:16:26 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(Sci Exp. (03.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

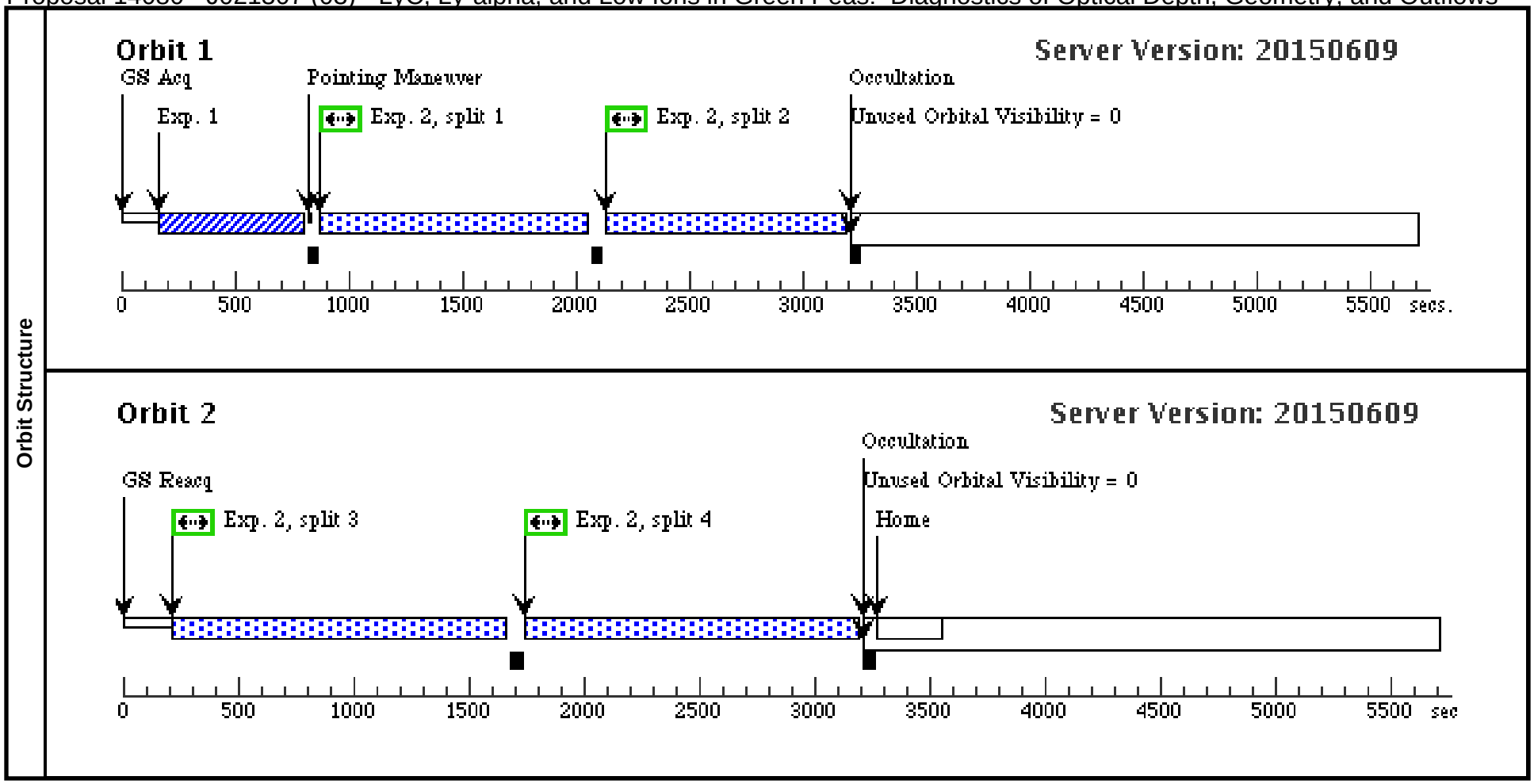
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	J021307	RA: 02 13 6.6100 (33.2775417d) Dec: +00 56 12.48 (.93680d) Equinox: J2000	Redshift: 0.03992	V=18.38 GALEX FUV = 18.7, NUV = 18.6	Reference Frame: ICRS

Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719773)	(3) J021307	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				208 Secs (208 Secs) *[==>]*	 ***[1]***
2	Sci Exp. (COS.sp.719618)	(3) J021307	COS/FUV, TIME-TAG, PSA	G130M 1300 A	BUFFER-TIME=4073; FLASH=YES; FP-POS=ALL; SEGMENT=BOTH			4532 Secs (4814 Secs) *[==>1012.0 Secs (Split 1)]* *[==>1012.0 Secs (Split 2)]* *[==>1395.0 Secs (Split 3)]* *[==>1395.0 Secs (Split 4)]*	 ***[1]*** ***[2]***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Pointing Maneuver
Occultation
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Exp. 2, split 2
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2000
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4000
4500
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5500
secs.
Orbit 2
Server Version: 20150609
Occultation
GS Reacq
Unused Orbital Visibility = 0
Exp. 2, split 3
Exp. 2, split 4
Home
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1000
1500
2000
2500
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3500
4000
4500
5000
5500
sec

Visit

Proposal 14080, J120016 (04), implementation Sat Sep 12 01:16:26 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(Sci Exp. (04.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

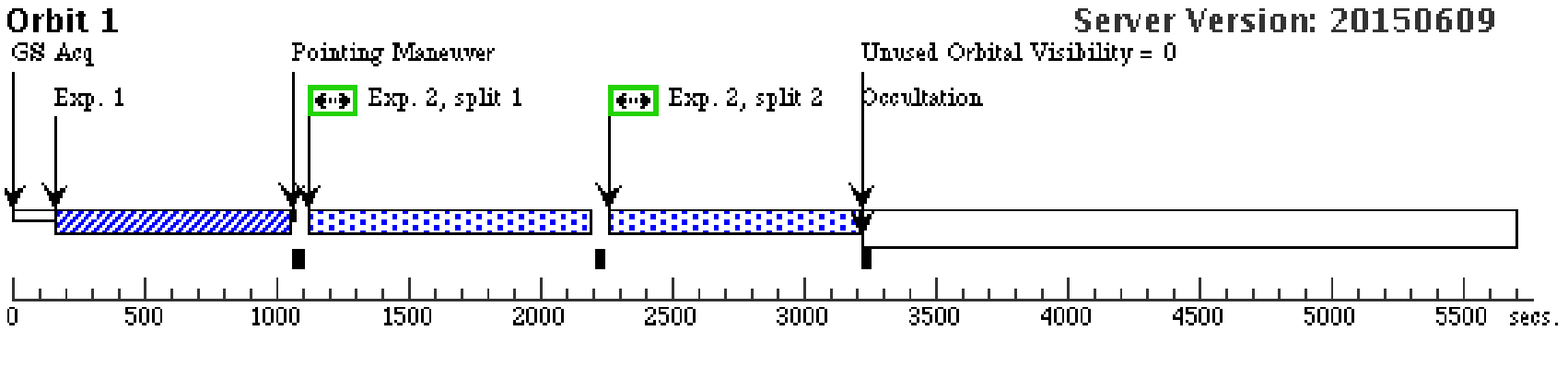
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	J120016	RA: 12 00 16.4800 (180.0686667d) Dec: +27 19 59.03 (27.33306d) Equinox: J2000	Redshift: 0.08188	V=18.77 GALEX FUV = 19.2, NUV = 19.1	Reference Frame: ICRS

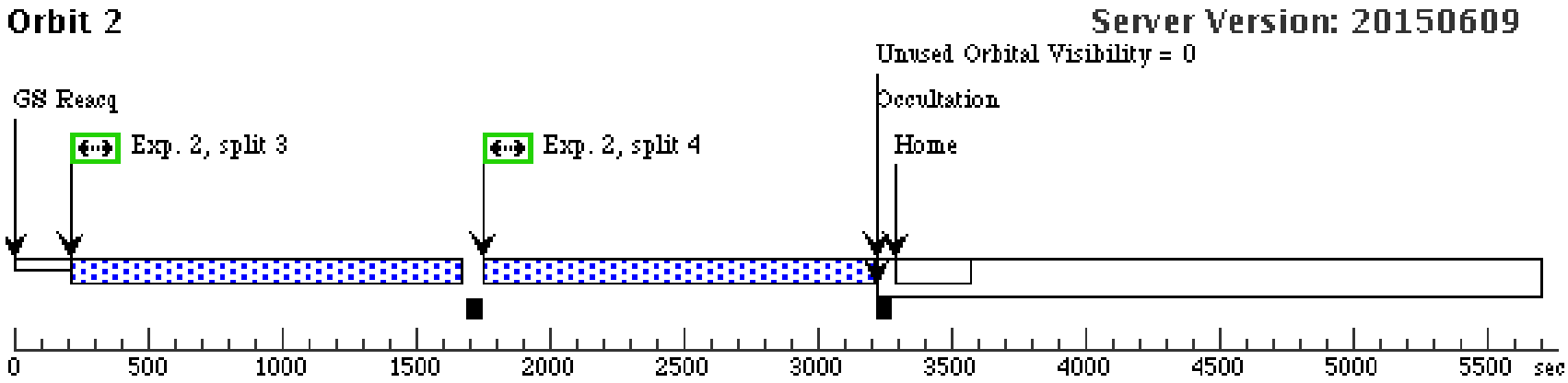
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719774)	(4) J120016	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				332 Secs (332 Secs)	
								[==>]	***[1]***
2	Sci Exp. (COS.sp.719619)	(4) J120016	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4163; FLASH=YES; FP-POS=ALL; SEGMENT=BOTH			4408 Secs (4610 Secs)	
								[==>900.0 Secs (Split 1)] *[==>901.0 Secs (Split 2)]*	***[1]***
								[==>1404.0 Secs (Split 3)] *[==>1405.0 Secs (Split 4)]*	***[2]***

Orbit Structure





Visit

Proposal 14080, J150934 (05), implementation Sat Sep 12 01:16:26 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(Sci Exp. (05.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

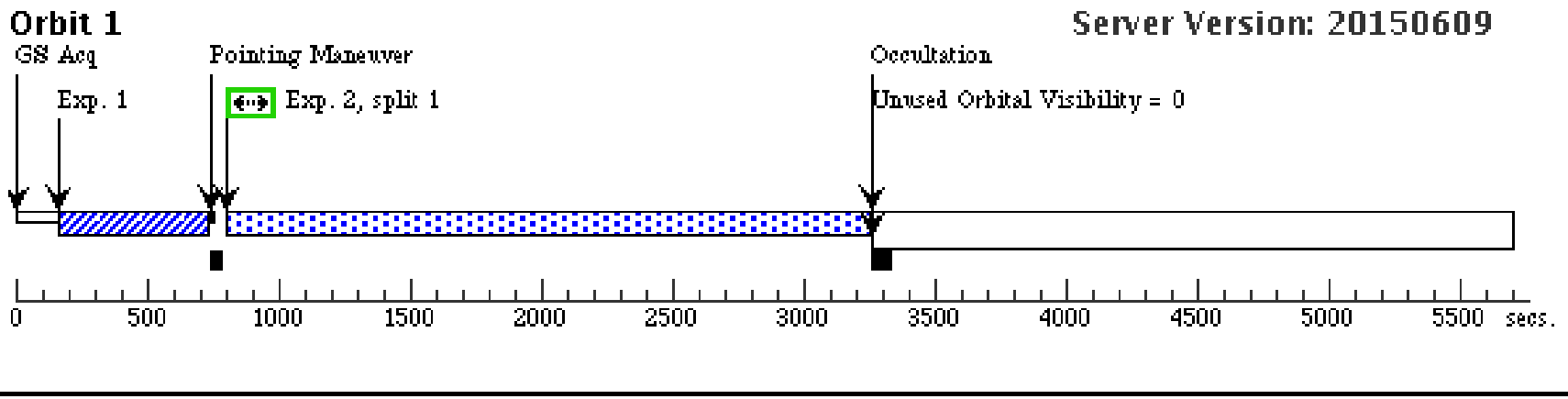
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	J150934	RA: 15 09 34.1700 (227.3923750d) Dec: +37 31 46.11 (37.52948d) Equinox: J2000	Redshift: 0.03259	V=17.21 GALEX FUV = 18.7, NUV = 18.4	Reference Frame: ICRS

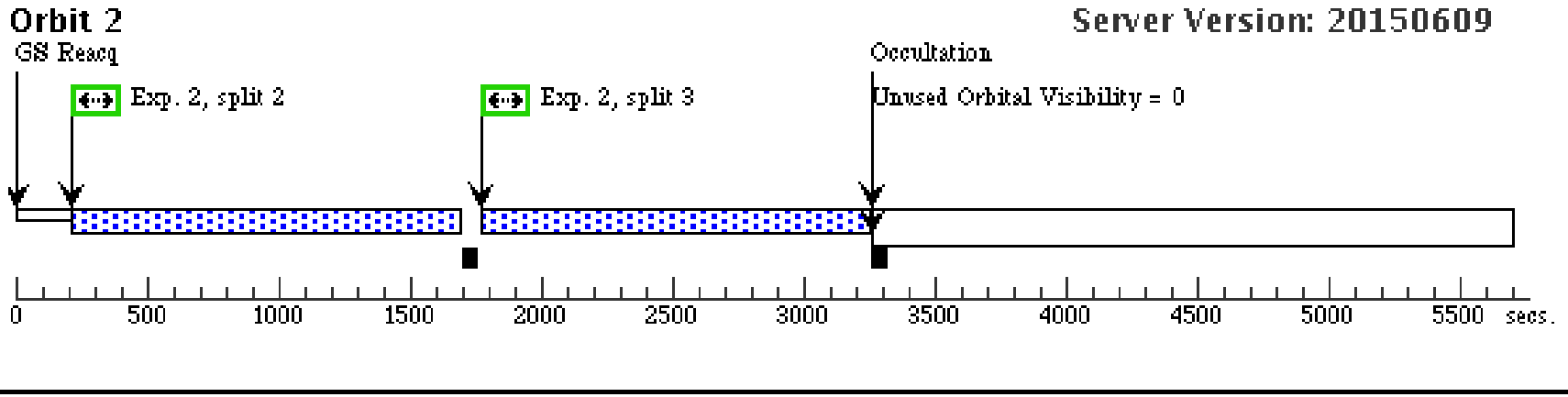
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

