17076 - The C IV in L* galaxies (CIViL*) survey -- Pinpointing the physical conditions and evolutionary stages of gaseous halos

Cycle: 30, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*
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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) QSO-J0226+0015	COS/NUV	3	12-Jul-2024 16:00:18.0	yes
02	(2) QSO-J0401-0540	COS/NUV	3	12-Jul-2024 16:00:19.0	yes
03	(3) QSO-J0910+1014	COS/NUV	4	12-Jul-2024 16:00:20.0	yes
3Z	(3) QSO-J0910+1014	COS/NUV	4	12-Jul-2024 16:00:21.0	yes
04	(4) QSO-J0950+4831	COS/NUV	4	12-Jul-2024 16:00:22.0	yes
05	(5) QSO-J1016+4706	COS/NUV	4	12-Jul-2024 16:00:23.0	yes
06	(5) QSO-J1016+4706	COS/NUV	3	12-Jul-2024 16:00:23.0	yes
07	(5) QSO-J1016+4706	COS/NUV	3	12-Jul-2024 16:00:24.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
08	(6) QSO-J1342-0053	COS/NUV	3	12-Jul-2024 16:00:25.0	yes
09	(6) QSO-J1342-0053	COS/NUV	3	12-Jul-2024 16:00:25.0	yes
Z3	(6) QSO-J1342-0053	COS/NUV	1	12-Jul-2024 16:00:26.0	yes
10	(6) QSO-J1342-0053	COS/NUV	3	12-Jul-2024 16:00:26.0	yes
11	(7) QSO-J1419+4207	COS/NUV	4	12-Jul-2024 16:00:27.0	yes
12	(8) QSO-J0959+3203	COS/FUV COS/NUV	3	12-Jul-2024 16:00:28.0	yes
Z2	(8) QSO-J0959+3203	COS/FUV COS/NUV	3	12-Jul-2024 16:00:29.0	yes
Z4	(8) QSO-J0959+3203	COS/FUV COS/NUV	3	12-Jul-2024 16:00:30.0	yes
13	(9) QSO-J1427+2632	COS/FUV COS/NUV	5	12-Jul-2024 16:00:32.0	yes
1Z	(9) QSO-J1427+2632	COS/FUV COS/NUV	1	12-Jul-2024 16:00:33.0	yes
Z5	(9) QSO-J1427+2632	COS/FUV COS/NUV	1	12-Jul-2024 16:00:33.0	yes
14	(10) QSO-J1502+0645	COS/FUV COS/NUV	2	12-Jul-2024 16:00:34.0	yes
15	(11) QSO-J1544+2743	COS/FUV COS/NUV	5	12-Jul-2024 16:00:35.0	yes

65 Total Orbits Used

ABSTRACT

The circumgalactic medium (CGM) plays a crucial role in galaxy evolution, hosting the gaseous reservoirs that feeds accreting material to replenish fuel for future star formation whilst retaining a record of material ejected by winds and feedback processes. Quantifying the connection between these gaseous reservoirs and their host galaxies provides essential constraints on the specific events that transform galaxies. The Cosmic Origins

Spectrograph (COS) has played a significant role in studying the CGM over the past decade by providing an unbiased census of the gas around galaxies over a mass range that spans dwarfs to L* galaxies, as well as special evolutionary phases (such as active galactic nuclei [AGN] or starbursts). However, despite CIV being arguably the best tracer of galactic gas reservoirs across cosmic time, these galaxy-selected COS surveys lack spectral coverage of CIV surrounding a necessary benchmark sample of L* galaxies. Our proposed survey aims to quantify the amount of CIV in the CGM of 13 L* galaxies, and for the first time: (i) constrain feedback processes from AGN and starbursts within 200 kpc, (ii) quantify the radial CIV profile to guide modeled stellar wind and black hole feedback perscriptions across three decades of stellar mass, and (iii) derive the physical conditions within the CGM by studying its ionization structure. Our carefully crafted representative L* galaxy sample will add to the legacy of COS-CGM studies by including a key ion for diagnosing the physical properties of the CGM.

OBSERVING DESCRIPTION

Description of Observations:

Our sample of 11 FUV-bright QSOs (GALEX FUV < 19) has been selected from the COS-Halos and COS-GASS surveys to obtain a census of CIV in the circumgalactic medium of a control-matched sample of L* galaxies. Our science goals require quantifying the column density of CIV down to a limit of logN(CIV) = 13.5, which corresponds to an asborption profile with a minimum rest-frame equivalent width of 50 mA. We therefore require a minimum signal-noise ratio of 10 per spectral element in our spectrum at the position of CIV in the CGM of the host galaxy. We require the highest spectral resolution in order to fit the profile of the CIV line, and thus require observations with the G160M (redshift z~0.2 galaxy sub-sample) and G185M (z~0.03 sub-sample) gratings, covering the corresponding CIV 1548 and 1550 angstrom doublet.

Phase II Observing Strategy:

We are taking COS/FUV and COS/NUV spectra of QSOs with GALEX FUV magnitudes that range from 17.0 - 18.4. We are using the G160M and G185M gratings centered at various, single CENWAVE settings to obtain the CIV doublet at ~1549 angstroms. We require only one CENWAVE setting per intervening galaxy for this experiment since we are targeting specific absorption lines that will not fall near the gap between segments nor will they fall in the regions of siginficant gain sag with this set up in LP6. For the two QSOs with two intervening galaxies each, two CENWAVES are required as there is no single CENWAVE to observe both CIV doublets simultaneously (i.e. one always falls in a wavelength gap). Because we have coordinates that are accurate to within 0.1", we skip the ACQ/SEARCH step, and acquire the targets with a NUV ACQ/IMAGE using

MIRRORB to guard against QSO brightening. All of these objects are faint enough that this method of acquisition is safe. The Exposure times for these acquisitions are set by requiring a S/N of 20 and assuming a FOS QSO template in the imaging target acquisition ETC (e.g. COS.ta.1811459).

Using the COS spectroscopic ETC, we model the QSOs as COS-based QSOs and normalizing the spectra to the QSO's GALEX FUV AB magnitude (e.g. COS.sp.1809369). None of these QSOs will pose a bright limit threat to COS and we have no timing or orientation constraints. Our targets each require between 2 and 10 orbits, and are generally split into 1-3 visits each of 3 orbits or fewer. For some targets, we do not reach our total exposure time required without using either a 4-orbit or 5-orbit visit per target. We have added an additional justification to the relevant visits, explaining that our total exposure time required can only be achieved by using a 4-orbit or 5-orbit visit, understanding that visits longer than 3 orbits can be challenging to schedule. As such, we only use 4 or 5 orbit visits on targets that show signficantly long or frequent visibilities in the visit planner tool to ensure ease of scheduling. Buffer times have been set to the suggested value of 2/3 of the full buffer time provided by the ETC.

We note that, in order to minimize overheads (especially for targets observed with G160M), we only observe one FP-POS per orbit. While we try to observe with all four FP-POS whenever possible, targets only observed with 2-3 orbits will not get the full four FP-POS. As such, we have a minimum of 2-3 FP-POS per target, which meets the minimum FP-POS requirements outlined by the COS2025 documentation. While this may cause issues in the wavelength calibration and increase the fixed-pattern noise, these targets all have archival COS data so we can further pin-down the wavelength solution using the archival data. Additionally, for the two QSOs that have two intervening absorbers, we mix both CENWAVE set-ups within a single visit. This is required in order for the minimum S/N threshold to be met for both set-ups by only including the acquisition overhead of the first orbit for the CENWAVE setup that requires a lower exposure time to reach the minimum S/N. A comment has been added in the relevant visits where this applies.

In our final set-up we achieve S/N of ~10 per resolution element at the position of the CIV doublet for the target galaxy, which is in line with the requirements we outlined in the science case of Phase 1.

Visit

Proposal 17076, J0226 (visit 1/1, 3 orb) (01), completed Fri Jul 12 20:00:36 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Diagnostics

(J0226 (visit 1/1, 3 orb) (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0226 (visit 1/1, 3 orb) (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0226 (visit 1/1, 3 orb) (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

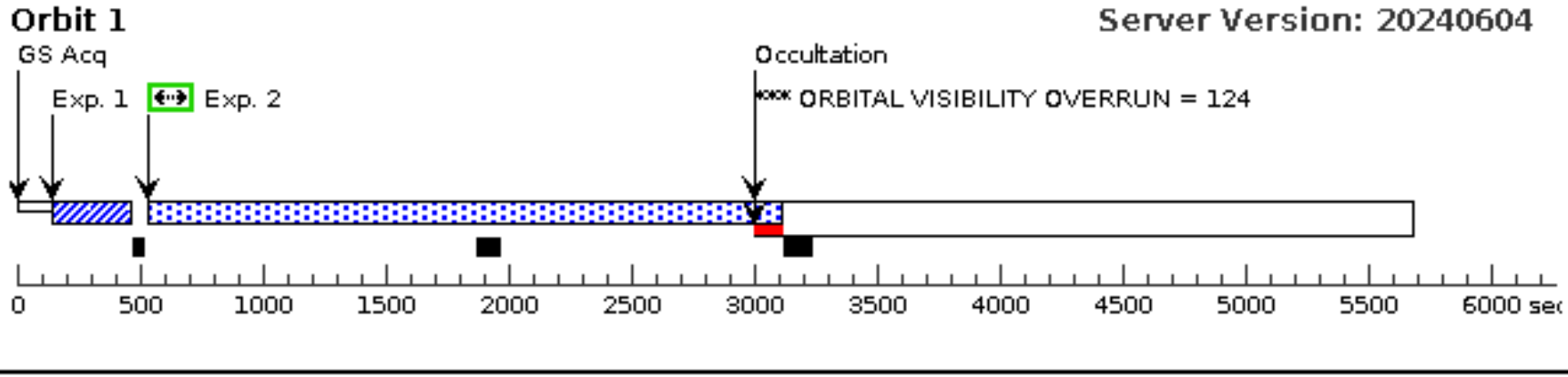
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	QSO-J0226+0015	RA: 02 26 14.4684 (36.5602850d) Dec: +00 15 29.78 (.25827d) Equinox: J2000	Epoch of Position: 2000	V=17.1 FUV=17.87	Reference Frame: ICRS

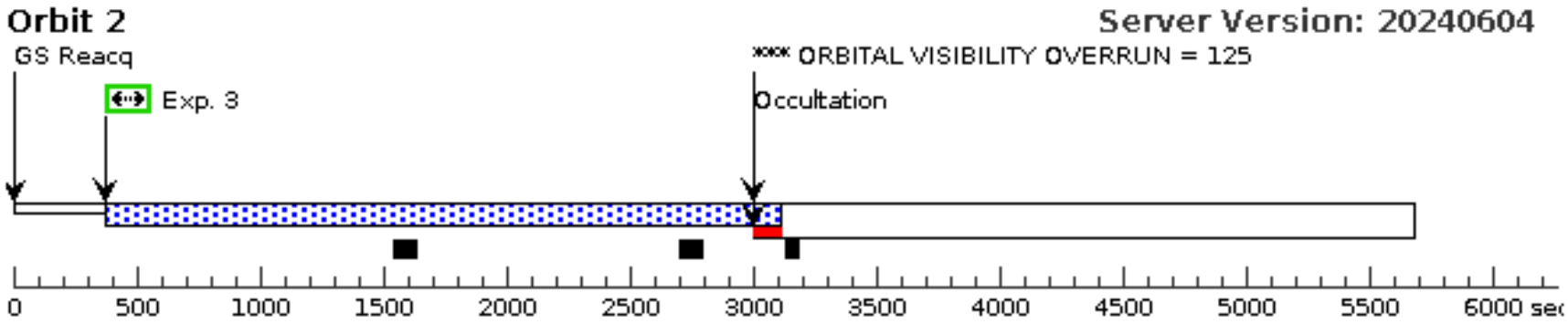
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

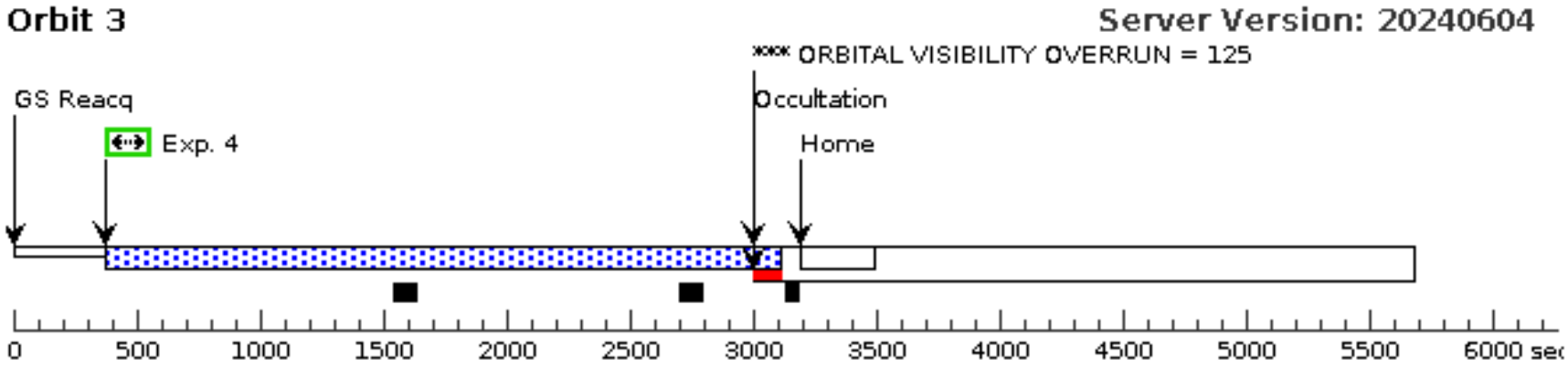
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811460)	(1) QSO-J0226+0015	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	***[1]***
2	FP1 (COS.sp.1809128)	(1) QSO-J0226+0015	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=1; BUFFER-TIME=1160			2384 Secs (2384 Secs) *[==>]*	***[1]***
3	FP2 (COS.sp.1809128)	(1) QSO-J0226+0015	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=2; BUFFER-TIME=1160			2723 Secs (2723 Secs) *[==>]*	***[2]***
4	FP3 (COS.sp.1809128)	(1) QSO-J0226+0015	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=3; BUFFER-TIME=1160			2723 Secs (2723 Secs) *[==>]*	***[3]***

Orbit Structure







Visit

Proposal 17076, J0401 (visit 1/1, 3 orb) (02), completed Fri Jul 12 20:00:36 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Diagnostics

(J0401 (visit 1/1, 3 orb) (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0401 (visit 1/1, 3 orb) (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0401 (visit 1/1, 3 orb) (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

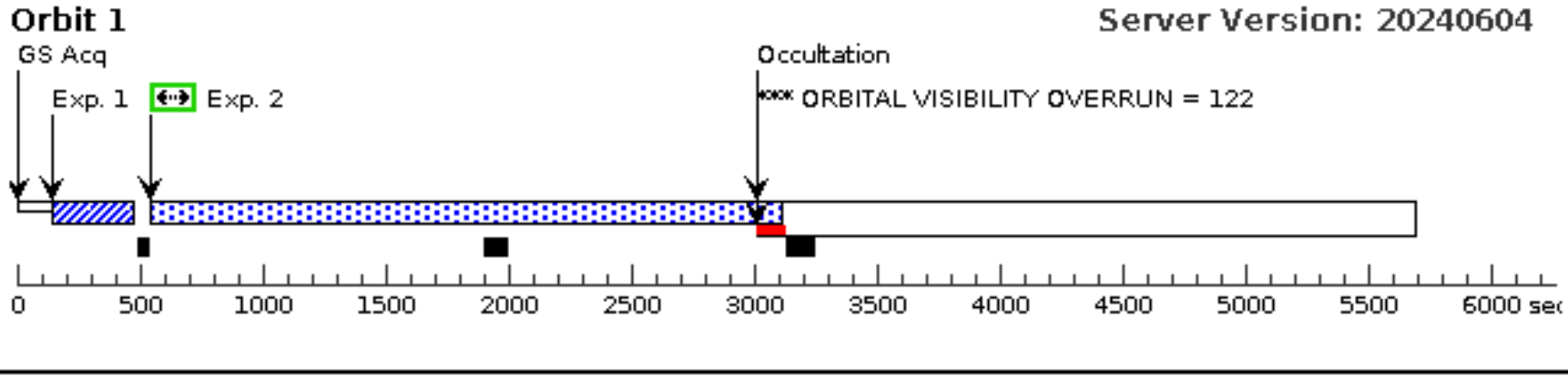
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	QSO-J0401-0540	RA: 04 01 48.9808 (60.4540867d) Dec: -05 40 56.56 (-5.68238d) Equinox: J2000	Epoch of Position: 2000	V=17.01 FUV=18.33	Reference Frame: ICRS

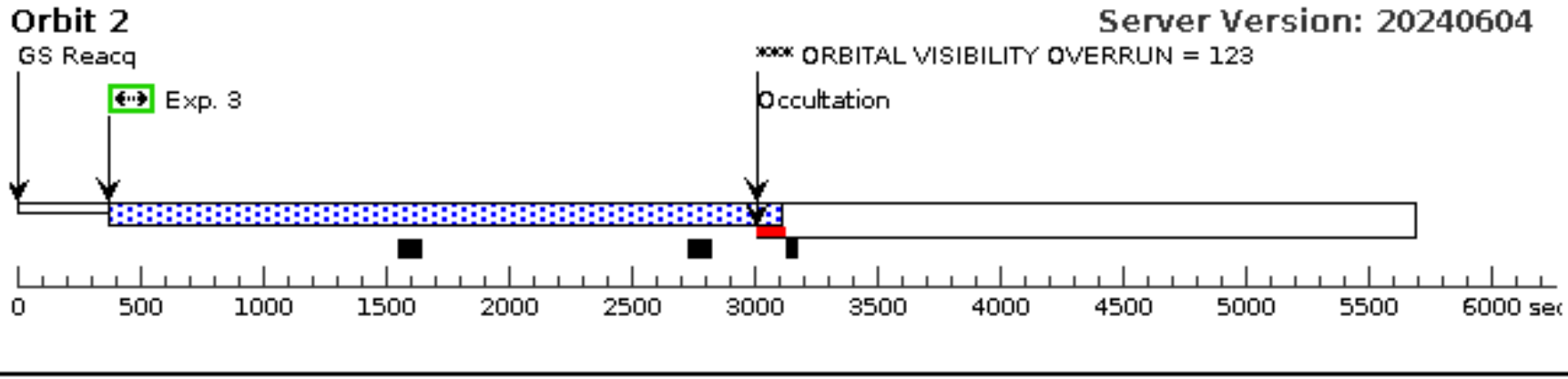
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

