17153 - Resolving Lyman Alpha emission in a complete sample of Lyman Continuum leakers and non-leakers

Cycle: 30, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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Prof. Anne Jaskot (CoI)	Williams College
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Name	***Institution***
Prof. Claudia Scarlata (CoI)	University of Minnesota - Twin Cities
Prof. Daniel Schaerer (CoI) (ESA Member)	University of Geneva, Department of Astronomy
Dr. Charlotte Simmonds (CoI) (ESA Member)	University of Cambridge
Prof. Trinh Xuan Thuan (CoI)	The University of Virginia
Dr. Maxime Trebitsch (CoI) (ESA Member)	Kapteyn Astronomical Institute
Prof. Anne Verhamme (CoI) (ESA Member)	University of Geneva, Department of Astronomy
Dr. Bingjie Wang (CoI)	The Pennsylvania State University
Dr. Gabor Worseck (CoI) (ESA Member)	Private Company
Dr. Xinfeng Xu (CoI)	Northwestern University
Dr. Hakim Atek (CoI) (ESA Member)	CNRS, Institut d'Astrophysique de Paris

VISITS

Visit	***Targets used in Visit***	***Configurations used in Visit***	***Orbits Used***	***Last Orbit Planner Run***	***OP Current with Visit?***
01	(1) J004743+015440	COS/FUV COS/NUV	4	12-Jun-2024 13:00:58.0	yes
02	(2) J012910+145935	COS/FUV COS/NUV	2	12-Jun-2024 13:00:59.0	yes
03	(3) J080425+472607	COS/FUV COS/NUV	3	12-Jun-2024 13:01:00.0	yes
04	(3) J080425+472607	COS/FUV COS/NUV	3	12-Jun-2024 13:01:02.0	yes
05	(4) J081112+414146	COS/FUV COS/NUV	3	12-Jun-2024 13:01:03.0	yes
06	(5) J083440+480541	COS/FUV COS/NUV	4	12-Jun-2024 13:01:04.0	yes
18	(5) J083440+480541	COS/FUV COS/NUV	2	12-Jun-2024 13:01:05.0	yes
07	(6) J090918+392925	COS/FUV COS/NUV	2	12-Jun-2024 13:01:06.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
22	(6) J090918+392925	COS/FUV COS/NUV	2	12-Jun-2024 13:01:07.0	yes
08	(7) J093355+510925	COS/FUV COS/NUV	2	12-Jun-2024 13:01:08.0	yes
09	(8) J095236+405249	COS/FUV COS/NUV	5	12-Jun-2024 13:01:09.0	yes
10	(9) J103344+635317	COS/FUV COS/NUV	2	12-Jun-2024 13:01:10.0	yes
11	(10) J112848+524509	COS/FUV COS/NUV	3	12-Jun-2024 13:01:11.0	yes
12	(10) J112848+524509	COS/FUV COS/NUV	3	12-Jun-2024 13:01:12.0	yes
13	(11) J115855+312559	COS/FUV COS/NUV	1	12-Jun-2024 13:01:13.0	yes
14	(12) J115959+382422	COS/FUV COS/NUV	2	12-Jun-2024 13:01:14.0	yes
19	(12) J115959+382422	COS/FUV COS/NUV	1	12-Jun-2024 13:01:15.0	yes
15	(13) J120934+305326	COS/FUV COS/NUV	1	12-Jun-2024 13:01:15.0	yes
16	(14) J130559+422638	COS/FUV COS/NUV	5	12-Jun-2024 13:01:17.0	yes
17	(15) J154050+572442	COS/FUV COS/NUV	4	12-Jun-2024 13:01:18.0	yes
20	(15) J154050+572442	COS/FUV COS/NUV	1	12-Jun-2024 13:01:19.0	yes
21	(15) J154050+572442	COS/FUV COS/NUV	1	12-Jun-2024 13:01:19.0	yes

56 Total Orbits Used

ABSTRACT

Determining the contribution of galaxies to cosmic reionization is one of the most pressing challenges of modern observational cosmology. Because the IGM is optically thick to ionizing radiation (LyC) during the epoch of reionization, indirect LyC escape probes are needed. Recent reionization studies have used indirect LyC tracers calibrated on samples that do not fully represent the diversity of the LyC emitters population. Here we propose 49 orbits of HST-COS observations to obtain high resolution spectra of the most promising LyC tracer, the Lyman Alpha (Lya) emission, for 15 galaxies with rigorous LyC constrains selected from the new Low-Redshift Lyman Continuum Survey (LzLCS). Our targets will complete an existing archival sample of 31 galaxies, sampling the full range of possible high redshift LyC escape fractions. By assessing whether the Lya profiles of non/weak LyC leakers are observationally distinguishable from those of moderate leakers, our observations will test if Lya can distinguish between galaxies that could and could not have reionized the universe. The large LyC escape fraction dynamical range of our complete sample of LyC leakers and nonleakers will investigate if the large scatter observed between the Lya profile and escape fractions in the archival sample can be explained by a spread in other physical parameters. This proposal will also validate other indirect tracers by comparing the Lya and Mg II profiles with radiative transfer models. Our observations will establish a definitive sample of indirect LyC probes that the James Webb Space Telescope urgently needs to unveil the sources of cosmic reionization.

OBSERVING DESCRIPTION

The Lyman alpha (Lya) spectra from the actual LzLCS survey obtained with the HST-COS G140L grism are at too low spectral resolution to resolve the Lya profiles into expected double peak. To complement the existing high resolution Lya archival sample, we propose to obtain FUV spectroscopy of 15 galaxies spanning a large range of LyC escape fraction, hereafter, fesc(LyC). We will use COS and the G160M grism to measure the Lya line profiles (all objects show Lya emission in the low-resolution G140L spectra). The central wavelengths are chosen to optimize the signal-to-noise (S/N) and ensure that the Lya does not fall in the detector gaps. COS+G160M is the only combination that provides the sensitive, high-resolution FUV spectroscopy needed for this project.

The 15 new targets are taken from the LzLCS survey. They were selected to complement the existing archival sample of objects with high resolution Lya spectra in the low (<1%), moderate (1-10%) and high (>10%) fesc(LyC) range. We selected the 5 strongest LzLCS LyC emitters for their uniqueness, since there are only few objects known so far with higher escape fraction. We selected 6 LzLCS non-leakers with stringent fesc(LyC) upper limits and 3 weak LyC leakers (<1%), doubling the size of the zero/low fesc(LyC) sample with high resolution Lya data. In the moderate

fesc(LyC) range, we selected 4 LzLCS galaxies. Our sample was chosen to (i) include LyC leakers and non-leakers, (ii) have Lya observable in less than 6 HST orbits, and (iii) preserve the diversity observed in the parent LzLCS sample in terms of Lya EW, O32 and Ha EW.

The exposure times are estimated using COS ETC (v30.2) in the FUV spectroscopic mode for the G160M grating. The effective resolution will be lower for more extended galaxies. From available COS NUV imaging, however, we find that the majority of our targets are compact, with half light radii <0.2". The effective spectral resolution achieved for a source of 0.3" will typically be R~10000 (corresponding to ~ 30 km/s), sufficient for the analysis of the Lya profile (Henry et al. 2015). The Lya flux ranges from 7x10^{-15} up to 49x 10^{-15} erg/s/cm^2 and have been measured from the publicly available LzLCS G140L observations (Flury et al. 2022). The galaxies are between 0.219 < z < 0.364, corresponding to Lya at observed wavelengths between 1587 and 1659 A. In the ETC we assumed a FWHM of the Lya line of 3 A (e.g., Henry et al. 2015; Yang et al. 2017). With an exposure time between 1158 and 13476s, we reach a S/N = 10 per resolution element at the line peak position. This S/N is sufficient to measure the peak separations in Lya profiles from archival samples. All targets have already been observed with COS and pass the COS bright object check.

The target acquisition will follow the successful strategy used in the LzLCS program (15626). We will obtain acquisition images in the ACQ/IMAGE mode with Mirror A. The calculation of the acquisition exposure times is based on the LzLCS program calculations (ETC for a S/N of 40, assuming a point-like source). We divide the LzLCS values by a factor 1/2^2 to obtain a S/N=20 (between 12 and 215s).

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

We attempt to schedule all of the objects in 2-3 orbit visits. Galaxies that require more than 3 orbits and can also have their science carried out in multiple visits, have been broken up into multiple visits. There are two galaxies (J083440+480541 and J130559+422638) which cannot achieve the required sensitivity in multiple orbits, thus we schedule them as single 4 and 5 orbit visits, respectively. Our spectra requiring S/N < 20, we use at least 3 FP-POS per configuration and per visit.

Reduced-gyro operations will impact the Lyman alpha fluxes of our targets leading to larger flux uncertainties that will moderately impact the science goals of our program. Moreover, the fact that not all orientations will be possible is not an issue because we do not have position angle restriction.

Visit

Proposal 17153, J004743+015440 (01), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J004743+015440 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J004743+015440 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J004743+015440 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J004743+015440 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

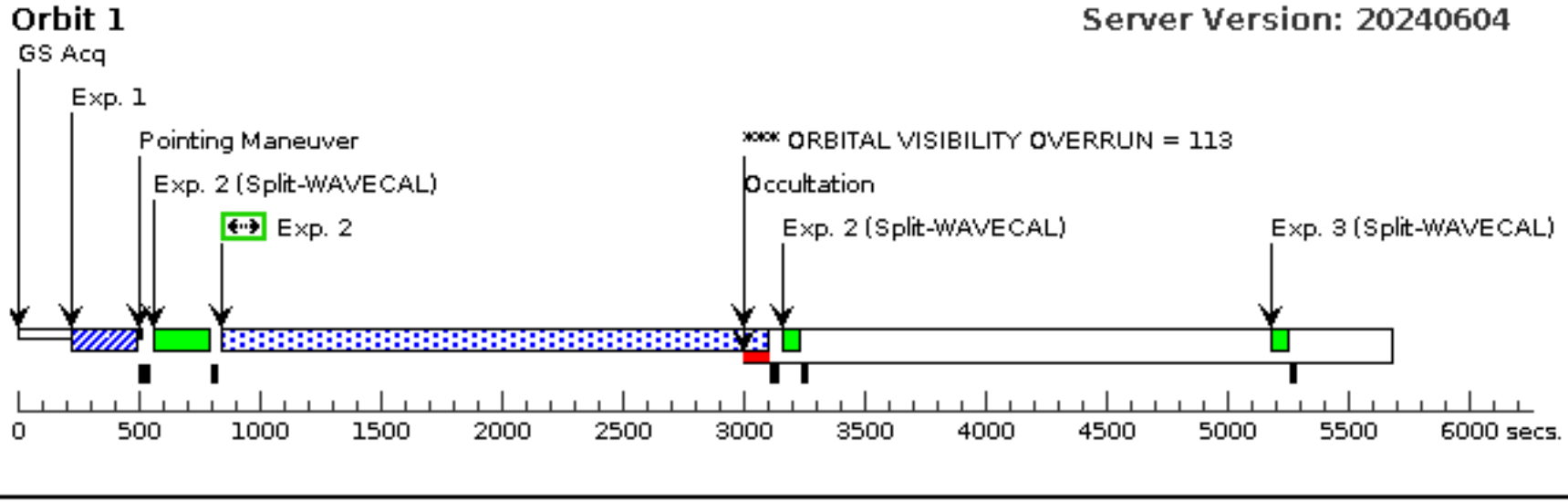
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	J004743+015440	RA: 00 47 42.8369 (11.9284871d) Dec: +01 54 39.91 (1.91109d) Equinox: J2000	Redshift: 0.35348950	V=19.96 FUV=20.33, NUV=20.35	Reference Frame: ICRS

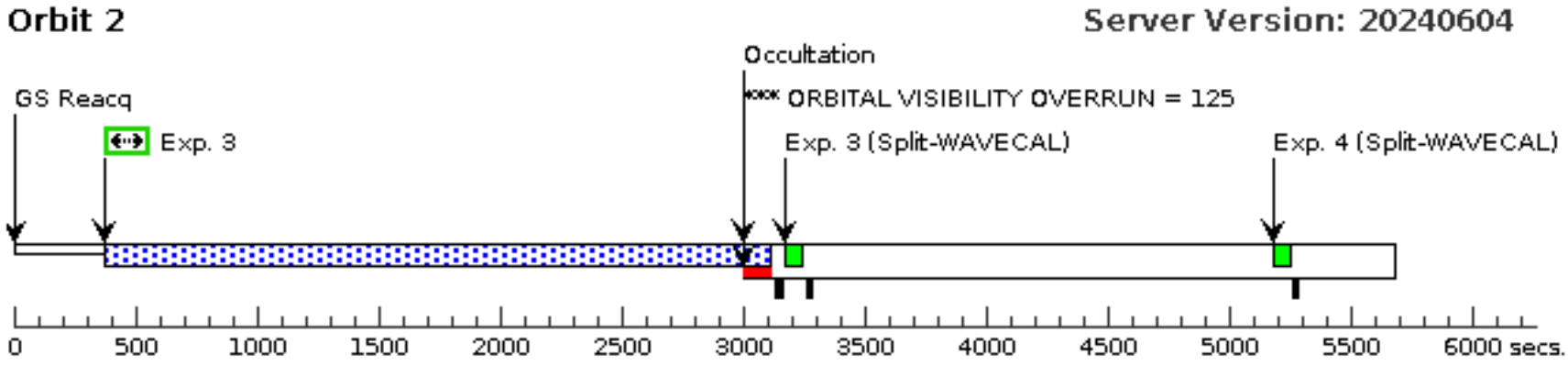
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

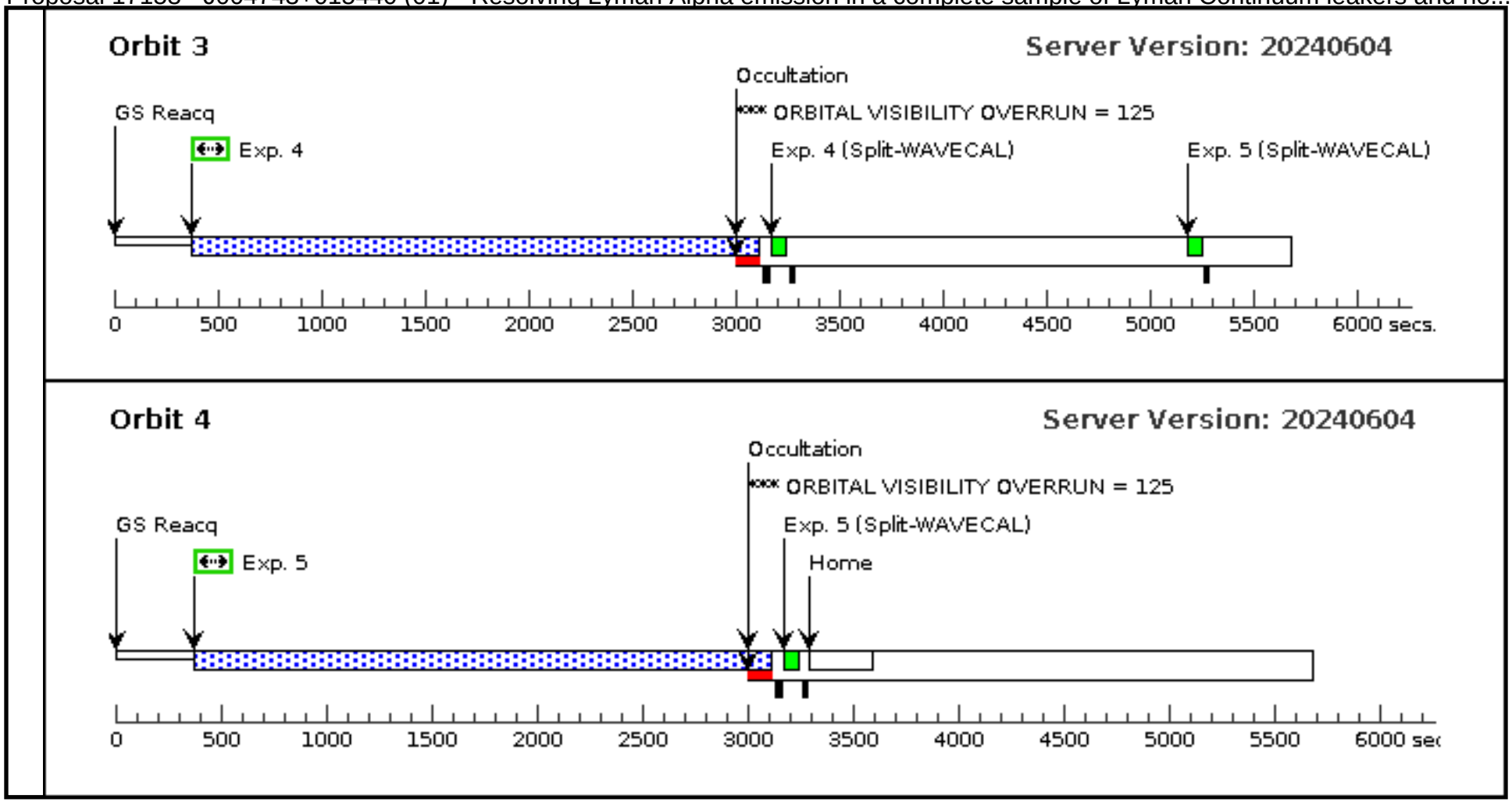
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J004743+015440 acquisition (COS.ta.1297768)	(1) J004743+015440	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				27 Secs (27 Secs) *[==>]*	*[1]*
2	J004743+015440 science 1 (COS.sp.1813080)	(1) J004743+015440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; BUFFER-TIME=19259			1027 Secs (2209 Secs) *[==>2209.0 Secs]*	*[1]*
3	J004743+015440 science 2 (COS.sp.1818962)	(1) J004743+015440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=2; BUFFER-TIME=19259			1027 Secs (2690 Secs) *[==>2690.0 Secs]*	*[2]*
4	J004743+015440 science 3 (COS.sp.1818962)	(1) J004743+015440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=19259			1027 Secs (2690 Secs) *[==>2690.0 Secs]*	*[3]*
5	J004743+015440 science 4 (COS.sp.1818962)	(1) J004743+015440	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; BUFFER-TIME=19259			1027 Secs (2690 Secs) *[==>2690.0 Secs]*	*[4]*