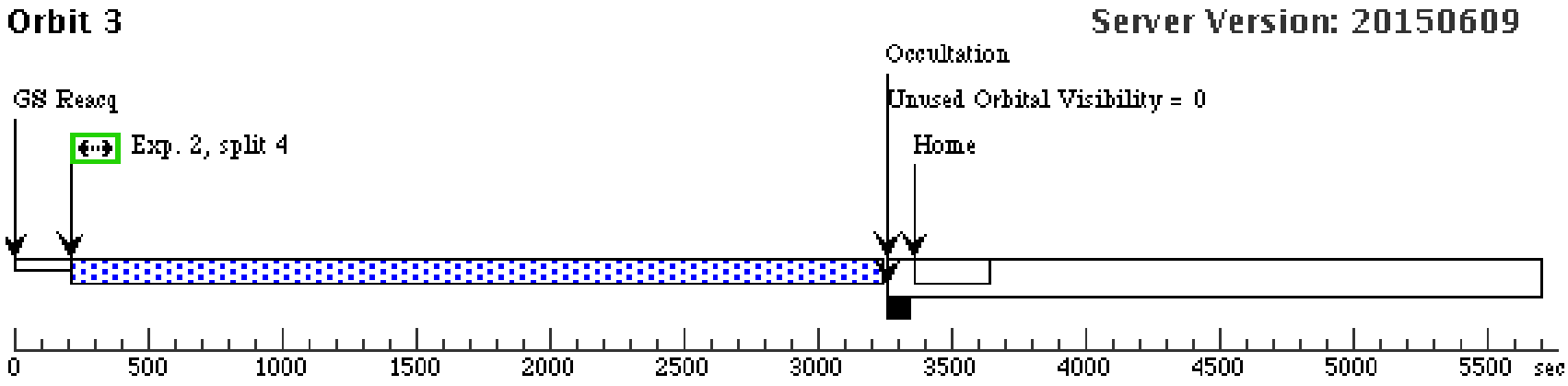
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719775)	(5) J150934	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				172 Secs (172 Secs) *[==>]*	*[1]*
2	Sci Exp. (COS.sp.719620)	(5) J150934	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4029; FLASH=YES; FP-POS=ALL; SEGMENT=BOTH			2500 Secs (8095 Secs) *[==>2267.0 Secs (Split 1)]* *[==>1423.0 Secs (Split 2)]* *[==>1424.0 Secs (Split 3)]* *[==>2981.0 Secs (Split 4)]*	*[1]* *[2]* *[3]*

Orbit Structure







Visit

Proposal 14080, J080841 Visit 1 (06), implementation Sat Sep 12 01:16:26 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J080841 Visit 1 (06)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. Orbit 1 (06.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (06.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

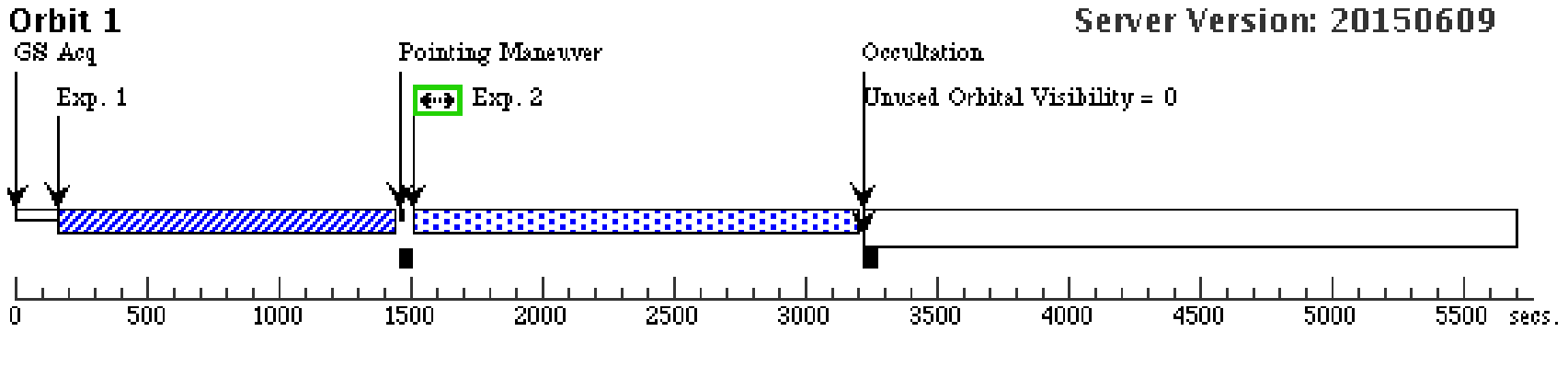
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	J080841	RA: 08 08 40.8400 (122.1701667d) Dec: +17 28 56.47 (17.48235d) Equinox: J2000	Redshift: 0.0442	V=19.17 GALEX FUV = 19.3, NUV = 19.6	Reference Frame: ICRS

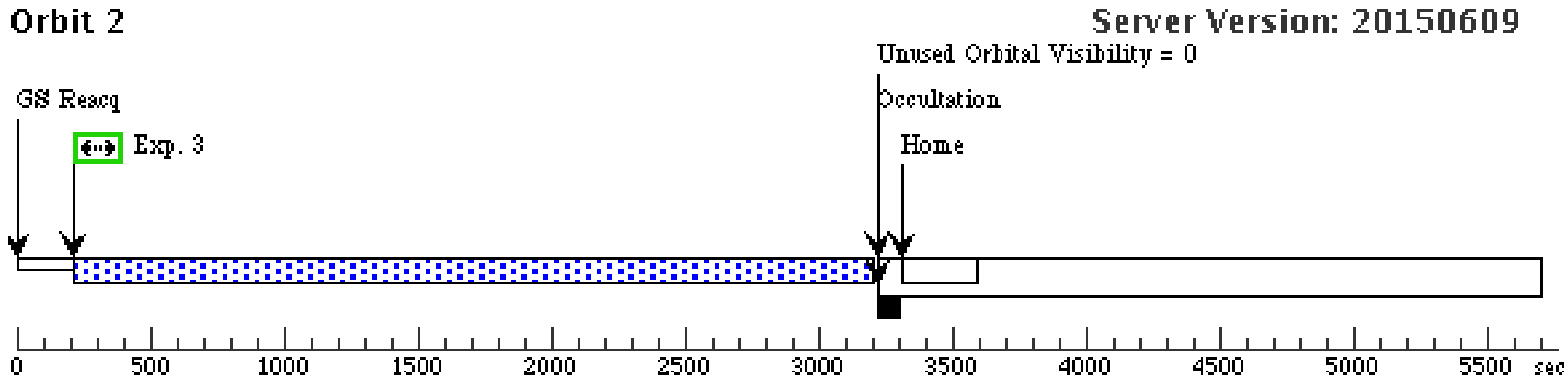
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719777)	(6) J080841	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				528 Secs (528 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719623)	(6) J080841	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4371; FLASH=YES; FP-POS=1; SEGMENT=BOTH			2400 Secs (1516 Secs) *[==>1516.0 Secs]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719623)	(6) J080841	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4371; FLASH=YES; FP-POS=2; SEGMENT=BOTH			2935 Secs (2935 Secs) *[==>2935.0 Secs]*	*[2]*

Orbit Structure





Visit

Proposal 14080, J080841 Visit 2 (07) Sat Sep 12 01:16:26 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J080841 Visit 2 (07)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. Orbit 1 (07.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (07.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

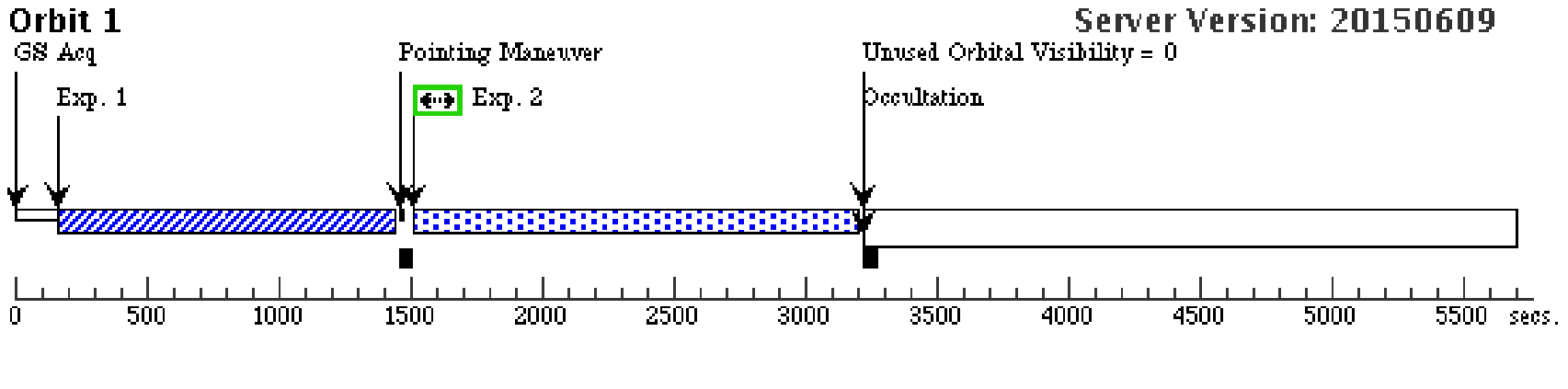
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	J080841	RA: 08 08 40.8400 (122.1701667d) Dec: +17 28 56.47 (17.48235d) Equinox: J2000	Redshift: 0.0442	V=19.17 GALEX FUV = 19.3, NUV = 19.6	Reference Frame: ICRS

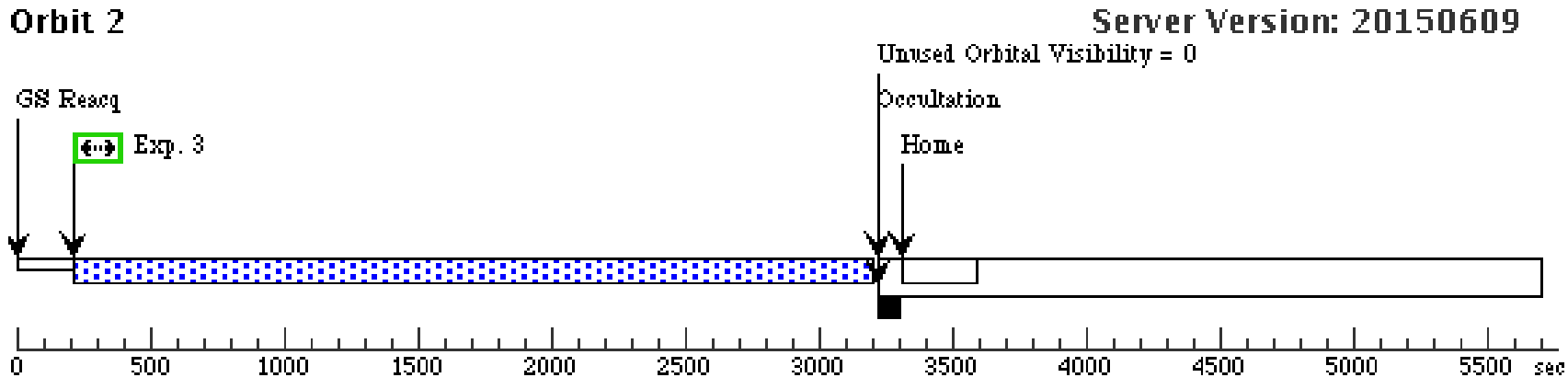
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719777)	(6) J080841	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				528 Secs (528 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719623)	(6) J080841	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4371; FLASH=YES; FP-POS=3; SEGMENT=BOTH			2935 Secs (1516 Secs) *[==>1516.0 Secs]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719623)	(6) J080841	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4371; FLASH=YES; FP-POS=4; SEGMENT=BOTH			2935 Secs (2935 Secs) *[==>2935.0 Secs]*	*[2]*

Orbit Structure





Visit

Proposal 14080, J133538 (08) Sat Sep 12 01:16:27 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(Sci Exp. (08.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