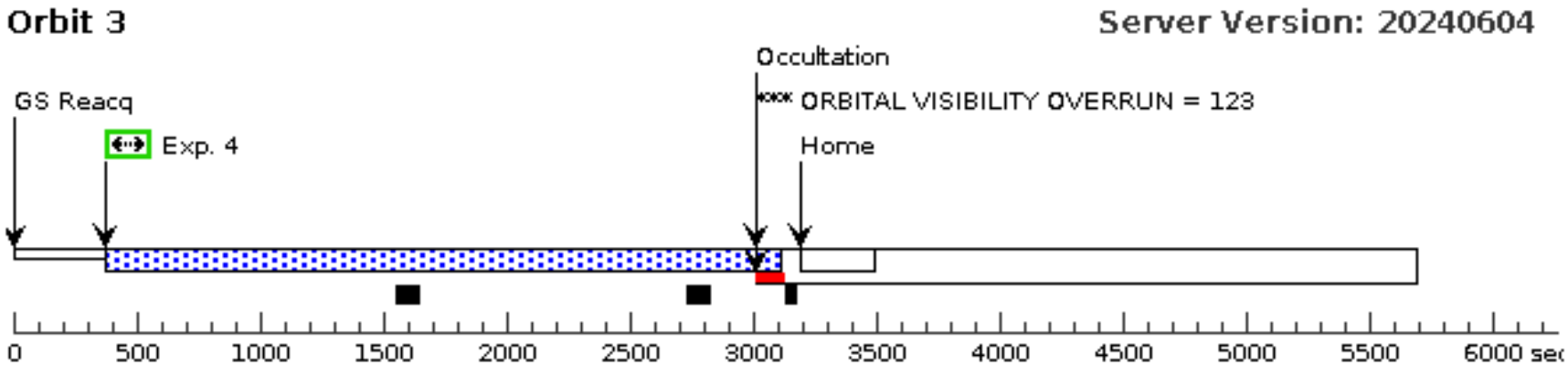
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811459)	(2) QSO-J0401-0540	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				20 Secs (20 Secs) *[==>]*	***[1]***
2	FP 1 (COS.sp.1809369)	(2) QSO-J0401-0540	COS/NUV, TIME-TAG, PSA	G185M 1882 A	FP-POS=1; BUFFER-TIME=1177			2373 Secs (2373 Secs) *[==>]*	***[1]***
3	FP 2 (COS.sp.1809369)	(2) QSO-J0401-0540	COS/NUV, TIME-TAG, PSA	G185M 1882 A	FP-POS=2; BUFFER-TIME=1177			2726 Secs (2726 Secs) *[==>]*	***[2]***
4	FP 3 (COS.sp.1809369)	(2) QSO-J0401-0540	COS/NUV, TIME-TAG, PSA	G185M 1882 A	FP-POS=3; BUFFER-TIME=1177			2726 Secs (2726 Secs) *[==>]*	***[3]***

Orbit Structure







Visit

Proposal 17076, J0910 (visit 1/1, 4 orb) (03), failed Fri Jul 12 20:00:36 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Require 4-orbit visit to meet minimum S/N of 10 at position of CIV doublet at redshift of intervening galaxy

Diagnostics

(J0910 (visit 1/1, 4 orb) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0910 (visit 1/1, 4 orb) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0910 (visit 1/1, 4 orb) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0910 (visit 1/1, 4 orb) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

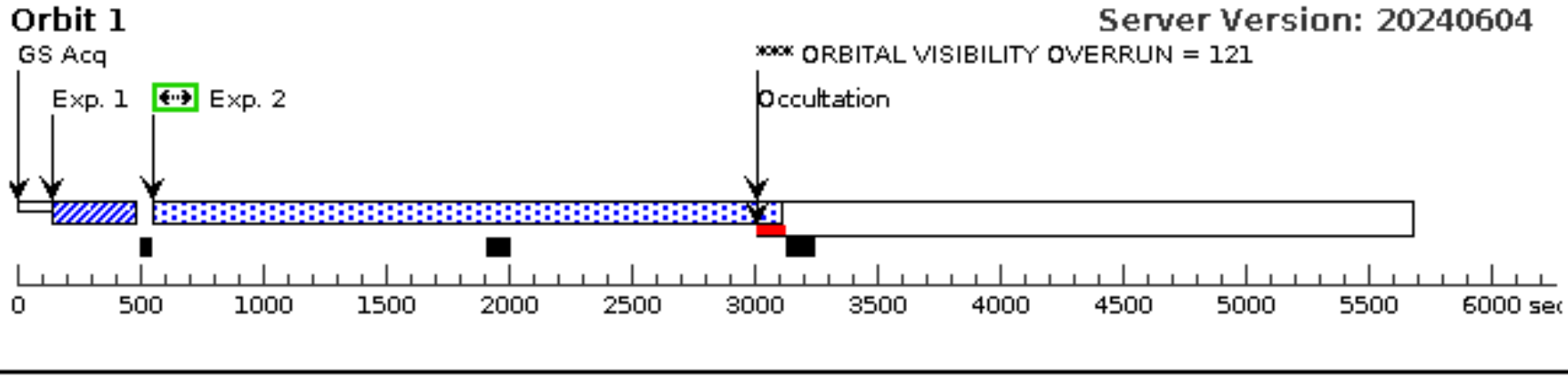
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	QSO-J0910+1014	RA: 09 10 29.7518 (137.6239658d) Dec: +10 14 13.59 (10.23711d) Equinox: J2000	Epoch of Position: 2000	V=18.08 FUV=18.37	Reference Frame: ICRS

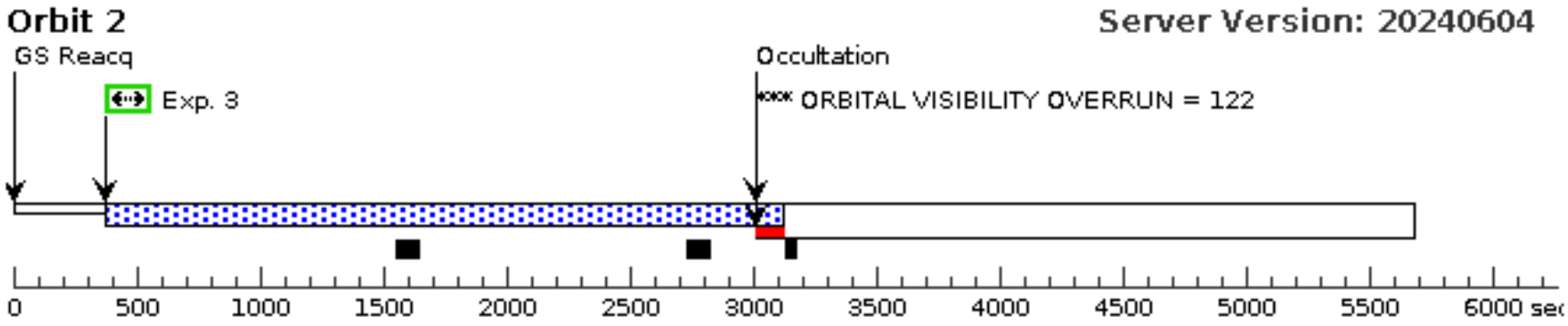
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

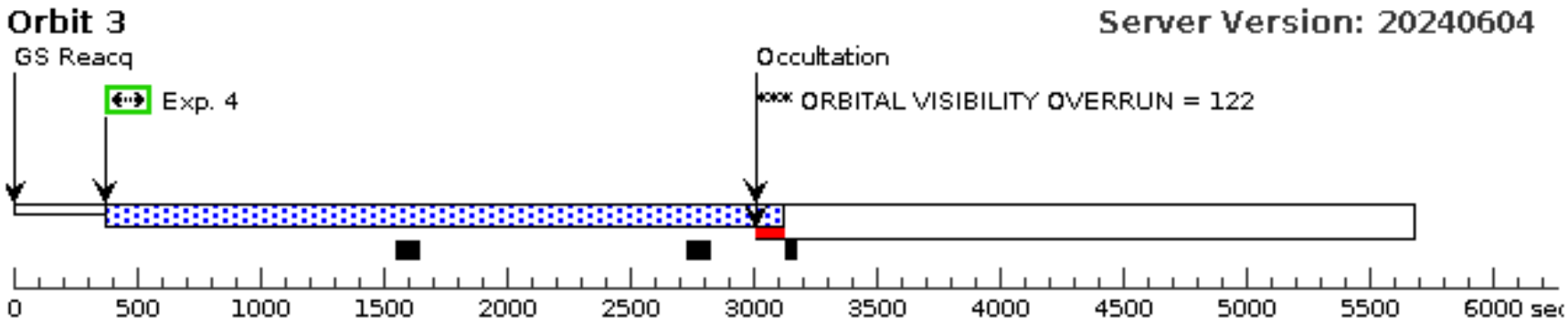
Exposures

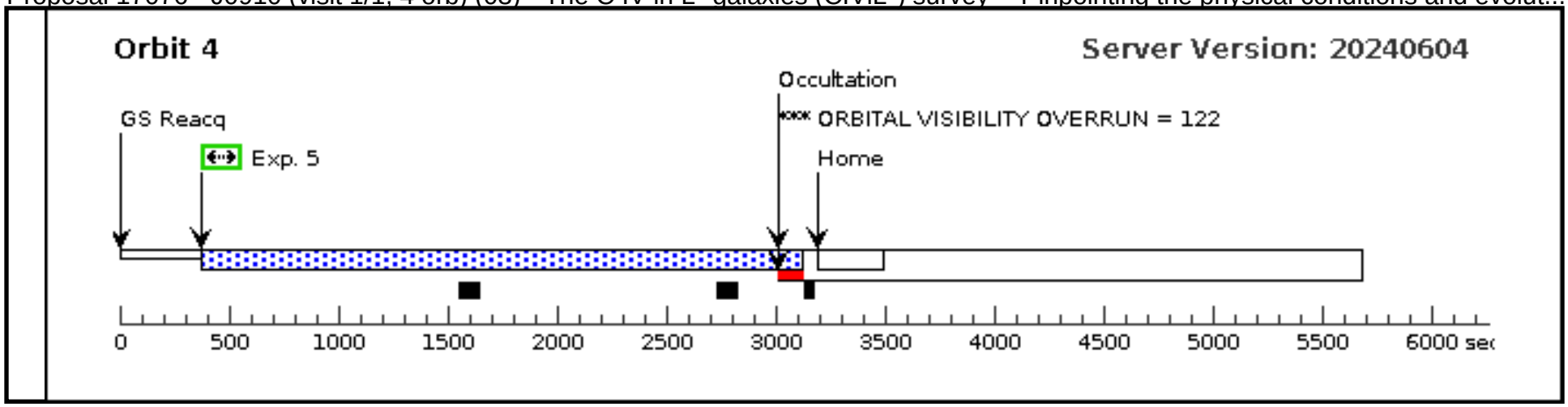
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811461)	(3) QSO-J0910+1014	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				24 Secs (24 Secs) *[==>]*	***[1]***
2	FP1 (COS.sp.1811493)	(3) QSO-J0910+1014	COS/NUV, TIME-TAG, PSA	G185M 1882 A	BUFFER-TIME=1175; FP-POS=1			2369 Secs (2369 Secs) *[==>]*	***[1]***
3	FP2 (COS.sp.1811493)	(3) QSO-J0910+1014	COS/NUV, TIME-TAG, PSA	G185M 1882 A	BUFFER-TIME=1175; FP-POS=2			2730 Secs (2730 Secs) *[==>]*	***[2]***
4	FP3 (COS.sp.1811493)	(3) QSO-J0910+1014	COS/NUV, TIME-TAG, PSA	G185M 1882 A	BUFFER-TIME=1175; FP-POS=3			2730 Secs (2730 Secs) *[==>]*	***[3]***
5	FP4 (COS.sp.1811493)	(3) QSO-J0910+1014	COS/NUV, TIME-TAG, PSA	G185M 1882 A	BUFFER-TIME=1175; FP-POS=4			2730 Secs (2730 Secs) *[==>]*	***[4]***

Orbit Structure





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3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17076, J0910 (visit 1/1, 4 orb) (3Z), implementation Fri Jul 12 20:00:36 GMT 2024

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Require 4-orbit visit to meet minimum S/N of 10 at position of CIV doublet at redshift of intervening galaxy
This is a HOPR for failed visit 03

Fixed Targets

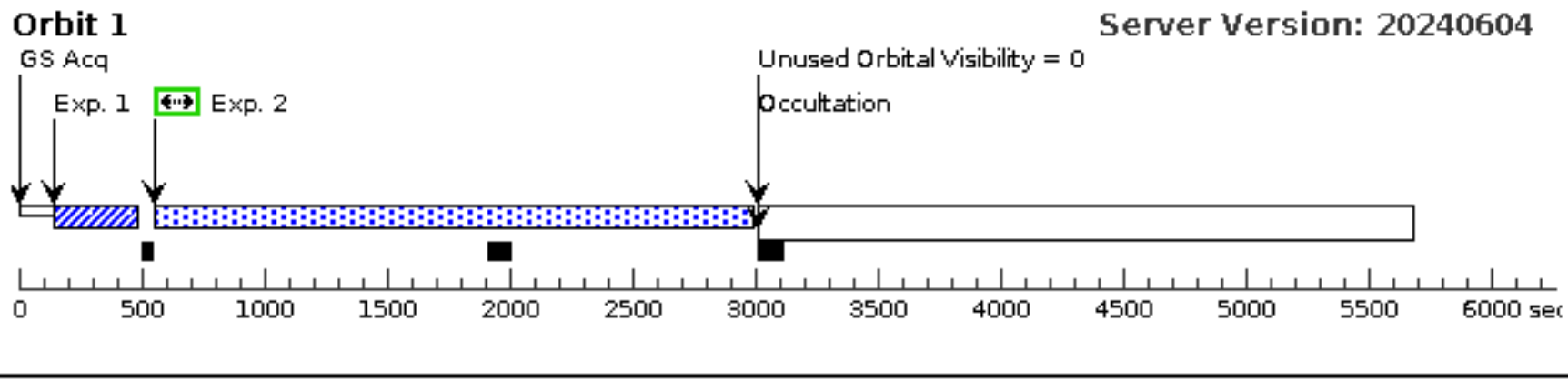
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	QSO-J0910+1014	RA: 09 10 29.7518 (137.6239658d) Dec: +10 14 13.59 (10.23711d) Equinox: J2000	Epoch of Position: 2000	V=18.08 FUV=18.37	Reference Frame: ICRS

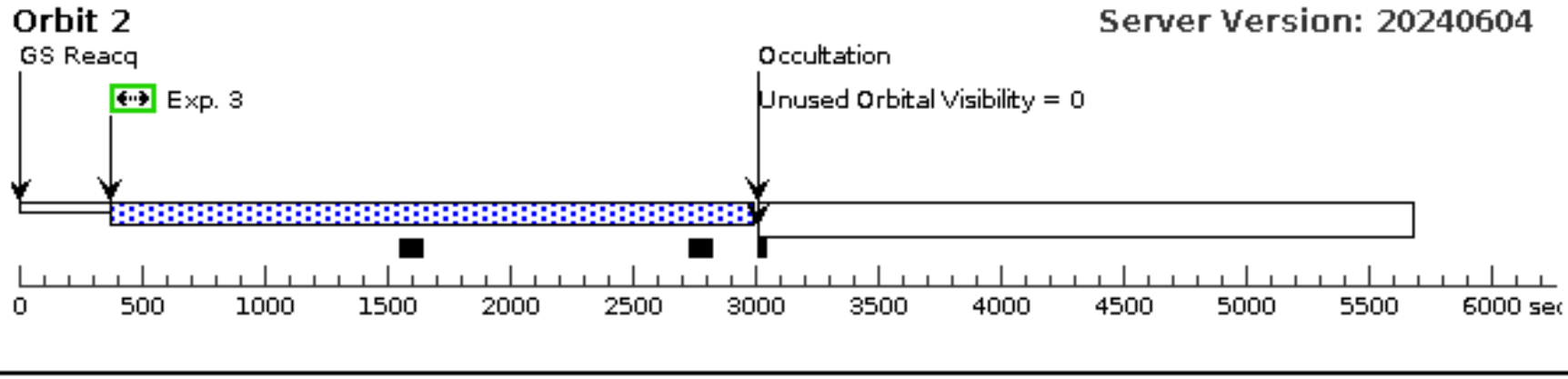
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

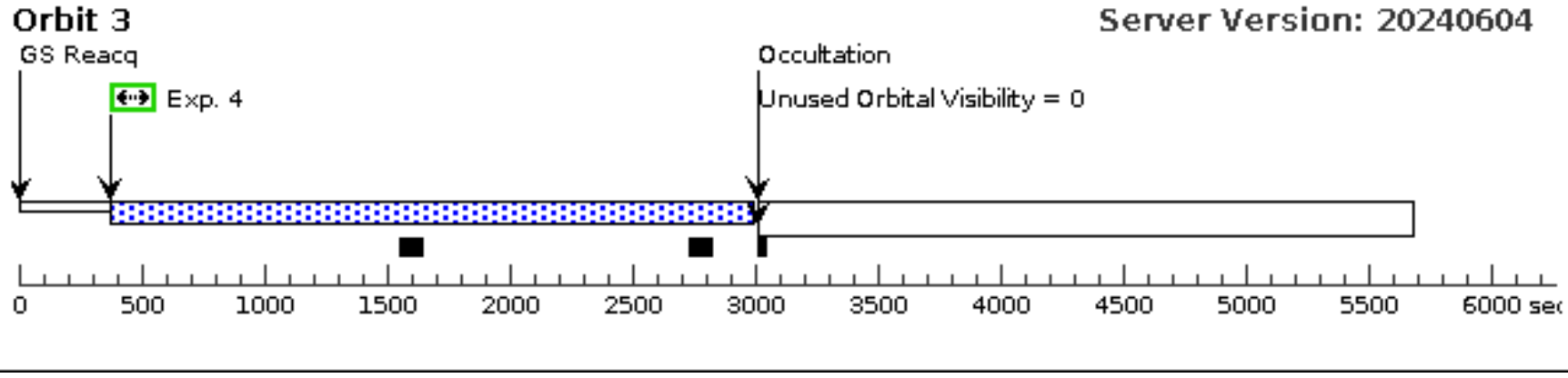
Exposures

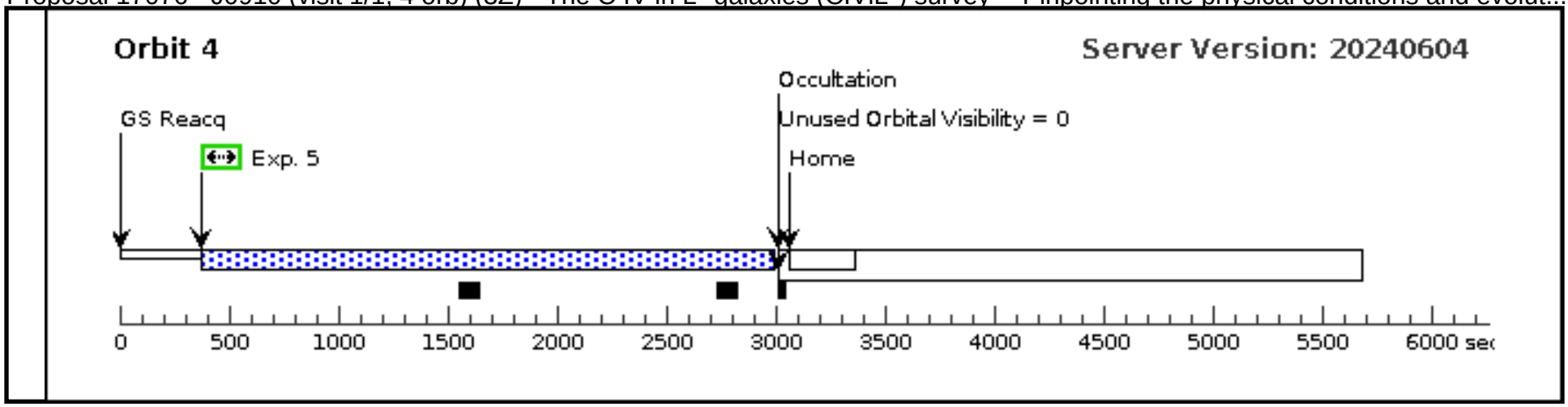
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811461)	(3) QSO-J0910+1014	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				24 Secs (24 Secs) *[==>]*	*[1]*
2	FP1 (COS.sp.1811493)	(3) QSO-J0910+1014	COS/NUV, TIME-TAG, PSA	G185M 1882 A	BUFFER-TIME=1175; FP-POS=1			2248 Secs (2248 Secs) *[==>]*	*[1]*
3	FP2 (COS.sp.1811493)	(3) QSO-J0910+1014	COS/NUV, TIME-TAG, PSA	G185M 1882 A	BUFFER-TIME=1175; FP-POS=2			2608 Secs (2608 Secs) *[==>]*	*[2]*
4	FP3 (COS.sp.1811493)	(3) QSO-J0910+1014	COS/NUV, TIME-TAG, PSA	G185M 1882 A	BUFFER-TIME=1175; FP-POS=3			2608 Secs (2608 Secs) *[==>]*	*[3]*
5	FP4 (COS.sp.1811493)	(3) QSO-J0910+1014	COS/NUV, TIME-TAG, PSA	G185M 1882 A	BUFFER-TIME=1175; FP-POS=4			2608 Secs (2608 Secs) *[==>]*	*[4]*