Orbit Structure



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Exp. 5 (Split-WAVECAL)
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Orbit 4
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Occultation
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Exp. 5
Exp. 5 (Split-WAVECAL)
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Visit

Proposal 17153, J012910+145935 (02), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J012910+145935 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J012910+145935 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

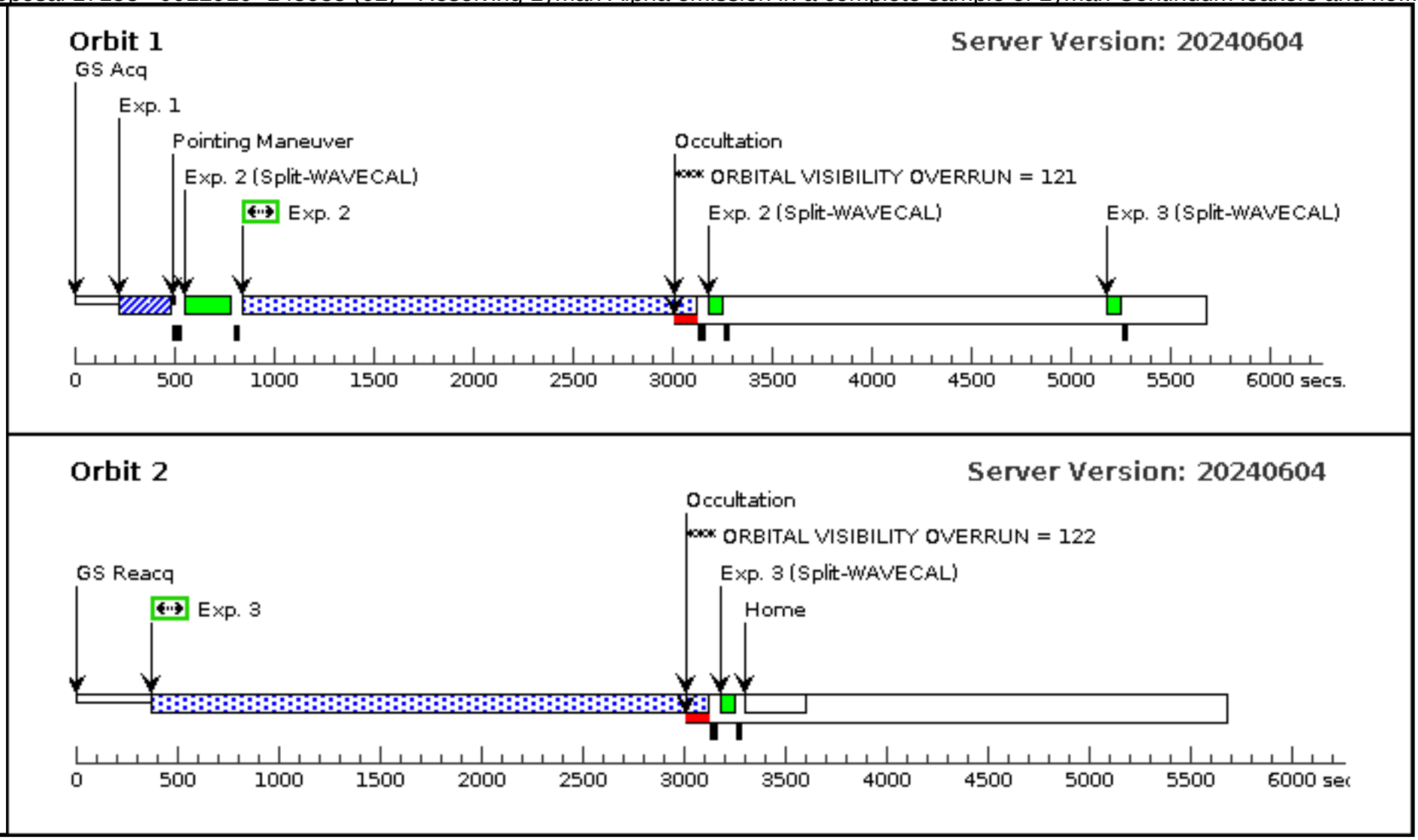
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	J012910+145935	RA: 01 29 10.1519 (22.2922996d) Dec: +14 59 34.68 (14.99297d) Equinox: J2000	Redshift: 0.28003190	V=19.52 FUV=20.11, NUV=20.19	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J012910+145935 acquisition (COS.ta.1297768)	(2) J012910+145935	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				23 Secs (23 Secs) *[==>]*	***[1]***
2	J012910+145935 science 1 (COS.sp.1813093)	(2) J012910+145935	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=19884			2000 Secs (2230 Secs) *[==>2230.0 Secs]*	***[1]***
3	J012910+145935 science 2 (COS.sp.1813093)	(2) J012910+145935	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=19884			944 Secs (2697 Secs) *[==>2697.0 Secs]*	***[2]***

Orbit Structure



Visit

Proposal 17153, J080425+472607 visit 1 (03), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: J080425+472607 requires 6 orbits. Thus, we split the object up into two visits.

Diagnostics

(J080425+472607 visit 1 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J080425+472607 visit 1 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J080425+472607 visit 1 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

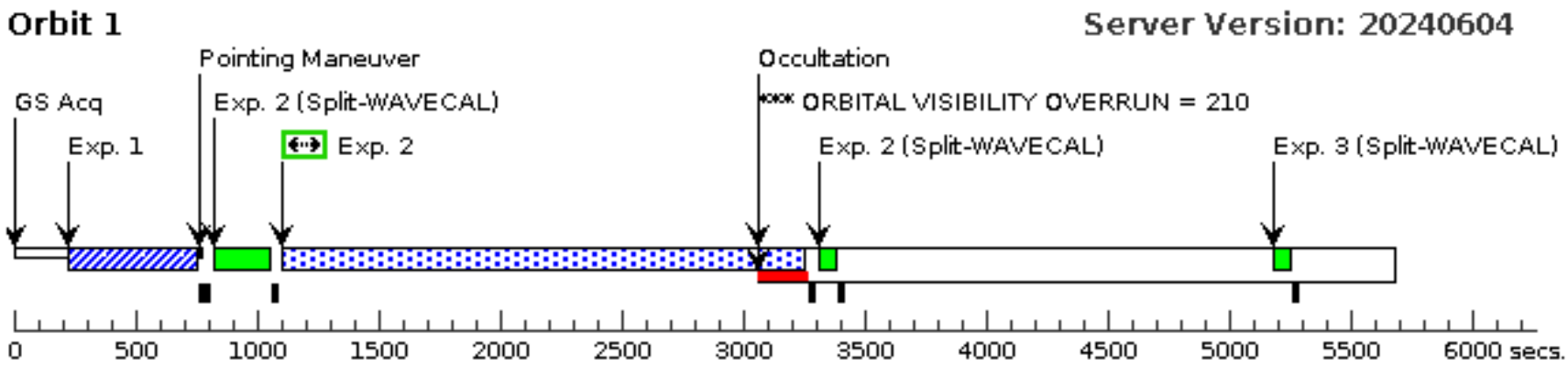
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	J080425+472607	RA: 08 04 25.1052 (121.1046050d) Dec: +47 26 6.63 (47.43517d) Equinox: J2000	Redshift: 0.35653020	V=21.63 FUV=22.21, NUV=22.52	Reference Frame: ICRS

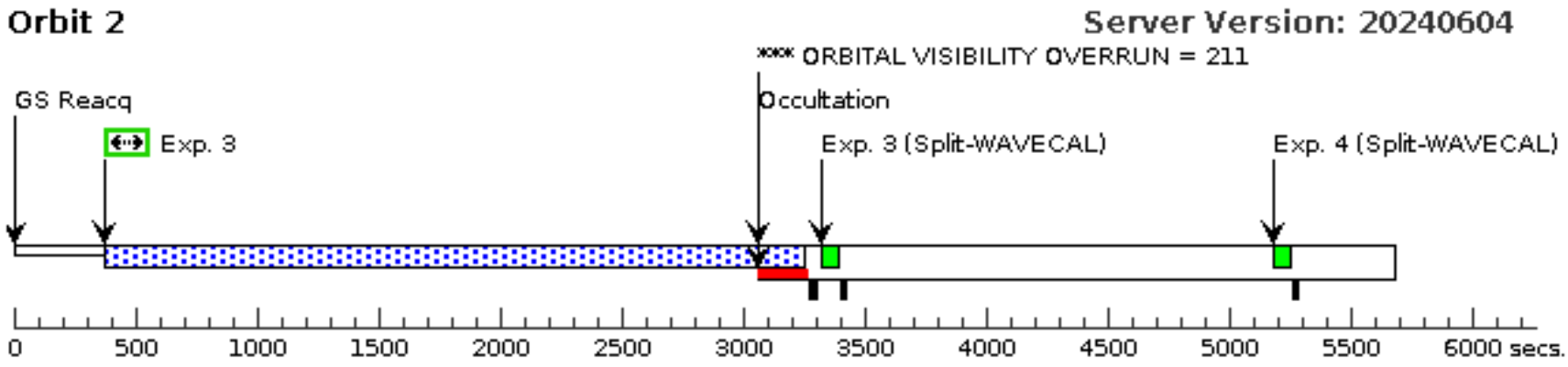
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

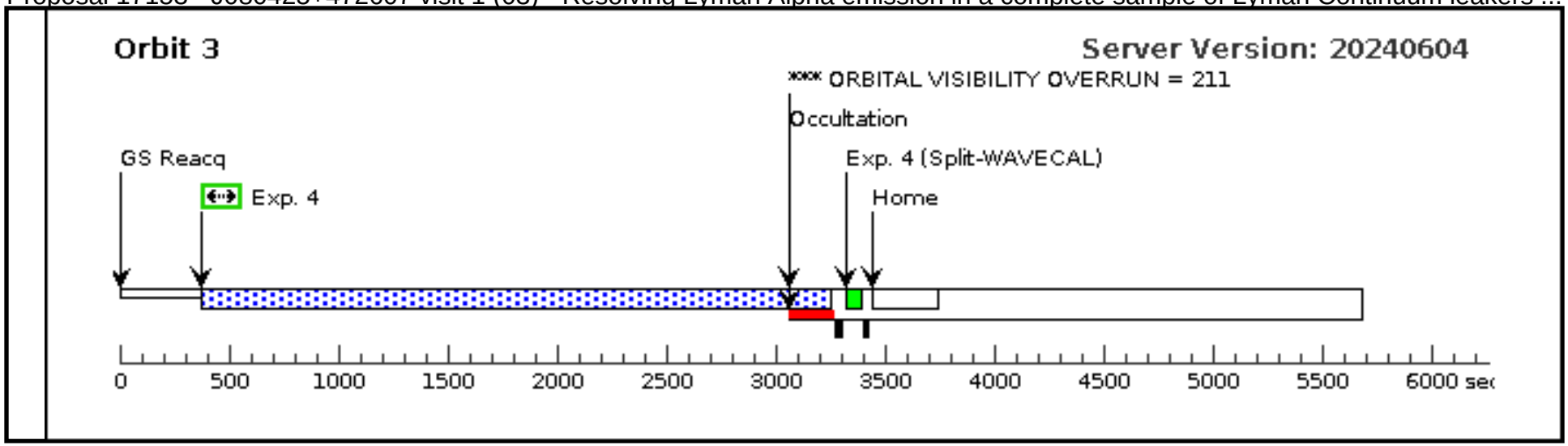
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J080425+472607 acquisition (COS.ta.1297637)	(3) J080425+472607	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				158 Secs (158 Secs) *[==>]*	 ***[1]***
2	J080425+472607 science 1 (COS.sp.1819075)	(3) J080425+472607	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=21032; FP-POS=1			900 Secs (2101 Secs) *[==>2101.0 Secs]*	 ***[1]***
3	J080425+472607 science 2 (COS.sp.1819075)	(3) J080425+472607	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=21032; FP-POS=2			1000 Secs (2833 Secs) *[==>2833.0 Secs]*	 ***[2]***
4	J080425+472607 science 3 (COS.sp.1819075)	(3) J080425+472607	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=21032; FP-POS=4			1000 Secs (2833 Secs) *[==>2833.0 Secs]*	 ***[3]***

Orbit Structure



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Visit

Proposal 17153, J080425+472607 visit 2 (04), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: J080425+472607 requires 6 orbits. Thus, we split the object up into two visits.

Diagnostics

(J080425+472607 visit 2 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J080425+472607 visit 2 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J080425+472607 visit 2 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

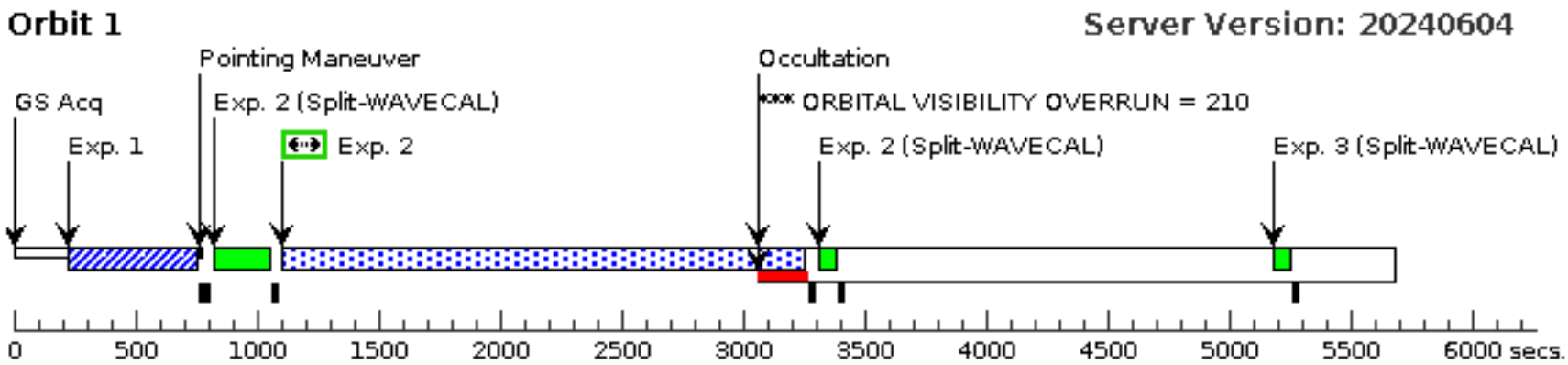
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	J080425+472607	RA: 08 04 25.1052 (121.1046050d) Dec: +47 26 6.63 (47.43517d) Equinox: J2000	Redshift: 0.35653020	V=21.63 FUV=22.21, NUV=22.52	Reference Frame: ICRS

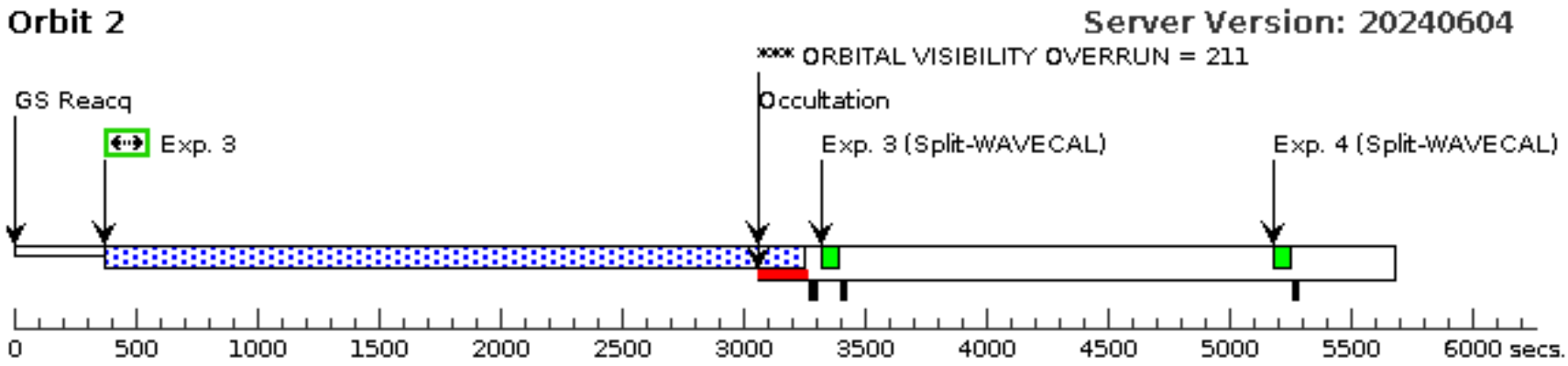
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

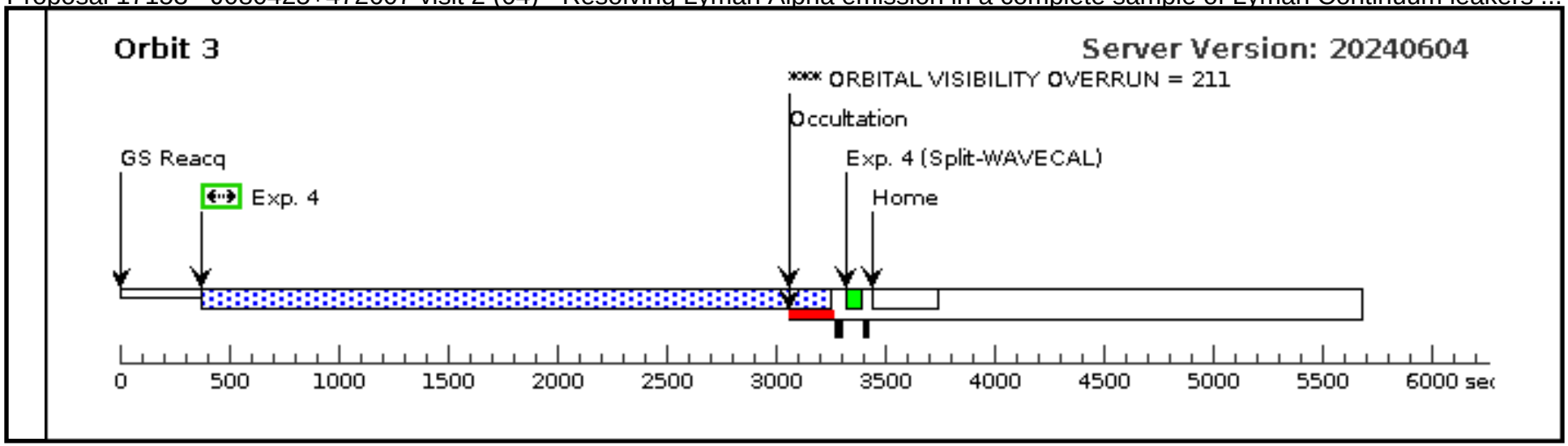
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J080425+472607 acquisition (COS.ta.1297637)	(3) J080425+472607	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				158 Secs (158 Secs) *[==>]*	 ***[1]***
2	J080425+472607 science 1 (COS.sp.1819075)	(3) J080425+472607	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=21032; FP-POS=1			900 Secs (2101 Secs) *[==>2101.0 Secs]*	 ***[1]***
3	J080425+472607 science 2 (COS.sp.1819075)	(3) J080425+472607	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=21032; FP-POS=3			1000 Secs (2833 Secs) *[==>2833.0 Secs]*	 ***[2]***
4	J080425+472607 science 3 (COS.sp.1819075)	(3) J080425+472607	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=21032; FP-POS=4			1000 Secs (2833 Secs) *[==>2833.0 Secs]*	 ***[3]***