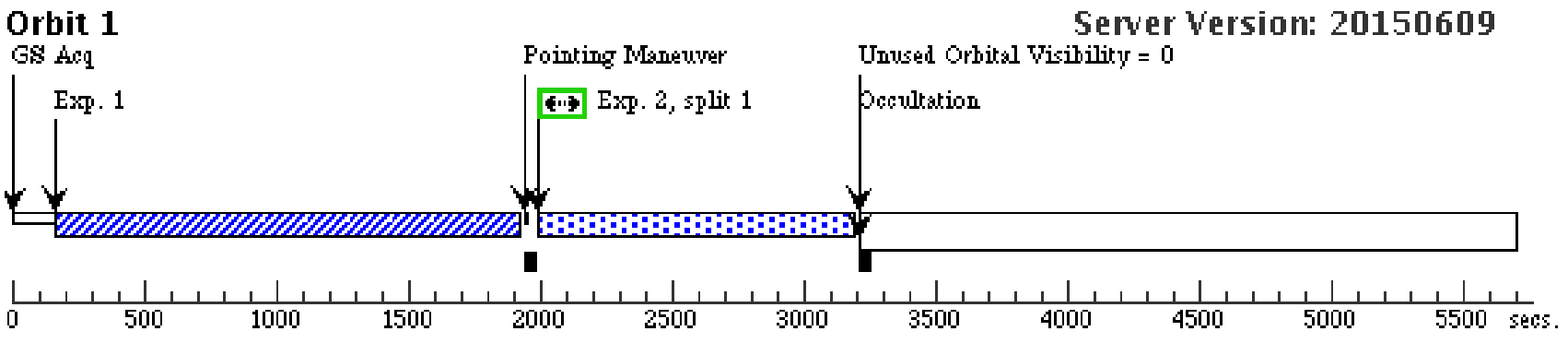
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	J133538	RA: 13 35 37.6000 (203.9066667d) Dec: +08 01 49.08 (8.03030d) Equinox: J2000	Redshift: 0.1235	V=19.46 GALEX FUV = 20.0, NUV = 20.0	Reference Frame: ICRS

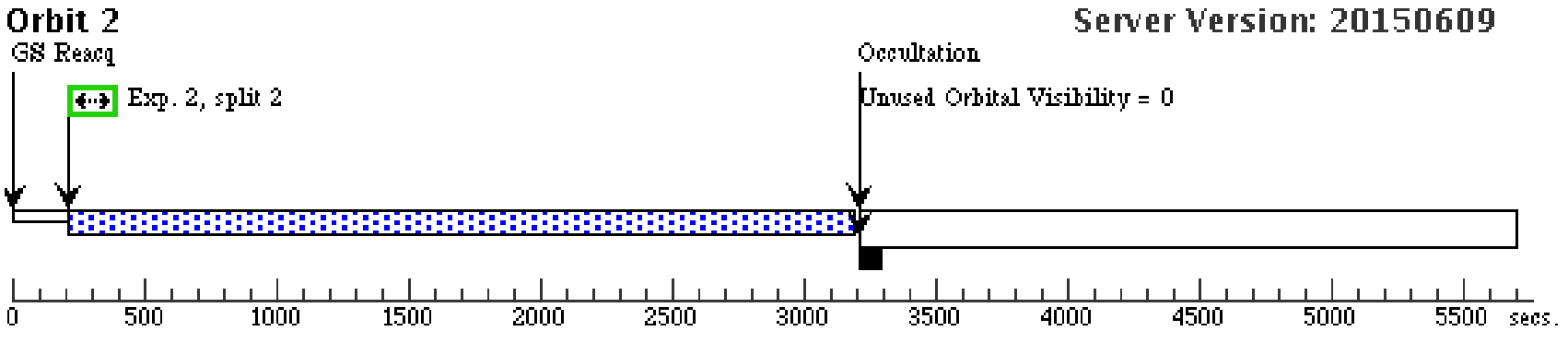
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

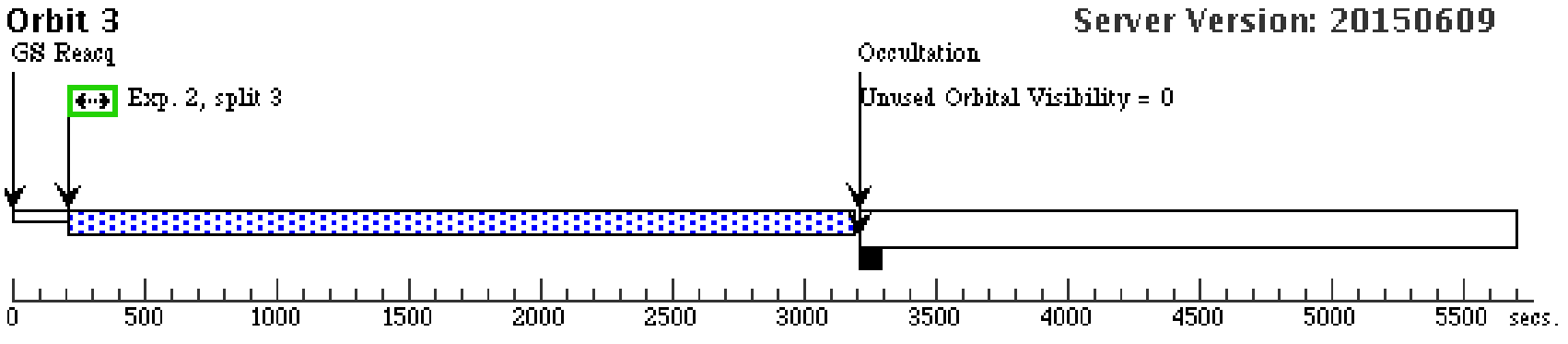
Exposures

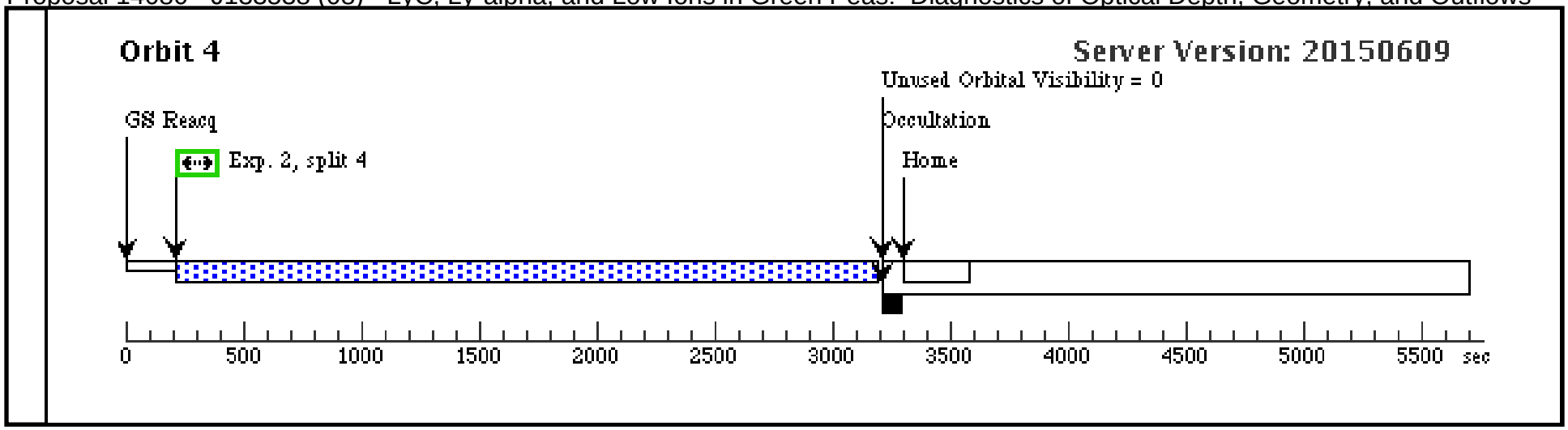
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719778)	(7) J133538	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				768 Secs (768 Secs)	
								[==>]	***[1]***
2	Sci Exp. (COS.sp.719630)	(7) J133538	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4125; FLASH=YES; FP-POS=ALL; SEGMENT=BOTH			2400 Secs (9802 Secs)	
								[==>1021.0 Secs (Split 1)]	***[1]***
								[==>2927.0 Secs (Split 2)]	***[2]***
								[==>2927.0 Secs (Split 3)]	***[3]***
								[==>2927.0 Secs (Split 4)]	***[4]***

Orbit Structure








Orbit 4
Server Version: 20150609
Unused Orbital Visibility = 0
GS Reacq
Occultation
Exp. 2, split 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14080, J230210 (09) Sat Sep 12 01:16:27 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(Sci Exp. (09.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

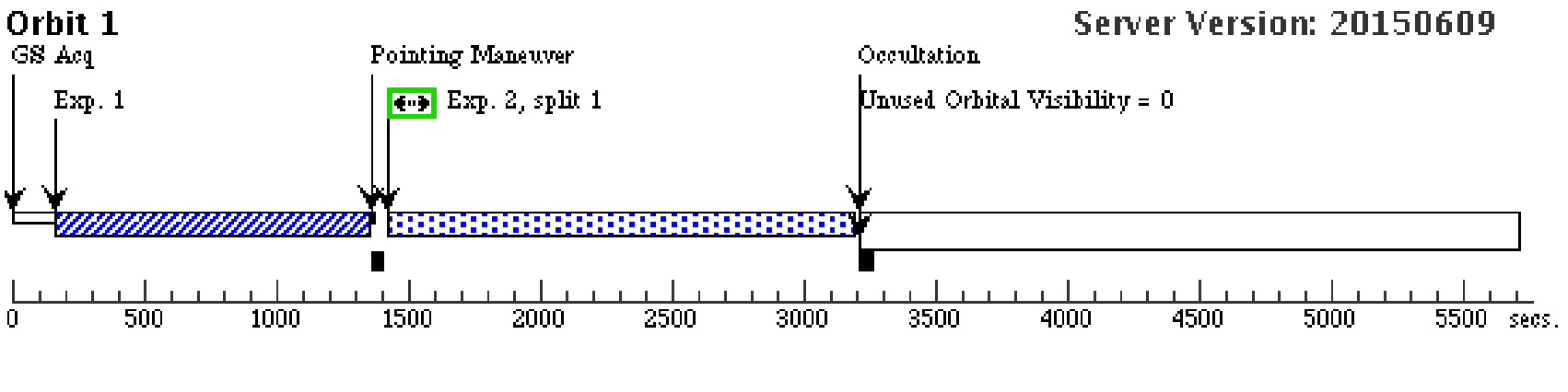
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	J230210	RA: 23 02 9.9800 (345.5415833d) Dec: +00 49 39.07 (.82752d) Equinox: J2000	Redshift: 0.03309	V=18.68 GALEX FUV = 19.5, NUV = 19.5	Reference Frame: ICRS

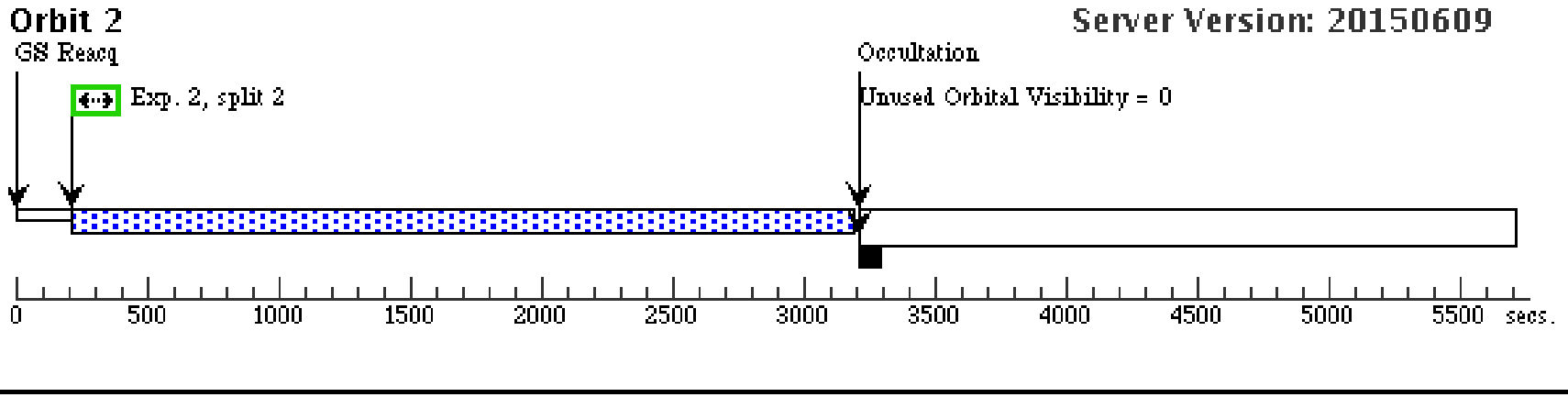
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