Orbit Structure





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4500
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5500
6000 sec

Visit

Proposal 17076, J0950 (visit 1/1, 4 orb) (04), completed Fri Jul 12 20:00:36 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Require 4-orbit visit to meet minimum S/N of 10 at position of CIV doublet at redshift of intervening galaxy

Diagnostics

(J0950 (visit 1/1, 4 orb) (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0950 (visit 1/1, 4 orb) (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0950 (visit 1/1, 4 orb) (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0950 (visit 1/1, 4 orb) (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

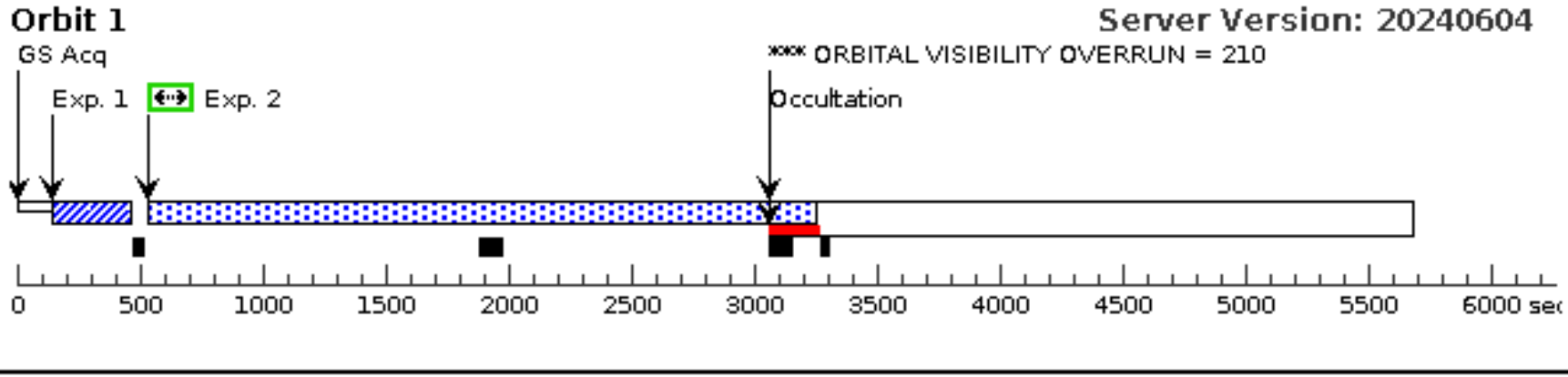
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	QSO-J0950+4831	RA: 09 50 0.7413 (147.5030888d) Dec: +48 31 29.33 (48.52481d) Equinox: J2000	Epoch of Position: 2000	V=17.47 FUV=17.86	Reference Frame: ICRS

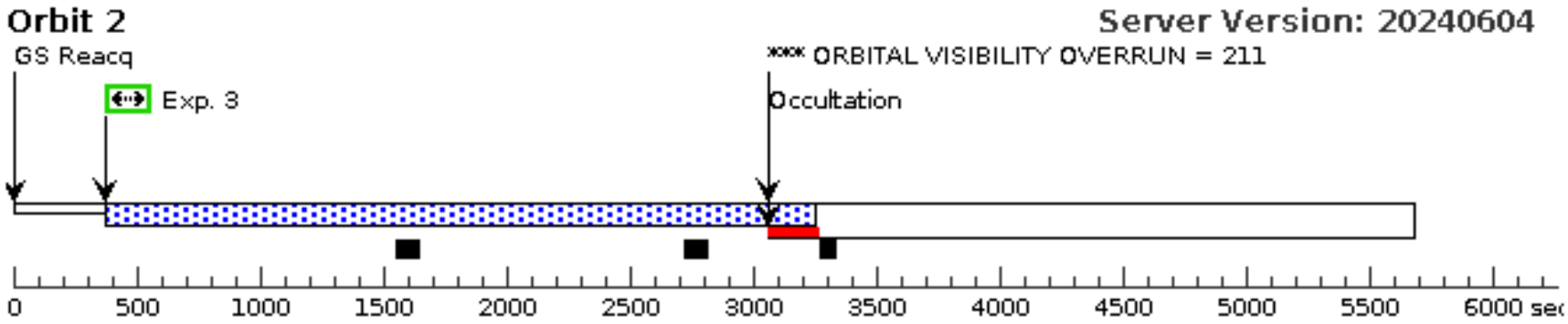
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

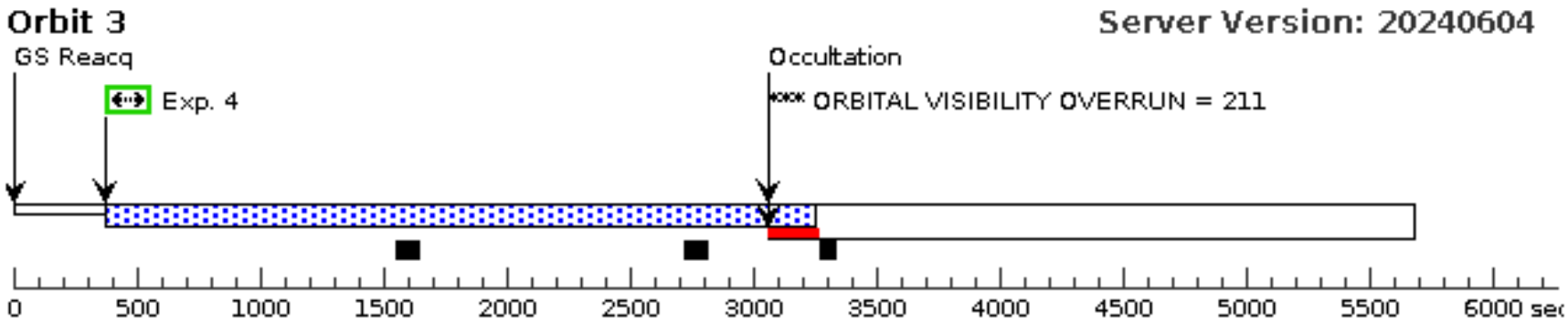
Exposures

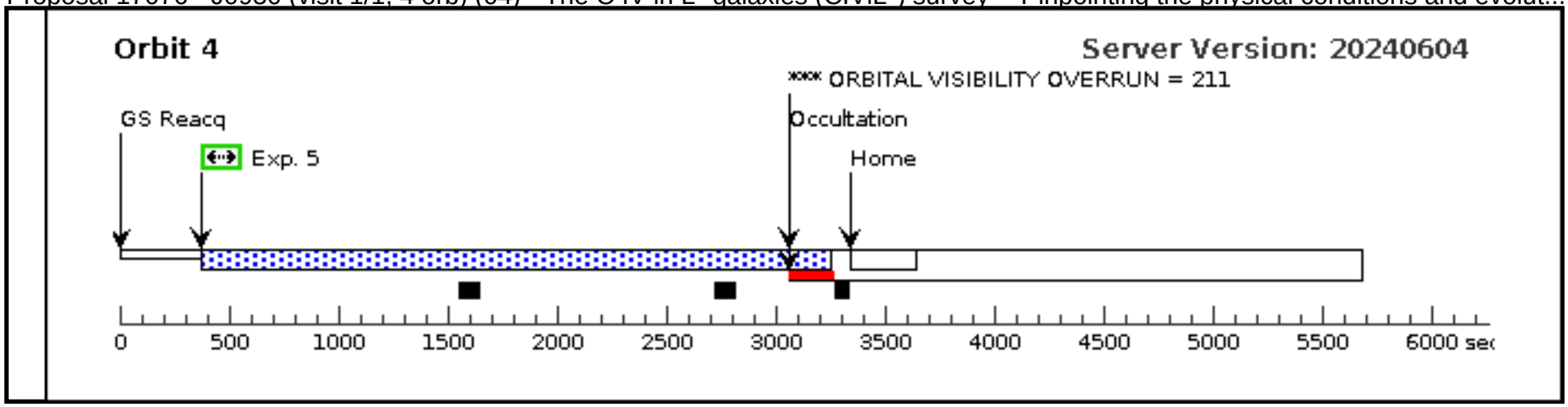
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811462)	(4) QSO-J0950+4831	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	*[1]*
2	FP1 (COS.sp.1811494)	(4) QSO-J0950+4831	COS/NUV, TIME-TAG, PSA	G185M 1971 A	BUFFER-TIME=1171; FP-POS=1			2527 Secs (2527 Secs) *[==>]*	*[1]*
3	FP2 (COS.sp.1811494)	(4) QSO-J0950+4831	COS/NUV, TIME-TAG, PSA	G185M 1971 A	BUFFER-TIME=1171; FP-POS=2			2866 Secs (2866 Secs) *[==>]*	*[2]*
4	FP3 (COS.sp.1811494)	(4) QSO-J0950+4831	COS/NUV, TIME-TAG, PSA	G185M 1971 A	BUFFER-TIME=1171; FP-POS=3			2866 Secs (2866 Secs) *[==>]*	*[3]*
5	FP4 (COS.sp.1811494)	(4) QSO-J0950+4831	COS/NUV, TIME-TAG, PSA	G185M 1971 A	BUFFER-TIME=1171; FP-POS=4			2866 Secs (2866 Secs) *[==>]*	*[4]*

Orbit Structure








Orbit 4
Server Version: 20240604
**** ORBITAL VISIBILITY OVERRUN = 211
GS Reacq
Exp. 5
Occultation
Home
0
500
1000
1500
2000
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3000
3500
4000
4500
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5500
6000 sec

Visit

Proposal 17076, J1016 (visit 1/3, 4 orb) (05), completed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Target has two intervening galaxies of interest. Require one 4-orbit visit of target to meet minimum S/N of 10 at position of CIV doublet at redshift of intervening galaxies. Using CENWAVE of 1953 in first orbit as S/N can be achieved with lower exposure time for the intervening galaxy at lower redshift.

Diagnostics

(J1016 (visit 1/3, 4 orb) (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1016 (visit 1/3, 4 orb) (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1016 (visit 1/3, 4 orb) (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1016 (visit 1/3, 4 orb) (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

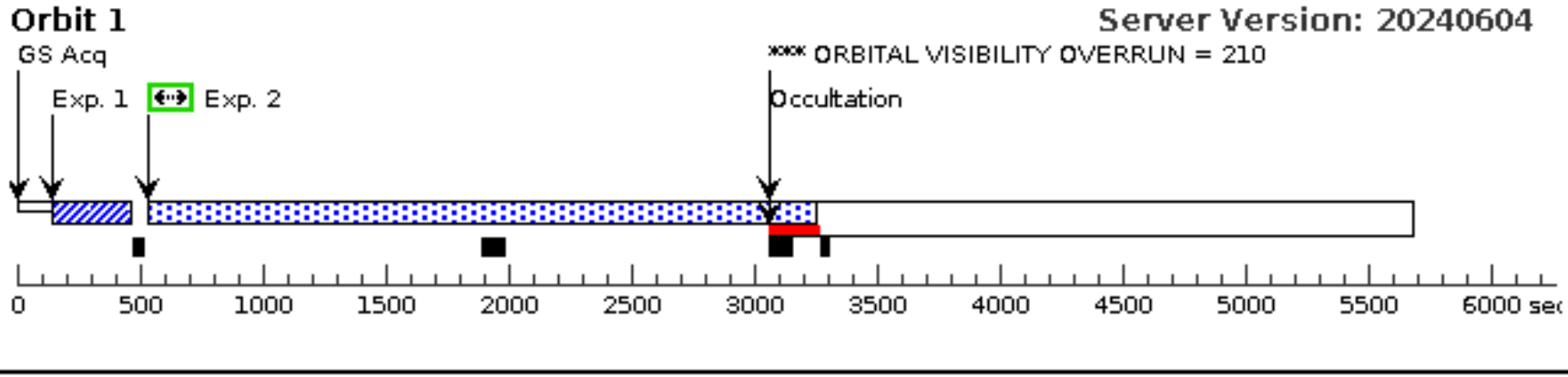
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	QSO-J1016+4706	RA: 10 16 22.6163 (154.0942346d) Dec: +47 06 43.34 (47.11204d) Equinox: J2000	Epoch of Position: 2000	V=17.29 FUV=17.99	Reference Frame: ICRS

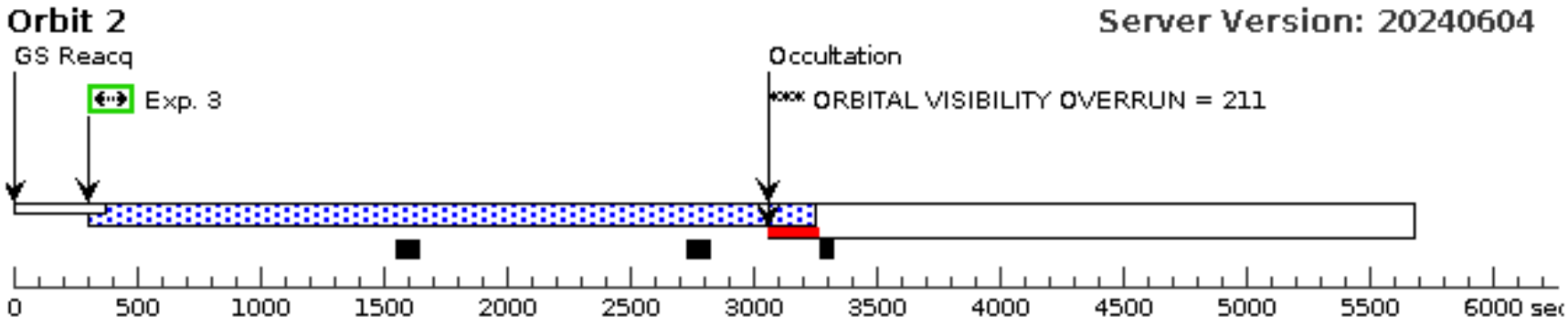
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

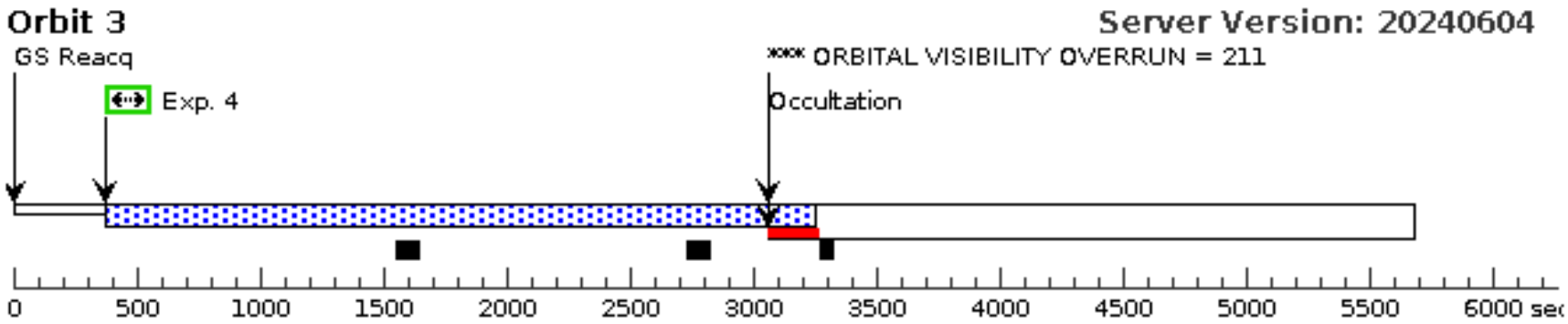
Exposures

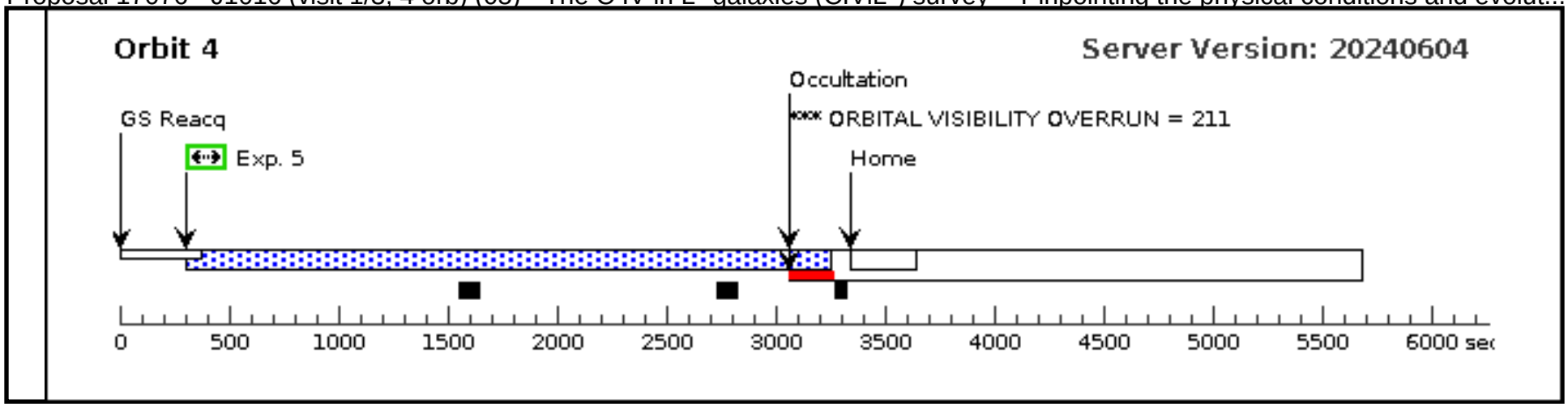
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811463)	(5) QSO-J1016+4706	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	***[1]***
2	FP1 CIV 1940 (COS.sp.1811497)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1941 A	FP-POS=1; BUFFER-TIME=1174			2527 Secs (2527 Secs) *[==>]*	***[1]***
3	FP1 CIV 1806 (COS.sp.1830800)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=1; BUFFER-TIME=1174			2866 Secs (2866 Secs) *[==>]*	***[2]***
4	FP2 CIV 1806 (COS.sp.1830800)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=2; BUFFER-TIME=1174			2866 Secs (2866 Secs) *[==>]*	***[3]***
5	FP2 CIV 1940 (COS.sp.1811497)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1941 A	FP-POS=2; BUFFER-TIME=1174			2866 Secs (2866 Secs) *[==>]*	***[4]***

Orbit Structure








Orbit 4
Server Version: 20240604
Occultation
GS Reacq
**** ORBITAL VISIBILITY OVERRUN = 211
Exp. 5
Home
0
500
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1500
2000
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3500
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4500
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6000 sec

Visit

Proposal 17076, J1016 (visit 2/3, 3 orb) (06), completed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Target has two intervening galaxies of interest. Using CENWAVE of 1953 in first orbit as S/N can be achieved with lower exposure time for the intervening galaxy at lower redshift.