Orbit Structure



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**** ORBITAL VISIBILITY OVERRUN = 211
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Exp. 4
Exp. 4 (Split-WAVECAL)
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5500
6000 sec

Visit

Proposal 17153, J081112+414146 (05), completed

Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J081112+414146 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J081112+414146 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J081112+414146 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

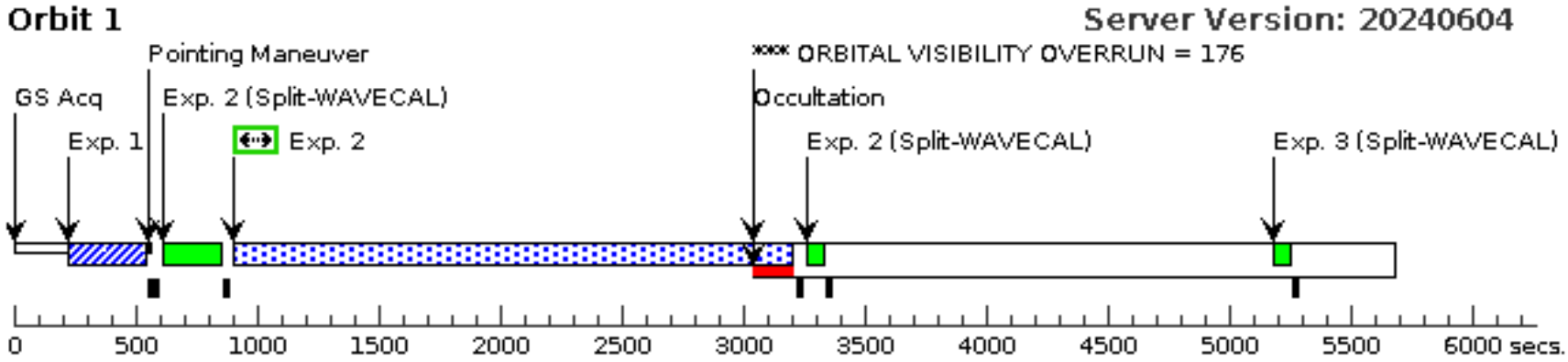
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	J081112+414146	RA: 08 11 12.0406 (122.8001692d) Dec: +41 41 45.92 (41.69609d) Equinox: J2000	Redshift: 0.33313810	V=20.13 FUV=22.21, NUV=21.25	Reference Frame: ICRS

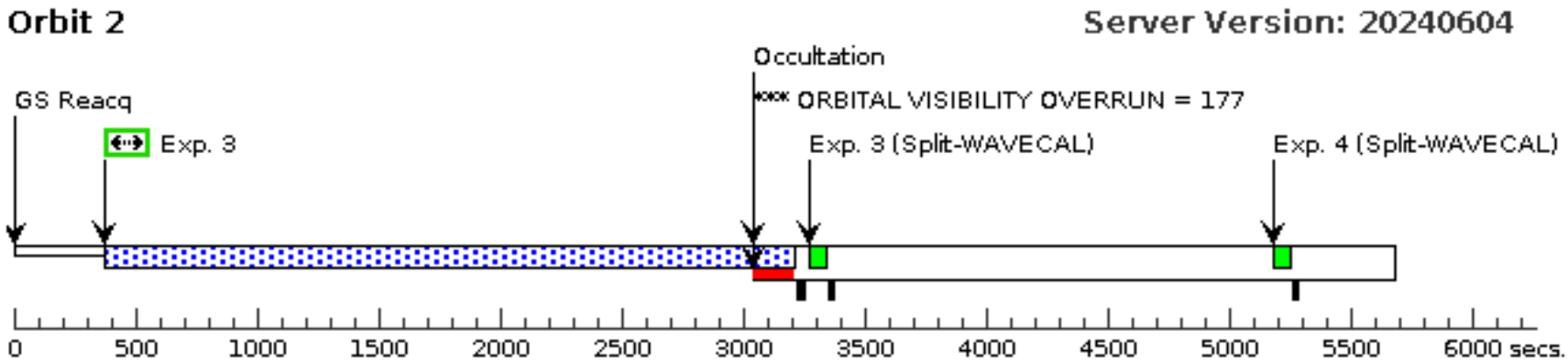
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

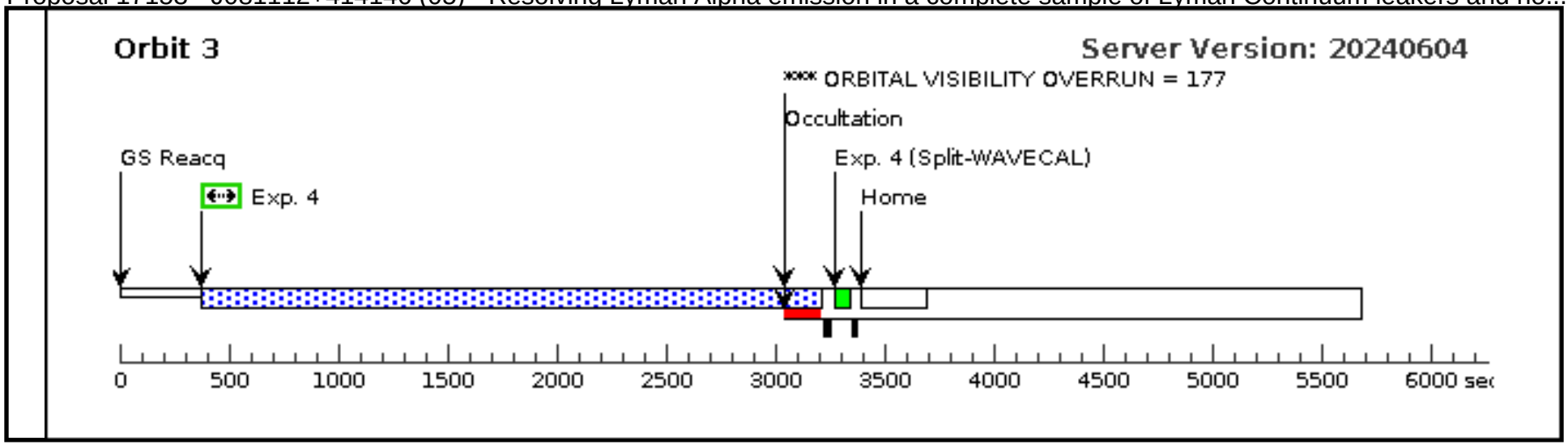
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J081112+414146 acquisition (COS.ta.1297772)	(4) J081112+414146	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				53 Secs (53 Secs) *[==>]*	 ***[1]***
2	J081112+414146 science 1 (COS.sp.1813111)	(4) J081112+414146	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=20964; FP-POS=1			2000 Secs (2253 Secs) *[==>2253.0 Secs]*	 ***[1]***
3	J081112+414146 science 2 (COS.sp.1813111)	(4) J081112+414146	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=20964; FP-POS=2			2500 Secs (2786 Secs) *[==>2786.0 Secs]*	 ***[2]***
4	J081112+414146 science 3 (COS.sp.1813111)	(4) J081112+414146	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=20964; FP-POS=4			2500 Secs (2786 Secs) *[==>2786.0 Secs]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
**** ORBITAL VISIBILITY OVERRUN = 177
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 17153, J083440+480541 (06), failed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J083440+480541 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J083440+480541 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J083440+480541 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J083440+480541 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

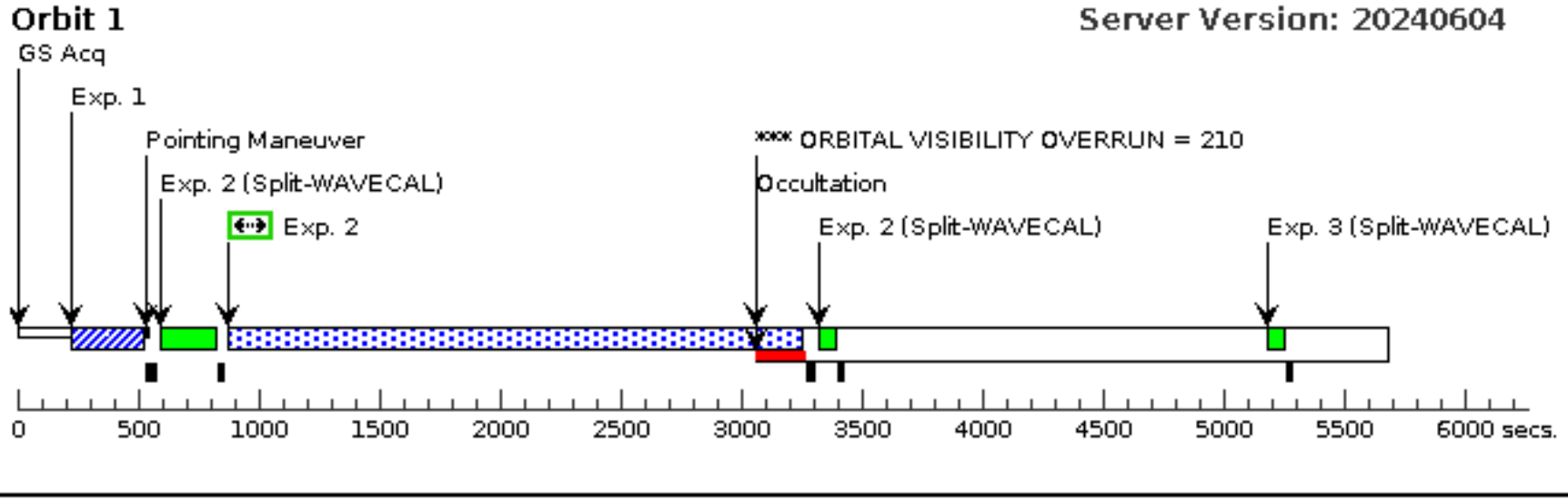
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	J083440+480541	RA: 08 34 40.0560 (128.6669000d) Dec: +48 05 40.91 (48.09470d) Equinox: J2000	Redshift: 0.34257430	V=19.60 FUV=20.83, NUV=20.84	Reference Frame: ICRS

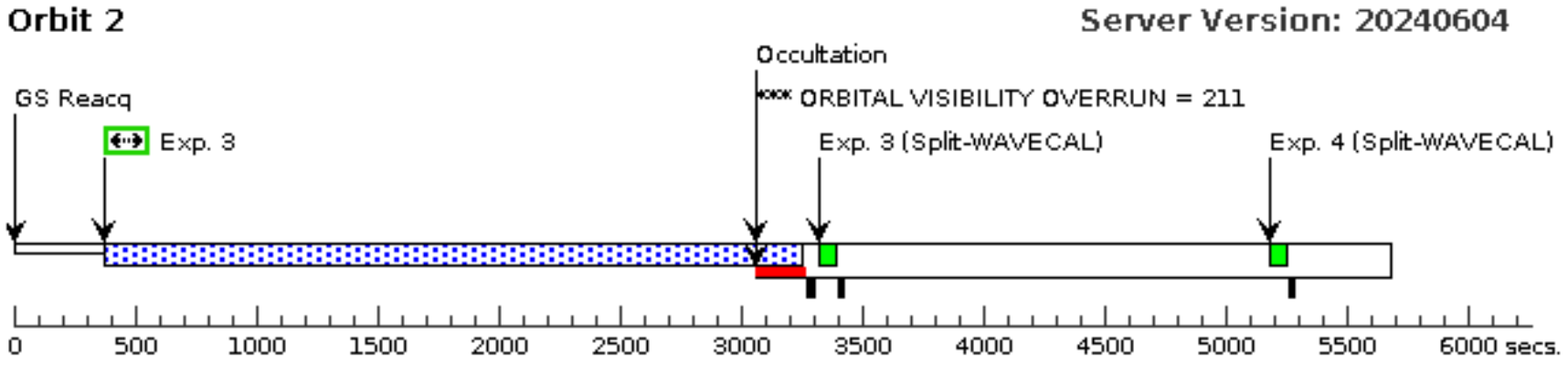
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

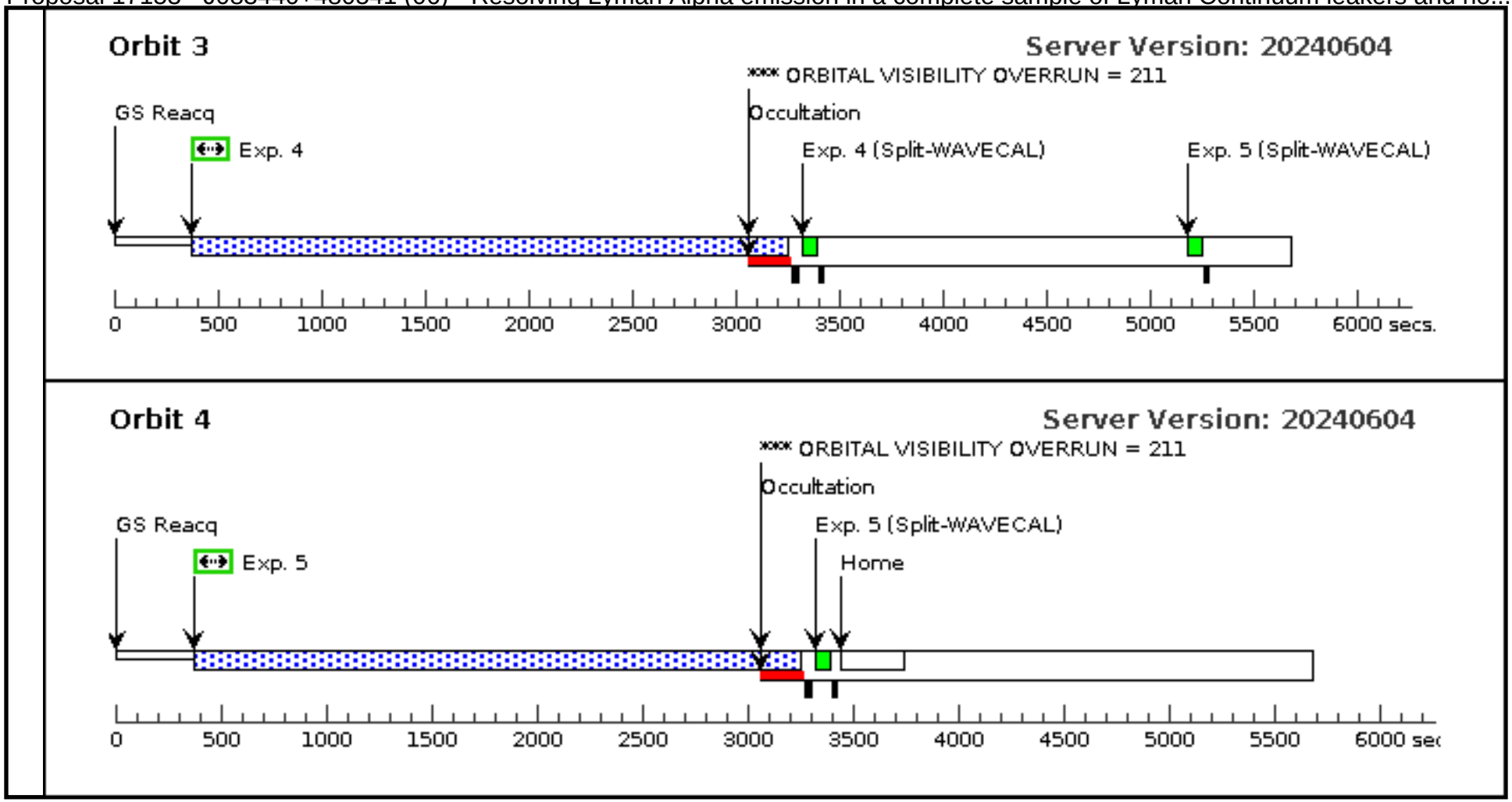
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J083440+480541 acquisition (COS.ta.1297768)	(5) J083440+480541	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				42 Secs (42 Secs) *[==>]*	***[1]***
2	J083440+480541 science 1 (COS.sp.1825754)	(5) J083440+480541	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20014; FP-POS=1			935 Secs (2333 Secs) *[==>2333.0 Secs]*	***[1]***
3	J083440+480541 science 2 (COS.sp.1825754)	(5) J083440+480541	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20014; FP-POS=2			935 Secs (2833 Secs) *[==>2833.0 Secs]*	***[2]***
4	J083440+480541 science 3 (COS.sp.1825754)	(5) J083440+480541	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20014; FP-POS=3			1175 Secs (2833 Secs) *[==>2833.0 Secs]*	***[3]***
5	J083440+480541 science 4 (COS.sp.1825754)	(5) J083440+480541	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20014; FP-POS=4			1175 Secs (2833 Secs) *[==>2833.0 Secs]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20240604
*** ORBITAL VISIBILITY OVERRUN = 211
GS Reacq
Exp. 4
Occultation
Exp. 4 (Split-WAVECAL)
Exp. 5 (Split-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 secs.
Orbit 4
Server Version: 20240604
*** ORBITAL VISIBILITY OVERRUN = 211
Occultation
GS Reacq
Exp. 5 (Split-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17153, J083440+480541 (18), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J083440+480541 (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J083440+480541 (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