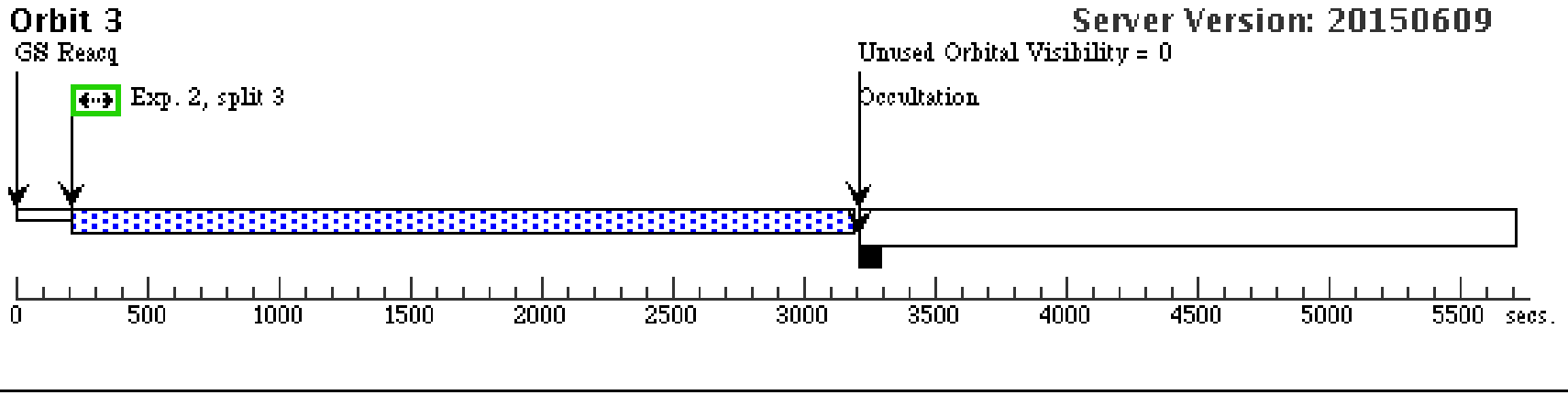
Exposures

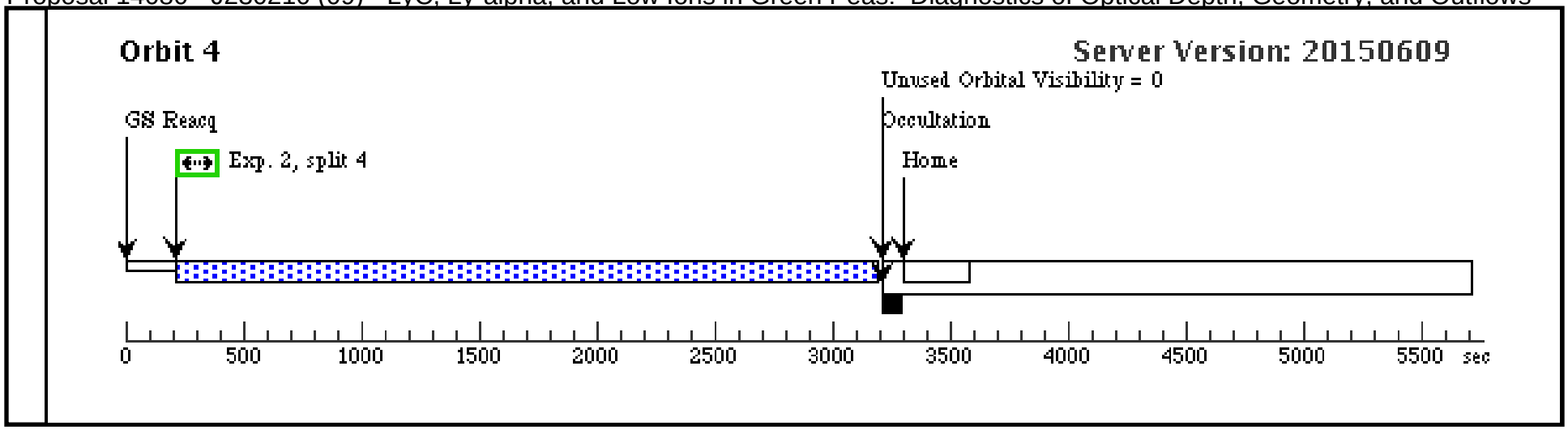
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719779)	(8) J230210	COS/NUV, ACQ/IMAGE, PSA	MIRRORA		GS ACQ SCENARIO BASE1B3		480 Secs (480 Secs)	
								[==>]	***[1]***
2	Sci Exp. (COS.sp.719682)	(8) J230210	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4161; FLASH=YES; FP-POS=ALL; SEGMENT=BOTH			2400 Secs (10366 Secs)	
								[==>1594.0 Secs (Split 1)]	***[1]***
								[==>2924.0 Secs (Split 2)]	***[2]***
								[==>2924.0 Secs (Split 3)]	***[3]***
								[==>2924.0 Secs (Split 4)]	***[4]***

Orbit Structure








Orbit 4
Server Version: 20150609
Unused Orbital Visibility = 0
GS Reacq
Occultation
Exp. 2, split 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14080, J131131 Visit 1 (10) Sat Sep 12 01:16:27 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J131131 Visit 1 (10)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. (10.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (10.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

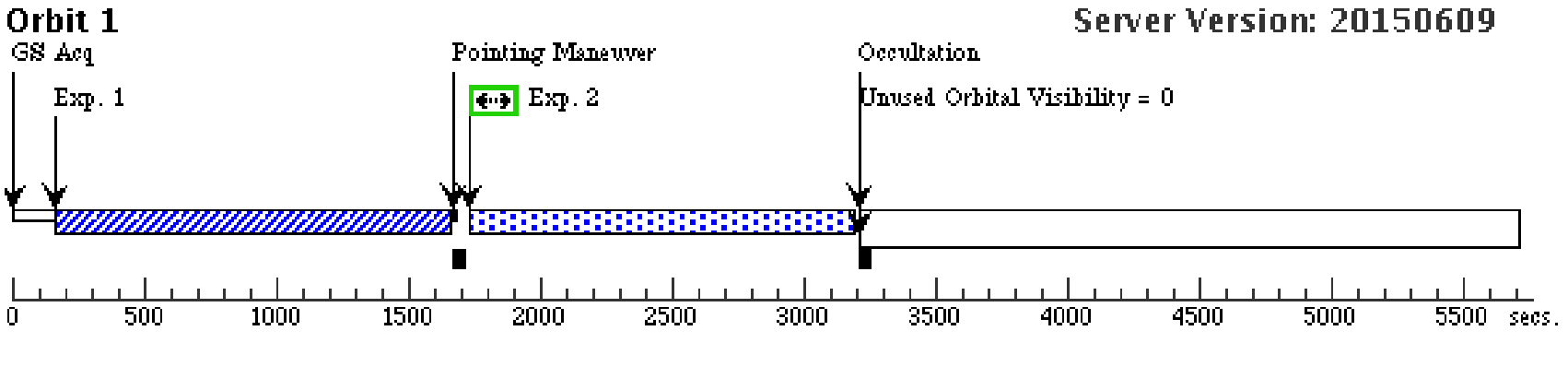
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	J131131	RA: 13 11 31.2800 (197.8803333d) Dec: -00 38 44.39 (-.64566d) Equinox: J2000	Redshift: 0.08107	V=19.43 GALEX FUV = 19.9, NUV = 19.8	Reference Frame: ICRS

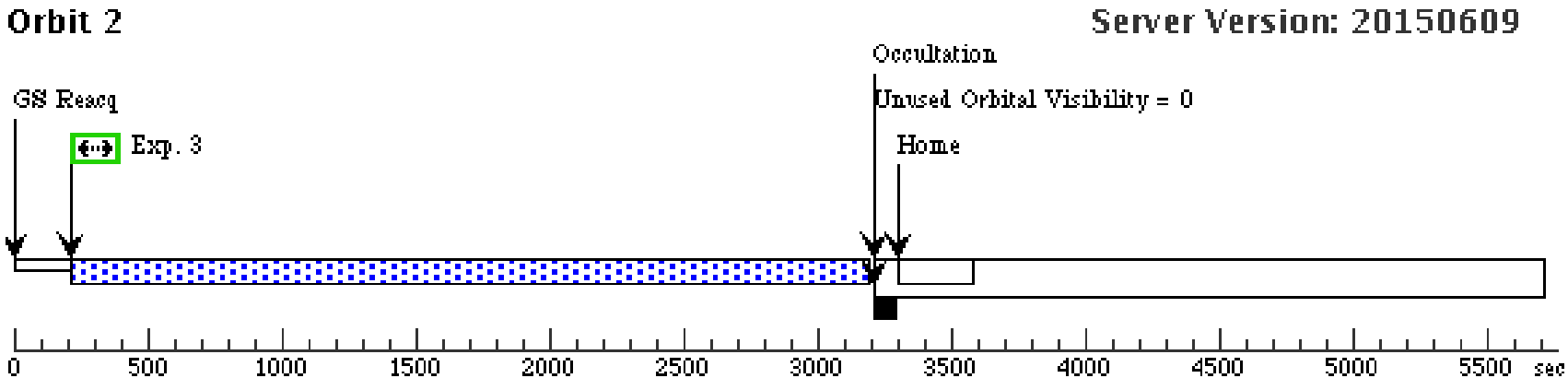
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719781)	(9) J131131	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				636 Secs (636 Secs) *[==>]*	***[1]***
2	Sci Exp. (COS.sp.719686)	(9) J131131	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4335; FLASH=YES; FP-POS=1; SEGMENT=BOTH			2400 Secs (1289 Secs) *[==>1289.0 Secs]*	***[1]***
3	Sci Exp. Orbit 2 (COS.sp.719686)	(9) J131131	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4335; FLASH=YES; FP-POS=2; SEGMENT=BOTH			2400 Secs (2924 Secs) *[==>2924.0 Secs]*	***[2]***

Orbit Structure





Visit

Proposal 14080, J131131 Visit 2 (11) Sat Sep 12 01:16:27 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J131131 Visit 2 (11)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. Orbit 1 (11.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (11.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

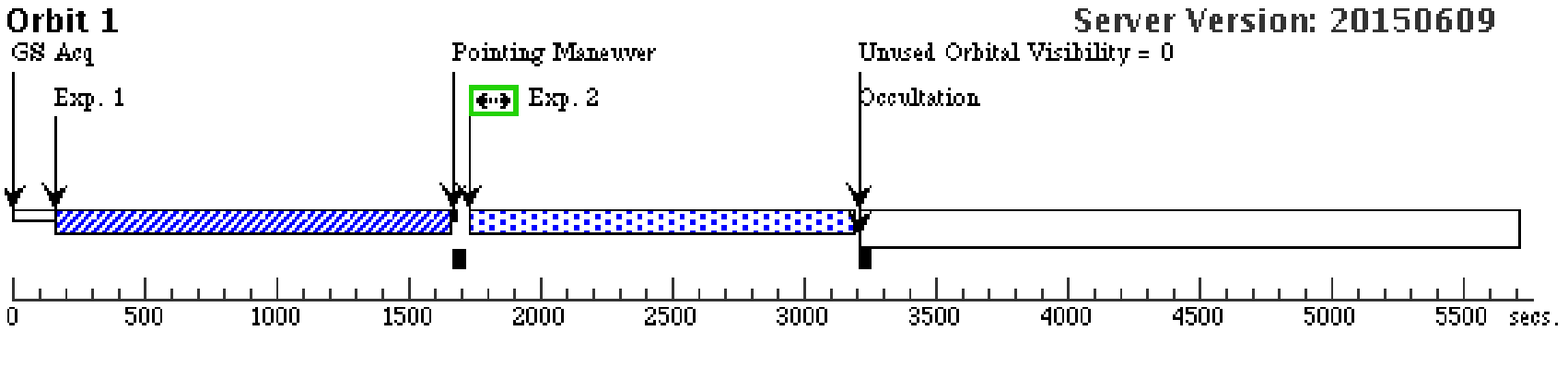
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	J131131	RA: 13 11 31.2800 (197.8803333d) Dec: -00 38 44.39 (-.64566d) Equinox: J2000	Redshift: 0.08107	V=19.43 GALEX FUV = 19.9, NUV = 19.8	Reference Frame: ICRS

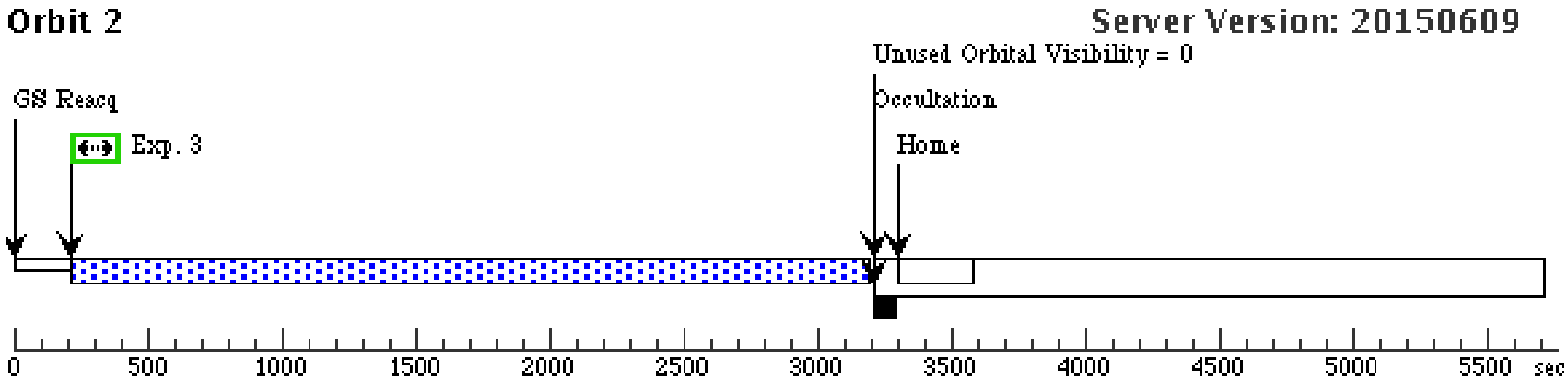
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719781)	(9) J131131	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				636 Secs (636 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719686)	(9) J131131	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4335; FLASH=YES; FP-POS=3; SEGMENT=BOTH			2400 Secs (1289 Secs) *[==>1289.0 Secs]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719686)	(9) J131131	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4335; FLASH=YES; FP-POS=4; SEGMENT=BOTH			2400 Secs (2924 Secs) *[==>2924.0 Secs]*	*[2]*

Orbit Structure





Visit

Proposal 14080, J024052 Visit 1 (12) Sat Sep 12 01:16:27 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J024052 Visit 1 (12)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. Orbit 1 (12.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (12.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