Diagnostics

(J1016 (visit 2/3, 3 orb) (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1016 (visit 2/3, 3 orb) (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1016 (visit 2/3, 3 orb) (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

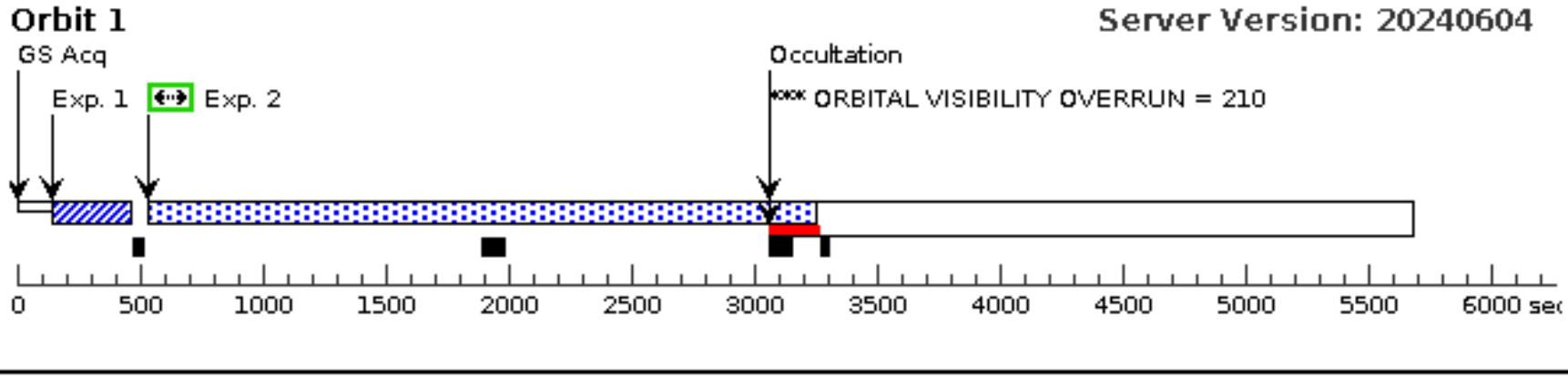
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	QSO-J1016+4706	RA: 10 16 22.6163 (154.0942346d) Dec: +47 06 43.34 (47.11204d) Equinox: J2000	Epoch of Position: 2000	V=17.29 FUV=17.99	Reference Frame: ICRS

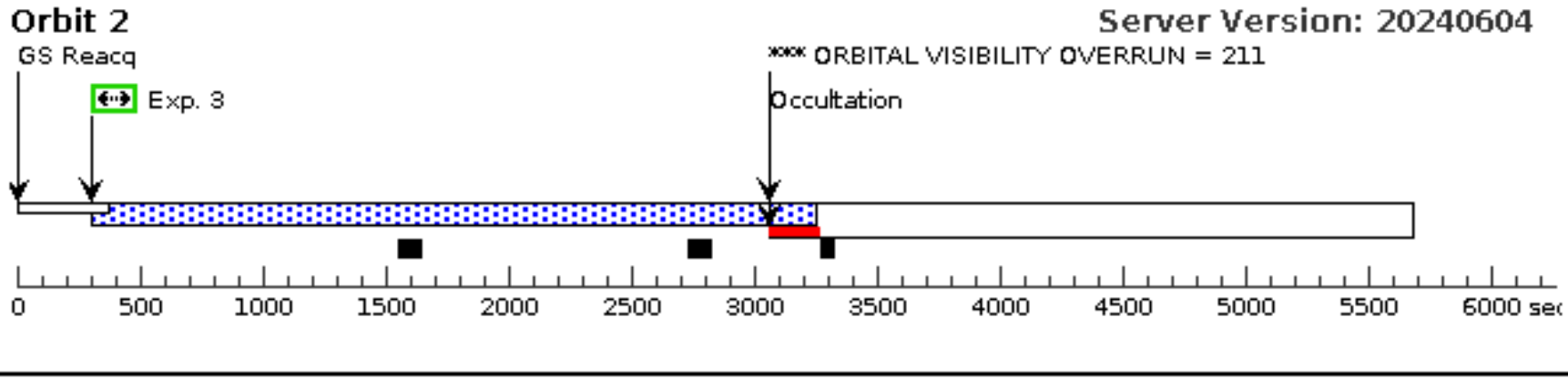
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

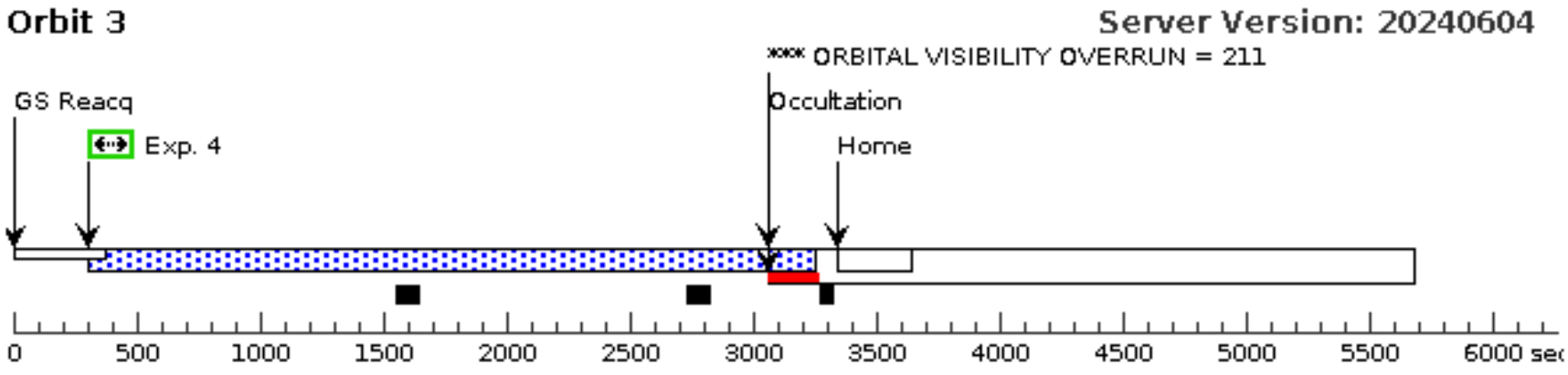
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811463)	(5) QSO-J1016+4706	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	*[1]*
2	FP3 CIV 1940 (COS.sp.1811497)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1941 A	FP-POS=3; BUFFER-TIME=1174			2527 Secs (2527 Secs) *[==>]*	*[1]*
3	FP3 CIV 1806 (COS.sp.1830800)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=3; BUFFER-TIME=1174			2866 Secs (2866 Secs) *[==>]*	*[2]*
4	FP4 CIV 1940 (COS.sp.1811497)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1941 A	FP-POS=4; BUFFER-TIME=1174			2866 Secs (2866 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 17076, J1016 (visit 3/3, 3 orb) (07), completed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Target has two intervening galaxies of interest. Using CENWAVE of 1953 in first orbit as S/N can be achieved with lower exposure time for the intervening galaxy at lower redshift.

Diagnostics

(J1016 (visit 3/3, 3 orb) (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1016 (visit 3/3, 3 orb) (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1016 (visit 3/3, 3 orb) (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

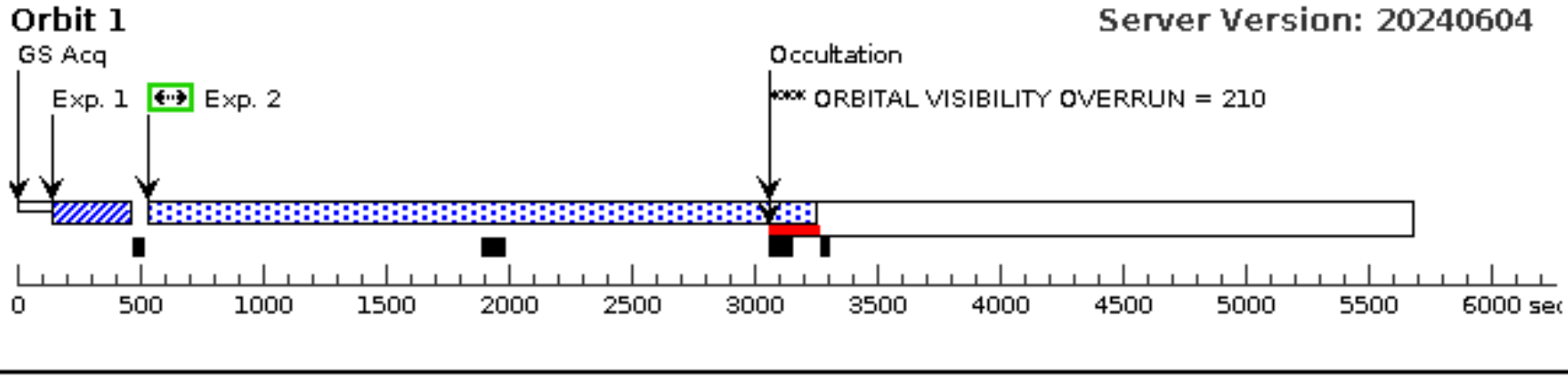
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	QSO-J1016+4706	RA: 10 16 22.6163 (154.0942346d) Dec: +47 06 43.34 (47.11204d) Equinox: J2000	Epoch of Position: 2000	V=17.29 FUV=17.99	Reference Frame: ICRS

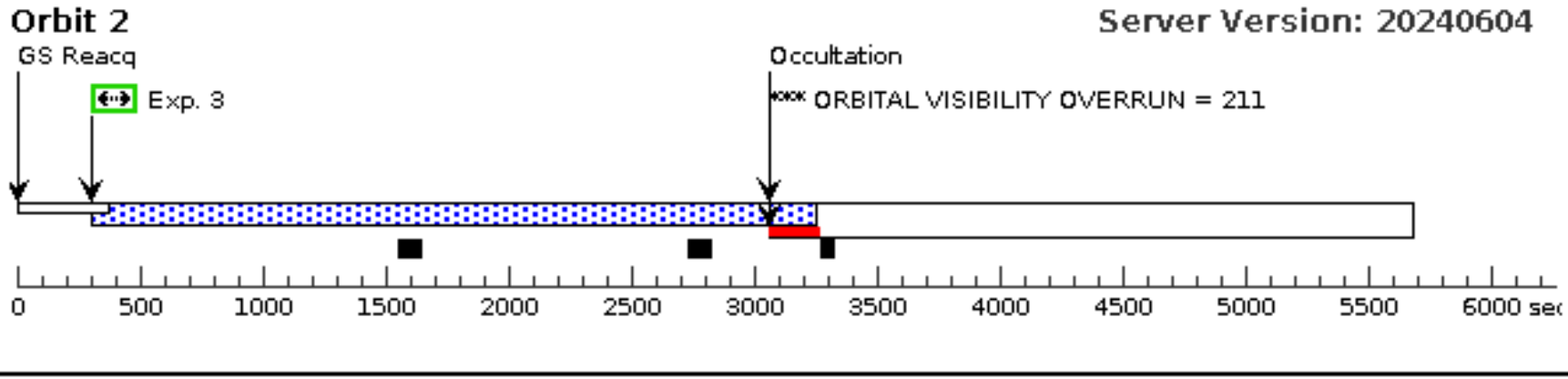
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

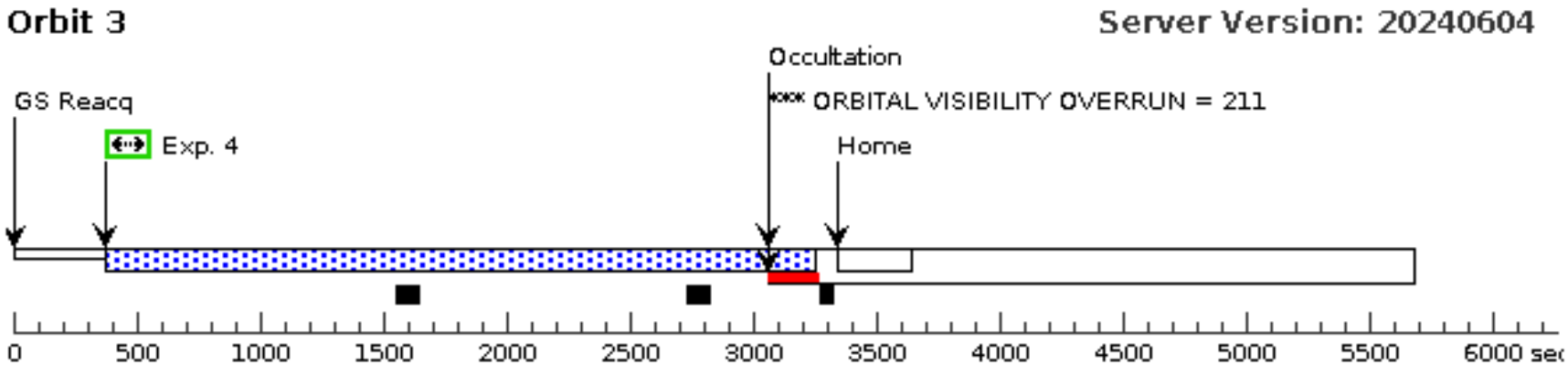
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811463)	(5) QSO-J1016+4706	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	*[1]*
2	FP1 CIV 1940 (COS.sp.1811497)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1941 A	FP-POS=1; BUFFER-TIME=1174			2527 Secs (2527 Secs) *[==>]*	*[1]*
3	FP1 CIV 1806 (COS.sp.1830800)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=1; BUFFER-TIME=1174			2866 Secs (2866 Secs) *[==>]*	*[2]*
4	FP4 CIV 1806 (COS.sp.1830800)	(5) QSO-J1016+4706	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=4; BUFFER-TIME=1174			2866 Secs (2866 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 17076, J1342 (visit 1/3, 3 orb) (08), completed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Target has two intervening galaxies of interest. Using CENWAVE of 1953 in first orbit as S/N can be achieved with lower exposure time for the intervening galaxy at lower redshift.

Diagnostics

(J1342 (visit 1/3, 3 orb) (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1342 (visit 1/3, 3 orb) (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1342 (visit 1/3, 3 orb) (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

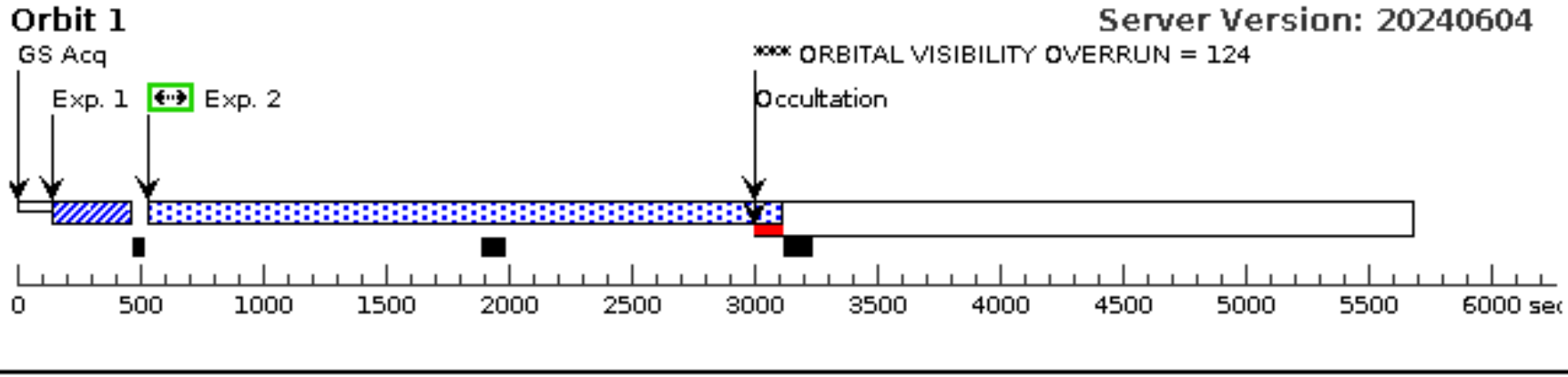
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	QSO-J1342-0053	RA: 13 42 51.6065 (205.7150271d) Dec: -00 53 45.39 (-.89594d) Equinox: J2000	Epoch of Position: 2000	V=16.98 FUV=17.42	Reference Frame: ICRS

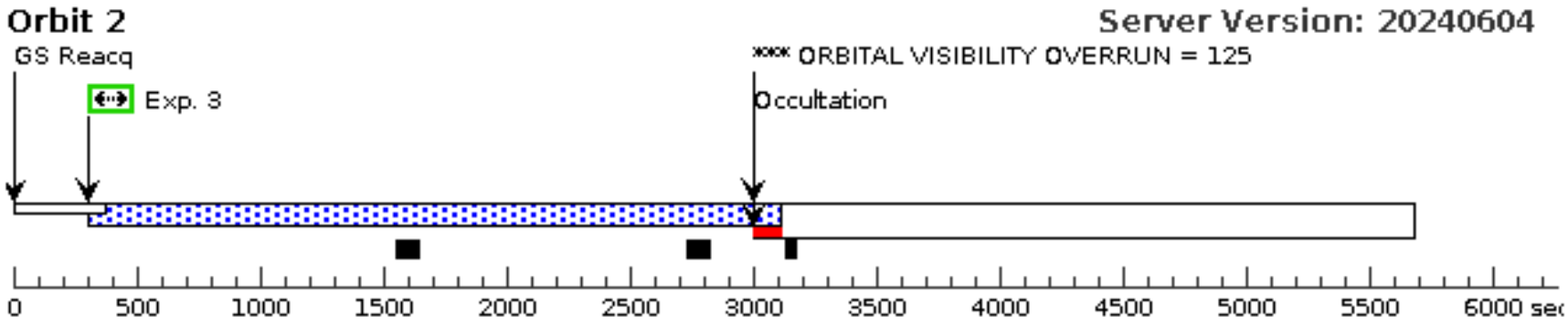
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

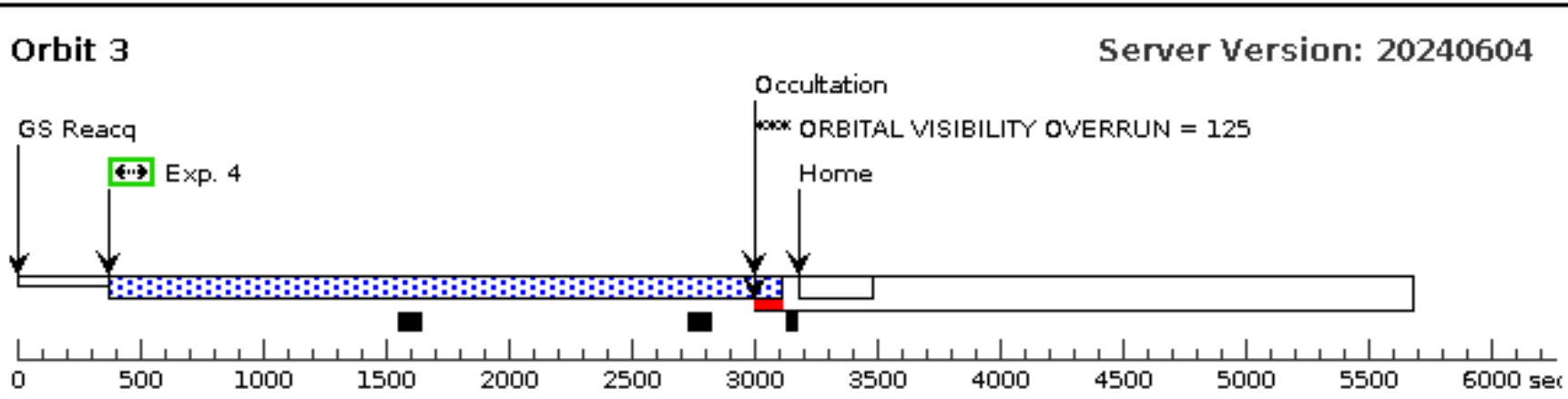
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811464)	(6) QSO-J1342-0053	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	***[1]***
2	FP1 CIV 1860 (COS.sp.1811499)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1953 A	FP-POS=1; BUFFER-TIME=1173			2384 Secs (2384 Secs) *[==>]*	***[1]***
3	FP1 CIV 1900 (COS.sp.1811500)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1913 A	FP-POS=1; BUFFER-TIME=1174			2723 Secs (2723 Secs) *[==>]*	***[2]***
4	FP2 CIV 1900 (COS.sp.1811500)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1913 A	FP-POS=2; BUFFER-TIME=1174			2723 Secs (2723 Secs) *[==>]*	***[3]***

Orbit Structure







Visit

Proposal 17076, J1342 (visit 2/3, 3 orb) (09), failed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Target has two intervening galaxies of interest. Using CENWAVE of 1953 in first orbit as S/N can be achieved with lower exposure time for the intervening galaxy at lower redshift.