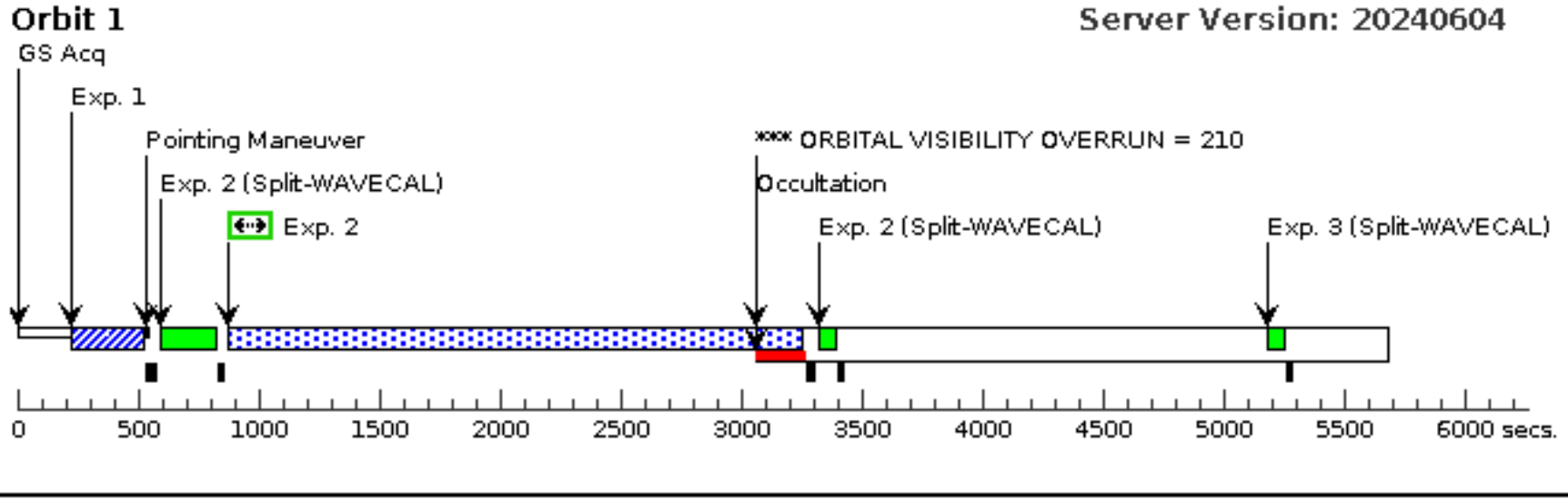
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	J083440+480541	RA: 08 34 40.0560 (128.6669000d) Dec: +48 05 40.91 (48.09470d) Equinox: J2000	Redshift: 0.34257430	V=19.60 FUV=20.83, NUV=20.84	Reference Frame: ICRS

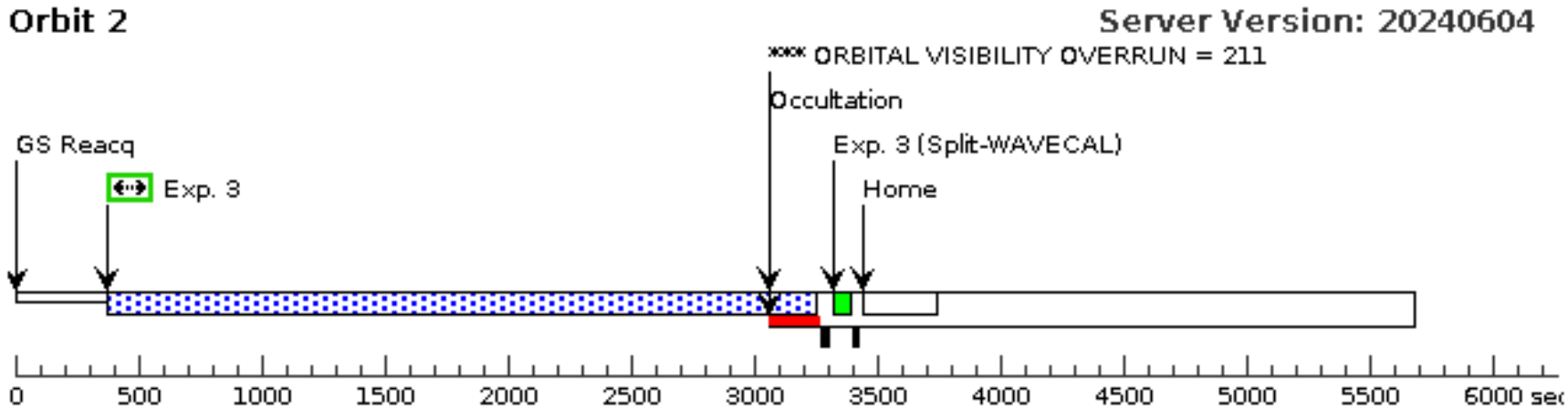
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J083440+480541 acquisition (COS.ta.1297768)	(5) J083440+480541	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				42 Secs (42 Secs) *[==>]*	 ***[1]***
2	J083440+480541 science 1 (COS.sp.1825754)	(5) J083440+480541	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20014; FP-POS=1			935 Secs (2333 Secs) *[==>2333.0 Secs]*	 ***[1]***
3	J083440+480541 science 4 (COS.sp.1825754)	(5) J083440+480541	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20014; FP-POS=4			1175 Secs (2833 Secs) *[==>2833.0 Secs]*	 ***[2]***

Orbit Structure





Visit

Proposal 17153, J090918+392925 (07), failed

Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J090918+392925 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J090918+392925 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

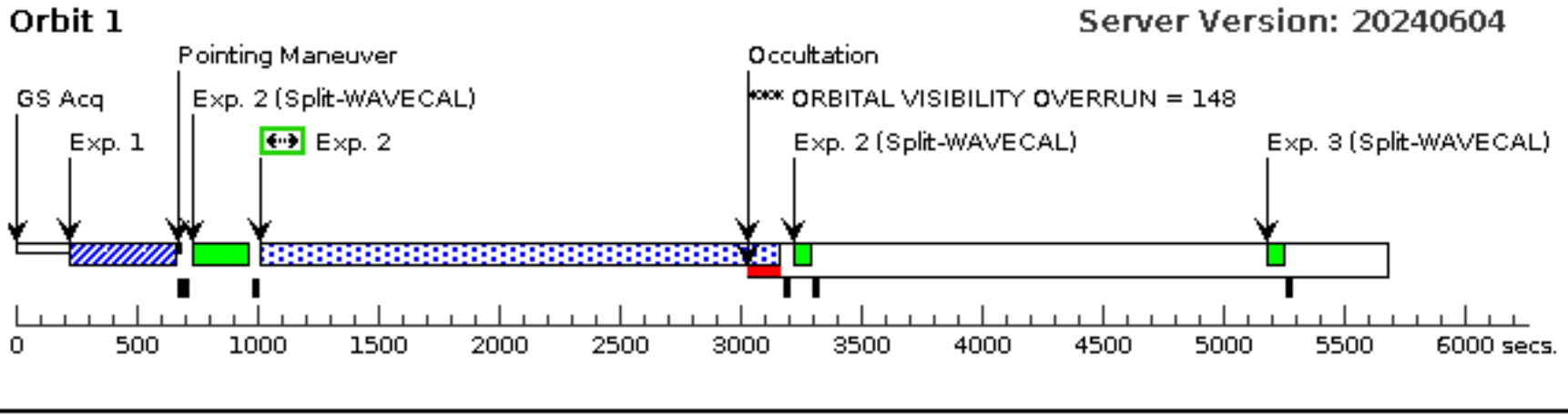
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	J090918+392925	RA: 09 09 18.3643 (137.3265179d) Dec: +39 29 24.74 (39.49021d) Equinox: J2000	Redshift: 0.28161510	V=20.51 FUV=21.31, NUV=21.83	Reference Frame: ICRS

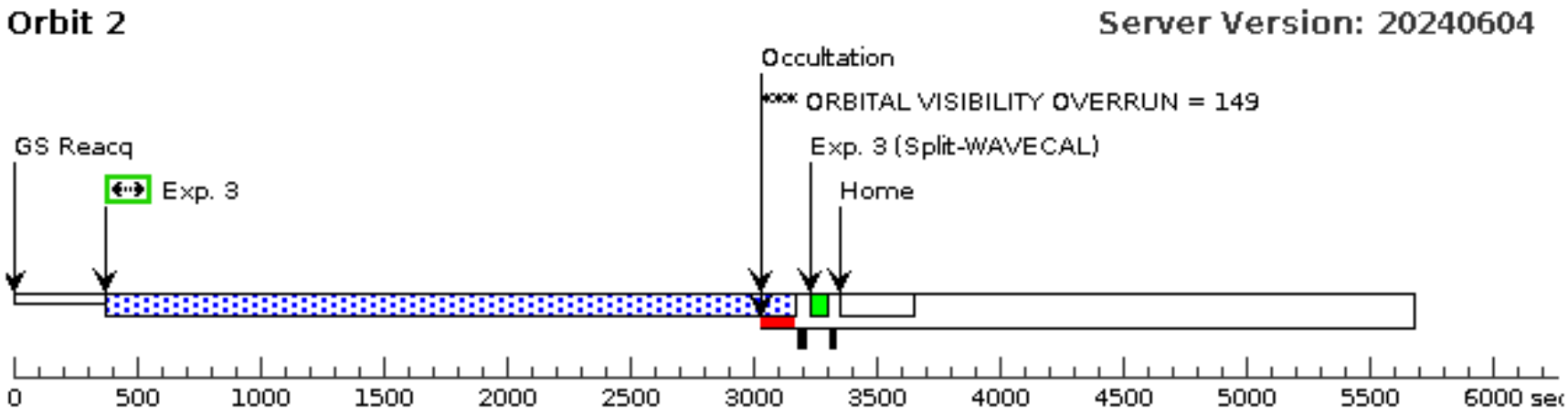
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J090918+392925 acquisition (COS.ta.1297772)	(6) J090918+392925	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				112 Secs (112 Secs) *[==>]*	***[1]***
2	J090918+392925 science 1 (COS.sp.1813539)	(6) J090918+392925	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=21033			800 Secs (2103 Secs) *[==>2103.0 Secs]*	***[1]***
3	J090918+392925 science 2 (COS.sp.1813539)	(6) J090918+392925	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=21033			944 Secs (2748 Secs) *[==>2748.0 Secs]*	***[2]***

Orbit Structure





Visit

Proposal 17153, J090918+392925 (22), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J090918+392925 (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J090918+392925 (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

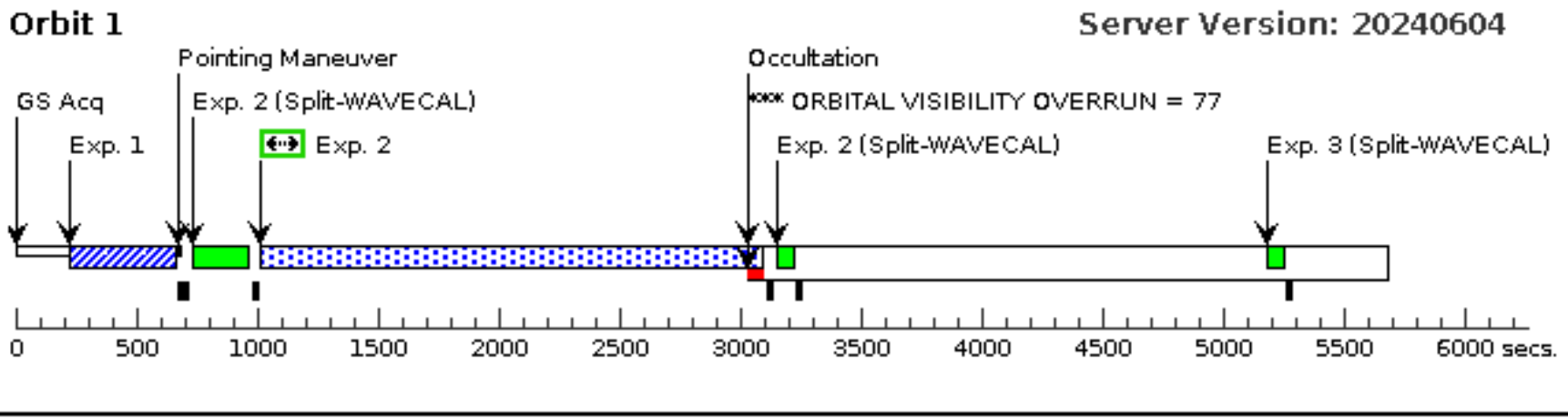
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	J090918+392925	RA: 09 09 18.3643 (137.3265179d) Dec: +39 29 24.74 (39.49021d) Equinox: J2000	Redshift: 0.28161510	V=20.51 FUV=21.31, NUV=21.83	Reference Frame: ICRS

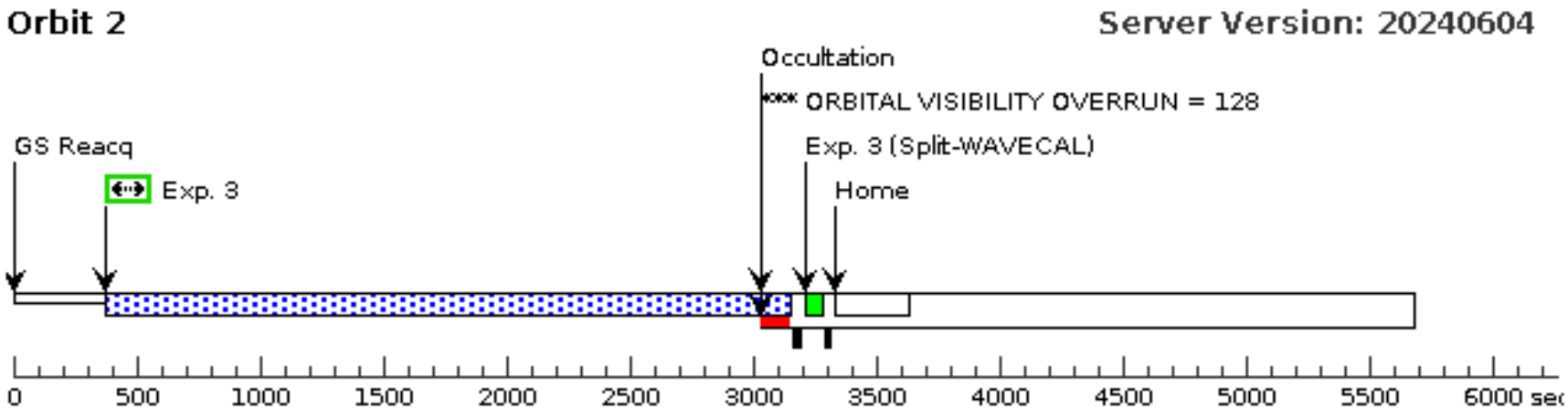
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J090918+392925 acquisition (COS.ta.1297772)	(6) J090918+392925	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				112 Secs (112 Secs) *[==>]*	***[1]***
2	J090918+392925 science 1 (COS.sp.1813539)	(6) J090918+392925	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=21033			800 Secs (2032 Secs) *[==>2032.0 Secs]*	***[1]***
3	J090918+392925 science 2 (COS.sp.1813539)	(6) J090918+392925	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=21033			944 Secs (2727 Secs) *[==>2727.0 Secs]*	***[2]***

Orbit Structure





Visit

Proposal 17153, J093355+510925 (08), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J093355+510925 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J093355+510925 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

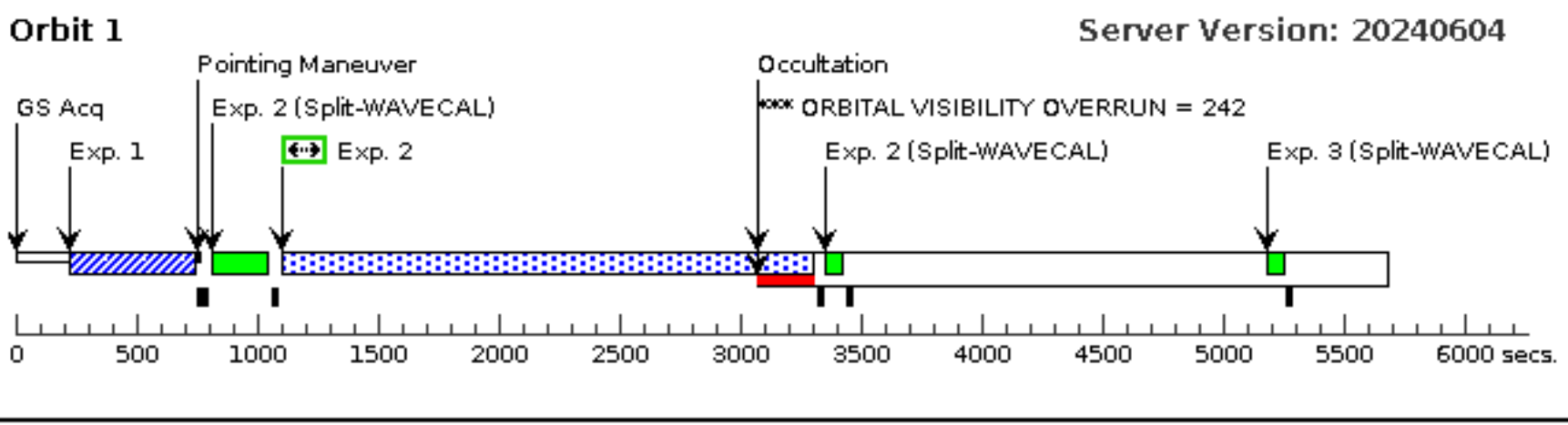
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	J093355+510925	RA: 09 33 55.0834 (143.4795142d) Dec: +51 09 24.60 (51.15683d) Equinox: J2000	Redshift: 0.29128280	V=20.31 FUV=21.34, NUV=22.24	Reference Frame: ICRS