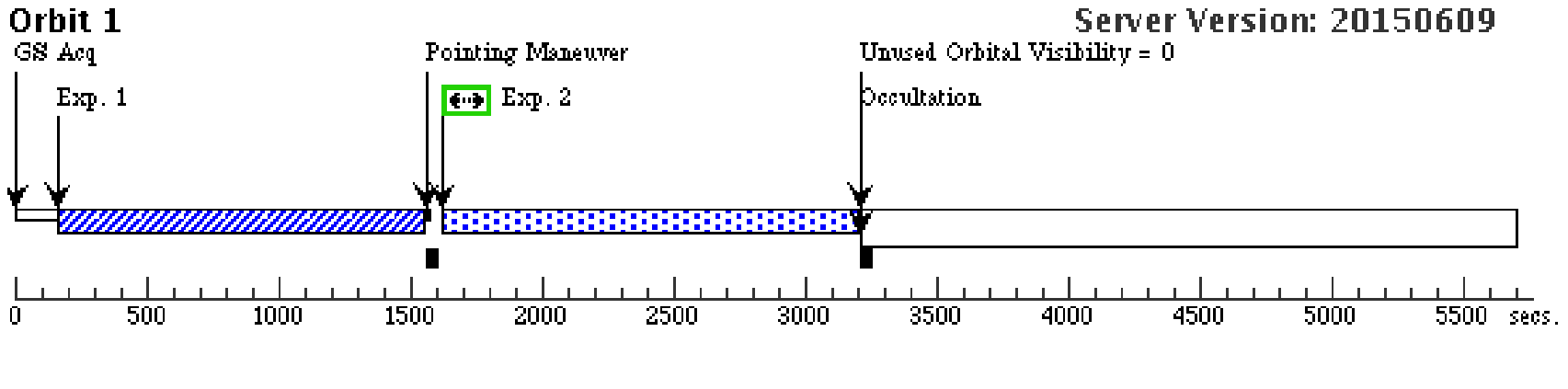
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	J024052	RA: 02 40 52.1900 (40.2174583d) Dec: -08 28 27.41 (-8.47428d) Equinox: J2000	Redshift: 0.08223	V=18.98 GALEX FUV = 19.8, NUV = 19.7	Reference Frame: ICRS

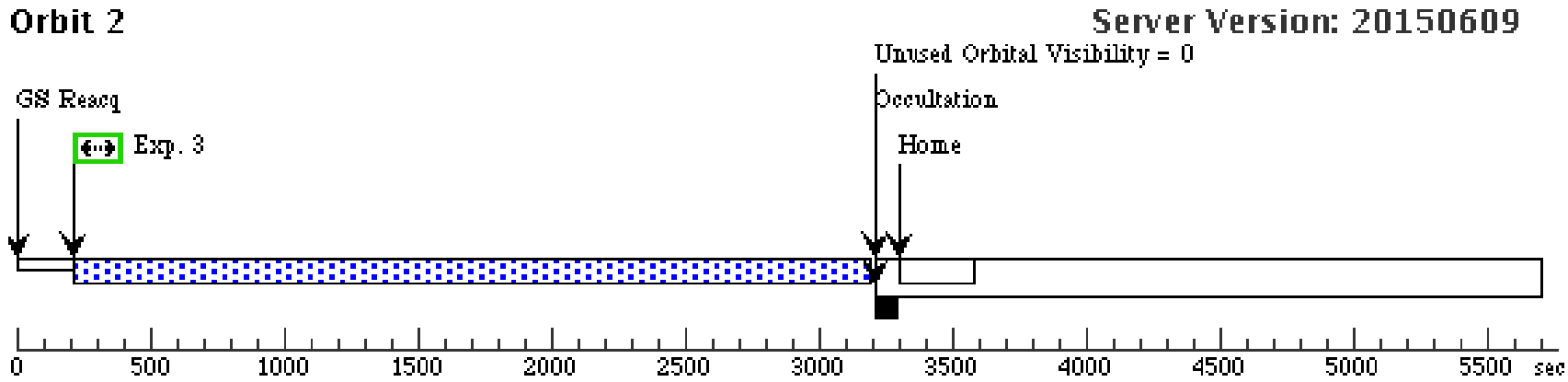
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719783)	(10) J024052	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				580 Secs (580 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719689)	(10) J024052	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4322; FLASH=YES; FP-POS=1; SEGMENT=BOTH			2400 Secs (1404 Secs) *[==>1404.0 Secs]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719689)	(10) J024052	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4322; FLASH=YES; FP-POS=2; SEGMENT=BOTH			2927 Secs (2927 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 14080, J024052 Visit 2 (13) Sat Sep 12 01:16:27 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J024052 Visit 2 (13)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. Orbit 1 (13.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (13.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

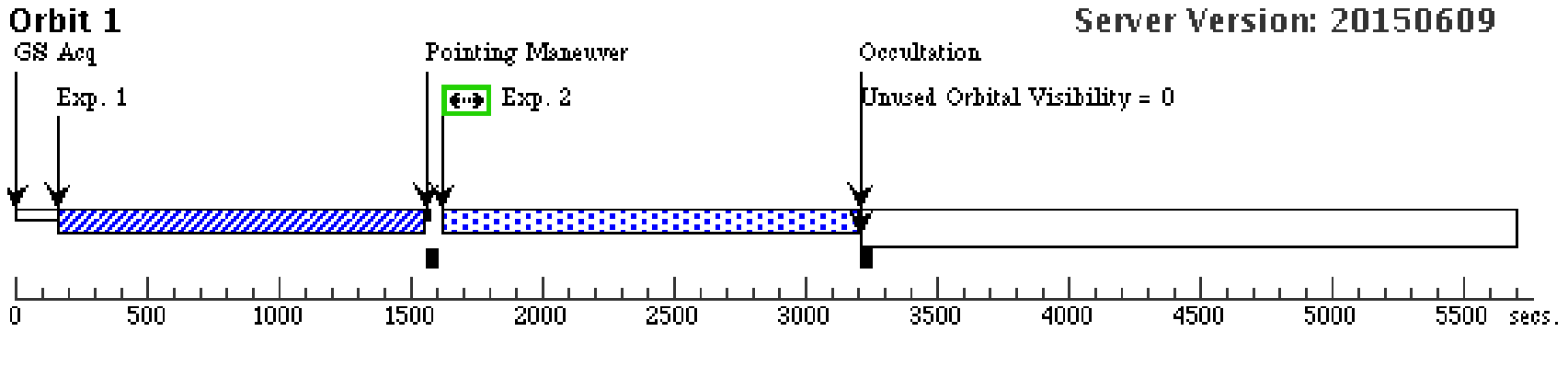
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	J024052	RA: 02 40 52.1900 (40.2174583d) Dec: -08 28 27.41 (-8.47428d) Equinox: J2000	Redshift: 0.08223	V=18.98 GALEX FUV = 19.8, NUV = 19.7	Reference Frame: ICRS

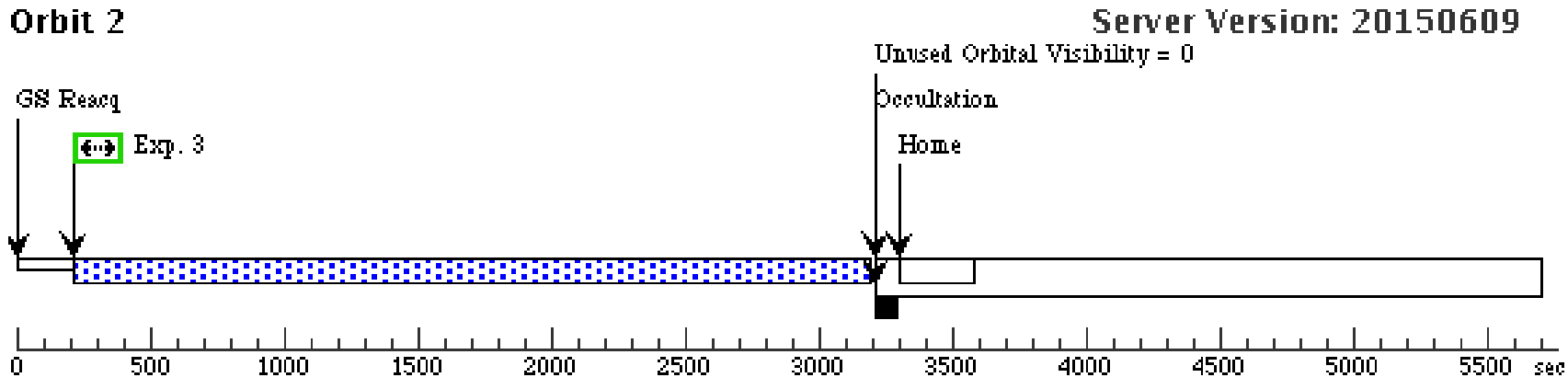
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719783)	(10) J024052	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				580 Secs (580 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719689)	(10) J024052	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4322; FLASH=YES; FP-POS=3; SEGMENT=BOTH			1404 Secs (1404 Secs) *[==>1404.0 Secs]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719689)	(10) J024052	COS/FUV, TIME-TAG, PSA	G130M 1309 A	BUFFER-TIME=4322; FLASH=YES; FP-POS=4; SEGMENT=BOTH			2927 Secs (2927 Secs) *[==>2927.0 Secs]*	*[2]*

Orbit Structure





Visit

Proposal 14080, J122612 Visit 1 (14) Sat Sep 12 01:16:27 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J122612 Visit 1 (14)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. Orbit 1 (14.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (14.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 3 (14.004)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

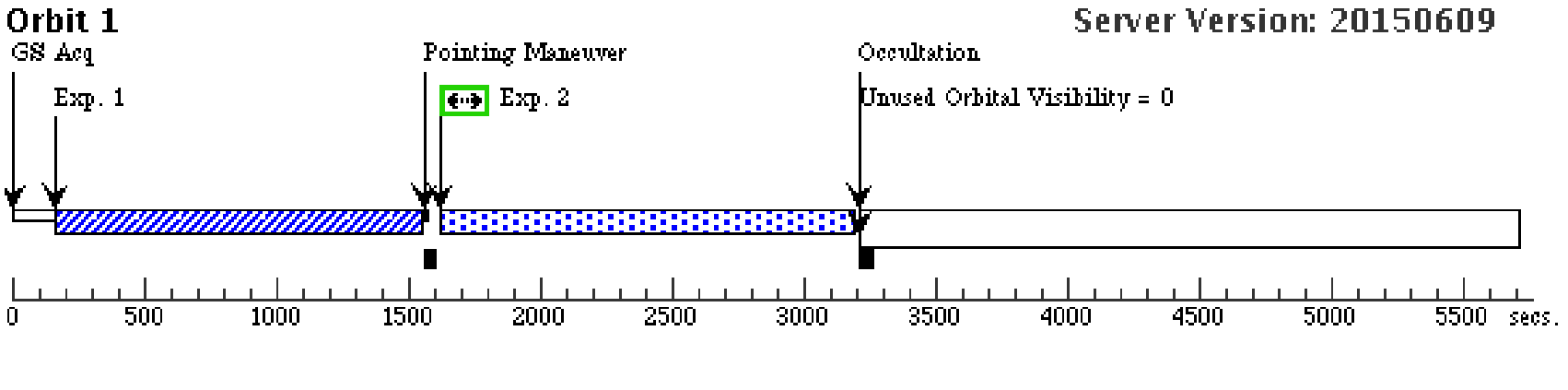
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	J122612	RA: 12 26 11.8900 (186.5495417d) Dec: +04 15 36.07 (4.26002d) Equinox: J2000	Redshift: 0.09422	V=19.28 GALEX FUV = 20.2, NUV = 19.7	Reference Frame: ICRS

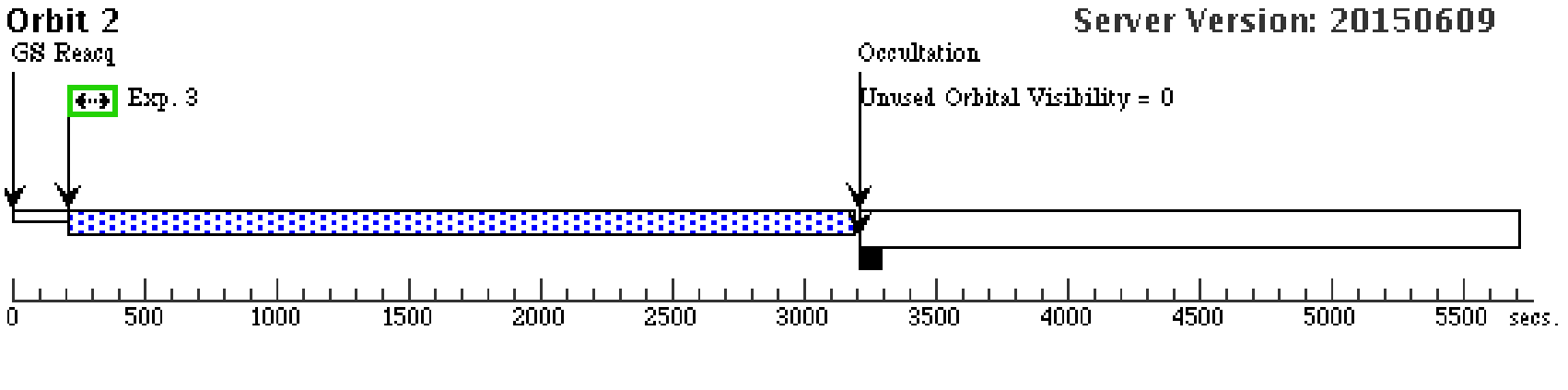
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