Diagnostics

(J1342 (visit 2/3, 3 orb) (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1342 (visit 2/3, 3 orb) (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1342 (visit 2/3, 3 orb) (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

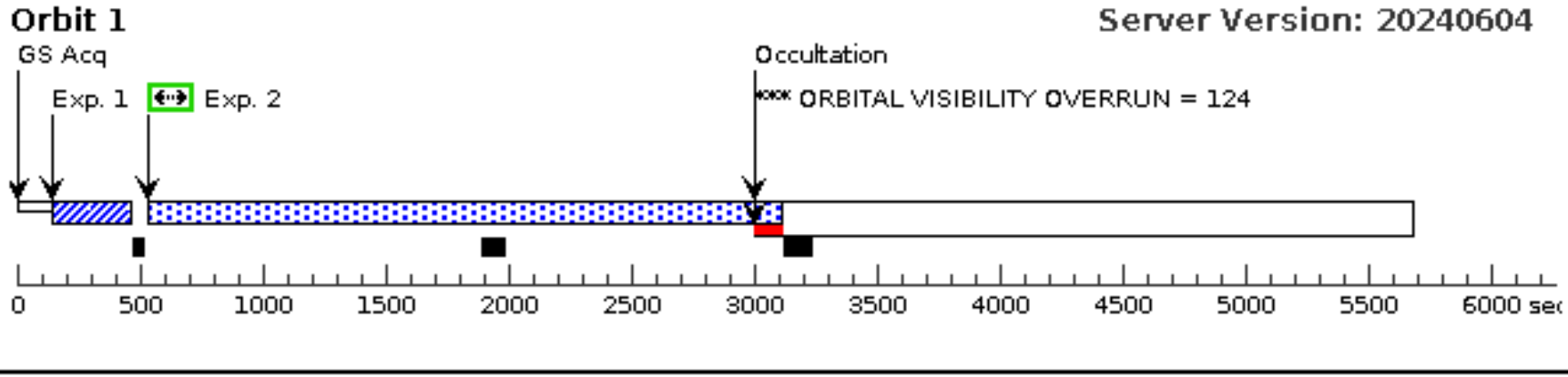
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	QSO-J1342-0053	RA: 13 42 51.6065 (205.7150271d) Dec: -00 53 45.39 (-.89594d) Equinox: J2000	Epoch of Position: 2000	V=16.98 FUV=17.42	Reference Frame: ICRS

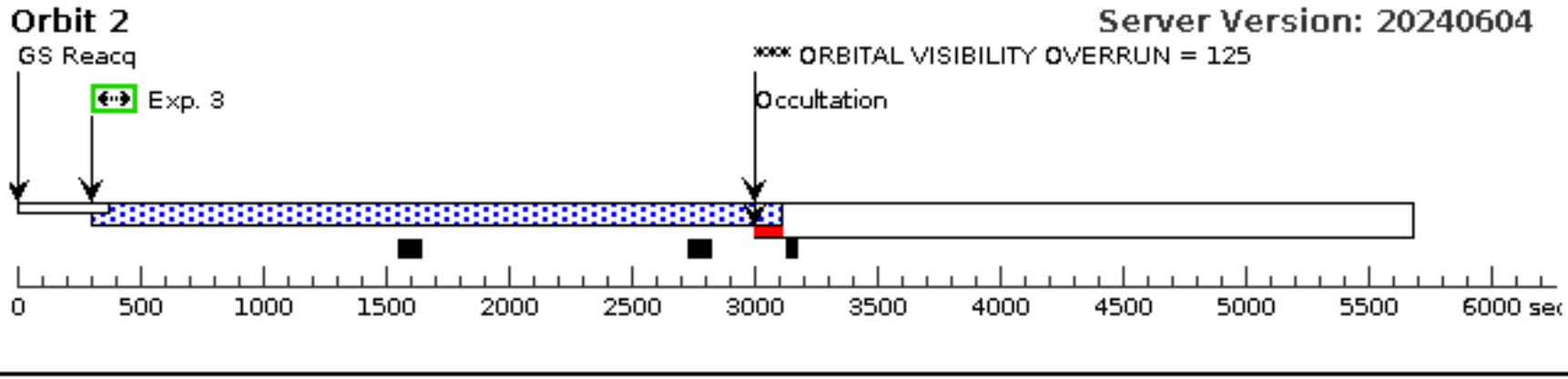
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

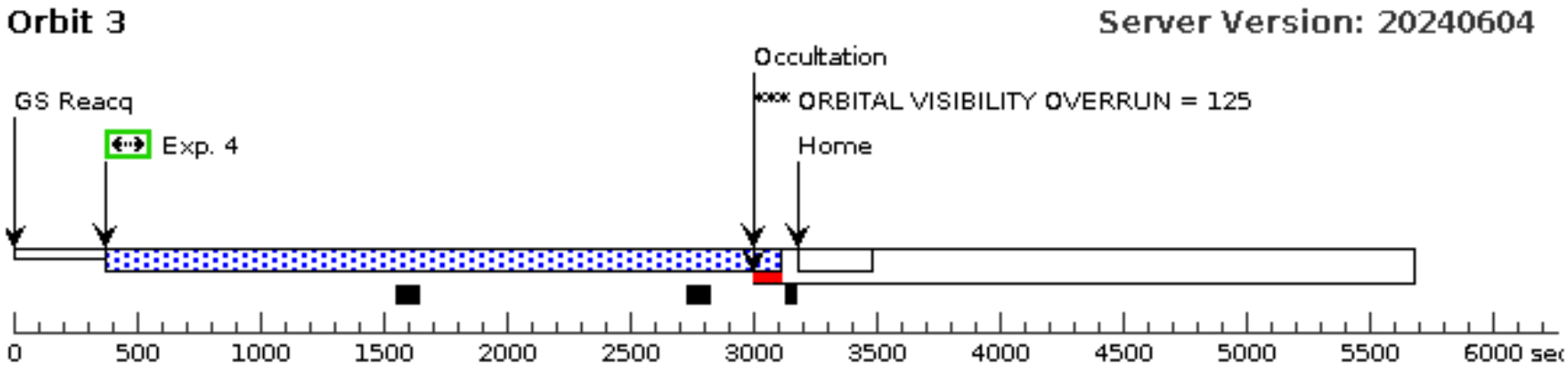
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811464)	(6) QSO-J1342-0053	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	***[1]***
2	FP2 CIV 1860 (COS.sp.1811499)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1953 A	FP-POS=2; BUFFER-TIME=1173			2384 Secs (2384 Secs) *[==>]*	***[1]***
3	FP2 CIV 1900 (COS.sp.1811500)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1913 A	FP-POS=2; BUFFER-TIME=1174			2723 Secs (2723 Secs) *[==>]*	***[2]***
4	FP3 CIV 1900 (COS.sp.1811500)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1913 A	FP-POS=3; BUFFER-TIME=1174			2723 Secs (2723 Secs) *[==>]*	***[3]***

Orbit Structure







Visit

Proposal 17076, J1342 HOPR (Z3), completed

Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: HOPR for partial failed visit 9

Diagnostics

(J1342 HOPR (Z3)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

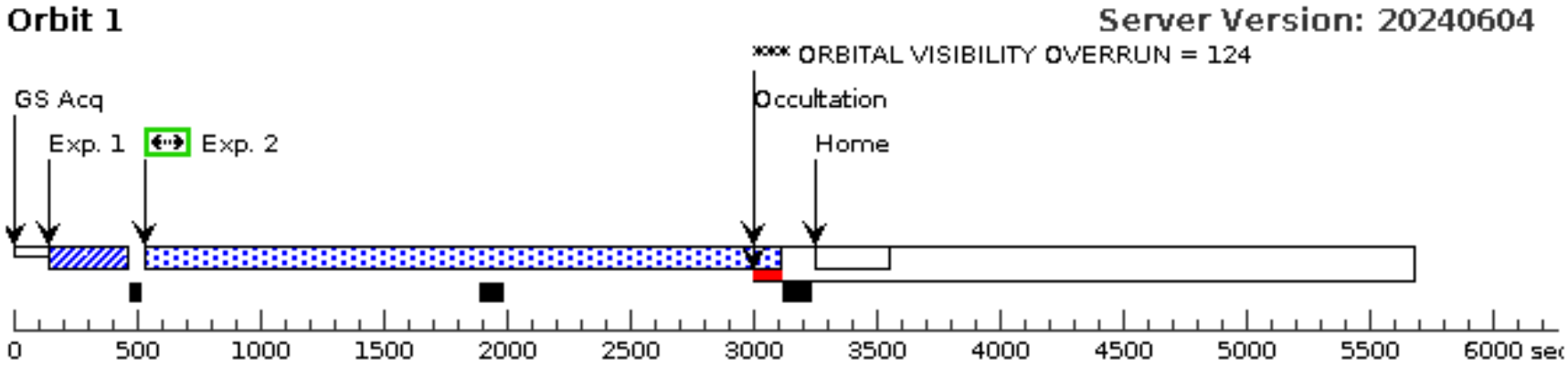
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	QSO-J1342-0053	RA: 13 42 51.6065 (205.7150271d) Dec: -00 53 45.39 (-.89594d) Equinox: J2000	Epoch of Position: 2000	V=16.98 FUV=17.42	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811464)	(6) QSO-J1342-0053	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	 ***[1]***
2	FP2 CIV 1860 (COS.sp.1811499)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1953 A	FP-POS=2; BUFFER-TIME=1173			2384 Secs (2384 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17076, J1342 (visit 3/3, 3 orb) (10), completed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Target has two intervening galaxies of interest. Using CENWAVE of 1953 in first orbit as S/N can be achieved with lower exposure time for the intervening galaxy at lower redshift.

Diagnostics

(J1342 (visit 3/3, 3 orb) (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1342 (visit 3/3, 3 orb) (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1342 (visit 3/3, 3 orb) (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

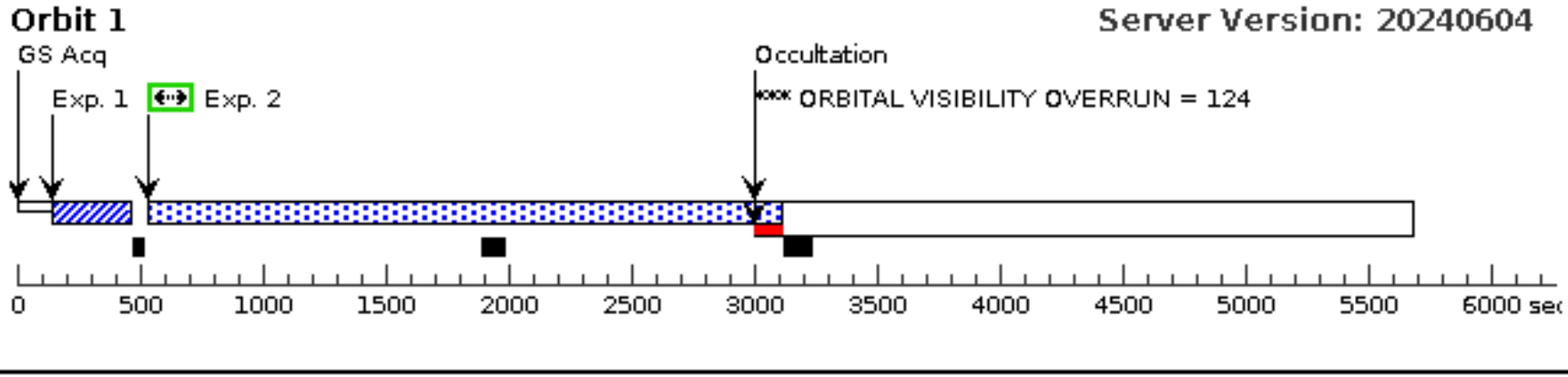
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	QSO-J1342-0053	RA: 13 42 51.6065 (205.7150271d) Dec: -00 53 45.39 (-.89594d) Equinox: J2000	Epoch of Position: 2000	V=16.98 FUV=17.42	Reference Frame: ICRS

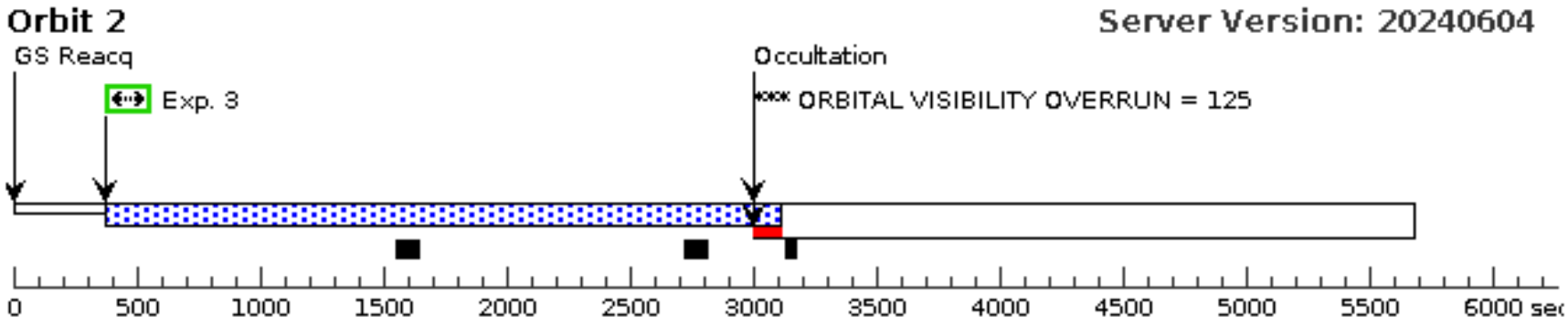
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

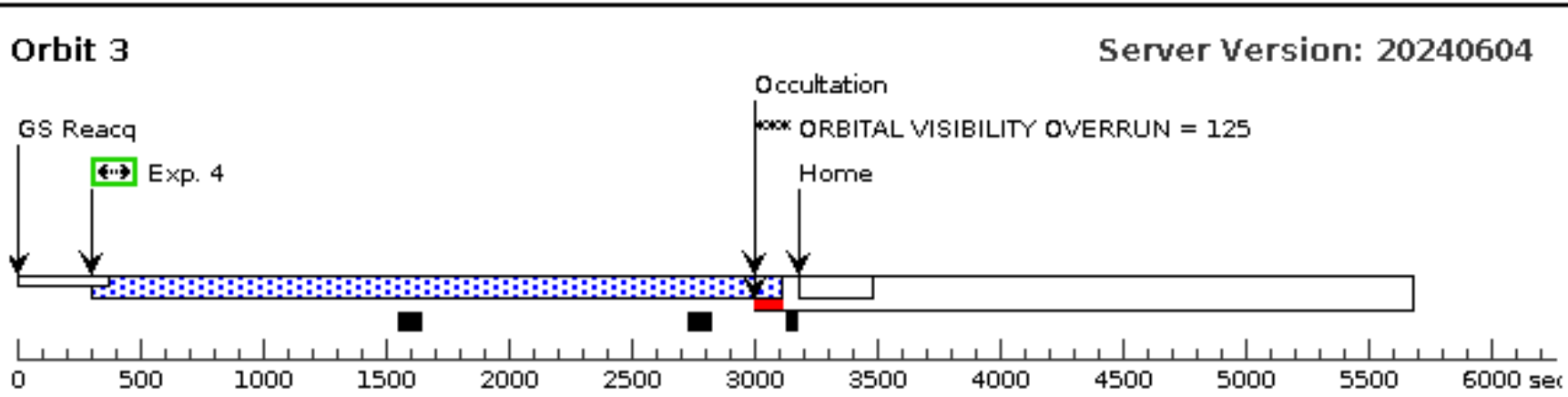
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811464)	(6) QSO-J1342-0053	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs) *[==>]*	***[1]***
2	FP3 CIV 1860 (COS.sp.1811499)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1953 A	FP-POS=3; BUFFER-TIME=1173			2384 Secs (2384 Secs) *[==>]*	***[1]***
3	FP4 CIV 1860 (COS.sp.1811499)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1953 A	FP-POS=4; BUFFER-TIME=1173			2723 Secs (2723 Secs) *[==>]*	***[2]***
4	FP4 CIV 1900 (COS.sp.1811500)	(6) QSO-J1342-0053	COS/NUV, TIME-TAG, PSA	G185M 1913 A	FP-POS=4; BUFFER-TIME=1174			2723 Secs (2723 Secs) *[==>]*	***[3]***

Orbit Structure







Visit

Proposal 17076, J1419 (visit 1/1, 4 orb) (11), completed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Comments: Require 4-orbit visit to meet minimum S/N of 10 at position of CIV doublet at redshift of intervening galaxy

Diagnostics

(J1419 (visit 1/1, 4 orb) (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1419 (visit 1/1, 4 orb) (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1419 (visit 1/1, 4 orb) (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1419 (visit 1/1, 4 orb) (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

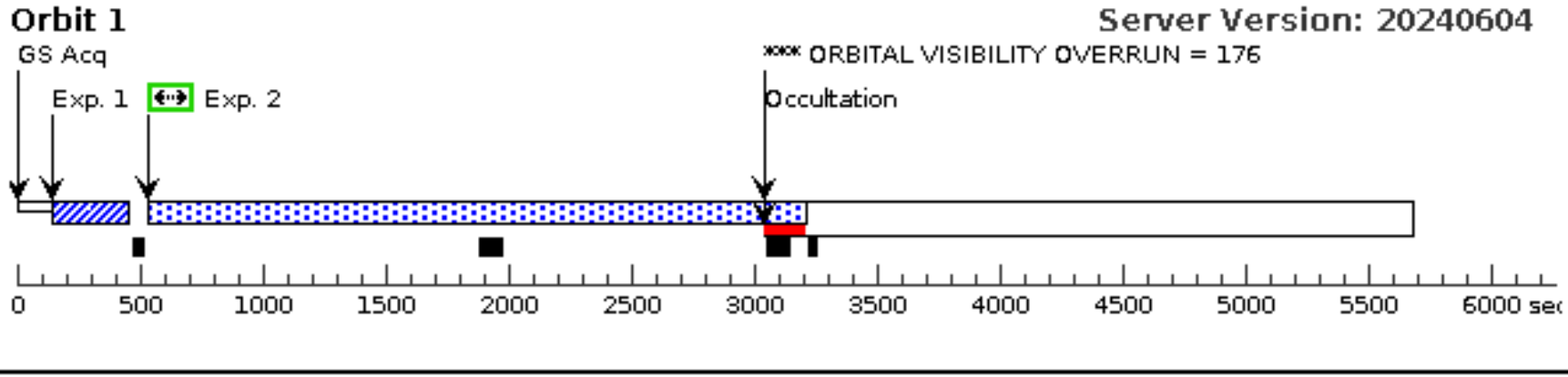
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	QSO-J1419+4207	RA: 14 19 10.2069 (214.7925288d) Dec: +42 07 46.91 (42.12970d) Equinox: J2000	Epoch of Position: 2000	V=17.31 FUV=17.83	Reference Frame: ICRS