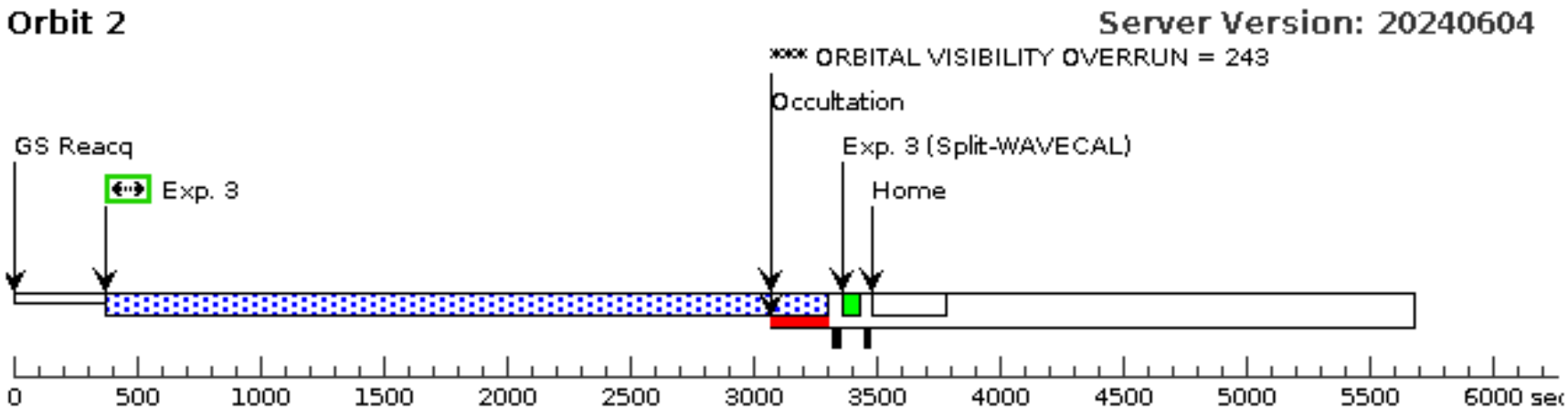
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J093355+510925 acquisition (COS.ta.1297772)	(7) J093355+510925	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				153 Secs (153 Secs) *[==>]*	***[1]***
2	J093355+510925 science 1 (COS.sp.1813563)	(7) J093355+510925	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=20901			800 Secs (2154 Secs) *[==>2154.0 Secs]*	***[1]***
3	J093355+510925 science 2 (COS.sp.1813563)	(7) J093355+510925	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=20901			944 Secs (2881 Secs) *[==>2881.0 Secs]*	***[2]***

Orbit Structure





Visit

Proposal 17153, J095236+405249 visit 1 (09), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J095236+405249 visit 1 (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J095236+405249 visit 1 (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J095236+405249 visit 1 (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J095236+405249 visit 1 (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J095236+405249 visit 1 (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

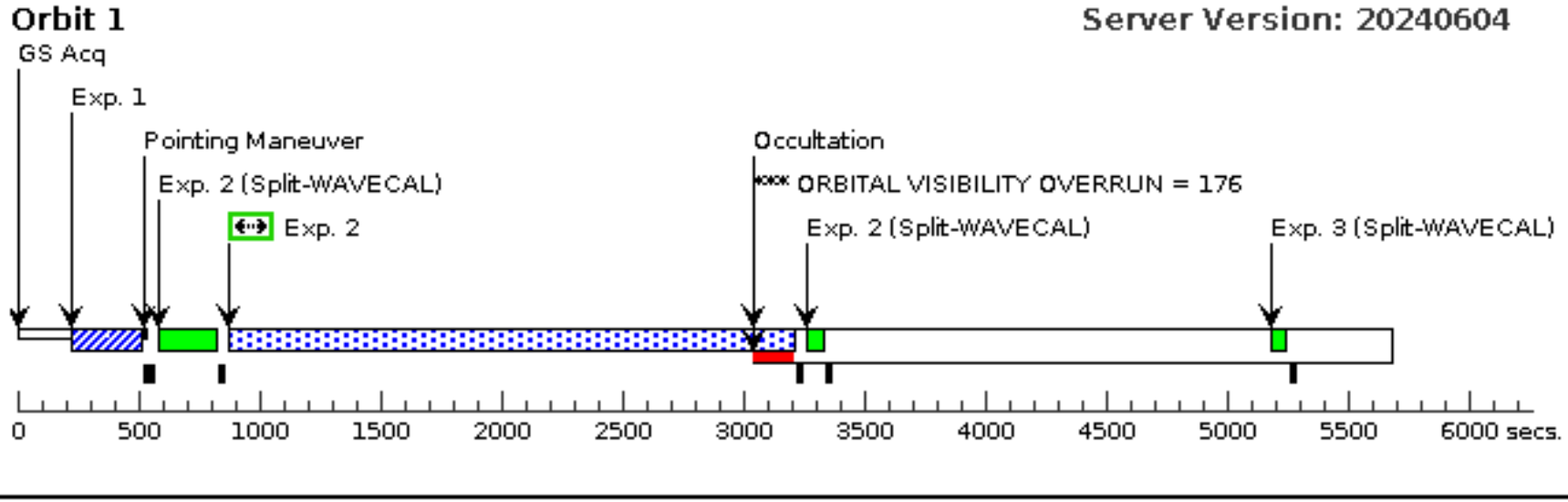
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	J095236+405249	RA: 09 52 35.8844 (148.1495183d) Dec: +40 52 48.85 (40.88024d) Equinox: J2000	Redshift: 0.31867720	V=20.31 FUV=20.63, NUV=20.68	Reference Frame: ICRS

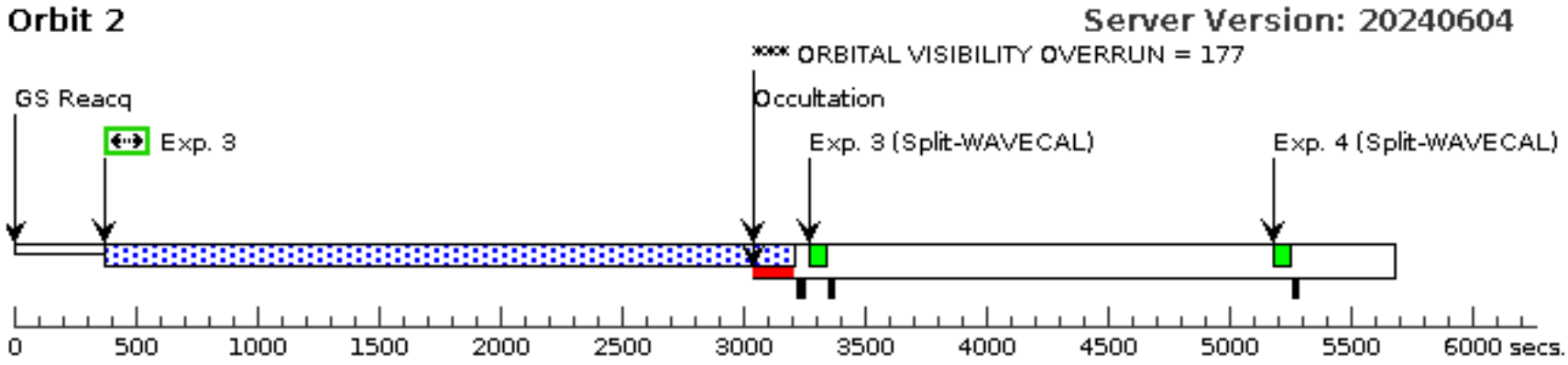
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

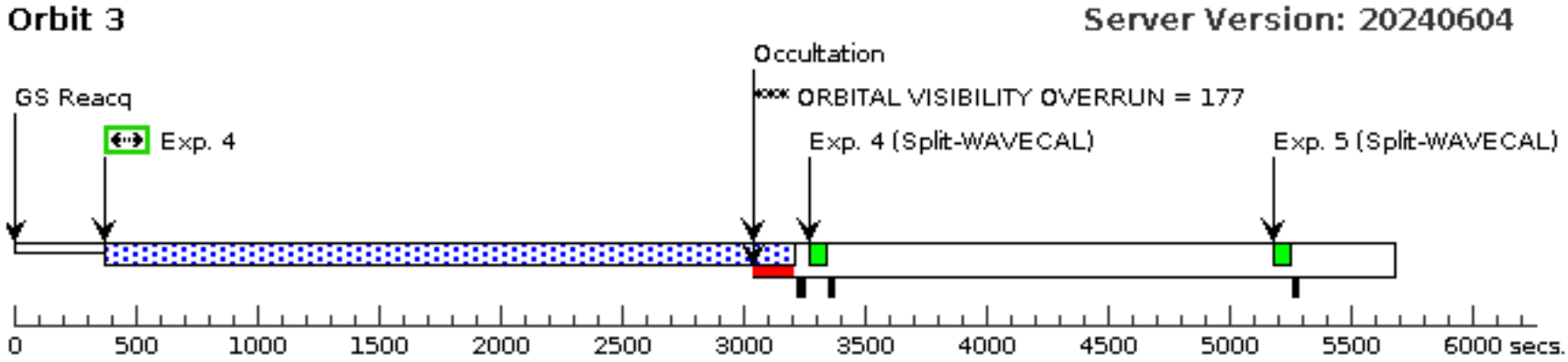
Exposures

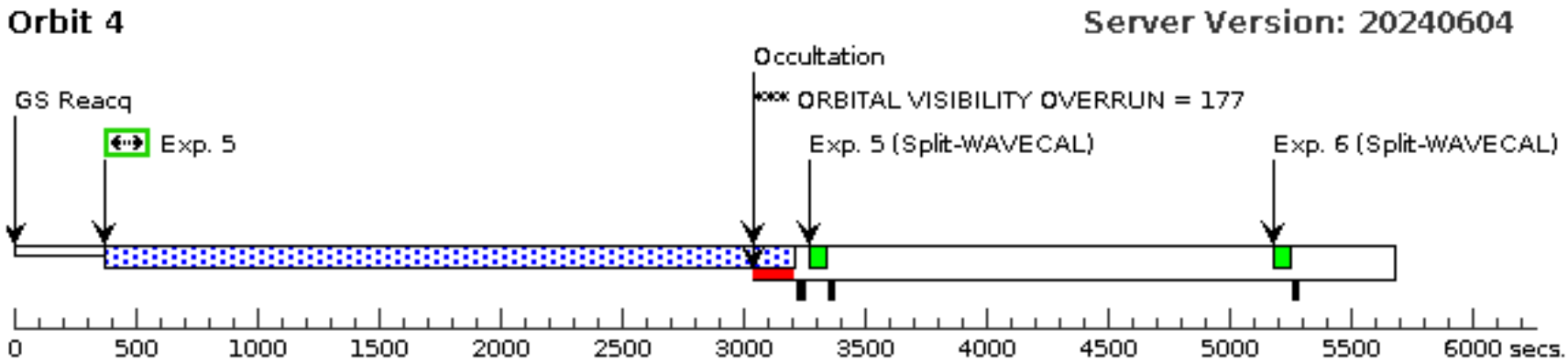
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J095236+405249 acquisition (COS.ta.1297768)	(8) J095236+405249	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				37 Secs (37 Secs) *[==>]*	*[1]*
2	J095236+405249 science 1 (COS.sp.1825760)	(8) J095236+405249	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=20718; FP-POS=1			956 Secs (2285 Secs) *[==>2285.0 Secs]*	*[1]*
3	J095236+405249 science 2 (COS.sp.1825760)	(8) J095236+405249	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=20718; FP-POS=1			956 Secs (2786 Secs) *[==>2786.0 Secs]*	*[2]*
4	J095236+405249 science 3 (COS.sp.1825760)	(8) J095236+405249	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=20718; FP-POS=2			1223 Secs (2786 Secs) *[==>2786.0 Secs]*	*[3]*
5	J095236+405249 science 4 (COS.sp.1825760)	(8) J095236+405249	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=20718; FP-POS=3			1223 Secs (2786 Secs) *[==>2786.0 Secs]*	*[4]*
6	J095236+405249 science 5 (COS.sp.1825760)	(8) J095236+405249	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=20718; FP-POS=4			1223 Secs (2786 Secs) *[==>2786.0 Secs]*	*[5]*

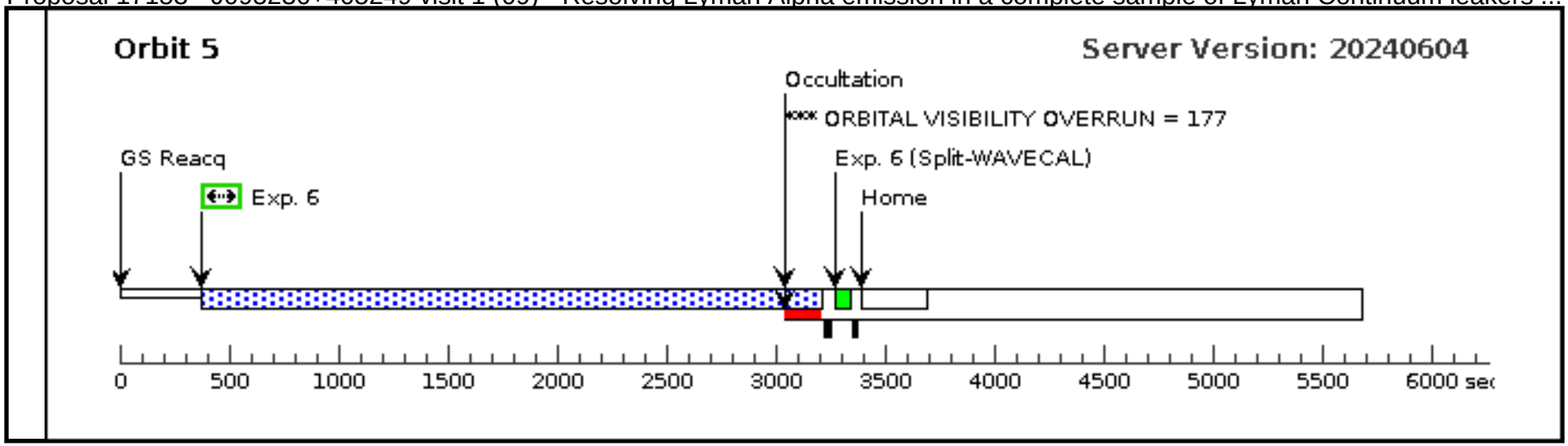
Orbit Structure






Orbit 3
Server Version: 20240604
Occultation
GS Reacq
**** ORBITAL VISIBILITY OVERRUN = 177
Exp. 4
Exp. 4 (Split-WAVECAL)
Exp. 5 (Split-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 secs.


Orbit 4
Server Version: 20240604
Occultation
GS Reacq
**** ORBITAL VISIBILITY OVERRUN = 177
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 = 177
GS Reacq
Exp. 6
Exp. 6 (Split-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17153, J103344+635317 (10), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J103344+635317 (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J103344+635317 (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

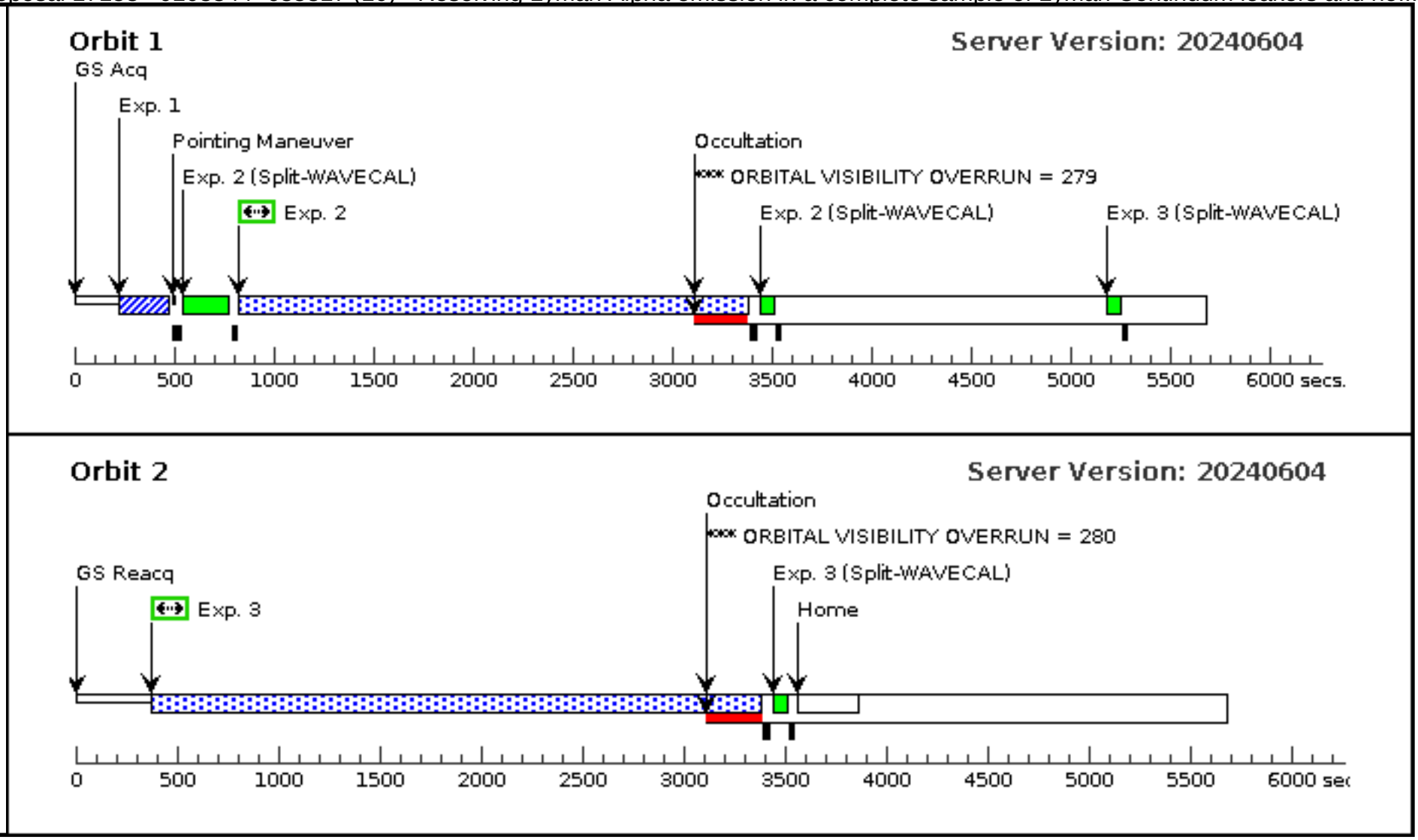
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	J103344+635317	RA: 10 33 44.0523 (158.4335512d) Dec: +63 53 17.20 (63.88811d) Equinox: J2000	Redshift: 0.34671690	V=19.37 FUV=19.89, NUV=19.88	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J103344+635317 acquisition (COS.ta.1297764)	(9) J103344+635317	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				19 Secs (19 Secs) *[==>]*	***[1]***
2	J103344+635317 science 1 (COS.sp.1813622)	(9) J103344+635317	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=1; BUFFER-TIME=18210			944 Secs (2505 Secs) *[==>2505.0 Secs]*	***[1]***
3	J103344+635317 science 2 (COS.sp.1813622)	(9) J103344+635317	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=4; BUFFER-TIME=18210			944 Secs (2959 Secs) *[==>2959.0 Secs]*	***[2]***