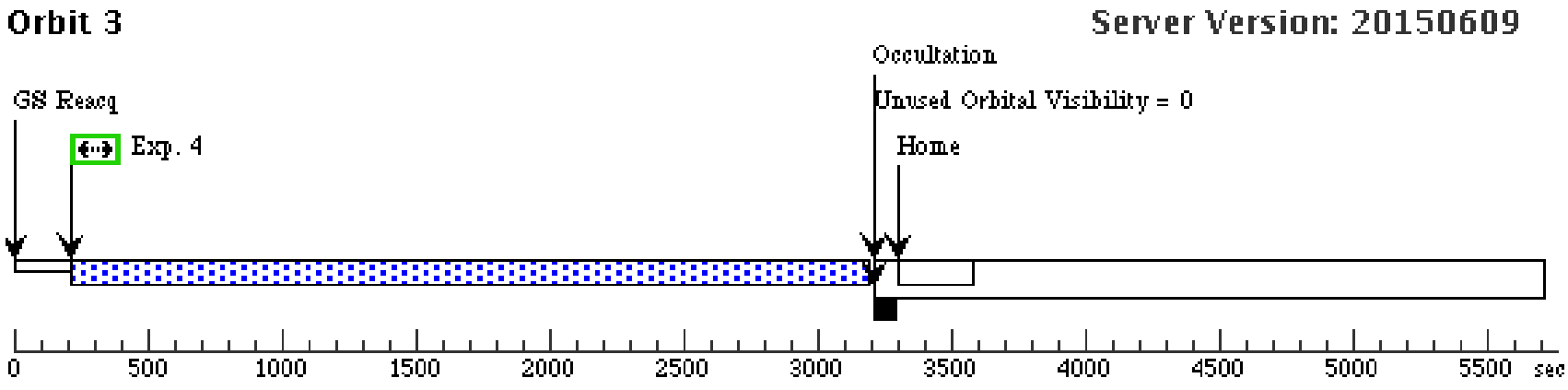
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719783)	(11) J122612	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				580 Secs (580 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719692)	(11) J122612	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4151; FLASH=YES; SEGMENT=BOTH; FP-POS=1			2400 Secs (1398 Secs) *[==>1398.0 Secs]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719692)	(11) J122612	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4151; FLASH=YES; FP-POS=2; SEGMENT=BOTH			2400 Secs (2924 Secs) *[==>2924.0 Secs]*	*[2]*
4	Sci Exp. Orbit 3 (COS.sp.719692)	(11) J122612	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4151; FLASH=YES; FP-POS=3; SEGMENT=BOTH			2400 Secs (2924 Secs) *[==>2924.0 Secs]*	*[3]*

Orbit Structure







Visit

Proposal 14080, J122612 Visit 2 (15) Sat Sep 12 01:16:28 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J122612 Visit 2 (15)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(J122612 Visit 2 (15)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

(Sci Exp. Orbit 1 (15.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (15.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

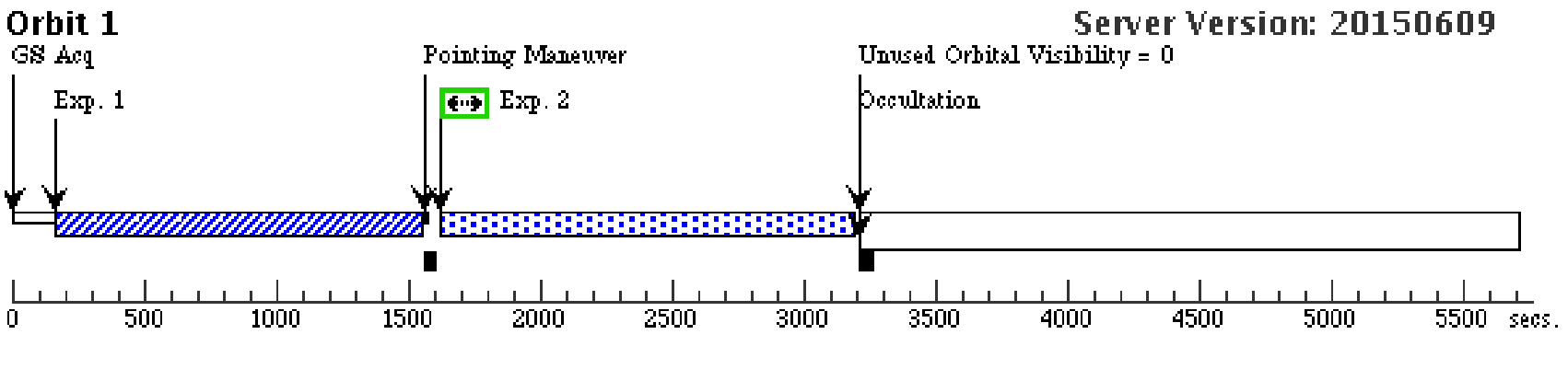
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	J122612	RA: 12 26 11.8900 (186.5495417d) Dec: +04 15 36.07 (4.26002d) Equinox: J2000	Redshift: 0.09422	V=19.28 GALEX FUV = 20.2, NUV = 19.7	Reference Frame: ICRS

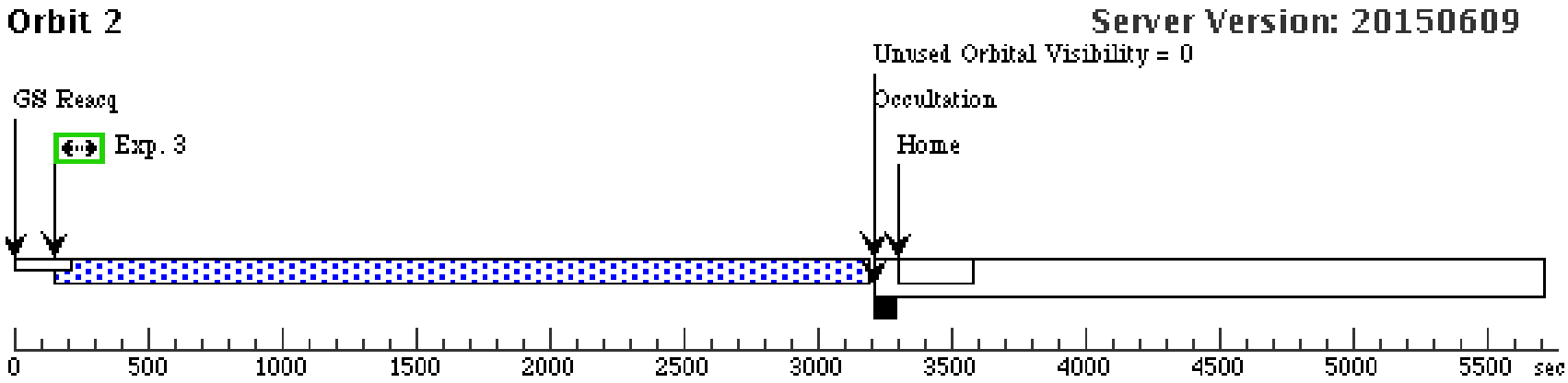
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719783)	(11) J122612	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				580 Secs (580 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719692)	(11) J122612	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4151; FLASH=YES; FP-POS=4; SEGMENT=BOTH			1398 Secs (1398 Secs) *[==>]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719692)	(11) J122612	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4151; FLASH=YES; FP-POS=1; SEGMENT=BOTH			2924 Secs (2924 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 14080, J085116 Visit 1 (16) Sat Sep 12 01:16:28 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J085116 Visit 1 (16)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. Orbit 1 (16.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (16.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 3 (16.004)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

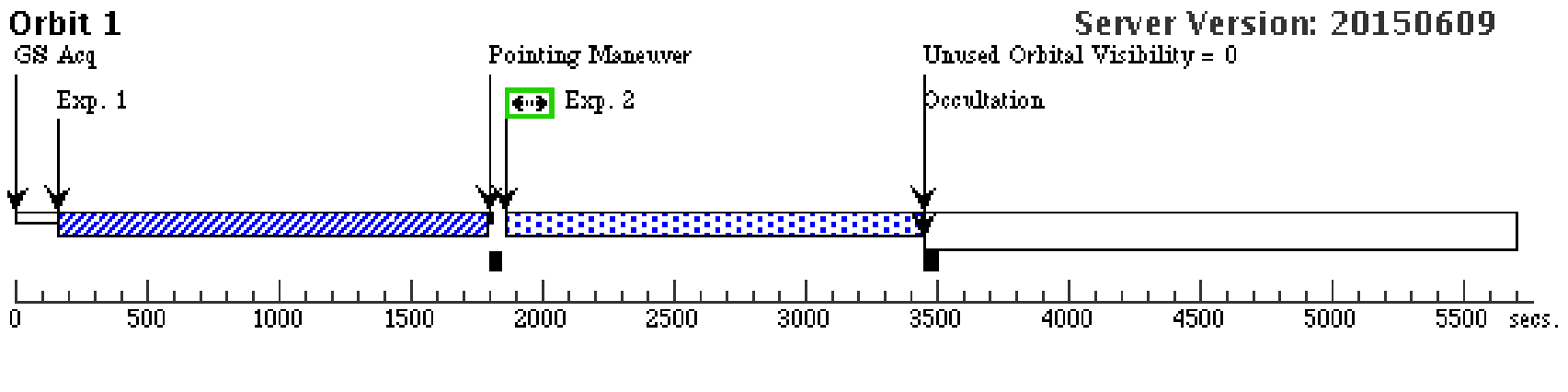
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	J085116	RA: 08 51 15.6500 (132.8152083d) Dec: +58 40 55.00 (58.68194d) Equinox: J2000	Redshift: 0.09191	V=19.24 GALEX FUV = 20.0, NUV = 19.9	Reference Frame: ICRS

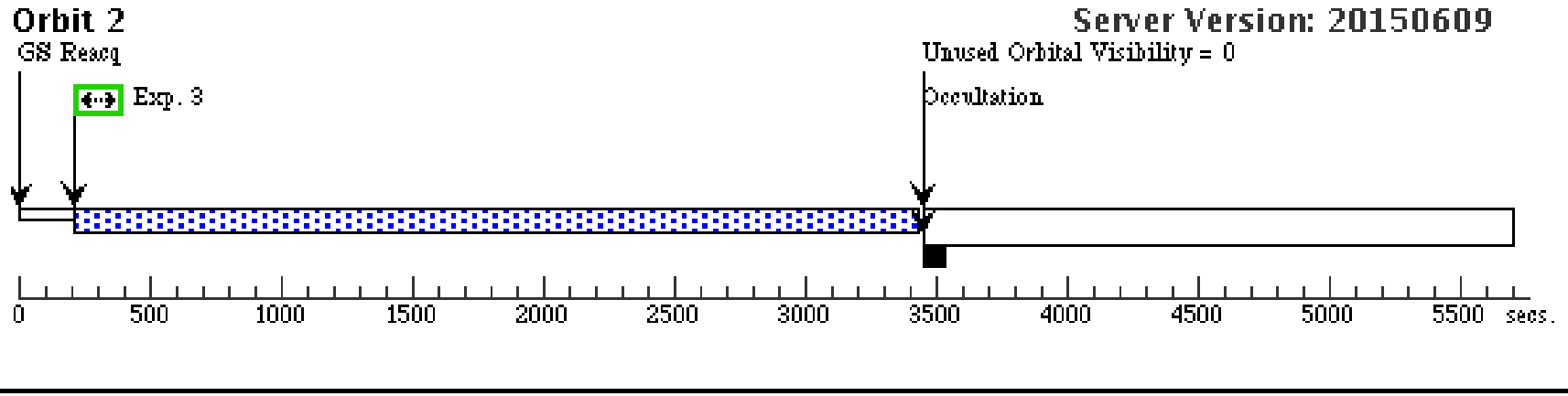
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

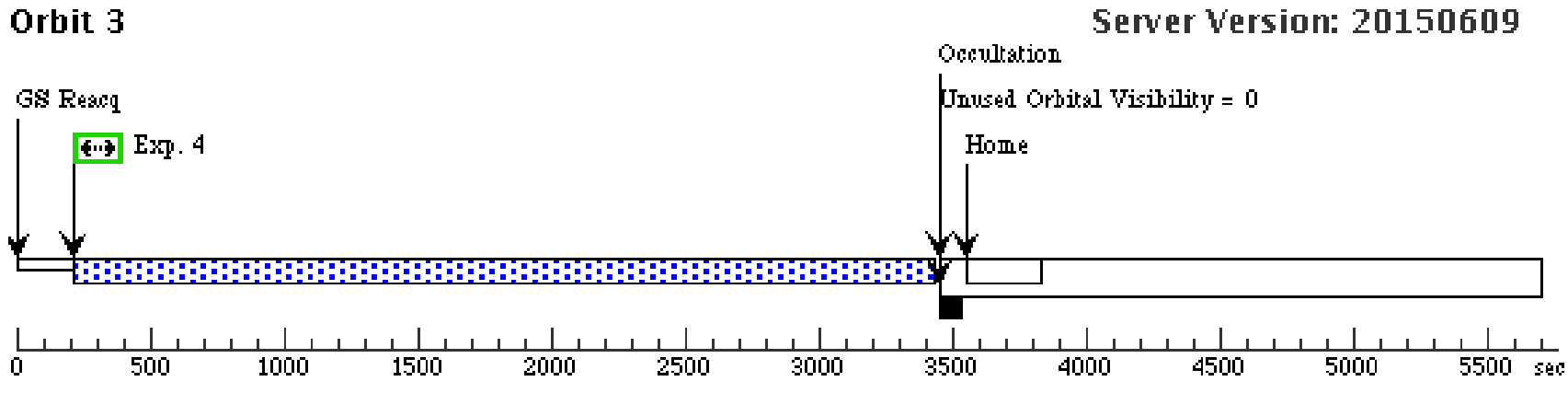
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719784)	(12) J085116	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				700 Secs (700 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719698)	(12) J085116	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4129; FLASH=YES; FP-POS=1; SEGMENT=BOTH			1640 Secs (1404 Secs) *[==>1404.0 Secs]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719698)	(12) J085116	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4129; FLASH=YES; FP-POS=2; SEGMENT=BOTH			2600 Secs (3170 Secs) *[==>3170.0 Secs]*	*[2]*
4	Sci Exp. Orbit 3 (COS.sp.719698)	(12) J085116	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4129; FLASH=YES; FP-POS=3; SEGMENT=BOTH			2600 Secs (3170 Secs) *[==>3170.0 Secs]*	*[3]*