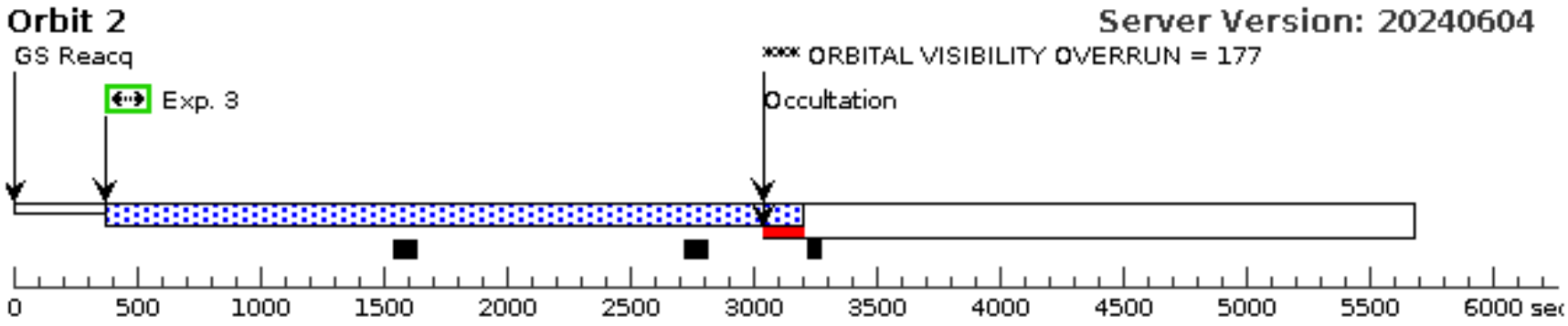
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

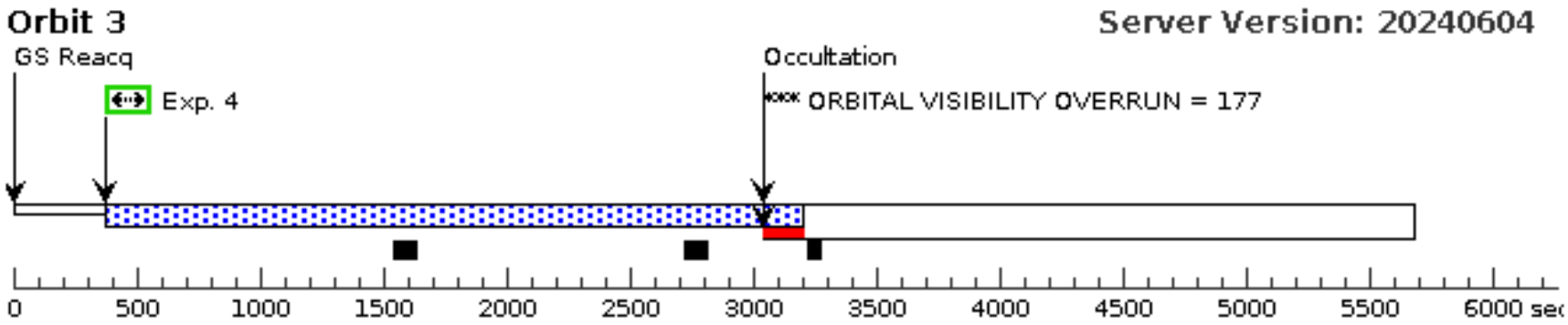
Exposures

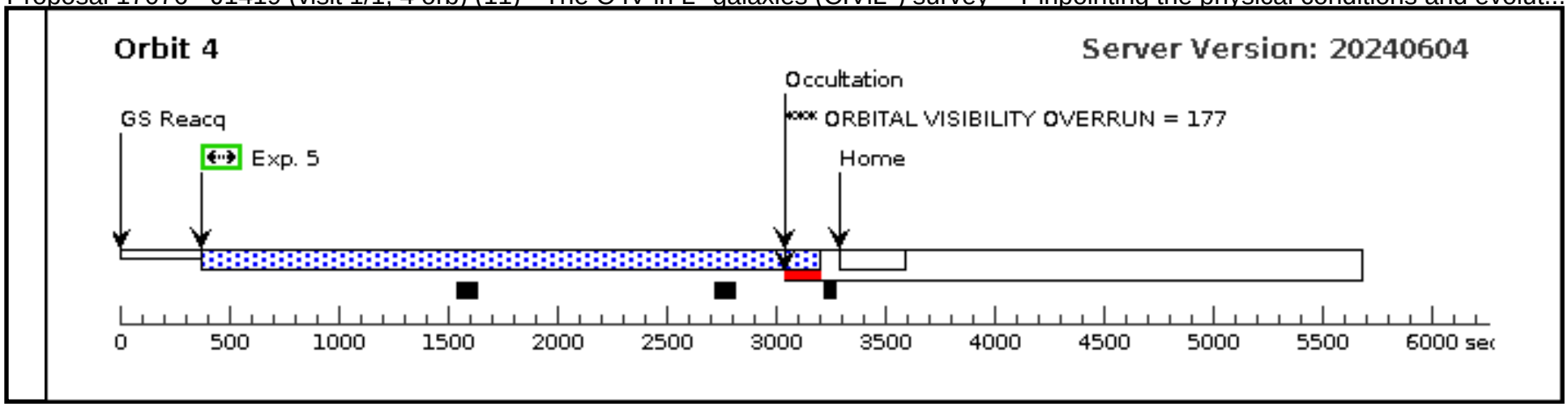
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811465)	(7) QSO-J1419+4207	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11 Secs (11 Secs) *[==>]*	 ***[1]***
2	FP1 (COS.sp.1811501)	(7) QSO-J1419+4207	COS/NUV, TIME-TAG, PSA	G185M 1921 A	BUFFER-TIME=1169; FP-POS=1			2484 Secs (2484 Secs) *[==>]*	 ***[1]***
3	FP2 (COS.sp.1811501)	(7) QSO-J1419+4207	COS/NUV, TIME-TAG, PSA	G185M 1921 A	BUFFER-TIME=1169; FP-POS=2			2819 Secs (2819 Secs) *[==>]*	 ***[2]***
4	FP3 (COS.sp.1811501)	(7) QSO-J1419+4207	COS/NUV, TIME-TAG, PSA	G185M 1921 A	BUFFER-TIME=1169; FP-POS=3			2819 Secs (2819 Secs) *[==>]*	 ***[3]***
5	FP4 (COS.sp.1811501)	(7) QSO-J1419+4207	COS/NUV, TIME-TAG, PSA	G185M 1921 A	BUFFER-TIME=1169; FP-POS=4			2819 Secs (2819 Secs) *[==>]*	 ***[4]***

Orbit Structure








Orbit 4
Server Version: 20240604
Occultation
GS Reacq
**** ORBITAL VISIBILITY OVERRUN = 177
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17076, J0959 (visit 1/1, 3 orb) (12), failed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J0959 (visit 1/1, 3 orb) (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0959 (visit 1/1, 3 orb) (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0959 (visit 1/1, 3 orb) (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

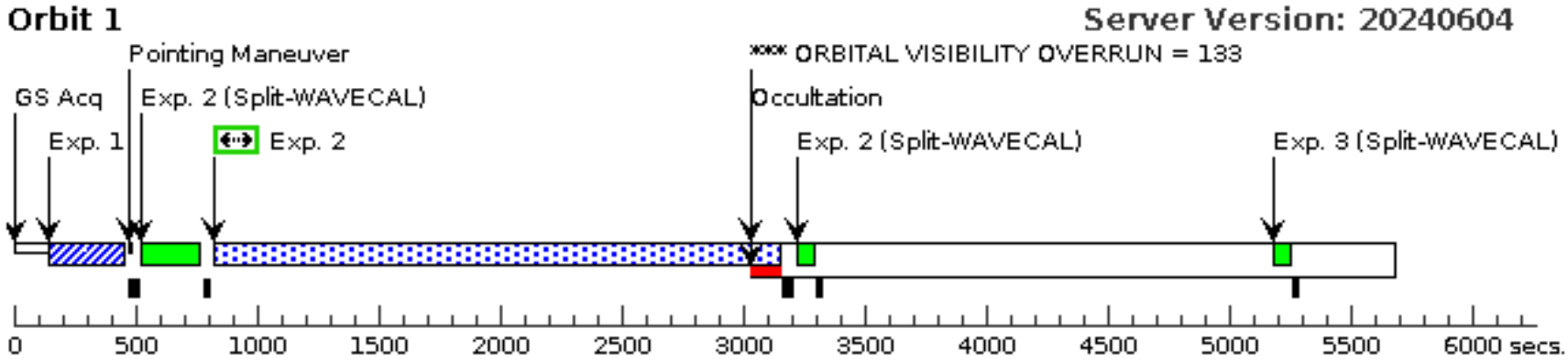
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	QSO-J0959+3203	RA: 09 59 14.8561 (149.8119004d) Dec: +32 03 57.32 (32.06592d) Equinox: J2000	Epoch of Position: 2000	V=17.22 FUV=17.53	Reference Frame: ICRS

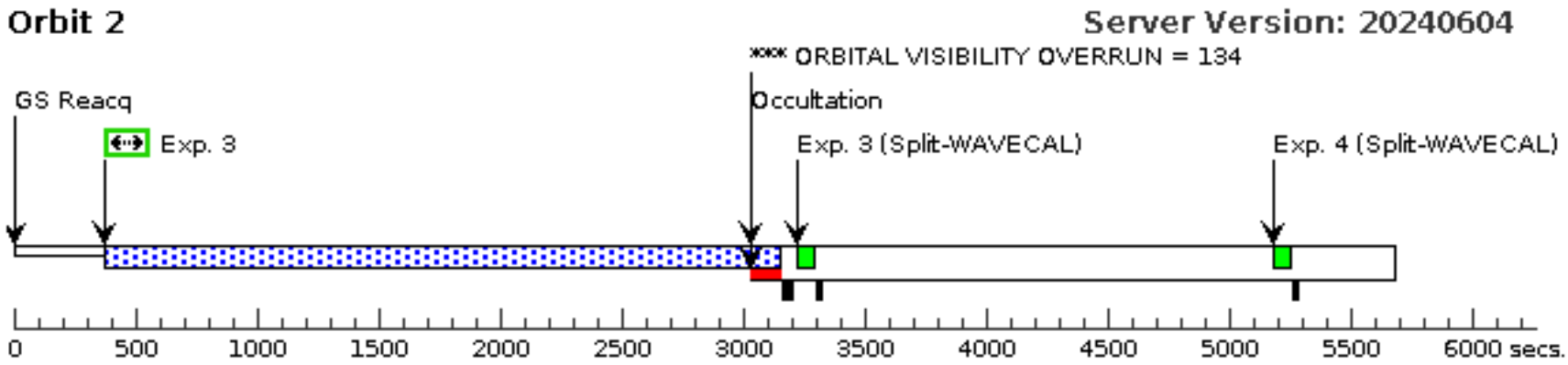
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

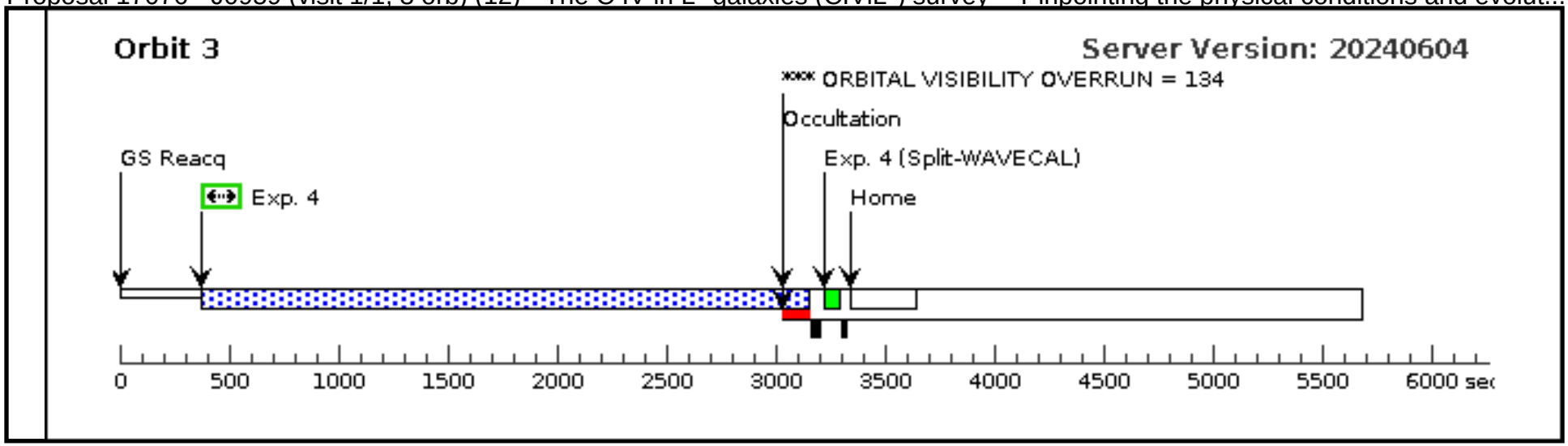
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811467)	(8) QSO-J0959+3203	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				10 Secs (10 Secs) *[==>]*	***[1]***
2	FP1 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=1; SEGMENT=BOTH			2281 Secs (2281 Secs) *[==>]*	***[1]***
3	FP2 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=2; SEGMENT=BOTH			2728 Secs (2728 Secs) *[==>]*	***[2]***
4	FP4 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=4; SEGMENT=BOTH			2728 Secs (2728 Secs) *[==>]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
**** ORBITAL VISIBILITY OVERRUN = 134
Occultation
GS Reacq
Exp. 4
Exp. 4 (Split-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17076, J0959 HOPR (Z2), failed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: HOPR for failed visit 12

Diagnostics

(J0959 HOPR (Z2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0959 HOPR (Z2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J0959 HOPR (Z2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

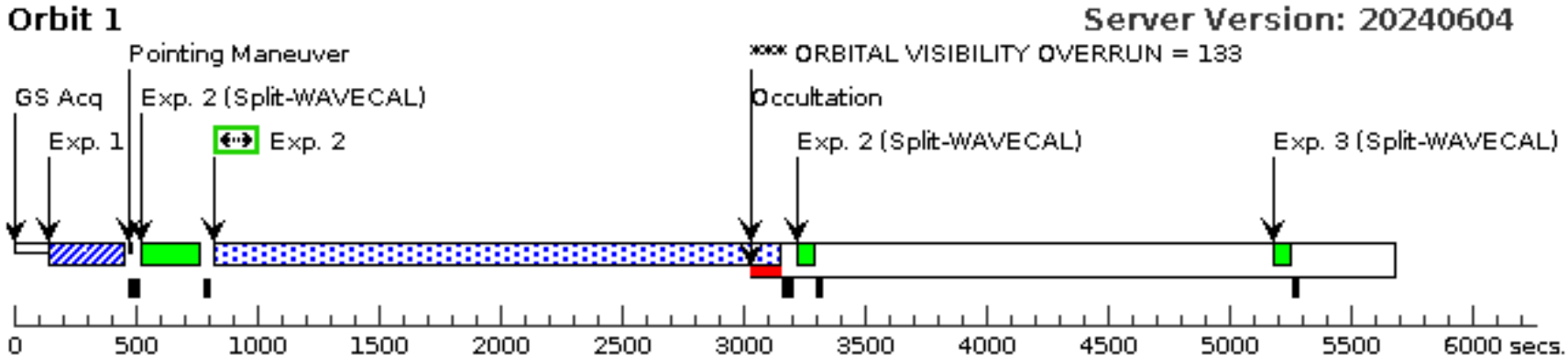
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	QSO-J0959+3203	RA: 09 59 14.8561 (149.8119004d) Dec: +32 03 57.32 (32.06592d) Equinox: J2000	Epoch of Position: 2000	V=17.22 FUV=17.53	Reference Frame: ICRS

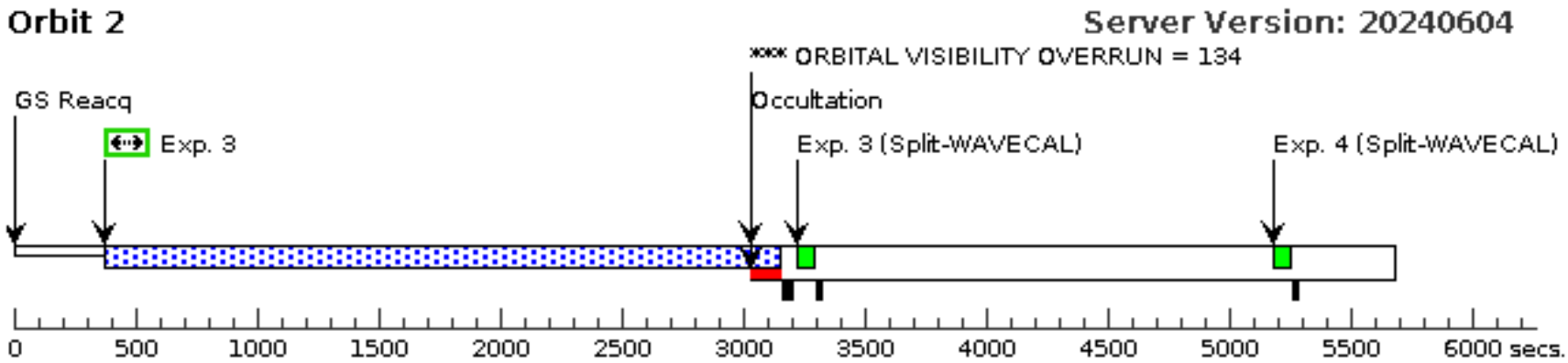
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

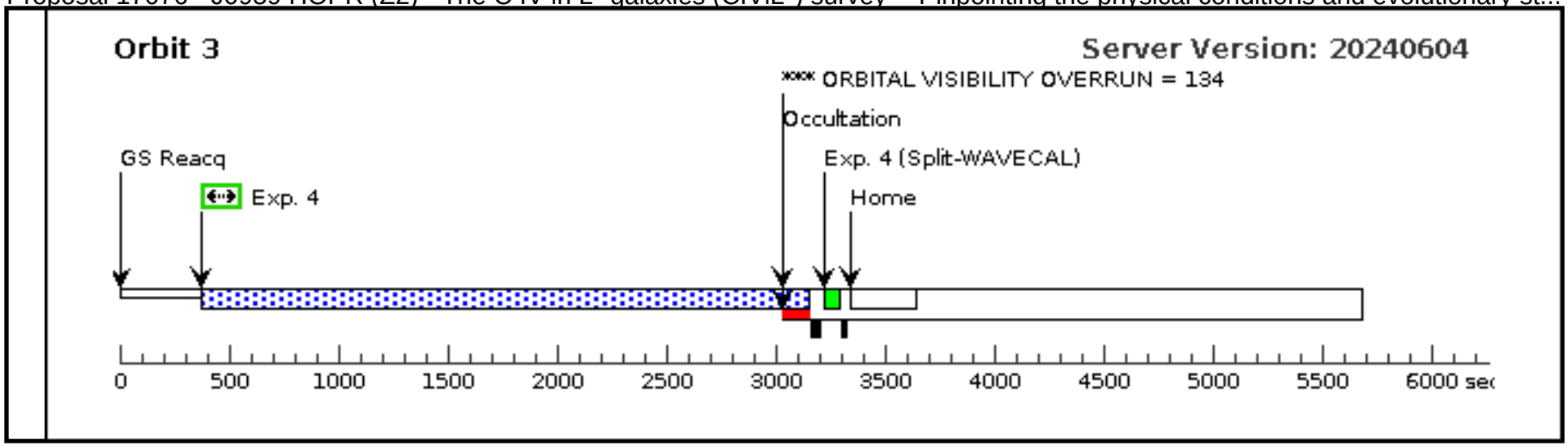
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811467)	(8) QSO-J0959+3203	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				10 Secs (10 Secs) *[==>]*	*[1]*
2	FP1 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=1; SEGMENT=BOTH			2281 Secs (2281 Secs) *[==>]*	*[1]*
3	FP2 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=2; SEGMENT=BOTH			2728 Secs (2728 Secs) *[==>]*	*[2]*
4	FP4 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=4; SEGMENT=BOTH			2728 Secs (2728 Secs) *[==>]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20240604
*** ORBITAL VISIBILITY OVERRUN = 134
Occultation
GS Reacq
Exp. 4
Exp. 4 (Split-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17076, HOPR (Z4), implementation Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: HOPR for failed visit Z2 which was a HOPR for failed visit 12