Orbit Structure



Visit

Proposal 17153, J112848+524509 visit 1 (11), implementation Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Fixed Targets

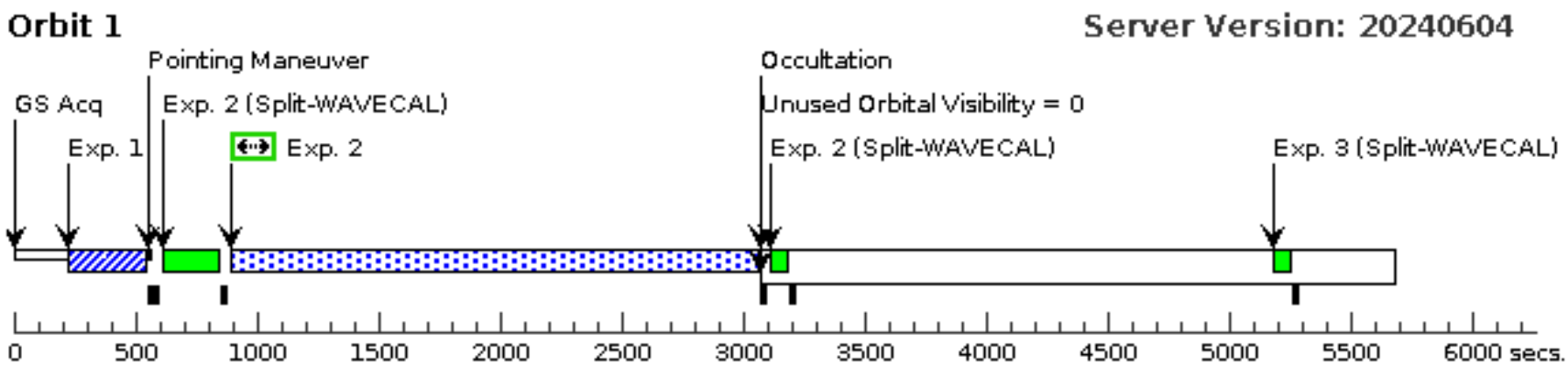
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	J112848+524509	RA: 11 28 47.5908 (172.1982950d) Dec: +52 45 9.36 (52.75260d) Equinox: J2000	Redshift: 0.36439550	V=20.63 FUV=20.83, NUV=21.23	Reference Frame: ICRS

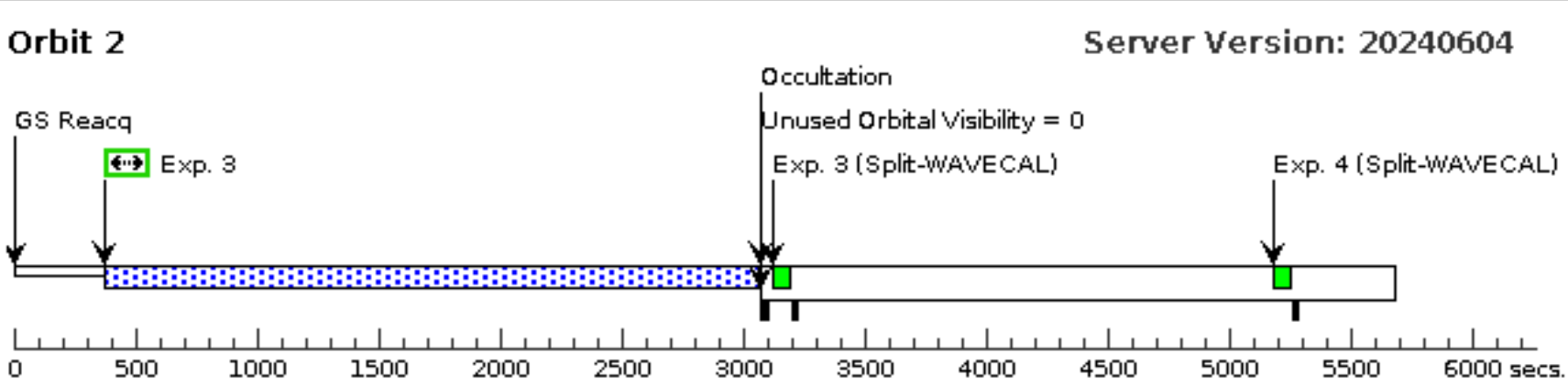
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

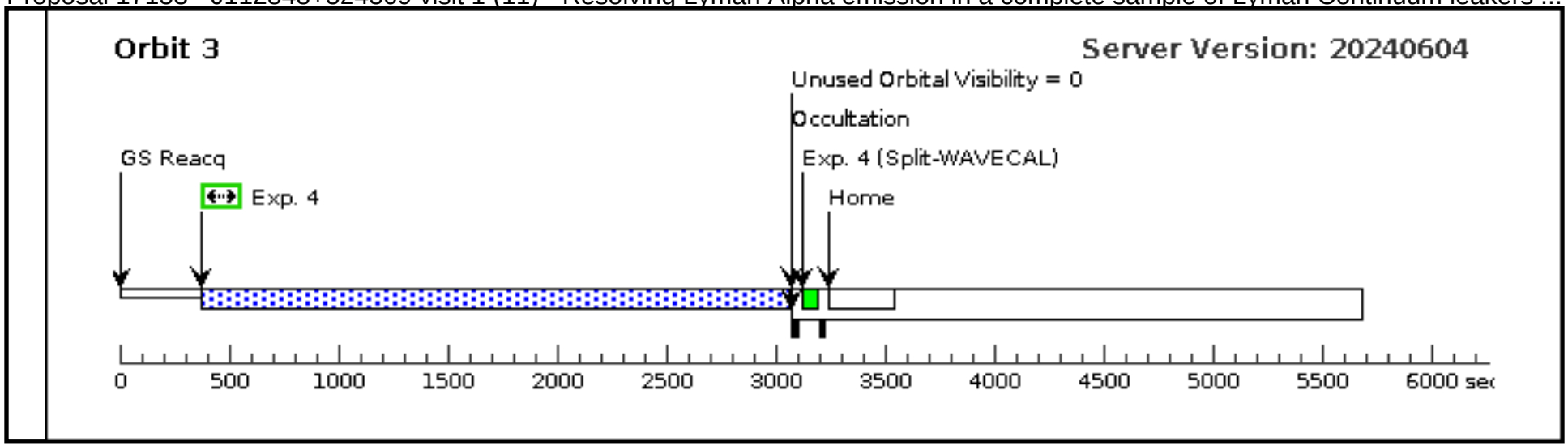
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J112848+524509 acquisition (COS.ta.1297772)	(10) J112848+524509	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				53 Secs (53 Secs) *[==>]*	*[1]*
2	J112848+524509 science 1 (COS.sp.1825906)	(10) J112848+524509	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20048; FP-POS=1			900 Secs (2117 Secs) *[==>2117.0 Secs]*	*[1]*
3	J112848+524509 science 2 (COS.sp.1825906)	(10) J112848+524509	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20048; FP-POS=2			900 Secs (2638 Secs) *[==>2638.0 Secs]*	*[2]*
4	J112848+524509 science 3 (COS.sp.1825906)	(10) J112848+524509	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20048; FP-POS=4			1000 Secs (2638 Secs) *[==>2638.0 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 17153, J112848+524509 visit 2 (12), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: J112848+524509 requires 6 orbits. Thus, we split the object up into two visits.

Diagnostics

(J112848+524509 visit 2 (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J112848+524509 visit 2 (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J112848+524509 visit 2 (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

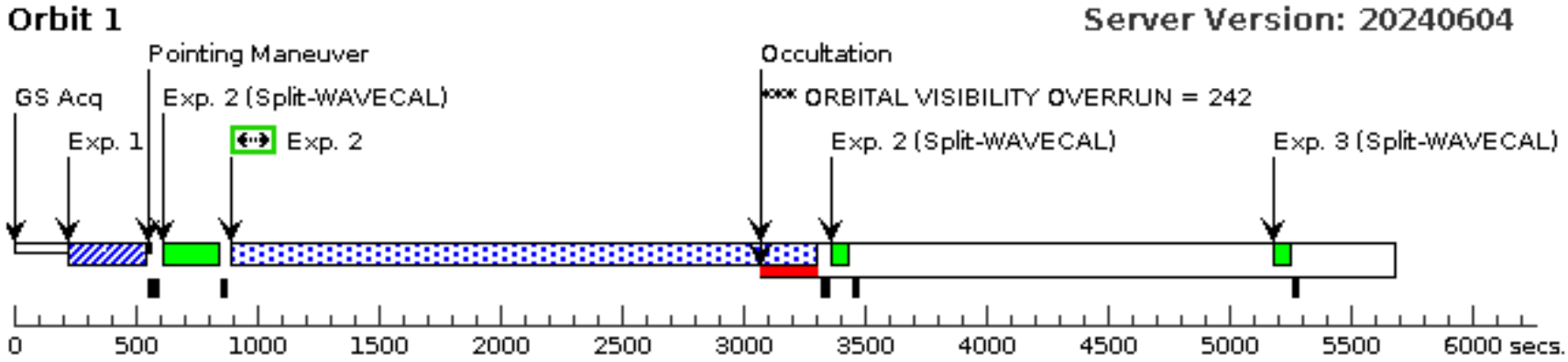
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	J112848+524509	RA: 11 28 47.5908 (172.1982950d) Dec: +52 45 9.36 (52.75260d) Equinox: J2000	Redshift: 0.36439550	V=20.63 FUV=20.83, NUV=21.23	Reference Frame: ICRS

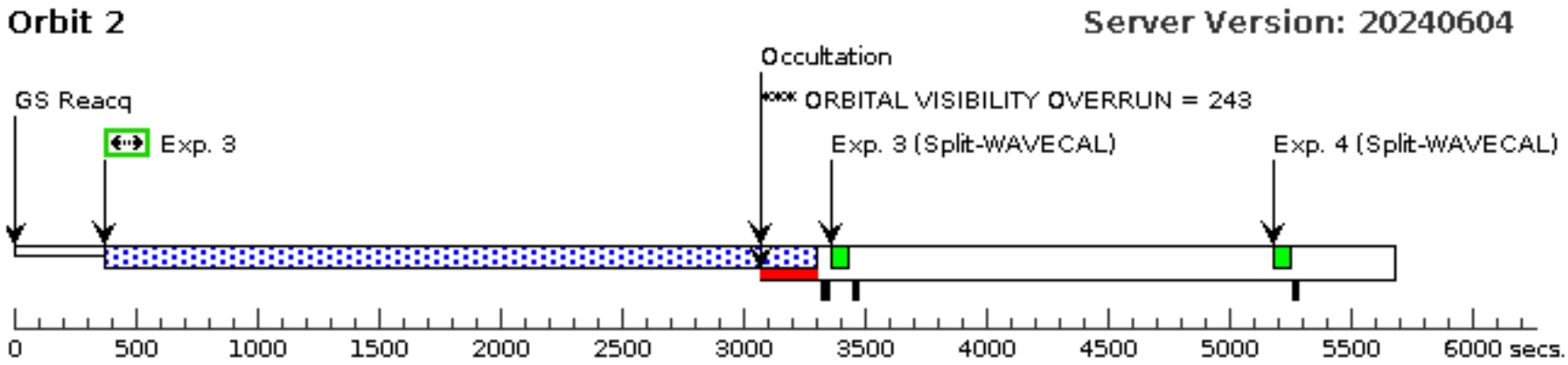
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

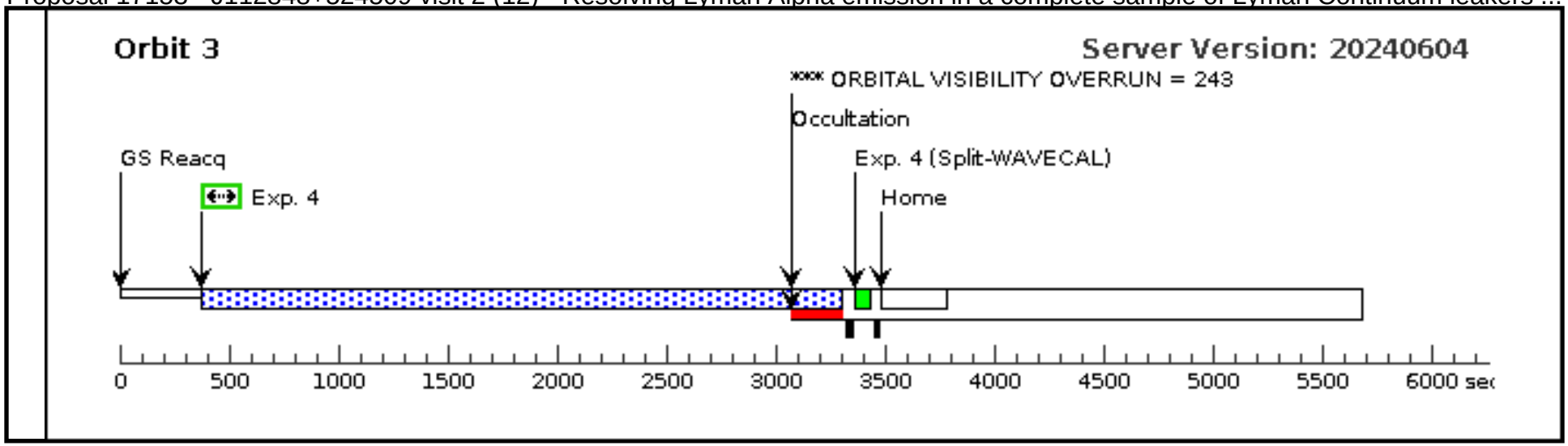
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J112848+524509 acquisition (COS.ta.1297772)	(10) J112848+524509	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				53 Secs (53 Secs) *[==>]*	 ***[1]***
2	J112848+524509 science 1 (COS.sp.1825906)	(10) J112848+524509	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20048; FP-POS=1			900 Secs (2359 Secs) *[==>2359.0 Secs]*	 ***[1]***
3	J112848+524509 science 2 (COS.sp.1825906)	(10) J112848+524509	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20048; FP-POS=3			900 Secs (2881 Secs) *[==>2881.0 Secs]*	 ***[2]***
4	J112848+524509 science 3 (COS.sp.1825906)	(10) J112848+524509	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20048; FP-POS=4			1000 Secs (2881 Secs) *[==>2881.0 Secs]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
**** ORBITAL VISIBILITY OVERRUN = 243
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 17153, J115855+312559 (13), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J115855+312559 (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

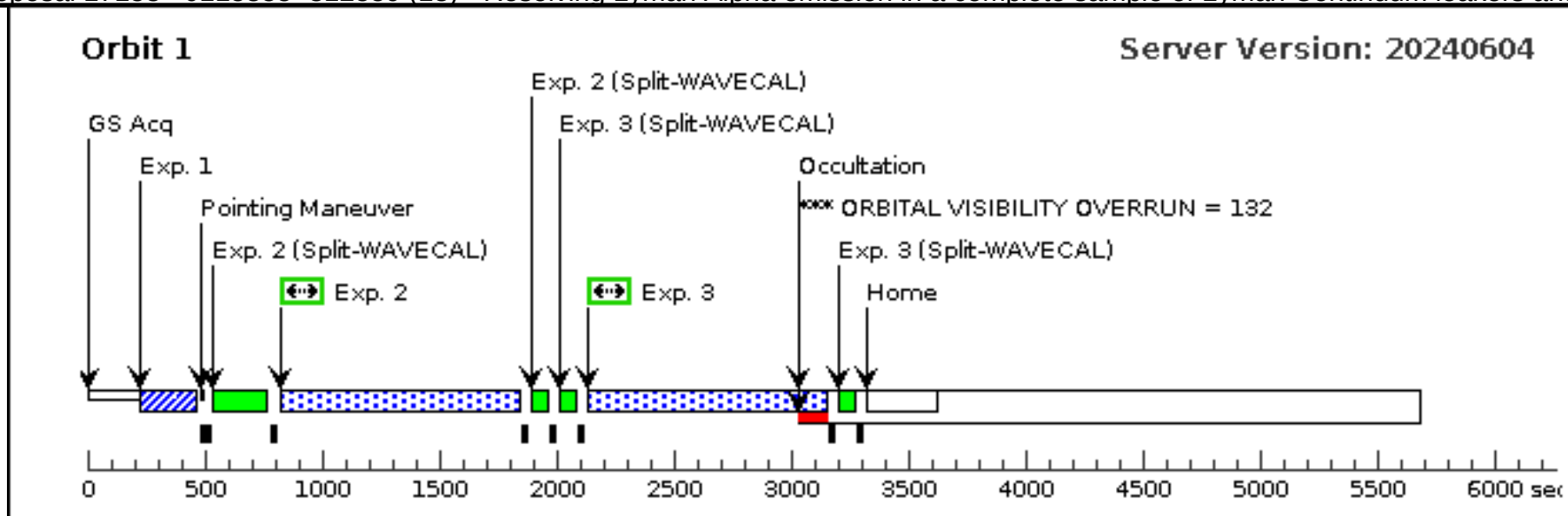
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	J115855+312559	RA: 11 58 54.7992 (179.7283300d) Dec: +31 25 59.09 (31.43308d) Equinox: J2000	Redshift: 0.24303300	V=18.65 FUV=19.31, NUV=19.58	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J115855+312559 acquisition (COS.ta.1297764)	(11) J115855+312559	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				15 Secs (15 Secs) *[==>]*	*[1]*
2	J115855+312559 science 1 (COS.sp.1825909)	(11) J115855+312559	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=16138			400 Secs (967 Secs) *[==>967.0 Secs]*	*[1]*
3	J115855+312559 science 2 (COS.sp.1825909)	(11) J115855+312559	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=16138			400 Secs (967 Secs) *[==>967.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17153, J115959+382422 (14), failed

Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J115959+382422 (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(J115959+382422 (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

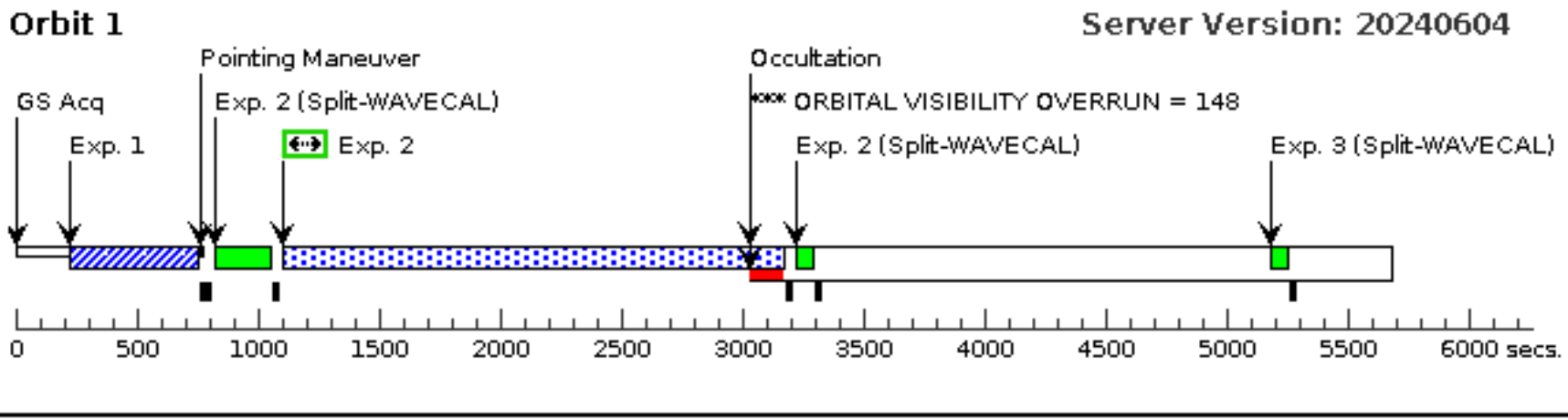
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	J115959+382422	RA: 11 59 58.8583 (179.9952429d) Dec: +38 24 21.97 (38.40610d) Equinox: J2000	Redshift: 0.26789050	V=20.52 FUV=20.81, NUV=22.28	Reference Frame: ICRS

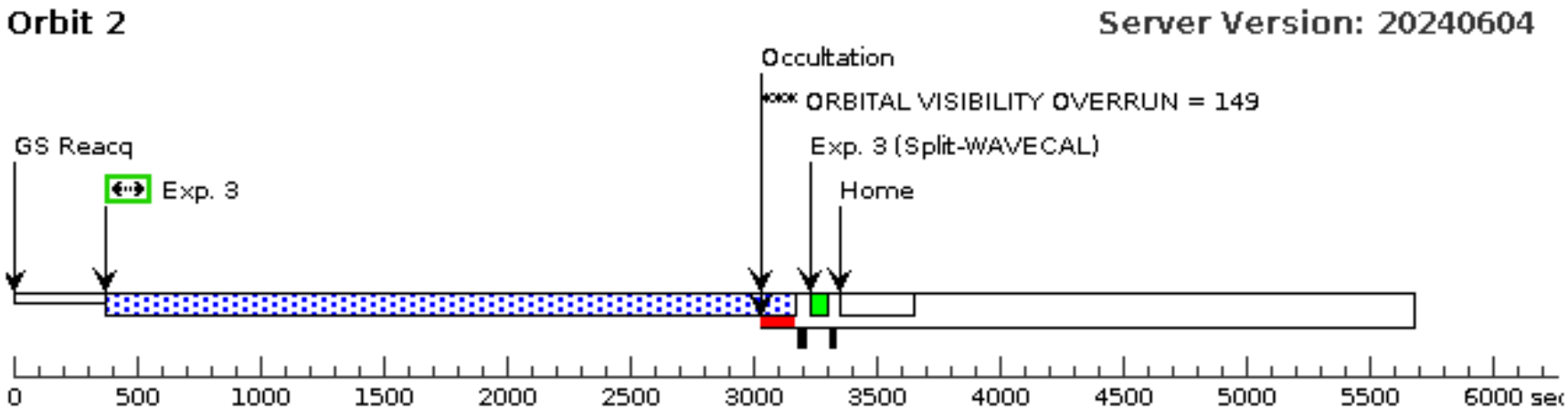
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J115959+382422 acquisition (COS.ta.1297772)	(12) J115959+382422	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				157 Secs (157 Secs) *[==>]*	*[1]*
2	J115959+382422 science 1 (COS.sp.1813741)	(12) J115959+382422	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; BUFFER-TIME=20628			944 Secs (2020 Secs) *[==>2020.0 Secs]*	*[1]*
3	J115959+382422 science 2 (COS.sp.1813741)	(12) J115959+382422	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; BUFFER-TIME=20628			944 Secs (2748 Secs) *[==>2748.0 Secs]*	*[2]*

Orbit Structure





Visit

Proposal 17153, J115959+382422 (19), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J115959+382422 (19)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

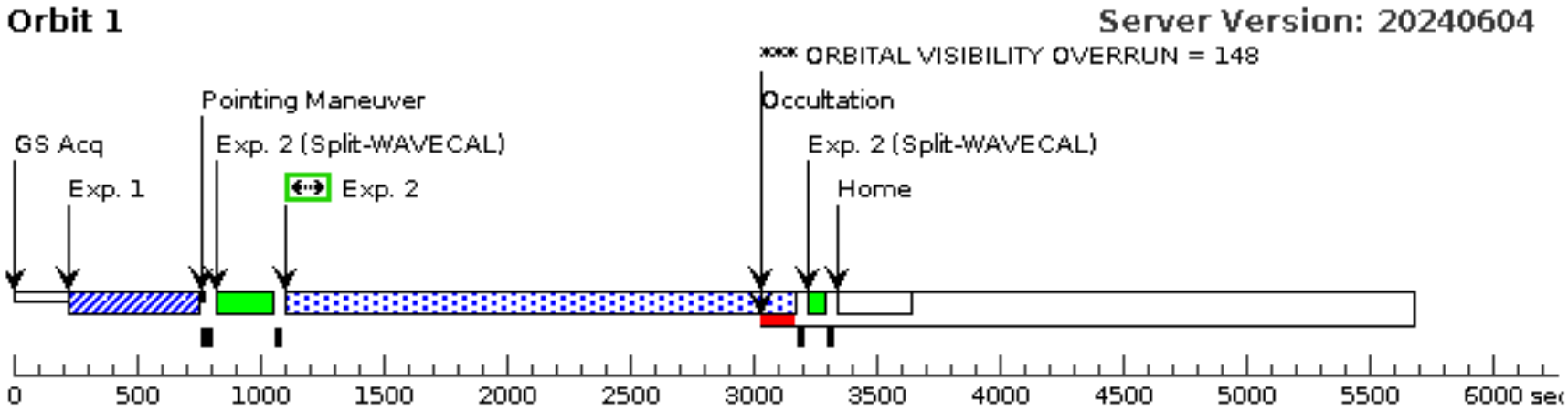
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	J115959+382422	RA: 11 59 58.8583 (179.9952429d) Dec: +38 24 21.97 (38.40610d) Equinox: J2000	Redshift: 0.26789050	V=20.52 FUV=20.81, NUV=22.28	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J115959+382422 acquisition (COS.ta.1297772)	(12) J115959+382422	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				157 Secs (157 Secs) *[==>]*	*[1]*
2	J115959+382422 science 1 (COS.sp.1813741)	(12) J115959+382422	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=1; BUFFER-TIME=20628			944 Secs (2020 Secs) *[==>2020.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17153, J120934+305326 (15), completed

Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J120934+305326 (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

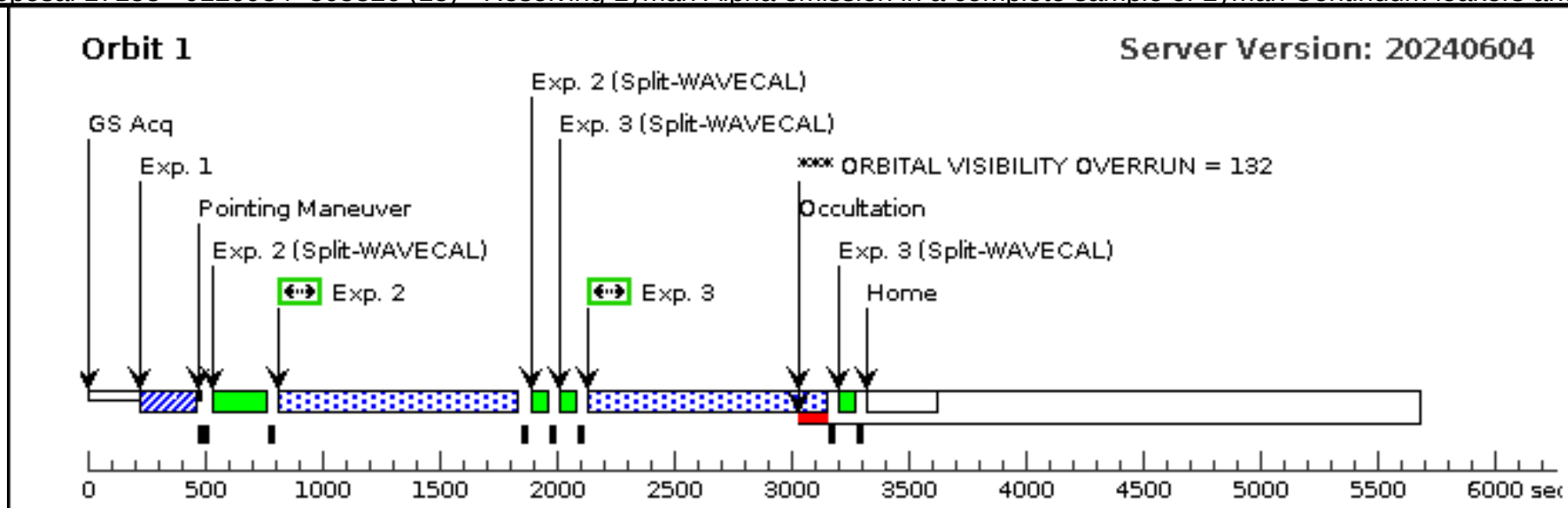
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	J120934+305326	RA: 12 09 34.4882 (182.3937008d) Dec: +30 53 26.18 (30.89061d) Equinox: J2000	Redshift: 0.21931710	V=18.71 FUV=19.45, NUV=19.30	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J120934+305326 acquisition (COS.ta.1297764)	(13) J120934+305326	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				11 Secs (11 Secs) *[==>]*	*[1]*
2	J120934+305326 science 1 (COS.sp.1825912)	(13) J120934+305326	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=16751			400 Secs (971 Secs) *[==>971.0 Secs]*	*[1]*
3	J120934+305326 science 2 (COS.sp.1825912)	(13) J120934+305326	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=16751			400 Secs (971 Secs) *[==>971.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17153, J130559+422638 (16), completed Wed Jun 12 17:01:20 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J130559+422638 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J130559+422638 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J130559+422638 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J130559+422638 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J130559+422638 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

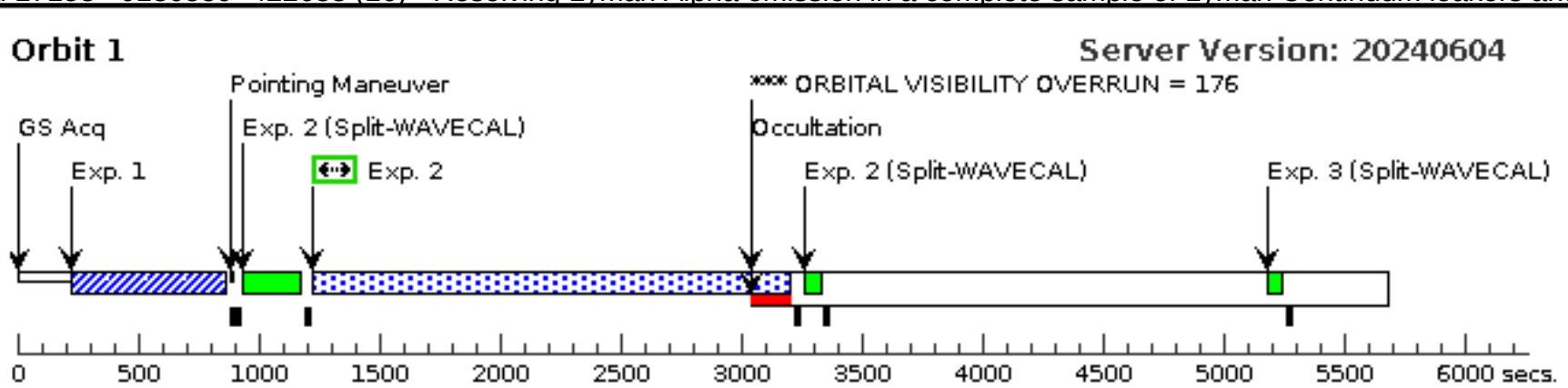
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(14)	J130559+422638	RA: 13 05 59.3149 (196.4971454d) Dec: +42 26 38.05 (42.44390d) Equinox: J2000	Redshift: 0.31568380	V=21.12 FUV=22.18, NUV=22.85	Reference Frame: ICRS

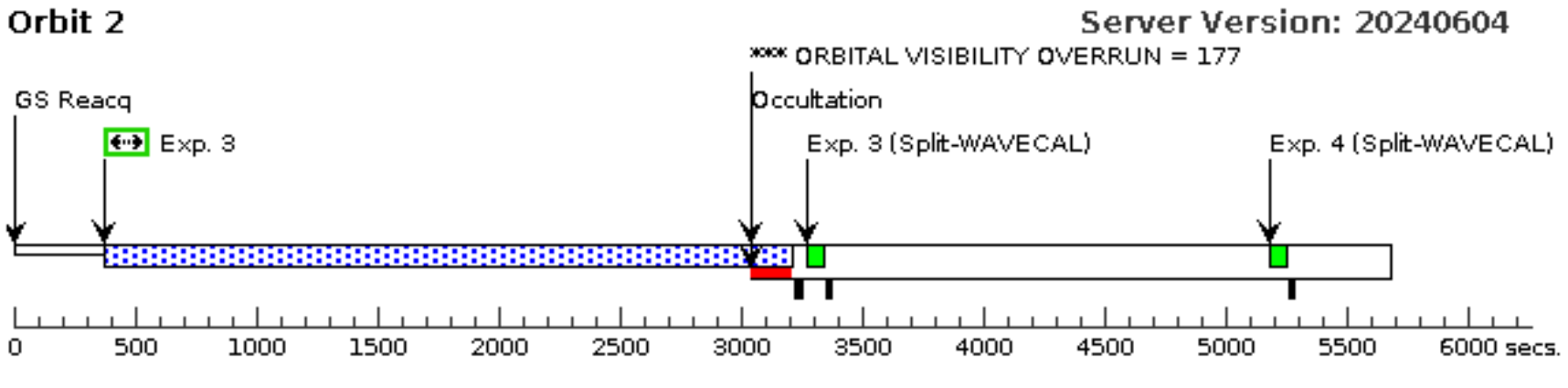
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