Orbit Structure







Visit

Proposal 14080, J085116 Visit 2 (17) Sat Sep 12 01:16:28 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J085116 Visit 2 (17)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

(J085116 Visit 2 (17)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Sci Exp. Orbit 1 (17.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (17.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

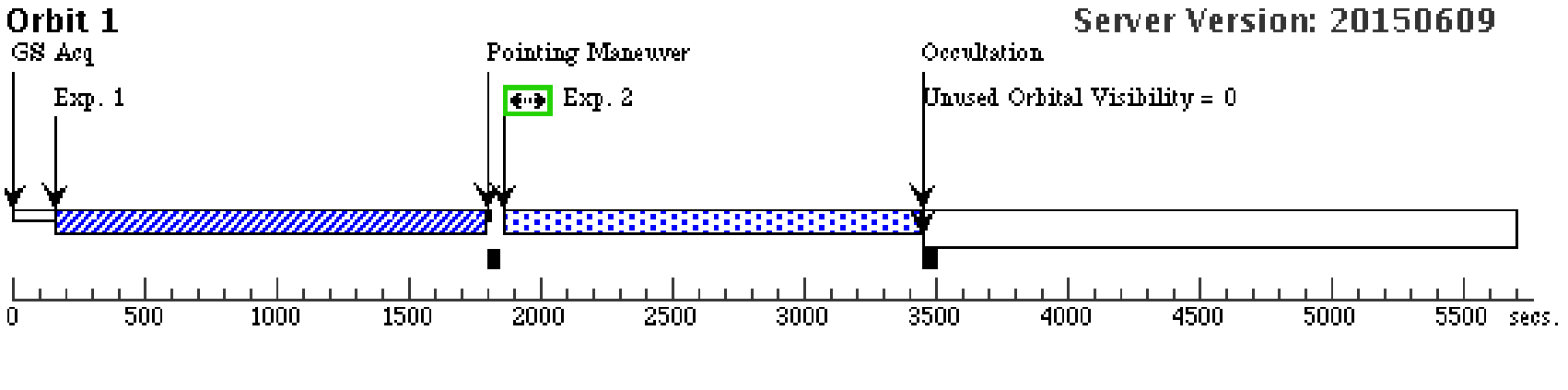
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	J085116	RA: 08 51 15.6500 (132.8152083d) Dec: +58 40 55.00 (58.68194d) Equinox: J2000	Redshift: 0.09191	V=19.24 GALEX FUV = 20.0, NUV = 19.9	Reference Frame: ICRS

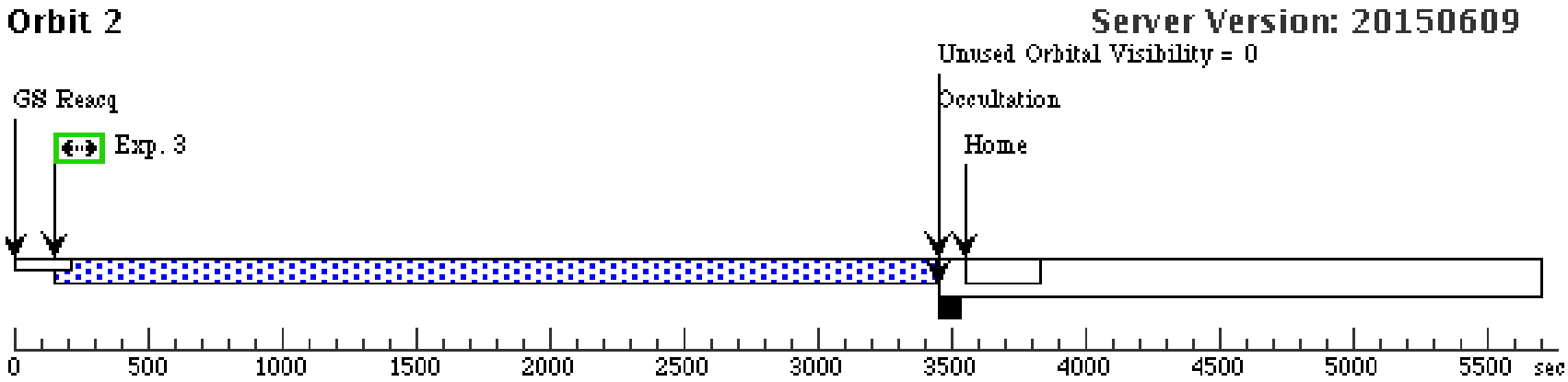
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719784)	(12) J085116	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				700 Secs (700 Secs) *[==>]*	*[1]*
2	Sci Exp. Orbit 1 (COS.sp.719698)	(12) J085116	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4129; FLASH=YES; FP-POS=4; SEGMENT=BOTH			1404 Secs (1404 Secs) *[==>]*	*[1]*
3	Sci Exp. Orbit 2 (COS.sp.719698)	(12) J085116	COS/FUV, TIME-TAG, PSA	G130M 1318 A	BUFFER-TIME=4129; FLASH=YES; FP-POS=1; SEGMENT=BOTH			3170 Secs (3170 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 14080, J160810 Visit 1 (18) Sat Sep 12 01:16:28 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(J160810 Visit 1 (18)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

(Sci Exp. Orbit 1 (18.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 2 (18.003)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 3 (18.004)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 4 (18.005)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

(Sci Exp. Orbit 5 (18.006)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

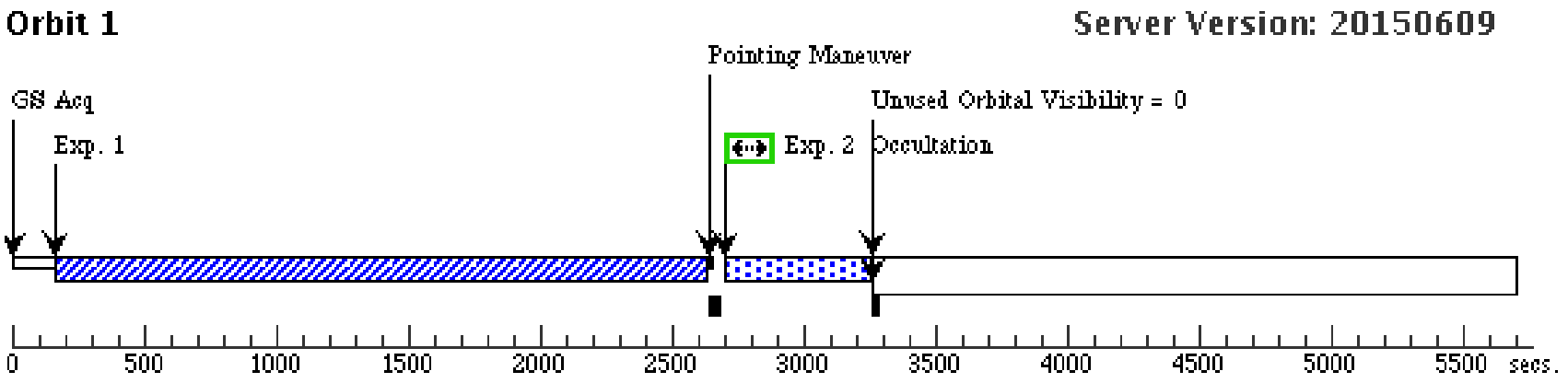
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	J160810	RA: 16 08 10.3600 (242.0431667d) Dec: +35 28 9.34 (35.46926d) Equinox: J2000	Redshift: 0.03274	V=18.59 GALEX FUV = 20.1, NUV = 20.4	Reference Frame: ICRS

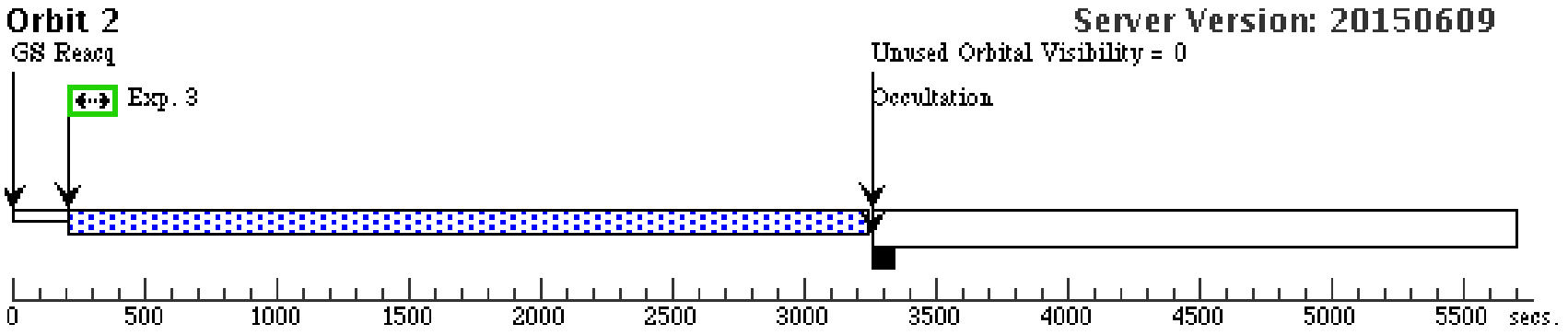
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