Fixed Targets

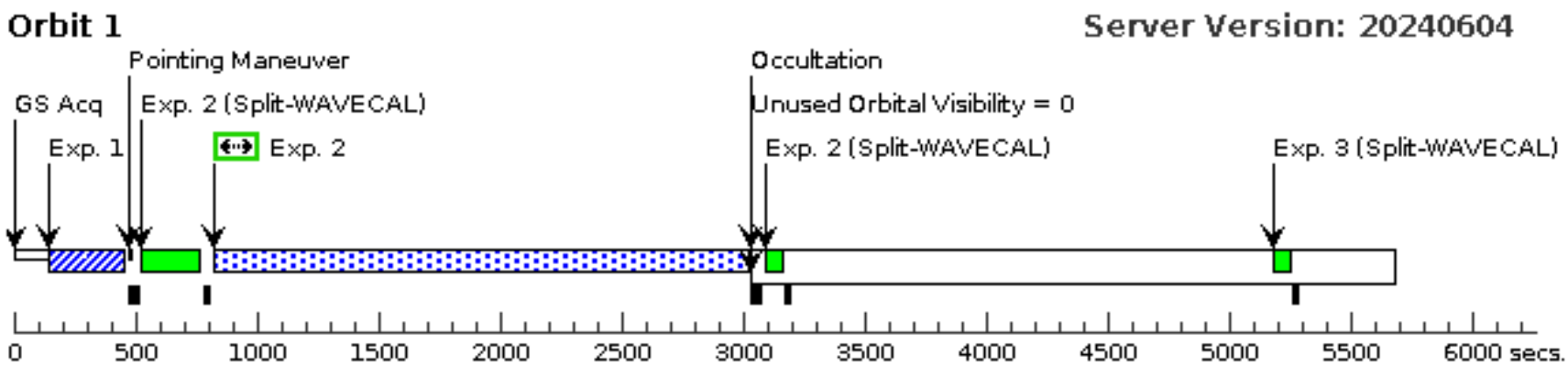
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	QSO-J0959+3203	RA: 09 59 14.8561 (149.8119004d) Dec: +32 03 57.32 (32.06592d) Equinox: J2000	Epoch of Position: 2000	V=17.22 FUV=17.53	Reference Frame: ICRS

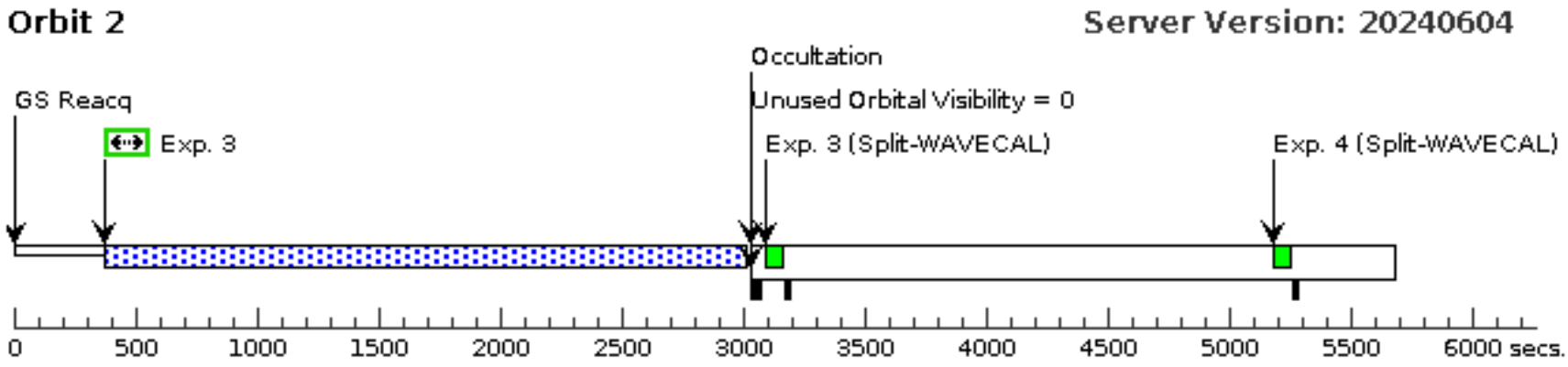
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

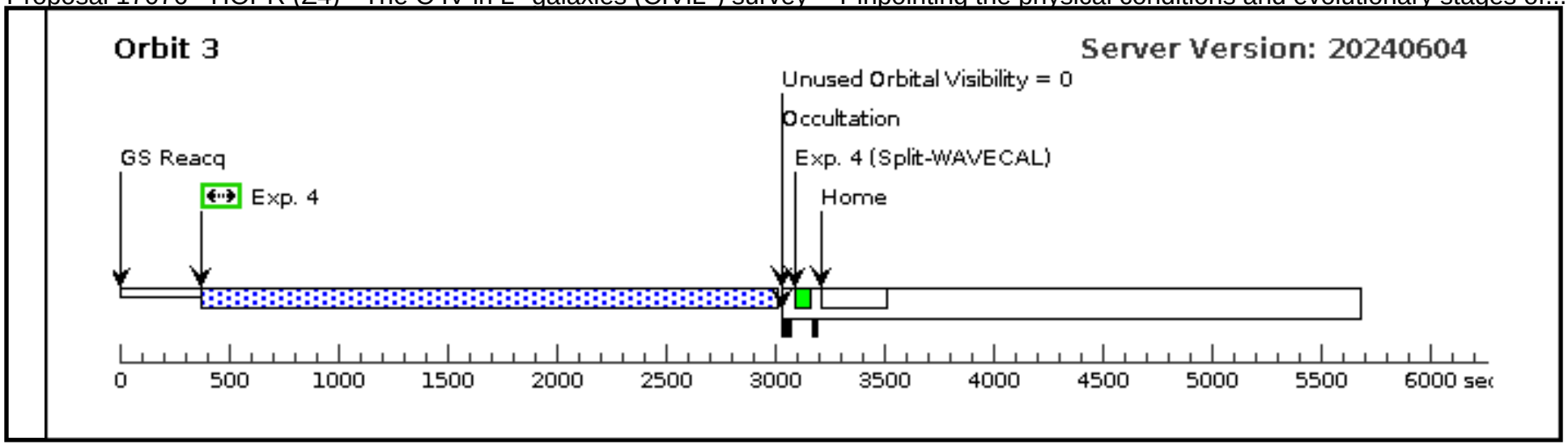
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811467)	(8) QSO-J0959+3203	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				10 Secs (10 Secs) *[==>]*	***[1]***
2	FP1 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=1; SEGMENT=BOTH			2148 Secs (2148 Secs) *[==>]*	***[1]***
3	FP2 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=2; SEGMENT=BOTH			2594 Secs (2594 Secs) *[==>]*	***[2]***
4	FP4 (COS.sp.1811492)	(8) QSO-J0959+3203	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=9050; FP-POS=4; SEGMENT=BOTH			2594 Secs (2594 Secs) *[==>]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 0
Occultation
GS Reacq
Exp. 4 (Split-WAVECAL)
Exp. 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17076, J1427 (visit 1/1, 5 orb) (13), failed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Require 5-orbit visit to meet minimum S/N of 10 at position of CIV doublet at redshift of intervening galaxy

Diagnostics

(J1427 (visit 1/1, 5 orb) (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1427 (visit 1/1, 5 orb) (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1427 (visit 1/1, 5 orb) (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1427 (visit 1/1, 5 orb) (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1427 (visit 1/1, 5 orb) (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

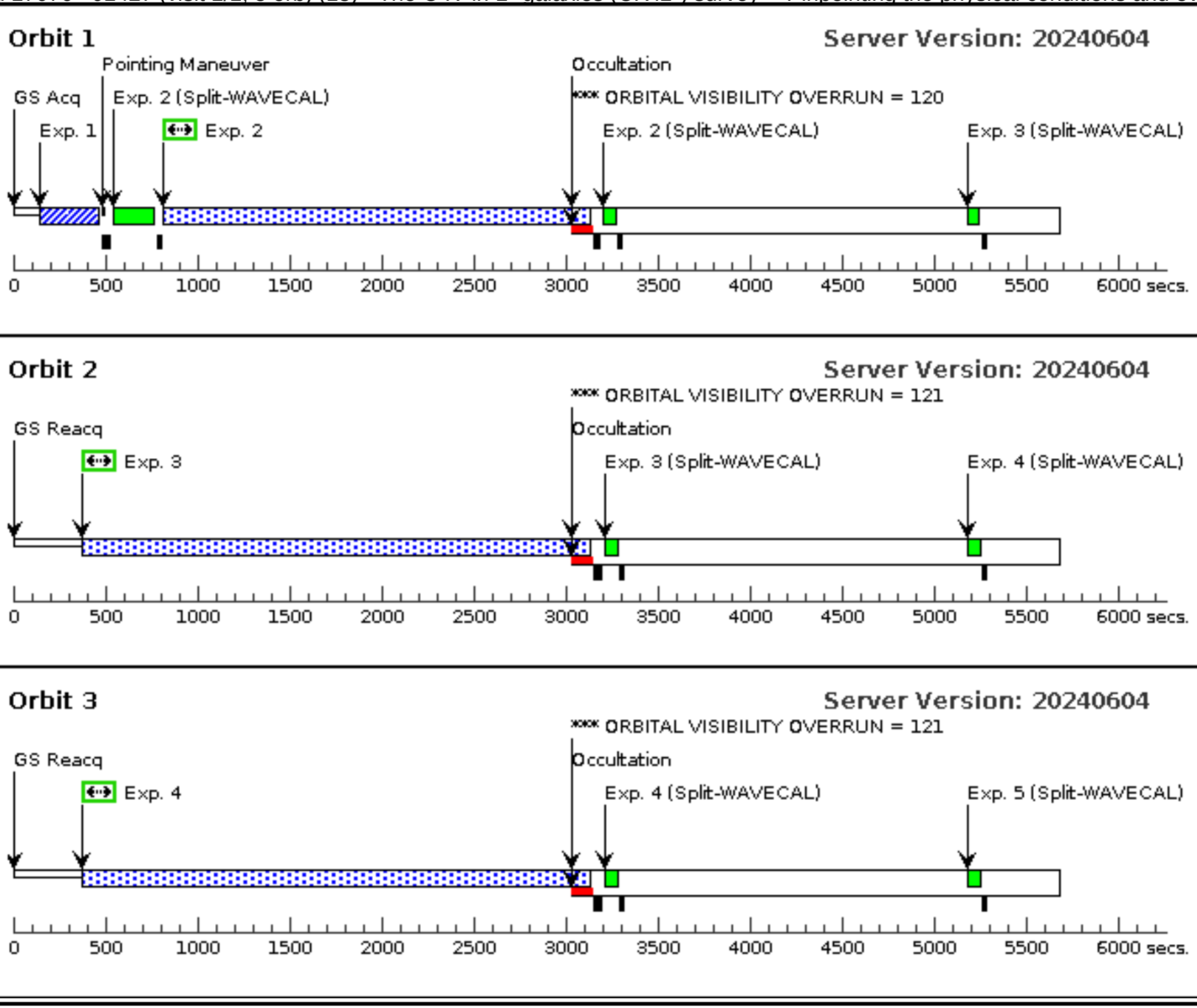
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	QSO-J1427+2632	RA: 14 27 35.6077 (216.8983654d) Dec: +26 32 14.54 (26.53737d) Equinox: J2000	Epoch of Position: 2000	V=16.0 FUV=17.74	Reference Frame: ICRS

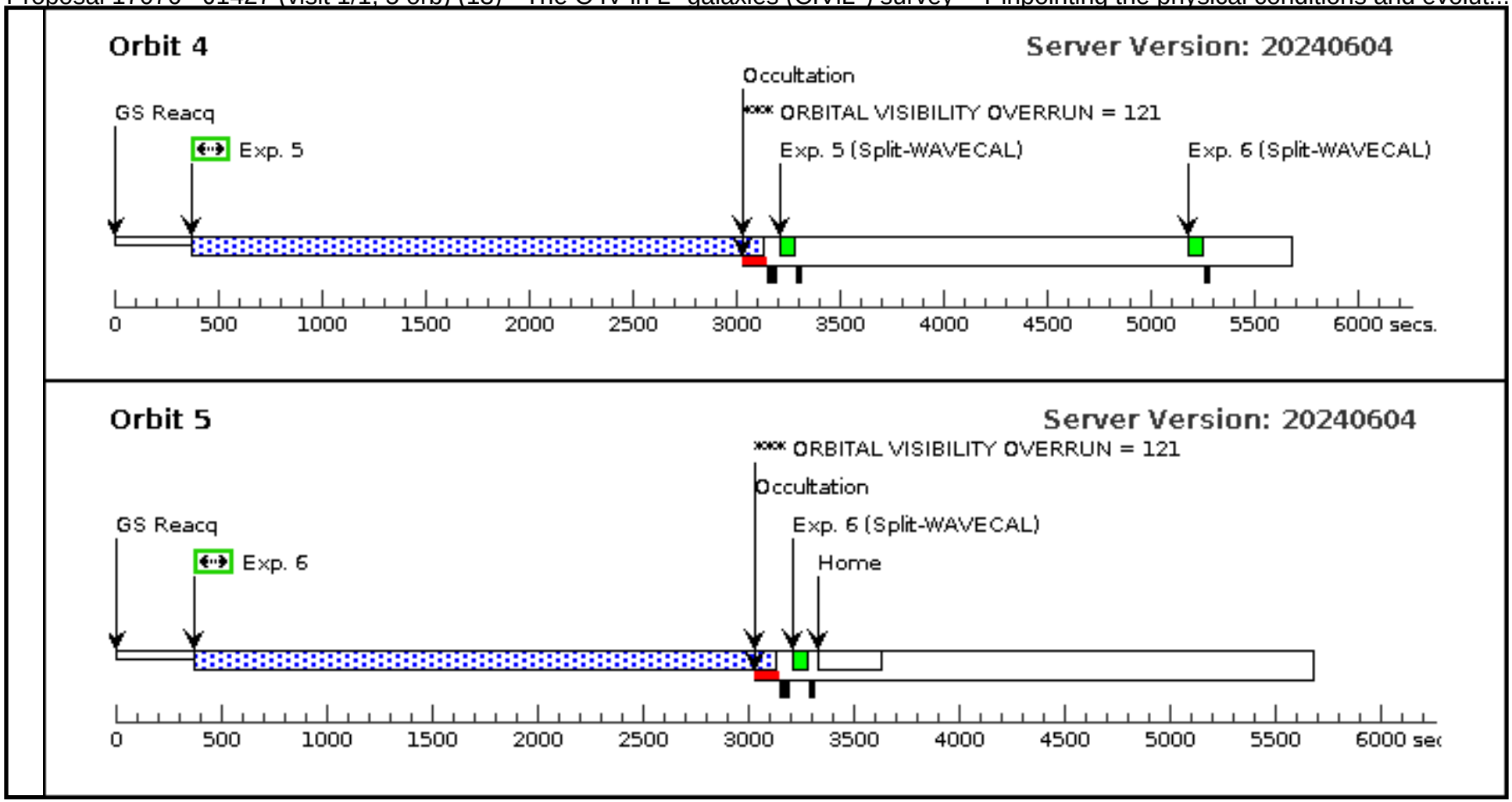
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811471)	(9) QSO-J1427+2632	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				16 Secs (16 Secs) *[==>]*	***[1]***
2	FP1a (COS.sp.1811502)	(9) QSO-J1427+2632	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=11224; FP-POS=1; SEGMENT=BOTH			2269 Secs (2269 Secs) *[==>]*	***[1]***
3	FP1b (COS.sp.1811502)	(9) QSO-J1427+2632	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=11224; FP-POS=1; SEGMENT=BOTH			2713 Secs (2713 Secs) *[==>]*	***[2]***
4	FP2 (COS.sp.1811502)	(9) QSO-J1427+2632	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=11224; FP-POS=2; SEGMENT=BOTH			2713 Secs (2713 Secs) *[==>]*	***[3]***
5	FP3 (COS.sp.1811502)	(9) QSO-J1427+2632	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=11224; FP-POS=3; SEGMENT=BOTH			2713 Secs (2713 Secs) *[==>]*	***[4]***
6	FP4 (COS.sp.1811502)	(9) QSO-J1427+2632	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=11224; FP-POS=4; SEGMENT=BOTH			2713 Secs (2713 Secs) *[==>]*	***[5]***

Orbit Structure




Orbit 4
Server Version: 20240604
Occultation
*** ORBITAL VISIBILITY OVERRUN = 121
GS Reacq
Exp. 5
Exp. 5 (Split-WAVECAL)
Exp. 6 (Split-WAVECAL)
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 secs.
Orbit 5
Server Version: 20240604
*** ORBITAL VISIBILITY OVERRUN = 121
Occultation
GS Reacq
Exp. 6 (Split-WAVECAL)
Exp. 6
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 17076, J1427 (visit 1/1, 5 orb) (1Z), failed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Require 5-orbit visit to meet minimum S/N of 10 at position of CIV doublet at redshift of intervening galaxy

This is a partial 1-orbit repeat of failed visit 13

Diagnostics

(J1427 (visit 1/1, 5 orb) (1Z)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