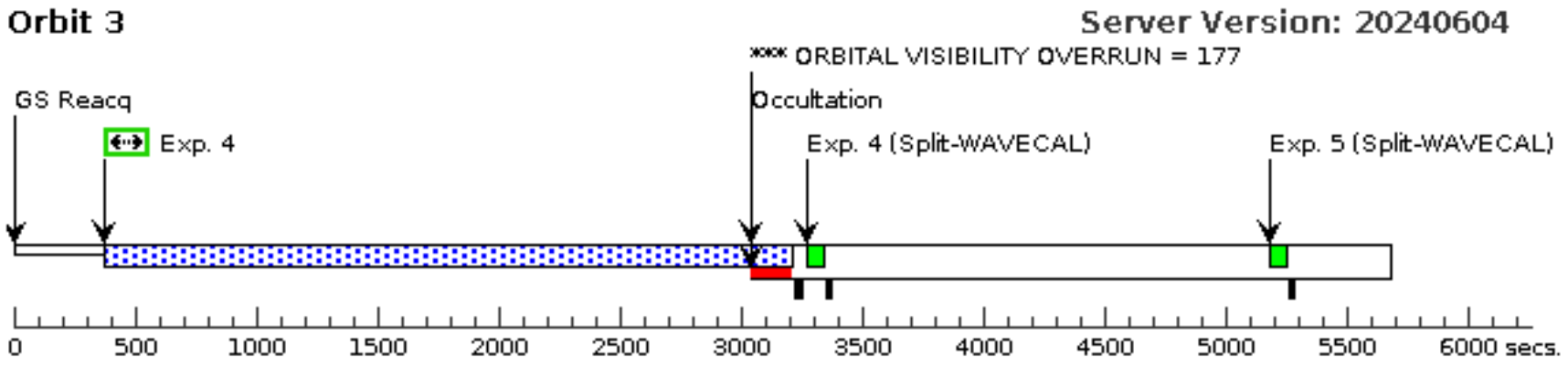
Exposures

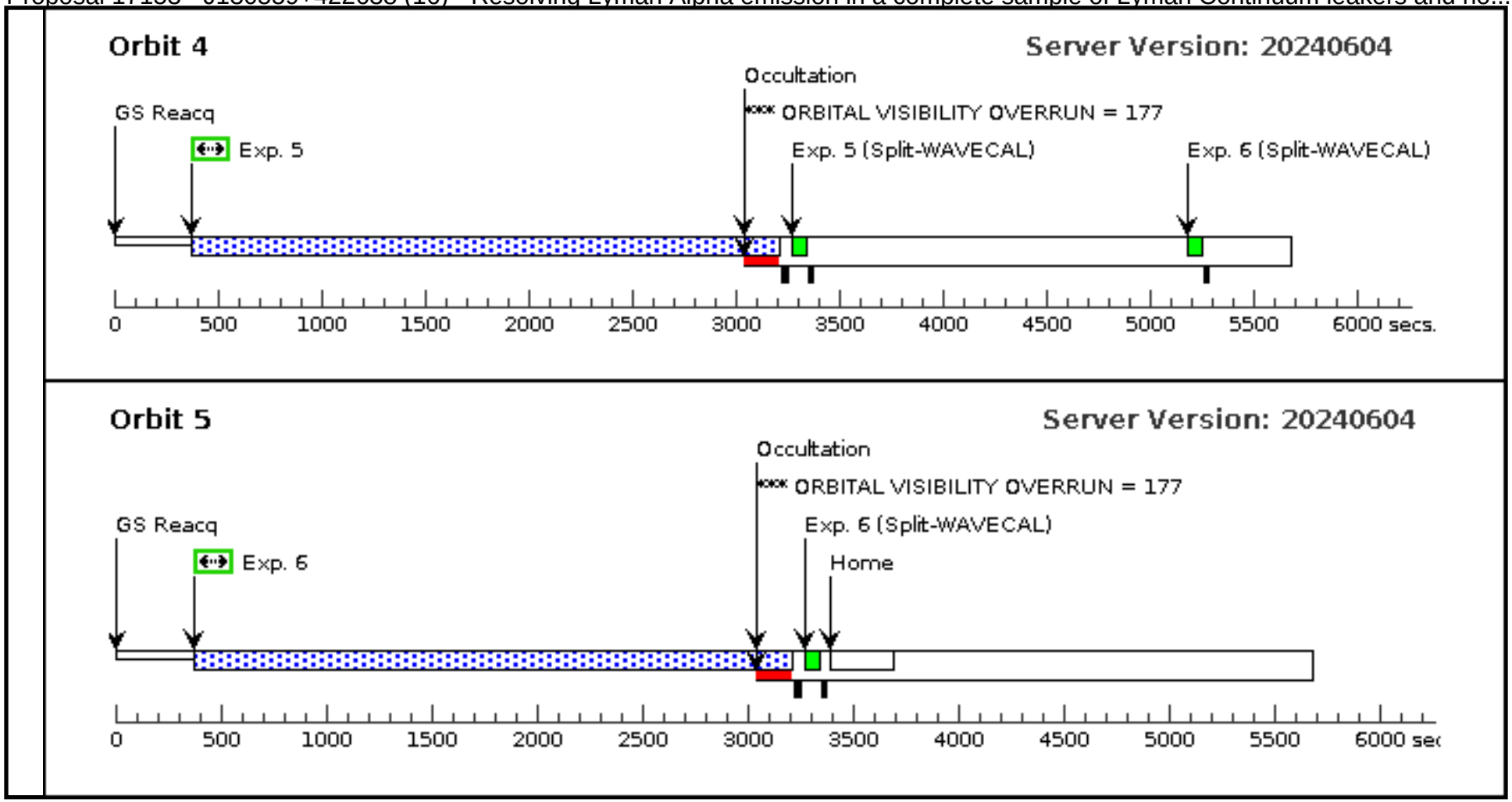
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J130559+422638 acquisition (COS.ta.1297772)	(14) J130559+422638	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				214 Secs (214 Secs) *[==>]*	*[1]*
2	J130559+422638 science 1 (COS.sp.1825913)	(14) J130559+422638	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=21559; FP-POS=1			900 Secs (1931 Secs) *[==>1931.0 Secs]*	*[1]*
3	J130559+422638 science 2 (COS.sp.1825913)	(14) J130559+422638	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=21559; FP-POS=1			900 Secs (2786 Secs) *[==>2786.0 Secs]*	*[2]*
4	J130559+422638 science 3 (COS.sp.1825913)	(14) J130559+422638	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=21559; FP-POS=2			1000 Secs (2786 Secs) *[==>2786.0 Secs]*	*[3]*
5	J130559+422638 science 4 (COS.sp.1825913)	(14) J130559+422638	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=21559; FP-POS=3			1000 Secs (2786 Secs) *[==>2786.0 Secs]*	*[4]*
6	J130559+422638 science 5 (COS.sp.1825913)	(14) J130559+422638	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=21559; FP-POS=4			1000 Secs (2786 Secs) *[==>2786.0 Secs]*	*[5]*

Orbit Structure








Orbit 4
Server Version: 20240604
Occultation
**** ORBITAL VISIBILITY OVERRUN = 177
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 = 177
GS Reacq
Exp. 6
Exp. 6 (Split-WAVECAL)
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 17153, J154050+572442 (17), failed Wed Jun 12 17:01:21 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J154050+572442 (17)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J154050+572442 (17)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J154050+572442 (17)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(J154050+572442 (17)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

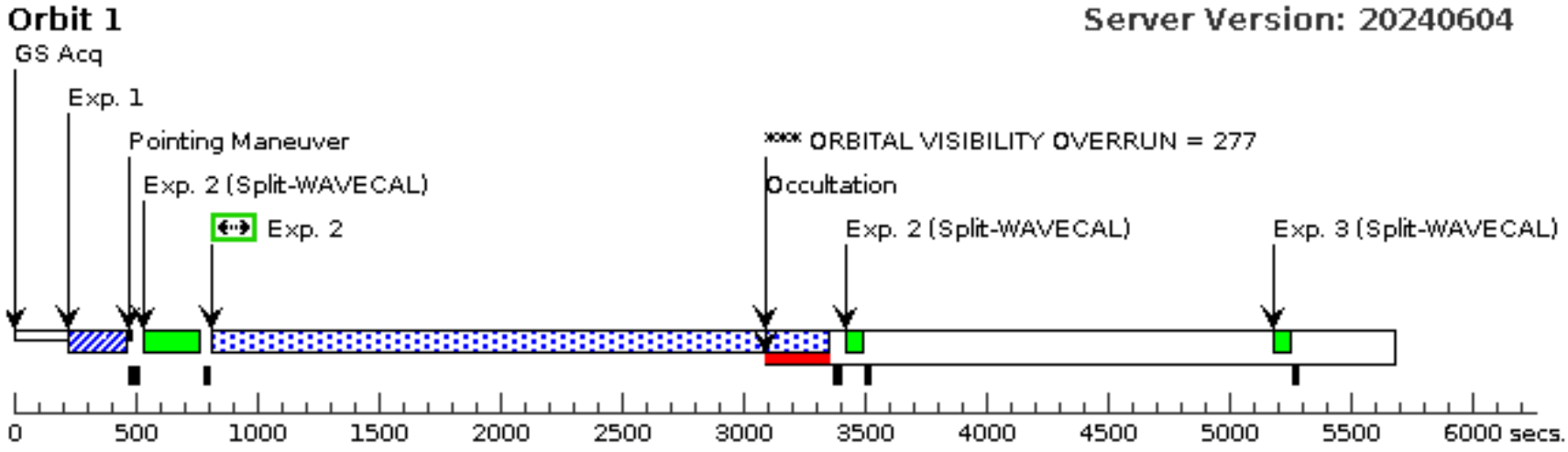
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(15)	J154050+572442	RA: 15 40 50.1938 (235.2091408d) Dec: +57 24 41.93 (57.41165d) Equinox: J2000	Redshift: 0.29444540	V=18.68 FUV=19.75, NUV=19.41	Reference Frame: ICRS

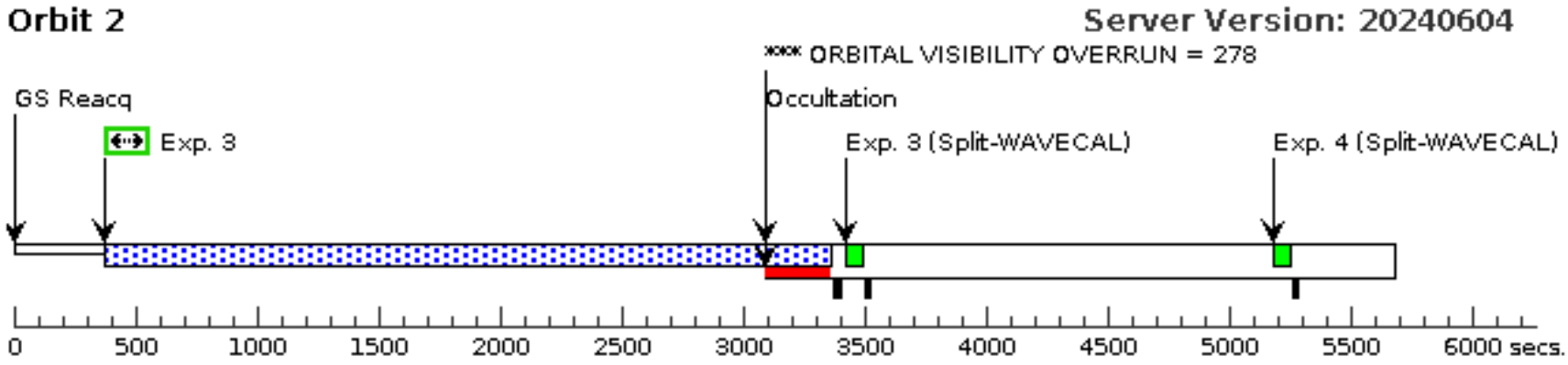
Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

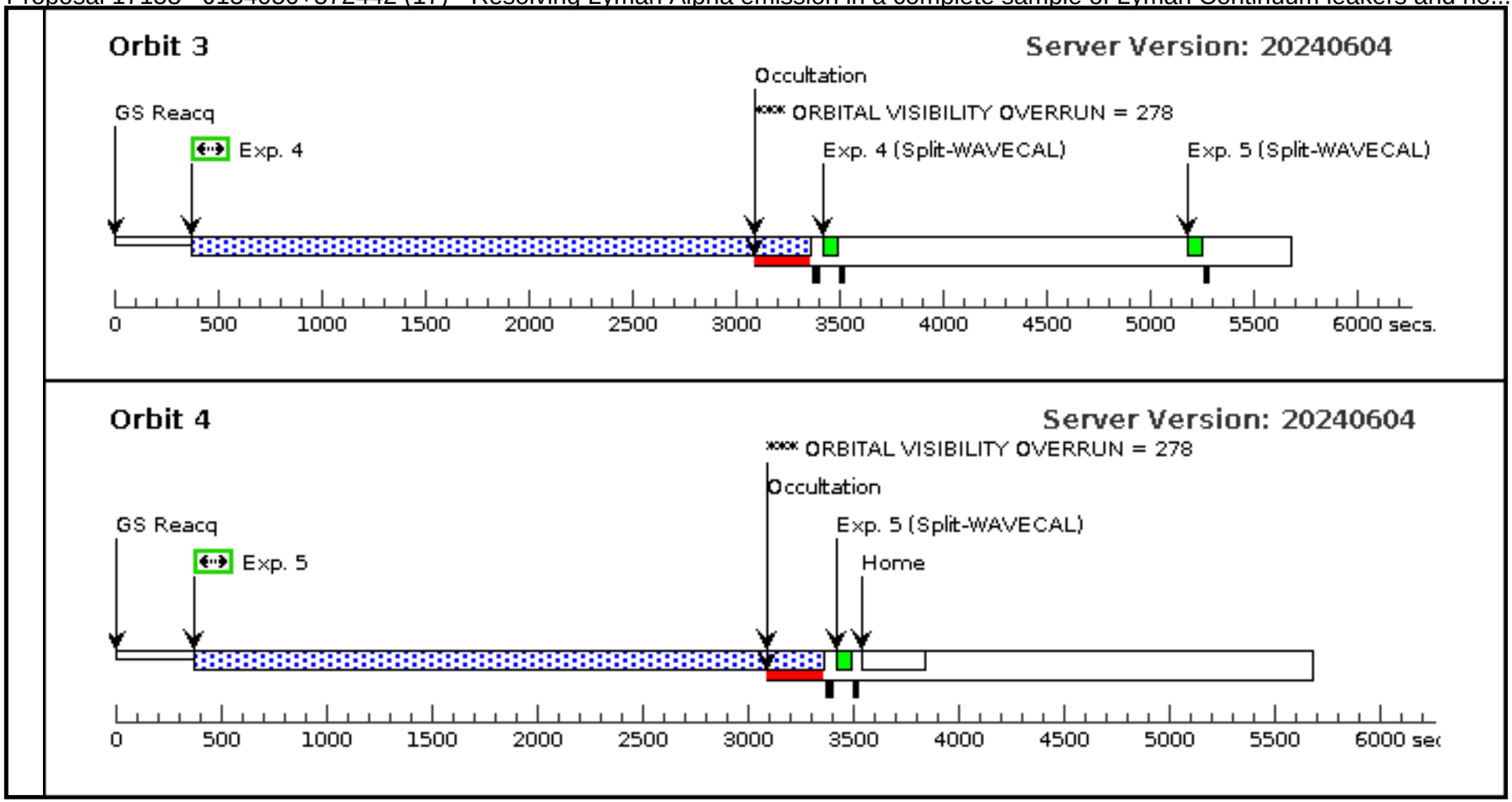
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J154050+572442 acquisition (COS.ta.1297764)	(15) J154050+572442	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				12 Secs (12 Secs) *[==>]*	*[1]*
2	J154050+572442 science 1 (COS.sp.1813826)	(15) J154050+572442	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=19445; FP-POS=1			935 Secs (2492 Secs) *[==>2492.0 Secs]*	*[1]*
3	J154050+572442 science 2 (COS.sp.1813826)	(15) J154050+572442	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=19445; FP-POS=2			935 Secs (2937 Secs) *[==>2937.0 Secs]*	*[2]*
4	J154050+572442 science 3 (COS.sp.1813826)	(15) J154050+572442	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=19445; FP-POS=3			1175 Secs (2937 Secs) *[==>2937.0 Secs]*	*[3]*
5	J154050+572442 science 4 (COS.sp.1813826)	(15) J154050+572442	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=19445; FP-POS=4			1175 Secs (2937 Secs) *[==>2937.0 Secs]*	*[4]*

Orbit Structure






Orbit 3
Server Version: 20240604
Occultation
**** ORBITAL VISIBILITY OVERRUN = 278
GS Reacq
Exp. 4
Exp. 4 (Split-WAVECAL)
Exp. 5 (Split-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 secs.
Orbit 4
Server Version: 20240604
**** ORBITAL VISIBILITY OVERRUN = 278
Occultation
GS Reacq
Exp. 5
Exp. 5 (Split-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17153, J154050+572442 (20), failed

Wed Jun 12 17:01:21 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J154050+572442 (20)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

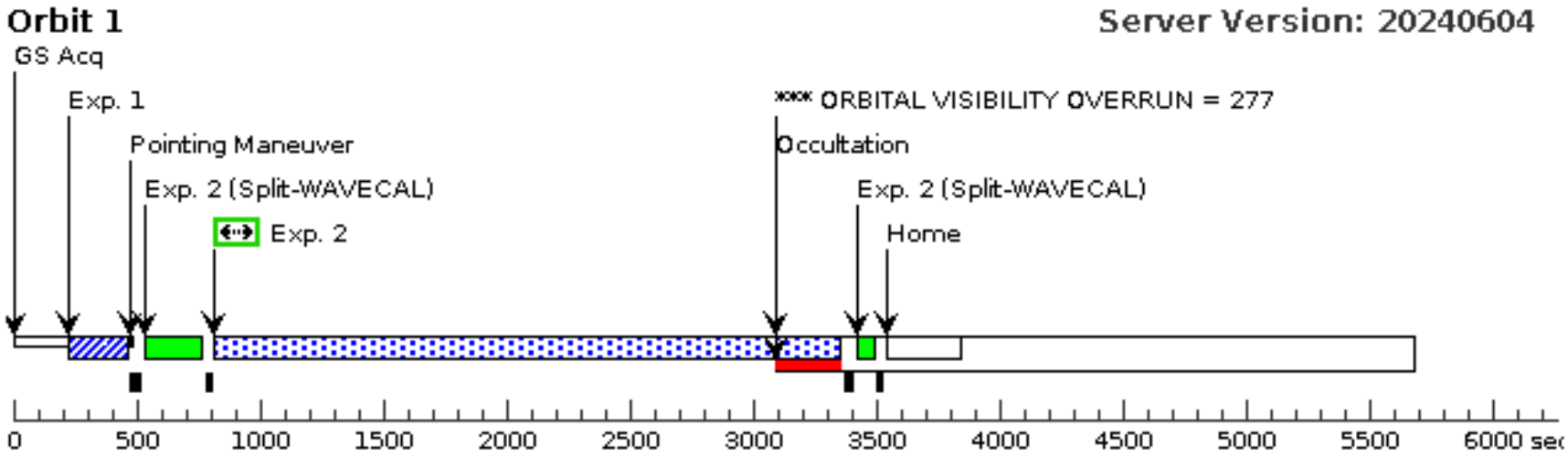
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(15)	J154050+572442	RA: 15 40 50.1938 (235.2091408d) Dec: +57 24 41.93 (57.41165d) Equinox: J2000	Redshift: 0.29444540	V=18.68 FUV=19.75, NUV=19.41	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J154050+572442 acquisition (COS.ta.1297764)	(15) J154050+572442	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				12 Secs (12 Secs) *[==>]*	*[1]*
2	J154050+572442 science 1 (COS.sp.1813826)	(15) J154050+572442	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=19445; FP-POS=1			935 Secs (2492 Secs) *[==>2492.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 17153, J154050+572442 (21), completed

Wed Jun 12 17:01:21 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J154050+572442 (21)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(15)	J154050+572442	RA: 15 40 50.1938 (235.2091408d) Dec: +57 24 41.93 (57.41165d) Equinox: J2000	Redshift: 0.29444540	V=18.68 FUV=19.75, NUV=19.41	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, STARBURST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	J154050+572442 acquisition (COS.ta.1297764)	(15) J154050+572442	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				12 Secs (12 Secs) *[==>]*	*[1]*
2	J154050+572442 science 1 (COS.sp.1813826)	(15) J154050+572442	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=19445; FP-POS=1			935 Secs (2431 Secs) *[==>2431.0 Secs]*	*[1]*

Orbit Structure