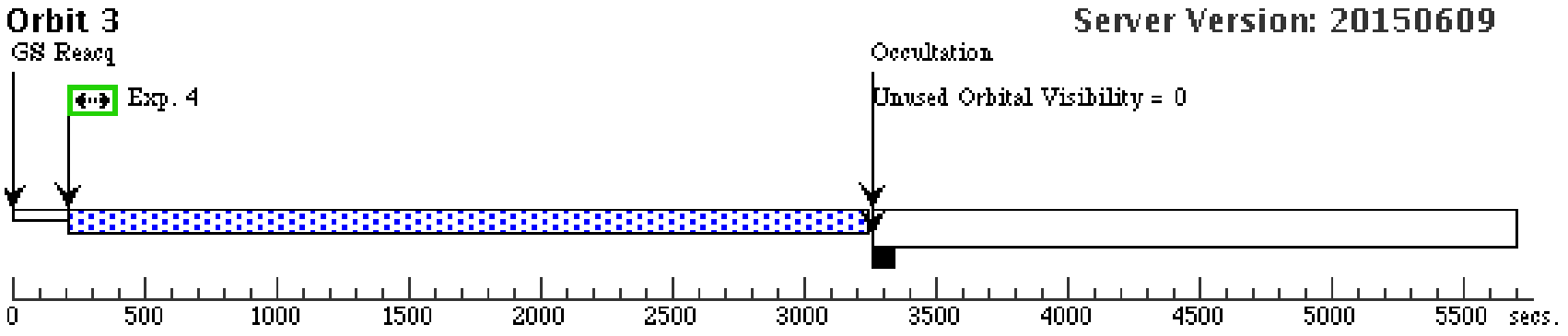
Exposures

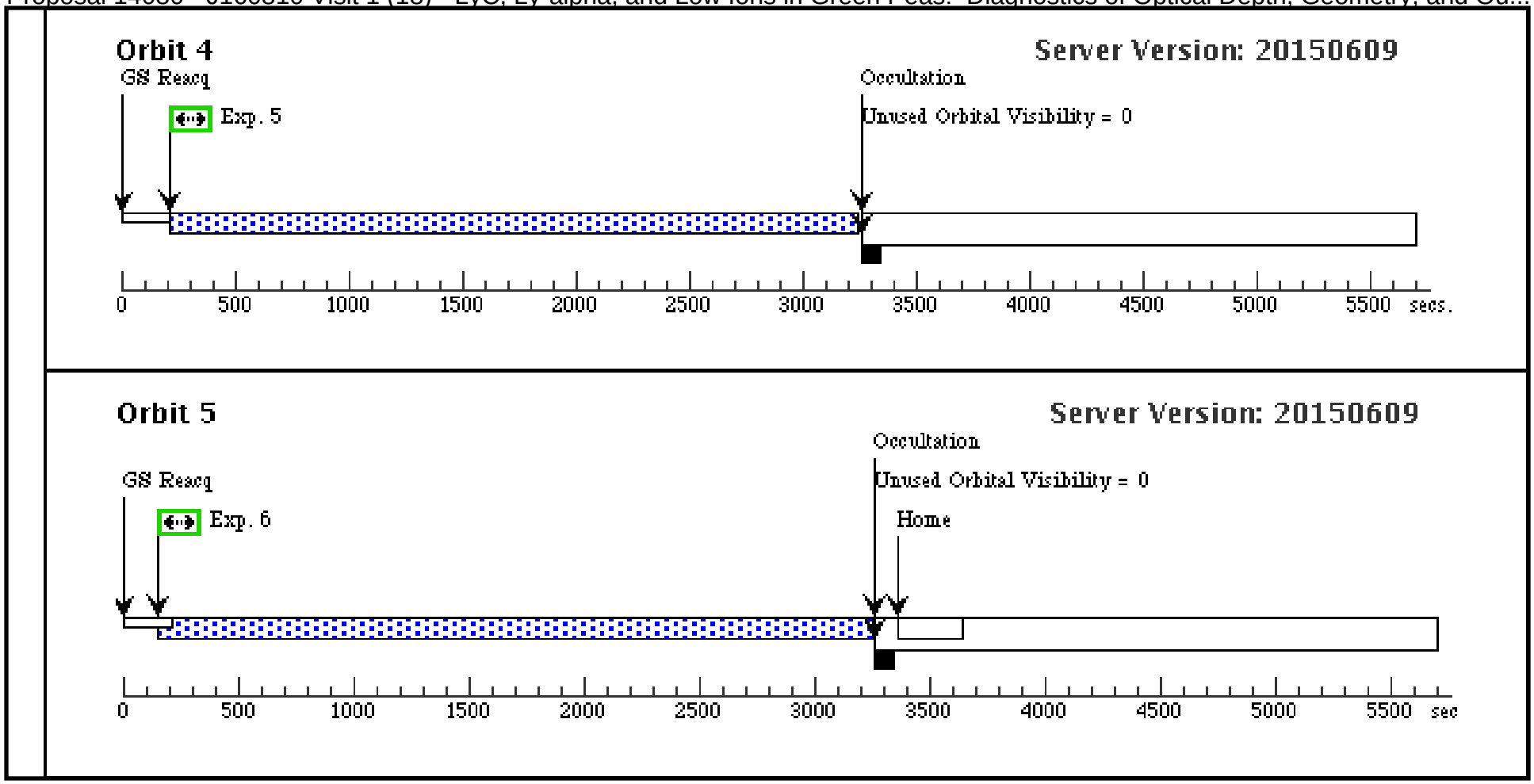
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719785)	(13) J160810	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				1122 Secs (1122 Secs) *[==>]*	***[1]***
2	Sci Exp. Orbit 1 (COS.sp.719703)	(13) J160810	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4219; FLASH=YES; FP-POS=1; SEGMENT=BOTH			1200 Secs (367 Secs) *[==>367.0 Secs]*	***[1]***
3	Sci Exp. Orbit 2 (COS.sp.719703)	(13) J160810	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4219; FLASH=YES; FP-POS=2; SEGMENT=BOTH			2600 Secs (2981 Secs) *[==>2981.0 Secs]*	***[2]***
4	Sci Exp. Orbit 3 (COS.sp.719703)	(13) J160810	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4219; FLASH=YES; FP-POS=3; SEGMENT=BOTH			2600 Secs (2981 Secs) *[==>2981.0 Secs]*	***[3]***
5	Sci Exp. Orbit 4 (COS.sp.719703)	(13) J160810	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4219; FLASH=YES; FP-POS=4; SEGMENT=BOTH			2600 Secs (2981 Secs) *[==>2981.0 Secs]*	***[4]***
6	Sci Exp. Orbit 5 (COS.sp.719703)	(13) J160810	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4219; FLASH=YES; FP-POS=1; SEGMENT=BOTH			2600 Secs (2981 Secs) *[==>2981.0 Secs]*	***[5]***

Orbit Structure





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4000
4500
5000
5500
secs.
Orbit 5
Server Version: 20150609
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 6
Home
0
500
1000
1500
2000
2500
3000
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4000
4500
5000
5500
sec

Visit

Proposal 14080, J160810 Visit 2 (19) Sat Sep 12 01:16:28 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Diagnostics

(Sci Exp. (19.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See the proposal instructions for more details.

Fixed Targets

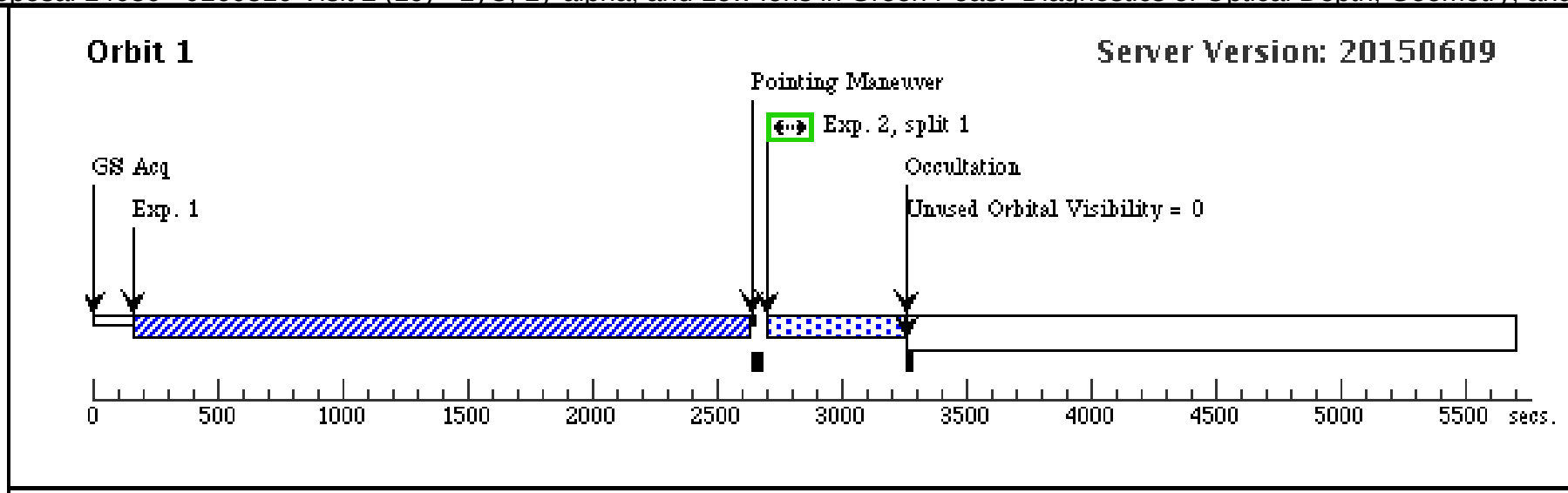
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	J160810	RA: 16 08 10.3600 (242.0431667d) Dec: +35 28 9.34 (35.46926d) Equinox: J2000	Redshift: 0.03274	V=18.59 GALEX FUV = 20.1, NUV = 20.4	Reference Frame: ICRS

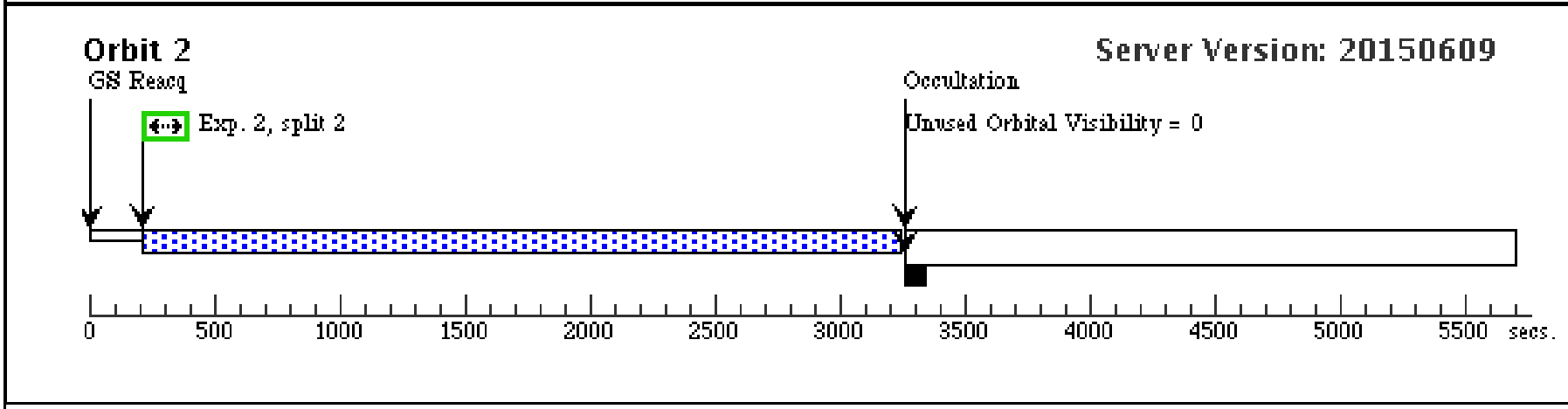
Comments: We give the SDSS g-band magnitude in place of the V-magnitude.
Extended=YES

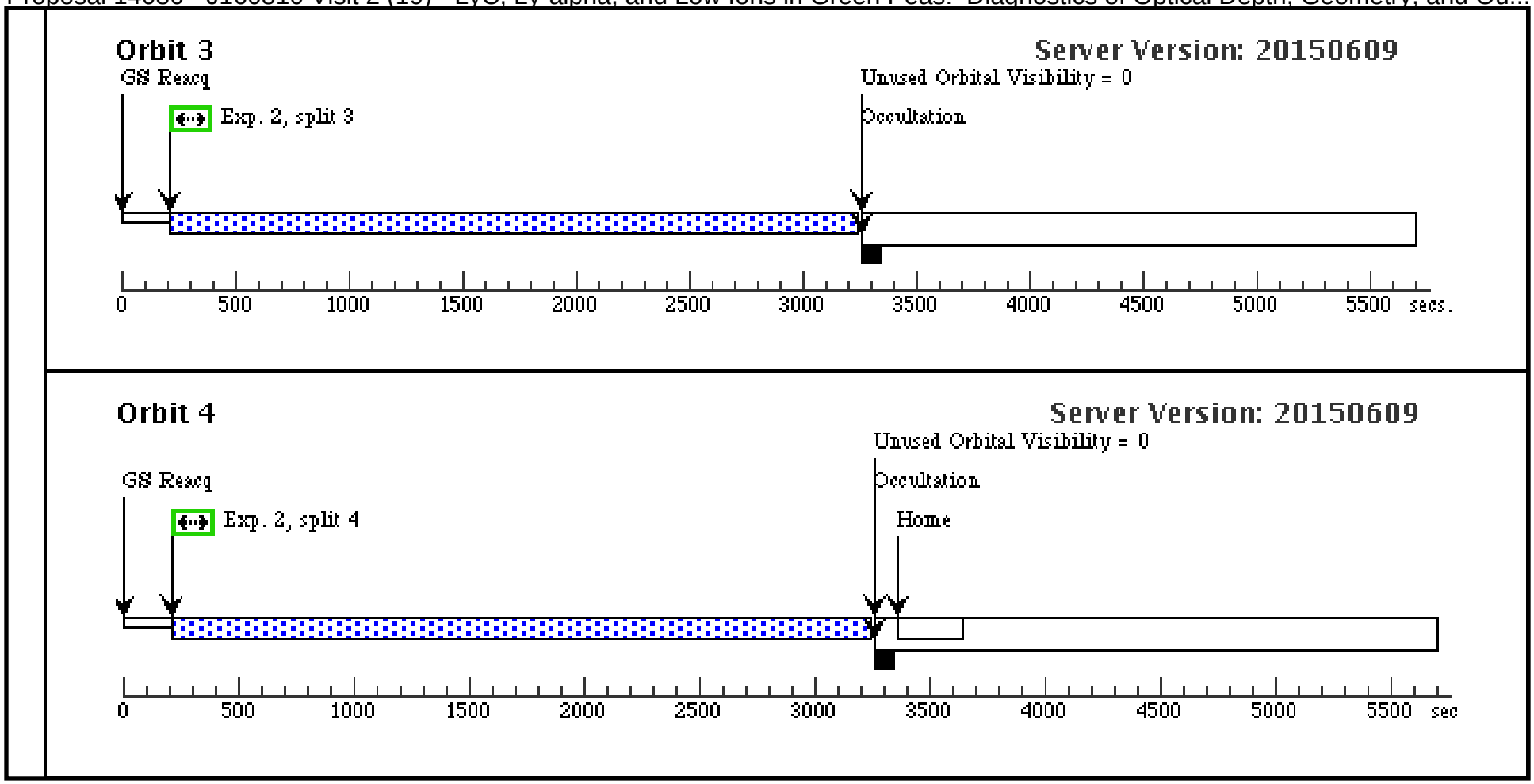
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquisition (COS.ta.719785)	(13) J160810	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				1122 Secs (1122 Secs)	
								[==>]	***[1]***
2	Sci Exp. (COS.sp.719703)	(13) J160810	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=4219; FLASH=YES; FP-POS=ALL; SEGMENT=BOTH			2600 Secs (9310 Secs)	
								[==>367.0 Secs (Split 1)]	***[1]***
								[==>2981.0 Secs (Split 2)]	***[2]***
								[==>2981.0 Secs (Split 3)]	***[3]***
								[==>2981.0 Secs (Split 4)]	***[4]***

Orbit Structure



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GS Reacq
Unused Orbital Visibility = 0
Exp. 2, split 3
Occultation
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1000
1500
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3000
3500
4000
4500
5000
5500
secs.
Orbit 4
Server Version: 20150609
Unused Orbital Visibility = 0
GS Reacq
Occultation
Exp. 2, split 4
Home
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sec