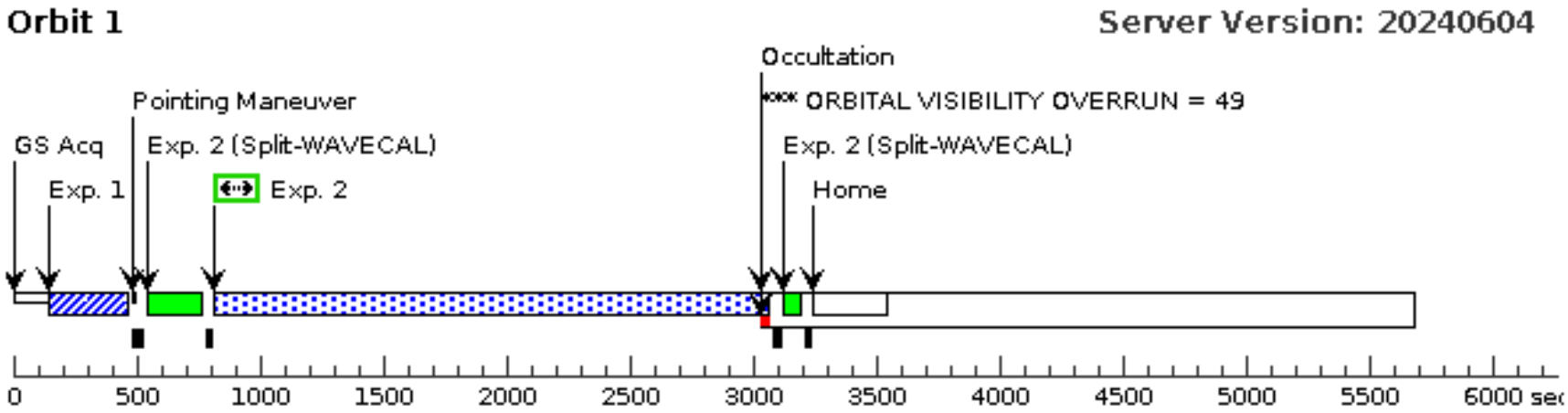
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	QSO-J1427+2632	RA: 14 27 35.6077 (216.8983654d) Dec: +26 32 14.54 (26.53737d) Equinox: J2000	Epoch of Position: 2000	V=16.0 FUV=17.74	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811471)	(9) QSO-J1427+2632	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				16 Secs (16 Secs) *[==>]*	*[1]*
2	FP3 (COS.sp.1811502)	(9) QSO-J1427+2632	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=11224; FP-POS=3; SEGMENT=BOTH			2269 Secs (2198 Secs) *[==>2198.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17076, HOPR (Z5), implementation Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: This is a HOPR for failed visit 1Z which is a HOPR for failed visit 13

Fixed Targets

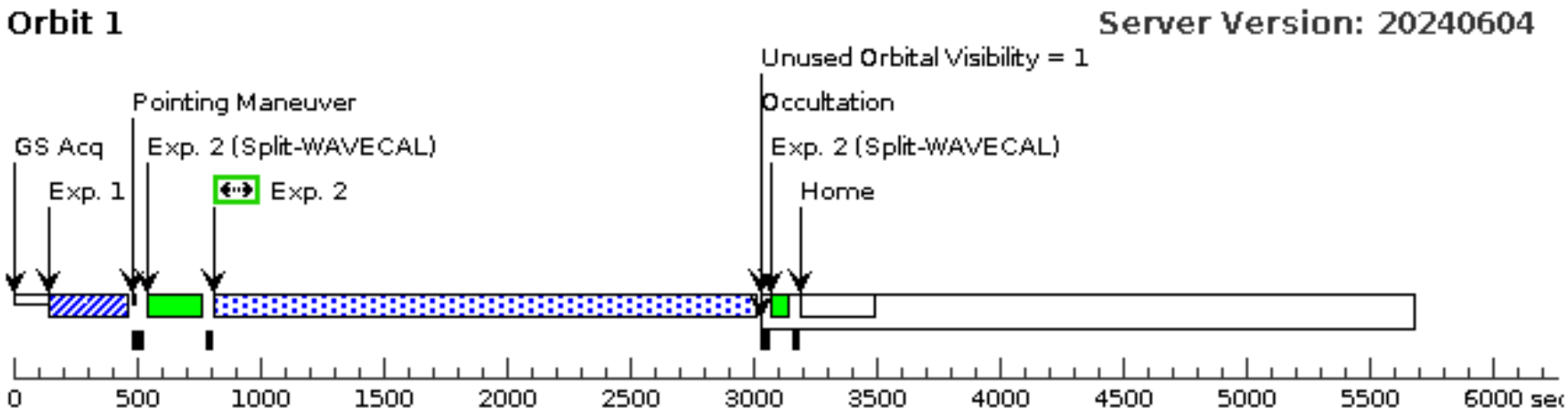
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	QSO-J1427+2632	RA: 14 27 35.6077 (216.8983654d) Dec: +26 32 14.54 (26.53737d) Equinox: J2000	Epoch of Position: 2000	V=16.0 FUV=17.74	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811471)	(9) QSO-J1427+2632	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				16 Secs (16 Secs) *[==>]*	*[1]*
2	FP3 (COS.sp.1811502)	(9) QSO-J1427+2632	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=11224; FP-POS=3; SEGMENT=BOTH			2269 Secs (2148 Secs) *[==>2148.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17076, J1502 (visit 1/1, 2 orb) (14), completed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J1502 (visit 1/1, 2 orb) (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1502 (visit 1/1, 2 orb) (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

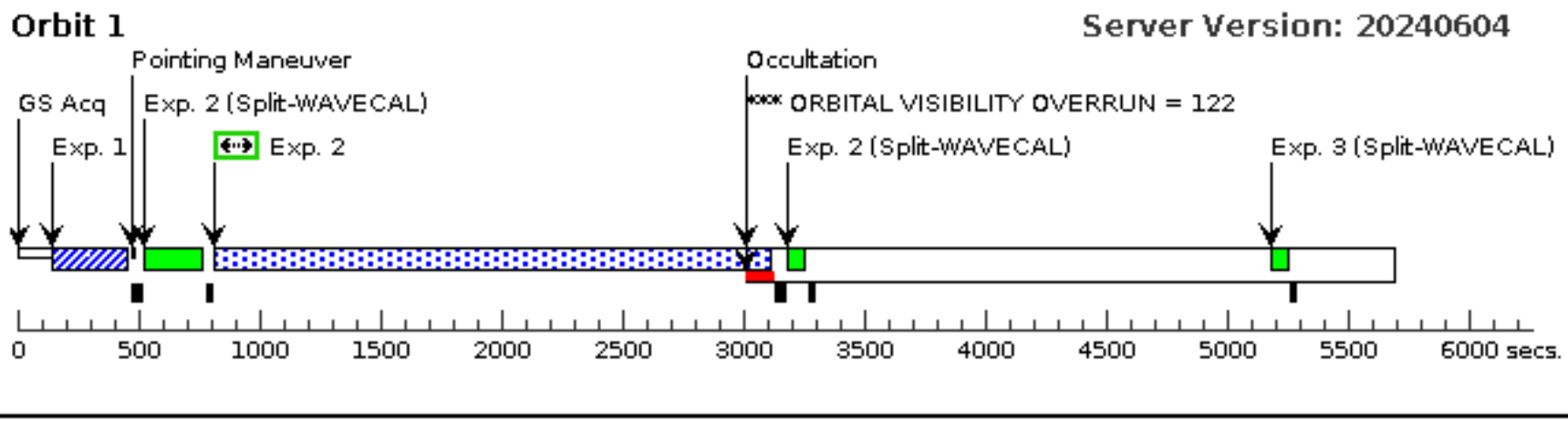
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	QSO-J1502+0645	RA: 15 02 4.1000 (225.5170833d) Dec: +06 45 16.01 (6.75445d) Equinox: J2000	Epoch of Position: 2000	V=16.8+/-0.2 FUV=17.97	Reference Frame: ICRS

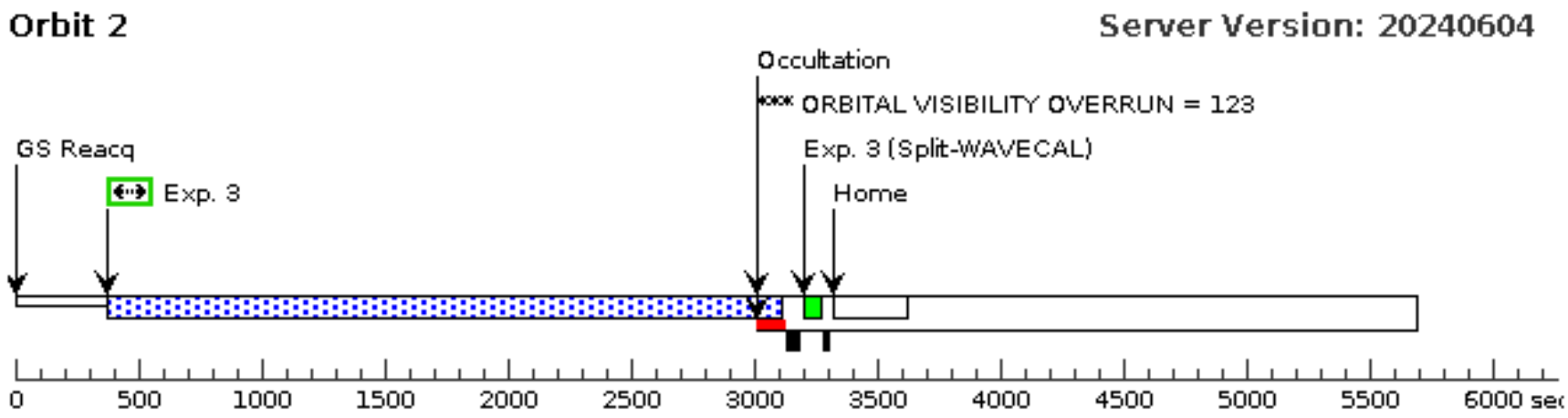
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811472)	(10) QSO-J1502+0645	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				9 Secs (9 Secs) *[==>]*	*[1]*
2	FP1 (COS.sp.1811503)	(10) QSO-J1502+0645	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=6814; FP-POS=1; SEGMENT=BOTH			2248 Secs (2248 Secs) *[==>]*	*[1]*
3	FP4 (COS.sp.1811503)	(10) QSO-J1502+0645	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=6814; FP-POS=4; SEGMENT=BOTH			2693 Secs (2693 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 17076, J1544 (visit 1/1, 5 orb) (15), completed Fri Jul 12 20:00:37 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Require 5-orbit visit to meet minimum S/N of 10 at position of CIV doublet at redshift of intervening galaxy

Diagnostics

(J1544 (visit 1/1, 5 orb) (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1544 (visit 1/1, 5 orb) (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1544 (visit 1/1, 5 orb) (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1544 (visit 1/1, 5 orb) (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J1544 (visit 1/1, 5 orb) (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

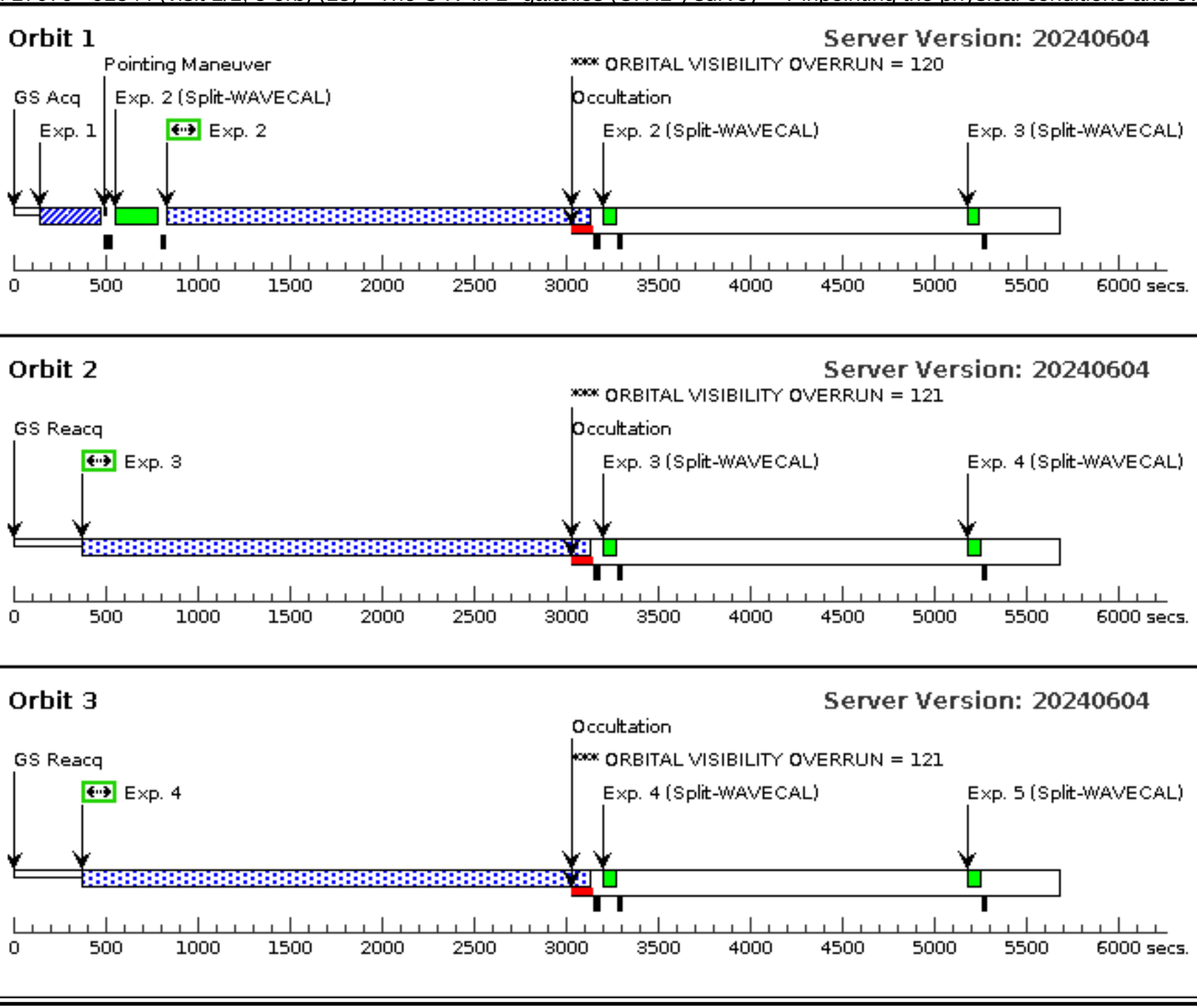
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	QSO-J1544+2743	RA: 15 44 27.2599 (236.1135829d) Dec: +27 43 24.18 (27.72338d) Equinox: J2000	Epoch of Position: 2000	V=17.56 FUV=17.97	Reference Frame: ICRS

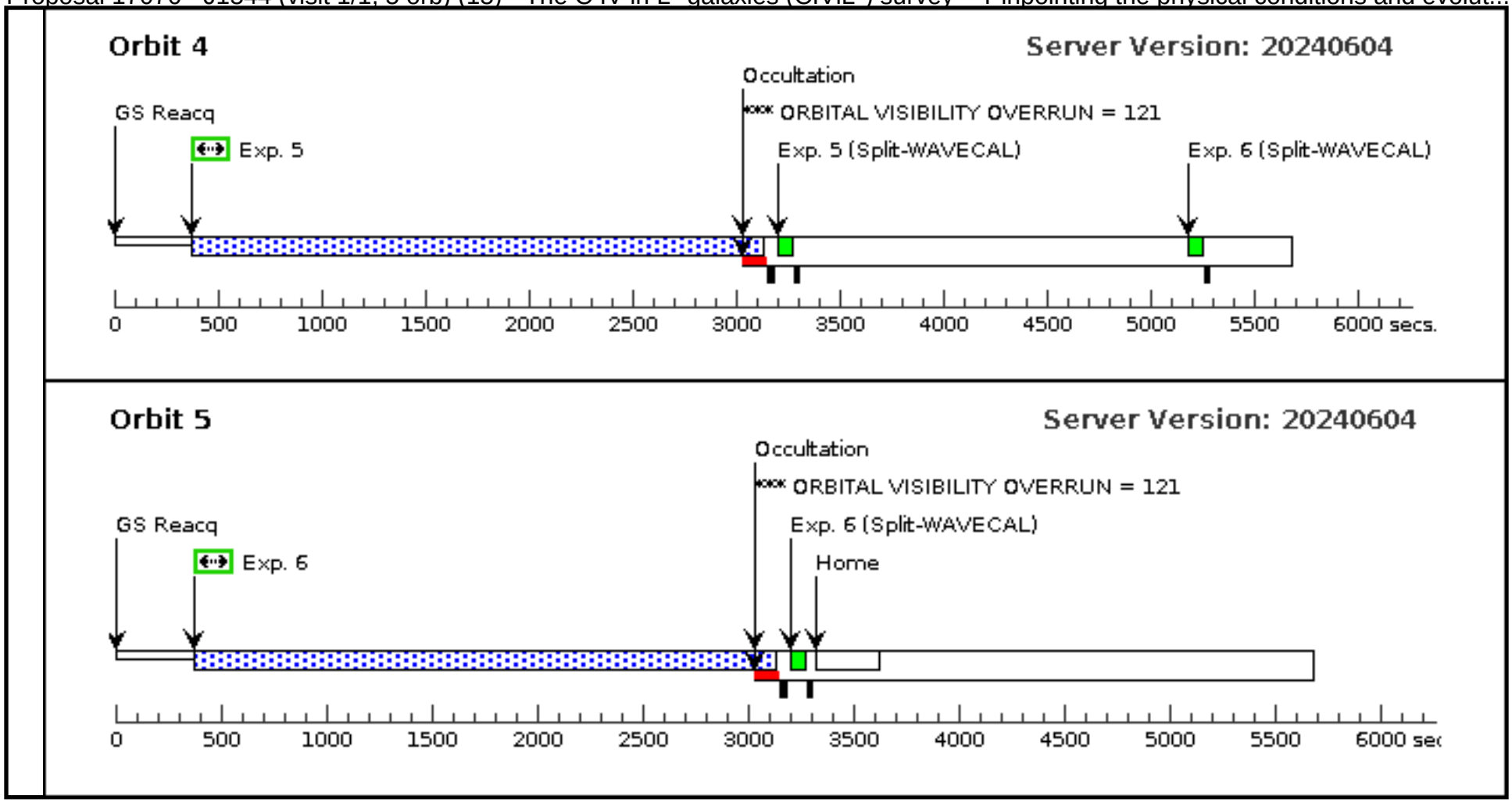
Comments:
Category=GALAXY
Description=[QSO, QUASAR]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acq (COS.ta.1811473)	(11) QSO-J1544+2743	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				22 Secs (22 Secs) *[==>]*	***[1]***
2	FP1a (COS.sp.1811504)	(11) QSO-J1544+2743	COS/FUV, TIME-TAG, PSA	G160M 1623 A	SEGMENT=BOTH; BUFFER-TIME=14025; FP-POS=1			2248 Secs (2248 Secs) *[==>]*	***[1]***
3	FP1b (COS.sp.1811504)	(11) QSO-J1544+2743	COS/FUV, TIME-TAG, PSA	G160M 1623 A	SEGMENT=BOTH; BUFFER-TIME=14025; FP-POS=1			2713 Secs (2713 Secs) *[==>]*	***[2]***
4	FP2 (COS.sp.1811504)	(11) QSO-J1544+2743	COS/FUV, TIME-TAG, PSA	G160M 1623 A	SEGMENT=BOTH; BUFFER-TIME=14025; FP-POS=2			2713 Secs (2713 Secs) *[==>]*	***[3]***
5	FP3 (COS.sp.1811504)	(11) QSO-J1544+2743	COS/FUV, TIME-TAG, PSA	G160M 1623 A	SEGMENT=BOTH; BUFFER-TIME=14025; FP-POS=3			2713 Secs (2713 Secs) *[==>]*	***[4]***
6	FP4 (COS.sp.1811504)	(11) QSO-J1544+2743	COS/FUV, TIME-TAG, PSA	G160M 1623 A	SEGMENT=BOTH; BUFFER-TIME=14025; FP-POS=4			2713 Secs (2713 Secs) *[==>]*	***[5]***

Orbit Structure




Orbit 4
Server Version: 20240604
Occultation
**** ORBITAL VISIBILITY OVERRUN = 121
GS Reacq
Exp. 5
Exp. 5 (Split-WAVECAL)
Exp. 6 (Split-WAVECAL)
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 secs.
Orbit 5
Server Version: 20240604
Occultation
**** ORBITAL VISIBILITY OVERRUN = 121
GS Reacq
Exp. 6
Exp. 6 (Split-WAVECAL)
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec